

# Income Dynamics and Income Inadequacy at the Transition to Parenthood, 1983–2019



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*Parenthood is an impoverishing life event for many families in America, with negative implications for healthy child development. Changes over the past four decades in public support, earnings prospects, and family arrangements of new parents have left open questions about trends in economic security and strategies for making ends meet after a first birth. Our study examined trends from 1983–2019 in the month-to-month dynamics of income and income inadequacy around the transition to parenthood. We used fifteen panels of the Survey of Income and Program Participation (N = 10,988 individuals and 267,345 person-months), leveraging monthly measures of total income, varied sources of income, and the income-to-poverty ratio in the year before and two years after first birth. We find that family income around first birth has increased over time, but only among college-educated couples, and almost entirely due to changes in mothers' and fathers' earnings prior to birth. Parenthood income penalties have been largely persistent over time, and among those without a college degree, there has been little improvement in income either just before or after the transition to parenthood since the 1980s.*

**Keywords:** income dynamics, parenthood, poverty, mothers' earnings

In America, childbirth is one of the most impoverishing events in the life course, pushing many disadvantaged families into poverty (Heflin 2016; McKernan and Ratcliffe 2005; Stanczyk 2020). Across the family life cycle, poverty rates are highest among those with young children (Paschall and Bartlett 2019), and this has important and enduring implications for child well-being and development (Duncan et al. 2010; Najman et al. 2010; Troller-Renfree et

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al. 2022). Relative to other wealthy countries, the US offers a weak social safety net for young families, with no paid federal leave and inadequate public and subsidized childcare (Kwon et al. 2026, this issue; Gornick and Meyers 2003, 2009), relying instead on parents to fill the gaps (Calarco 2024). Mothers take on the bulk of caretaking needs after first birth, pull back on paid work, and experience substantial earnings losses (Budig and England 2001; Musick et al. 2020). The challenges of making ends meet after parenthood are more difficult for single mothers, especially those with less education, who need to manage the time and money demands of a new child without a second parent in the household and who are less likely than college graduates to qualify for state paid leave programs or to have employer-provided benefits such as paid leave (Hill et al. 2026, this issue; Laughlin 2011; Winston 2014).

Kathryn Edin and Laura Lein's (1997) landmark study shed critical light on the economic survival strategies of single mothers in the United States during the early 1990s and the varied income sources they used to make ends meet. Significant changes since Edin and Lein's work leave open questions about how the economic well-being of families at the transition to parenthood has changed over time. Shifts in the intervening decades in the federal policy landscape, for example, expanded public support for employed mothers and dramatically limited low-income families' access to cash assistance (Edin and Shaefer 2016; Pilkauskas and Bruey 2026; Moffitt 2015; Western et al. 2016; Tach and Edin 2017). Over this same time period, women's earnings prospects also expanded through increases in education, age at first birth, and labor force attachment (Goldin 2006; Rindfuss et al. 1996), although in the context of barriers to aligning childcare with work schedules (Kwon et al. 2026, this issue) and persistent "motherhood penalties" (Musick et al. 2022) that continue to constrain mothers' work and earnings. The situation of fathers shifted too, as jobs for men with less than a college degree grew less stable and earnings deteriorated, particularly relative to the increasing economic prospects of the college-educated (Kalleberg 2011; Ruggles 2015).

In the context of these changes, this study

analyzes whether new parents today are more or less financially secure following a first birth than they were in the 1980s, the decade before Edin and Lein collected their data, by examining trends for the overall population and for population subgroups defined by mothers' education and partnership status. We compare different groups of new mothers to evaluate how those who are single and do not have a college degree at first birth—the group closest to Edin and Lein's sample—have fared in this changed landscape relative to other groups of mothers. We use data from the Survey of Income and Program Participation (SIPP) from 1983 to 2019, which covers the 1996 welfare reform and the two decades since. We analyze the levels and sources of mothers' family income around their first birth, how these income dynamics have changed over time, and whether changes have differed by mothers' education and partnership status. Our data track month-to-month changes in income over the period from twelve months before to twenty-four months after the first birth, and we group income sources into three categories: mothers' contributions, fathers' contributions, and government contributions. This study is the first, to our knowledge, to trace the income dynamics of four successive cohorts of first-time parents, encompassing a period of significant policy, socioeconomic, and demographic shifts for new parents.

Our results show that, pooling over partnership status and education, new parents are more financially secure on average in the 2010s than they were in the 1980s, but these gains have not been experienced by all new parents. Quite the contrary, we find that the gains in financial position among new parents between the 1980s and the 2010s are almost entirely driven by improvements among college-educated cohabiting and married mothers, whereas other groups have seen little to no improvement in their financial position after first birth. This is true despite the fact that mothers without college degrees are now significantly more likely to be employed and substantially less likely to experience unintended or early births than earlier cohorts of similar mothers (Fox et al. 2013; Guzzo and Hayford 2020). Furthermore, we show that the improvement in financial position among

college-educated partnered mothers is driven by increases in mothers' and fathers' incomes before their first birth. The lack of improvement in the financial position of mothers without a college degree—whether single or partnered—since the 1980s is striking, as is the lack of change in the impact of first birth on earnings among college-educated partnered mothers. Our results provide novel evidence on the diverging destinies of parents and their children (McLanahan 2004).

### **Income Dynamics Around the Transition to Parenthood**

One stream of research on income dynamics around first birth speaks to the labor market costs of parenthood. This work consistently finds that mothers' earnings decline sharply in the months after first birth and recover slowly over subsequent years, whereas fathers' earnings change relatively little in response to parenthood, reflecting that caregiving demands fall disproportionately to mothers (Kleven et al. 2019; Musick et al. 2020). Other research looks more broadly at income inadequacy among new parents, and includes parental earnings as well as child support, government taxes and transfers, and other private sources of income. Alexandra B. Stanczyk (2020), for example, uses the 1996–2008 panels of the SIPP to examine month-to-month family income in the year before and after a first birth, and shows that the income-to-poverty ratio declines following a first birth, especially among single mothers, and that government support only partially buffers changes in income inadequacy.

Paula Fomby and colleagues (2023) use data from the 2001–2017 Panel Study of Income Dynamics to follow mothers for seventeen years after an unpartnered birth. They find that across the study period, income inadequacy was common among this group of mothers, and combining income from various sources is the norm. Although mothers' earnings are a nearly universal component of income, even in the first year after a birth, they were also nearly universally insufficient to meet basic needs. Thus, while approximately 80 percent of the mothers in their study report earnings in the year after an unpartnered birth, over 90 percent also report income from child support, a new

partner's earnings, public support, or support from family and friends, and most report multiple other sources of income. These findings are consistent with a key takeaway from Edin and Lein, which is that single mothers expend valuable time, energy, and social capital to combine income sources in an effort to make ends meet.

Given that the nation's main cash assistance program—Temporary Assistance for Needy Families (TANF)—has work requirements, and other safety net programs such as the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC) are limited to those who work for pay, differences in the conditions and stability of earned income play an especially important role in income insecurity following parenthood in the United States (Pilkaskas and Bruey 2026; Moffit 2015; Western et al. 2016). In the European context, by contrast, a constellation of programs including paid, job-protected family leave, and government taxes and transfers do more to buffer income losses and give new parents greater stability and certainty in their family's economic well-being (Aassve et al. 2005; Bould et al. 2012; Sigle-Rushton and Waldfogel 2007). US child poverty is more closely tied to family structure than it is in other wealthy countries (Brady et al. 2024; Brady and Burroway 2012; Heuveline and Weinschenker 2008). The risk of poverty and income volatility is also especially high among families more vulnerable to employment insecurity, including parents who are less educated, younger, and from minoritized racial backgrounds (van der Naald et al. 2026, this issue; Western et al. 2016).

### **CHANGES SHAPING ECONOMIC WELL-BEING AT THE TRANSITION TO PARENTHOOD OVER FORTY YEARS**

As we have noted, vast changes since the 1980s in public support for families and the earnings prospects of new parents leave open questions about how the economic well-being of new mothers has changed over time. Some changes may have made new parents more vulnerable to poverty, whereas others have pushed in the opposite direction. The net result of countervailing factors, and the magnitude of their effects on family income, are unclear.

The shift to a largely employment-based

safety net (Pilkuskas and Bruey 2026; Moffitt 2015; Tach and Edin 2017; Western et al. 2016) may have increased economic vulnerability at the transition to parenthood, given weak support for combining work and family with a new baby, particularly among mothers without a second potential caregiver and earner in the household. The US offers no paid federal family leave for new parents, and less than a third of civilian workers had access to paid family leave through an employer as of 2023, with much lower rates among low-wage mothers (United States Department of Labor 2024). Although thirteen states now have paid family leave policies, most have taken effect only recently, and they vary considerably in accessibility, duration, and reimbursement rate (Hill et al. 2026, this issue). When families lack access to adequate leave, short spells out of work following childbirth can push them below the poverty line. Inadequate access to childcare also constrains mothers' work attachment, despite significant increases in childcare funding to facilitate employment among low-income families after the 1996 welfare reform (Adams and Rohacek 2002). Recent reports estimate that only 8–15 percent of eligible families receive childcare subsidies (Ullrich et al. 2019), and the rise in nontraditional and variable work hours (Lambert et al. 2019) further limits childcare accessibility (Kwon et al. 2026, this issue).

Alongside shifts in public support, women's characteristics have changed in ways that should have improved their economic circumstances. Critically, young women have become more educated, more than doubling their college completion rates between 1980 and 2020 (from 21 percent to 44 percent among women ages twenty-five to twenty-nine) (NCES 2024). They are also waiting longer to have their first child, with an increase in the median age of first birth over this period from twenty-three to twenty-eight (Westrick-Payne et al. 2025) and steep declines in teen childbearing since the 1990s (Osterman et al. 2022). More women are employed for pay in the period before they first get pregnant, and mothers' labor-force withdrawals around pregnancy and childbirth have also declined and shortened in duration when they occur (Goldin and Mitchell 2017). Whereas

changes have been experienced across social groups, increases in mothers' labor supply, wages, and age at first birth have been larger among those with college degrees than those without (Guzzo and Hayford 2020; Landivar 2023). This pattern is consistent with the significantly greater difficulties of less-educated mothers in securing employment with reasonable family accommodations postbirth, ranging from employer-provided leaves to standard work hours and schedules (George 2024; Harknett et al. 2022).

Fathers' economic circumstances have also changed over the past forty years, in concert with relationship dynamics that shape their contributions to children's economic well-being. The weaker economic position of men without a college degree has increased their economic vulnerability and put more pressure on women to contribute financially to the household (Glass et al. 2021; Pepin et al. 2024; Ruggles 2015). Since the 1980s, the share of mothers who were single at birth has remained about the same, and the share of partnered mothers in relatively less stable cohabiting (versus married) relationships has increased, particularly among men and women without a college degree (Guzzo 2021; Guzzo and Hayford 2020). Among fathers living away from their biological children, informal support in the form of time or in-kind contributions is common (Nepomnyaschy et al. 2022; Sorensen 2021), but many mothers do not receive steady financial contributions, and the share with a formal child support order has decreased since the 1990s (Grall 2020). Among the less educated, these changes may have reduced fathers' financial contributions at the transition to parenthood.

### Approach

To assess these potentially countervailing forces, we follow successive cohorts of first-time mothers starting in the early 1980s, just before the *Making Ends Meet* data collection of the late 1980s and early 1990s, through to 2019, capturing decades of countervailing changes shaping their economic well-being. We examine trends by decade in month-to-month income sources in the year before and two years after first birth. We group income sources into

three categories: mothers' contributions, fathers' contributions, and government contributions. We analyze patterns separately by mothers' education level (college degree or less than college degree) and partnership status (married or cohabiting versus single) at the time of their first birth.<sup>1</sup>

Our study focuses on the resources available at the transition to parenthood, when children are young and money matters for child well-being (Duncan et al. 2010; Najman et al. 2010; Troller-Renfree et al. 2022). Our focus on the transition to parenthood considers a narrower portion of the life course than Edin and Lein's study of single mothers (which includes never-married and divorced mothers with minor children, regardless of their age), but it captures a key life-course juncture with long-run consequences for economic well-being (Kleven et al. 2019; Musick et al. 2020). We describe dynamics in the ratio of income to the official poverty threshold (hereafter, "income-to-poverty ratios"). We use a hybrid fixed-effects regression model to analyze which income sources contribute the most to cross-cohort changes in pre- and postbirth income.

In what follows, we analyze trends in the dynamics of income inadequacy and income sources around first birth; differences by mothers' partnership status and college degree receipt at the time of first birth; cohort changes in between-family differences in income before birth and in within-family shifts in income associated with first birth; and contributions of income sources before and after first birth to trends in income inadequacy among new parents since the 1980s.

## DATE AND METHODS

We use fifteen panels of the SIPP, from 1984–2018 and follow families through 2019 (ending observation prior to the pandemic).<sup>2</sup> Each

panel is an independent sample, including twelve to twenty thousand households in 1984–1994 and forty to fifty-three thousand in 1996–2018. Households are followed for up to five years. Prior to the 2014 panel, interviews were conducted every four months. The SIPP was re-engineered in 2014 to reduce cost and respondent burden and is now administered once per year, with retrospective questions that provide information on monthly income dynamics. Although the redesign was carefully evaluated to maintain comparability across panels in key economic measures we use in this study (United States Census Bureau 2015), the redesign may have introduced new forms of recall and seam bias that may impact our estimates. Thus, all tables and figures use visual cues and notes to remind the reader which estimates come from redesigned SIPP panels.

The SIPP includes detailed information on household composition, work, and earnings of all household members, and nonearned income sources, including child support, welfare cash transfers, and the dollar value of in-kind benefits (for example, food stamps and rental subsidies). The panel length precludes examination of the economic costs of parenthood over the longer term, as Edin and Lein do, and our period of analysis does not allow for a careful analysis of the impact of paid leave policies that have been mostly implemented over the last decade. These limitations are mitigated by the repeated, high-quality data on earnings and income sources, and large samples that allow for population subgroup comparisons.

Our sample of new mothers comprises women ages fifteen to forty-five who have their first birth during a SIPP panel. Women are at risk of first birth if they have no biological children on the household roster administered at wave 1 and if they report never having had a child before the SIPP.<sup>3</sup> We drop women who

1. This study does not examine variation by race and ethnicity. However, because education and partnership status at first birth vary by race and ethnicity, these results can help inform how racial disparities in economic adversity following childbirth unfold (Hamilton et al. 2023).

2. For more information, go to <https://www.census.gov/programs-surveys/sipp/about.html>.

3. Before 2014, fertility-history data were collected in topical modules administered at wave 8 in the 1984 panel, wave 4 in the 1985 panel, and wave 2 in the 1986–2008 panels. With the 2014 redesign, fertility-history questions were incorporated into the core module.

were not observed at least once four months before birth and at least once after birth. For all analyses, we use only observations that fall within the window 12 months before to 24 months after birth. The SIPP imputes income data and the other variables that we use in our analysis (for instance, education and marital status), and thus we do not drop observations due to missing data on key variables.<sup>4</sup> We generate a person-month file for each observation in the SIPP, and online supplement table S.2 shows details of our final sample across the SIPP panels.<sup>5</sup>

### Measures

Before introducing our modeling strategy, we detail the key measures employed in the analysis.

#### *Transition to First Birth*

New births are identified by tracking changes in household composition during a SIPP panel and linking new zero-year-old members to women at risk of first birth.<sup>6</sup> In descriptive analyses, we use binary indicators for each month starting twelve months before (month -12) to two years after (month +24) the first birth (month 0). In our regression analyses, we use a single binary variable for parenthood, equal to 0 for all months prior to birth (-12 to -1) and 1 for the birth month and all subsequent months (0 to 24).

#### *Monthly Income Measures*

We define total family income as the sum of contributions from mothers, fathers, and public programs. Mothers' contributions are measured by their earnings (in earnings we include transfers related to employment—that is, unemployment compensation, sickness or accident pay, disability insurance, and severance pay). Fathers' contributions include the same earnings components for coresidential biological and social fathers (that is, mothers' married or cohabiting coresidential partners) and child support payments of fathers living apart. Public contributions include assistance that respondents receive directly in cash, indirectly as in-kind benefits, and in tax benefits. Transfers that respondents report receiving directly in cash include Aid to Families with Dependent Children (AFDC)/TANF, Social Security, federal and state SSI (Supplemental Security Income), general assistance income, short-term cash assistance, and other welfare. In-kind benefits that respondents report receiving, and for which the SIPP provides an imputed monetary value, include SNAP (Supplemental Nutrition Assistance Program, formerly called Food Stamps), WIC (Special Supplemental Nutrition Program for Women, Infants and Children), and assistance with gas, public transportation, food, and clothing.<sup>7</sup> Finally, we include imputed tax benefits through the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC)

4. The SIPP implements a robust imputation methodology to edit and update item nonresponses in the survey. For more information, go to <https://www.census.gov/programs-surveys/sipp/methodology/data-editing-and-imputation.html>.

5. The online supplement can be found at <https://www.rsfjournal.org/content/12/1/96/tab-supplemental>.

6. In the later panels of the SIPP (1996–2014), pointers are available to identify relationships among all household members. The early panels (1984–1995), however, included only one parental pointer for each child to either their mother or father. Thus, for children linked to their fathers, there is no direct household pointer to mothers. For much of our sample, it is nonetheless straightforward to identify mothers, but it poses challenges in some cases, in particular among economically vulnerable new parents living with other adults. In these households, when the child is linked to their father, and the father is linked to a female partner, we use both links to identify the child's mother.

7. Research has found that income receipt from program participation is underreported and often imputed in the SIPP (Meyer et al. 2015). Studies show that underreporting is high for Aid to Dependent Children (ADC), AFDC, and TANF, but relatively low for other programs such as SNAP and Social Security Administration (SSA) (Marquis and Moore 1990; Scherer and Giefer 2024; Giefer et al. 2022). Studies also find that SIPP's underreporting of program participation income is less severe and more stable over time than that of other surveys (Meyer et al. 2015). The underreporting of ADC, AFDC, and TANF income may downwardly bias our estimates of transfer income. This underreporting caveat is addressed in the discussion.

that are not consistently available in the SIPP. For this imputation, we use the TAXSIM simulation program available through NBER and we assign the lump sum of benefits divided by twelve to each month in the year following our assessment of eligibility. For unmarried parents, we use only the coresident mother's information to generate EITC and CTC estimates (see online supplement table S.1 for more details on income sources and their measurement). All income values are reported monthly and are in constant 2018 dollars. Apart from the EITC and CTC, all are pretax.

We assess the income-to-poverty ratio by using the federal poverty thresholds set by the US Census Bureau. Poverty thresholds differ by family size and change annually with inflation. We define family, for each month, as potentially including a mother, her biological children, and her married or cohabiting partner. This means that our main analyses do not include other household members in either our income or poverty-line measure, and we do this because there is great variation in whether and how these resources are shared (Harvey 2026). To assess the income-to-poverty ratio, we divide monthly income or income components by the monthly official poverty threshold.

### *First Birth Cohort*

Our assessment of change over time in the economic well-being of new parents comes from analyzing well-being separately by the decade in which the mother's first birth occurred (1980s, 1990s, 2000s, or 2010s), which we call the "first birth cohort." On average, the births we capture take place roughly at the midpoint of each decade (1986, 1994, 2004, and 2015).

Decade-by-decade analyses allow us to evaluate which periods and countervailing factors have shaped income dynamics the most.

### *Characteristics at Birth*

We identify mothers' partnership status by the presence of a cohabiting or married male partner at the time of birth, or in the closest pre-birth observation.<sup>8</sup> We assess the education of mothers at the time of birth, coded 1 if the mother has a college degree and 0 otherwise. We also include descriptive information on mothers' age at first birth (in years), employment status prior to birth (employed or not), race and ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, and other); whether those partnered at birth were married at birth; and whether those without a college degree completed some college.

In subgroup analyses, we classify mothers into three groups based on their partnership status and educational attainment at first birth: mothers who are single and do not have a college degree at the time of birth (single mothers without a college degree); mothers who are married or cohabiting and do not have a college degree at the time of birth (partnered mothers without a college degree); and mothers who are married or cohabiting and have a college degree at the time of first birth (partnered mothers with a college degree). Note these classifications are based on mothers' status at the time of birth, and mothers' partnership and education status can vary over the observation window (twelve months prior to first birth to twenty-four months after first birth); for instance, 14 percent of mothers who are single at birth are partnered (married or cohabiting) one year after birth.<sup>9</sup> Our subgroup analy-

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Beyond this concern, some of these government transfers are not common in our sample, and some are only relevant for specific periods or situations (for example, only after childbirth but not before). Our aim is to be comprehensive and include all possible government transfers that respondents might be eligible for. The Social Security category includes various kinds of Social Security benefits for adults and children; this includes Social Security Disability Insurance as well as survivor benefits.

8. As noted in note 2, the earlier waves do not include pointers to directly identify relationships among all household members. To identify cohabitators prior to 1996, we counted individuals who were unmarried, of the opposite sex, and unrelated to the household head, and eliminated potential couples with more than ten years of age difference (Baughman et al. 2000).

9. This approach to classifying mothers differs from studies that use mothers' current characteristics (which may or may not be the same as those they had at the time of first birth) and from studies that classify mothers

ses exclude mothers who are single and have a college degree at the time of birth because this situation is relatively uncommon, and the sample size for this group is too small to produce reliable estimates.

### Hybrid Model of Income Change

We estimate centered-random-effects models to analyze change in the income-to-poverty ratio in total income and in income components following the transition to first birth (Firebaugh et al. 2013). This is a hybrid model that includes separate coefficients for within- and between-person variation in time-varying predictors, to retain the advantages of the individual-fixed-effects approach in accounting for unmeasured time-invariant confounders, while allowing for the estimation of between-person changes across first birth cohorts. We use ordinary-least-squares (OLS) regression to estimate the following:

$$\begin{aligned}
 Y_{im} = & \beta_0 + \beta_1 1990_i + \beta_2 2000_i + \beta_3 2010_i \\
 & + \gamma_1 1980_i \times (FB_{im} - \overline{FB}_i) \\
 & + \gamma_2 1990_i \times (FB_{im} - \overline{FB}_i) \\
 & + \gamma_3 2000_i \times (FB_{im} - \overline{FB}_i) \\
 & + \gamma_4 2010_i \times (FB_{im} - \overline{FB}_i) + \varepsilon_{im}
 \end{aligned}$$

where  $Y$  denotes an income outcome for a woman  $i$  in month  $m$ . Indicators for first birth cohorts are included for the 1990s, 2000s, and 2010s, relative to the 1980s.  $FB$  is a parenthood indicator equal to 0 for months prior to birth and 1 for the birth month and all subsequent months. For each woman, we interact the deviation of this monthly value from its mean across all months with the indicator for first birth cohort to estimate postbirth changes in income across decades.  $\varepsilon$  represents month-specific error terms. Standard errors are clustered at the individual level. We estimate these models on our pooled sample, separately for the three subgroups defined by partnership status and college attainment at first birth (as defined earlier), and for a pooled model that includes a full set of interactions for each of these three subgroups.

Modeled in this way, the coefficient on the constant represents prebirth income in the 1980s, and the coefficients on the decade indicators represent between-person changes in prebirth income in the 1990s, 2000s, and 2010s. Interactions estimate within-person changes in income following first birth across four decades. These are equivalent to estimates from a fixed-effect model; that is, differences between the coefficients yield the same estimates as an individual fixed-effect model of income changes on an interaction between the transition to first birth and decade indicators.

We use these models in a counterfactual analysis to synthesize and flesh out the implications of our descriptive findings. Using separate models of the income-to-poverty ratio for income components, we generate a set of predicted income-to-poverty ratios pre- and postbirth across decades. Summing over these predicted values yields the total income-to-poverty ratio for family income; because we have a linear model, summing over predicted values for mothers', fathers', and government contributions across four decades, and for pre- and postbirth months generates the same estimates of total income as a model predicting total income. After generating predictions based on our observed data, we iteratively hold components of our model-based estimates at their 1980s predicted values. For example, to understand the implications of holding women's prebirth income constant across decades, we compare the predicted value of total postbirth income in 2021 based on our observed data to the sum of predictions for women's prebirth income in the 1980s and all of the other 2021 income components (prebirth contributions of fathers and government, and changes in postbirth contributions of mothers, fathers, and government). We do this separately for our three subgroups of mothers, and we also do this for a fully interacted pooled model that allows us to decompose overall changes in family income into subgroup differences in pre- and postbirth income components and their changes across decades.

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based on long-term characteristics (for example, Edin and Lein's study classified mothers as having never been married or as divorced at the time of the first interview).

## RESULTS

Figure 1 shows key characteristics of mothers at the time of first birth, comparing the first and last first birth cohorts (1980s and 2010s). We show characteristics for the full sample as well as by the three subgroups defined by mothers' college and partnership status at first birth (see online supplement table S.3 for more details about the sample). Looking first at the characteristics of the full sample, the data showed sizable changes associated with economic prospects over the past four decades: a near doubling of the share of mothers who were both partnered and had a college degree (from 20 percent in the 1980s to 38 percent in the 2010s) and associated increases in age at first birth. The share of new mothers with a college degree increased nearly 20 percentage points over this period, while the share cohabiting or married at first birth declined modestly (from 74 to 71 percent), although with more meaningful declines in the share married (from 71 to 59 percent).

Figure 1 also shows characteristics of the three subsamples defined by mothers' college attainment and partnership status at the time of first birth. Mothers who are single and have no college degree enter motherhood earlier than other groups (for example, in the 2010s, 33 percent entered parenthood before age twenty, compared to 11 percent for the full sample). These mothers were also less often employed prior to birth (37 percent, compared to 61 percent for the full sample in the 2010s). Between the 1980s and 2010s, age at first birth, employment, and education all increased among single mothers without a college degree. For example, the percent with some college experience increased from 16 percent in the 1980s to 36 percent in the 2010s. This group includes a higher share of women who identify as Black (30 percent) or Hispanic (20 percent), relative to the full sample (13 percent Black and 13 percent Hispanic).

Focusing on partnered (married or cohabiting) mothers at the time of birth, those without a college degree were consistently younger than those with a college degree (nearly 40 percent are twenty to twenty-four when they entered parenthood in the 2010s, whereas only 7 percent of mothers with a college degree were in

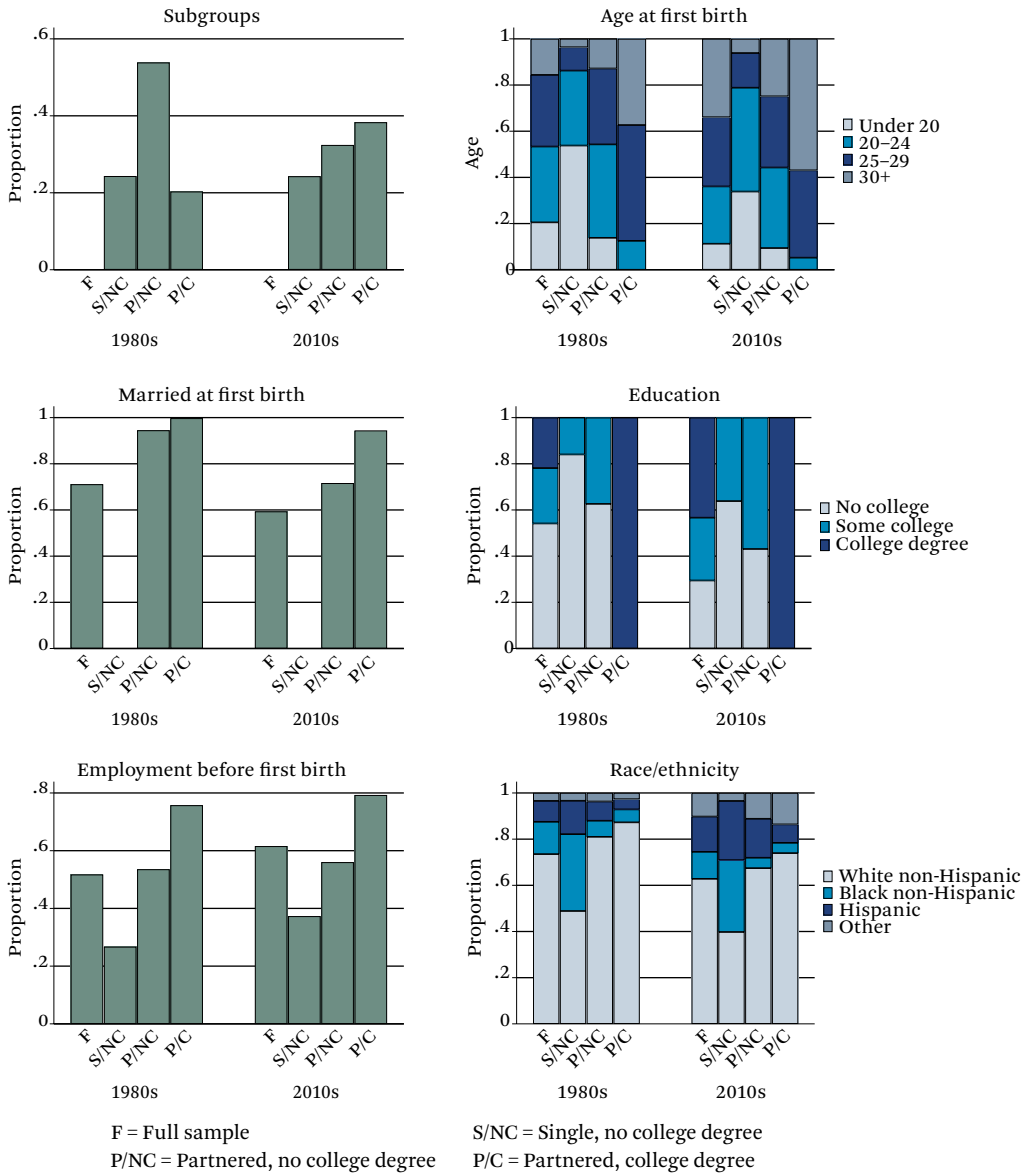
that age group), had lower levels of employment prior to birth (55 percent versus 79 percent in the 2010s), and were less often married at birth (72 percent versus 94 percent in the 2010s). These disparities were present for all four decades considered. Changes among partnered mothers with or without a college degree trended in the same direction; that is, both groups were older, more often employed, and (slightly) less often married at first birth in the 2010s than in the 1980s. Like single mothers, partnered mothers without a college degree also substantially increased their schooling over time, including 57 percent with some college experience in the 2010s versus 37 percent in the 1980s.

Have these favorable changes in socio-demographic characteristics come with improvements in economic well-being after birth? Figure 2 shows trends in the family income-to-poverty ratio before and after first birth by decade and indicates that mothers' average economic well-being has indeed improved. In the 1980s, the average family income-to-poverty ratio one year after birth was 2.8, increasing to 3.9 by the 2010s. Looking two years after birth, the average family income-to-poverty ratio increased from 2.6 to 4 over the same period. For all cohorts, the family income-to-poverty ratio was relatively flat until the first birth, declined sharply after the first birth (this is partly mechanical, due to the addition of another person to the household), and remained well below the prebirth levels for the following two years.

Figure 2 also shows that new parents' economic circumstances improved over the decades in the year before a first birth. Yet the decline in economic status associated with the first birth looks relatively stable across decades. This suggests that the overall improvement in postbirth economic position results largely from changes in parents' economic situation before the first birth rather than from declines in the negative impact of first births.

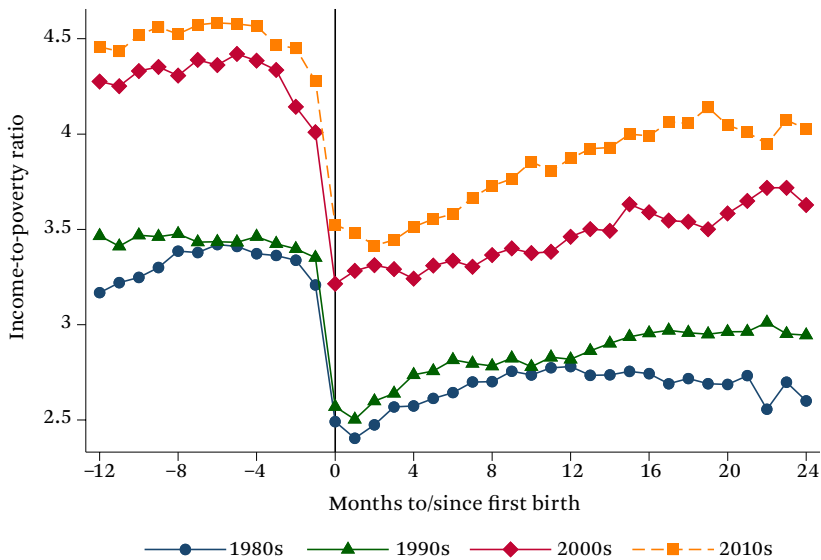
Figure 3 shows income-to-poverty ratios during the years before and after birth for each income source (her contributions, his contributions, and government contributions), allowing us to consider how specific income sources contribute to the overall economic position for mothers experiencing a first birth

**Figure 1.** Descriptive Characteristics for the Full Sample and for Subgroups by Mothers' Joint College and Partnership Status at First Birth, 1983–2019



Source: Survey of Income and Program Participation (SIPP), 1984–2018 panels.

Note: Weighted means and proportions at first birth. The analytical sample includes all women who have a first birth during the SIPP and who belong to one of three groups: women who do not hold a college degree and are unpartnered at first birth, women who do not hold a college degree and are partnered at first birth, and women who hold a college degree and are partnered at first birth. This subgroup analysis excludes women who hold a college degree and are unpartnered at first birth, although this group is included in all full-sample analyses. Data for the 2010s decade come from the redesigned 2014 and 2018 panels. The optimal way to view the figures in this article is in color. We refer readers of the print edition of this article to <https://www.rsfjournal.org/content/12/1/96> to view the color versions.

**Figure 2.** Income-to-Poverty Dynamics Around First Birth, by First Birth Decade

Source: Survey of Income and Program Participation (SIPP), 1984–2018 panels.

Note: Weighted means for family income-to-poverty ratio by distance from first birth month. Each line represents a different first birth cohort (1980s, 1990s, 2000s, and 2010s). The dashed line for 2010s indicates that the data come from the redesigned 2014 and 2018 panels. The analytical sample includes all women who have a first birth during the SIPP.

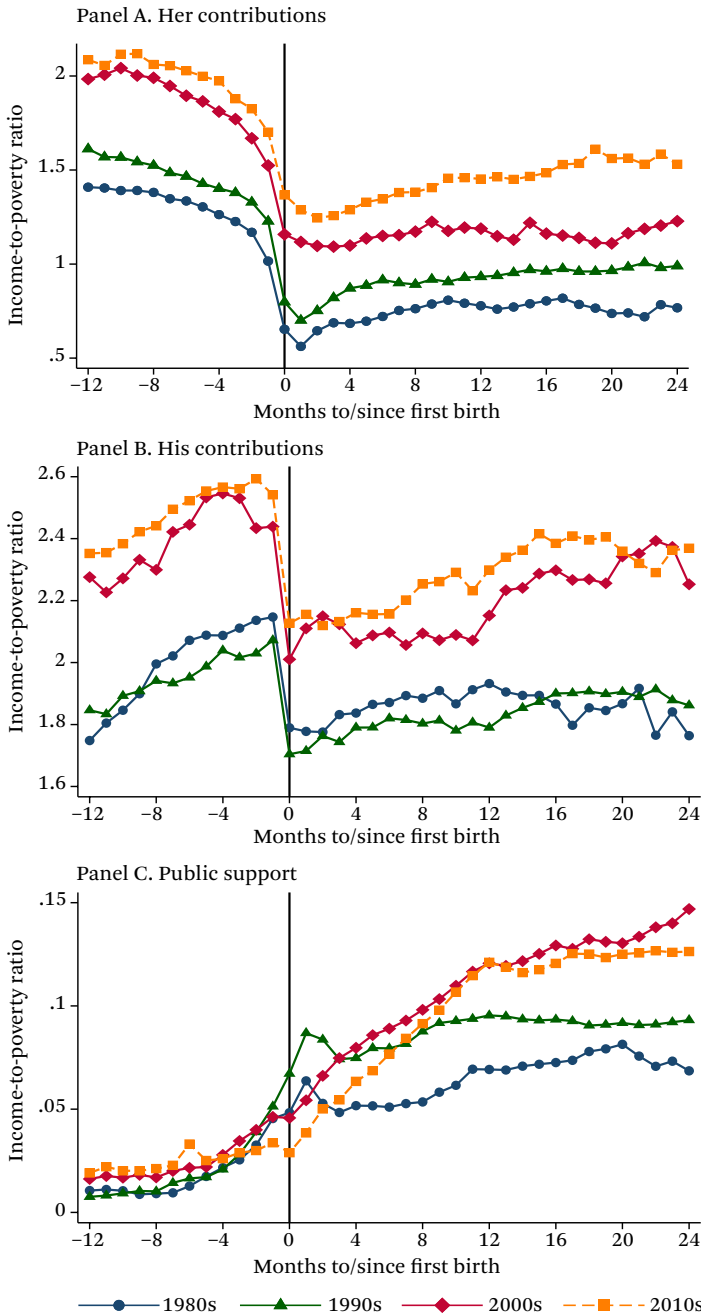
separately by decade (see online supplement figure S.1 for analogous plots using absolute income rather than income-to-poverty ratios). Some patterns were stable across decades. Mothers' contributions dropped at the time of birth (due to both her earnings declining and to the increase in family size) and did not fully recover within a two-year time frame. Fathers' contributions increased consistently from the year before to two years after birth, with a sharp decline at birth that is due entirely to the increase in family size. Lastly, government contributions were low before birth and increased in the months after birth.

Other patterns changed across decades. We saw improvements in postbirth income for all income sources, but changes appeared largest for her contributions. For example, the average income-to-poverty ratio for her contributions a year after first birth increased by 0.67 points (from 0.77 in the 1980s to 1.4 in the

2010s), compared to increases of 0.37 and 0.05 points over the same period for his contributions and for government contributions, respectively.<sup>10</sup> The increase in her contributions appears to stem primarily from improvements in prebirth economic well-being between the 1990s and 2000s, while evidence of declines in the impact of births across decades is inconclusive. For his contributions, improvements in prebirth economic well-being between the 1990s and 2000s seem key, too. Government benefits plateaued around six months after birth in the two early decades (mostly capturing the pre-welfare reform period), whereas benefits continued a steady increase to the end of the series in the two later decades, presumably because earnings-based credits rise with parents' increased earnings. Recall that our measure of government contributions includes multiple programs, including Social Security, cash assistance, SNAP, and EITC and

10. Consistent with the greater improvement in mothers' contributions relative to other income sources, supplementary analyses show that mothers' contributions increase modestly as a share of total family income across decades (see online supplement figure S.5).

**Figure 3.** Dynamics of Income-to-Poverty Ratios for Each Income Source Around First Birth, by First Birth Decade



Source: Survey of Income and Program Participation (SIPP), 1984–2018 panels.  
 Note: Weighted means for income-to-poverty ratios for family income components: her contributions, his contributions, and public support. See online supplement table S.1 for a description of the income sources included in each family income component. Each line represents a different first birth cohort (1980s, 1990s, 2000s, and 2010s). The dashed line for 2010s indicates that the data come from the redesigned 2014 and 2018 panels. The analytical sample includes all women who have a first birth during the SIPP.

CTC (see online supplement table S.1 for more details).

Have improvements in economic well-being after first birth been experienced across all groups? Figure 4 reveals that all of the increase in economic well-being observed in our overall sample comes from improvements among mothers who have a college degree and are partnered (married or cohabiting) at the time of first birth. There is no discernable change across cohorts in income dynamics among mothers without a college degree, whether single or living with a partner.<sup>11</sup> Additionally, figure 4 shows that gaps across groups are striking: the average income-to-poverty ratio is lower by an order of magnitude of nearly ten among the single, no-college-degree group relative to the partnered, college-degree group, with the partnered mothers without a college degree falling in the middle.<sup>12</sup> This is despite the fact that changes in income around first birth were very short-lived among single mothers with no college diploma, relative to both partnered groups, who experienced more persistent declines in family income-to-poverty ratios. Note that low family income of single mothers without a college degree partly reflects that many in this group are young women who live with their parents and have not yet established themselves on the labor market. Recall, too, that our family income measure does not include income from household members outside the focal mothers' nuclear family. In the year before birth, between 70 and 80 percent of these (on average) young women were living with other adults with income (the vast majority with parents), and over half remained living with others two years following birth (with modest change over time; results available on request). These single mothers had low levels of employment by the time of their first birth (21 percent and 35 percent in the month closest to the first birth in the 1980s and 2010s, respectively) and increased their employment in the months after birth (see online supplement figure S.7 for employment levels by subgroup).

The share of fathers contributing earnings or child support among this group was under 20 percent over the months observed, and these mothers became less likely to cohabit with a partner after birth across decades (see online supplement figure S.8 for details).

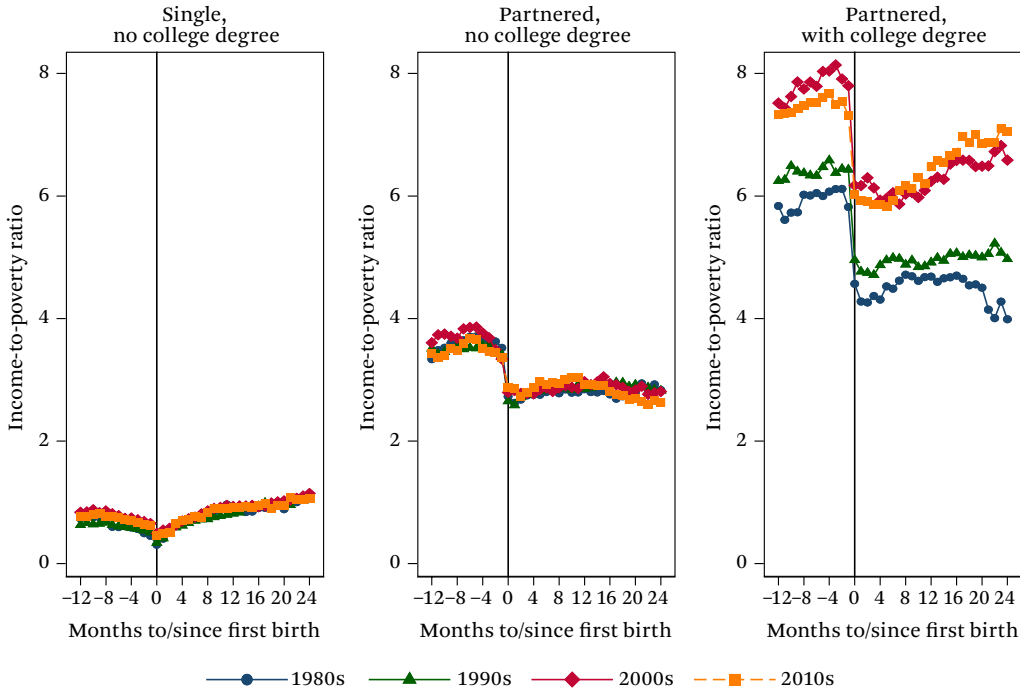
Disaggregated trends by income source for each group (see online supplement figure S.3) show that the cross-cohort improvement in economic well-being for partnered mothers with a college degree seems to largely come from increases in mothers' and fathers' contributions before birth that carry through to the postbirth observations. Descriptive trends do not provide much evidence that the impact of births, particularly on mothers' contributions, has declined across cohorts for this group. By contrast, for partnered mothers without a college degree, there is some evidence of small declines in the impact of births on mothers' contributions but no evidence of improvements in their contributions before birth. Fathers' contributions in this group appear stable across cohorts. For single mothers without a college degree, there is some evidence of small improvements in mothers' prebirth earnings, and evidence of very small declines in fathers' contributions before and after birth. Single mothers' contributions recovered faster after birth than partnered mothers' contributions, largely reflecting the low levels of prebirth employment among the single mothers and increases in employment in the months after birth.

Consistent with the policy shift from cash assistance to tax-based wage supplementation, this analysis also showed that government contributions had increased (modestly) among partnered mothers regardless of whether they had college degrees (largely due to the EITC and the CTC), but not among single mothers without a college degree. Disaggregated analyses of government transfers showed that cash transfers (AFDC/TANF) declined among single mothers without a college degree, and that the EITC mostly benefited mothers without a col-

11. Supplementary analyses using the median family income show similar results. This indicates that improvements among partnered college-educated mothers are not driven by a small subgroup of high earners. See online supplement figure S.9.

12. See online supplement figure S.2 for a companion plot of total income (in 2018 dollars).

**Figure 4.** Family Income-to-Poverty Ratio Around First Birth, by Subgroup and First Birth Decade



Source: Survey of Income and Program Participation (SIPP), 1984–2018 panels.  
 Note: Weighted means for family income-to-poverty ratio by distance from first birth month and by subgroup defined by mothers’ joint partnership and college status at the time of birth. Each line represents a different first birth cohort (1980s, 1990s, 2000s, and 2010s). The dashed line for 2010s indicates that the data come from the redesigned 2014 and 2018 panels. The analytical sample includes all women who have a first birth during the SIPP and who belong to one of the three groups: women who do not hold a college degree and are unpartnered at first birth, women who do not hold a college degree and are partnered at first birth, and women who hold a college degree and are partnered at first birth. This subgroup analysis excludes women who hold a college degree and are unpartnered at first birth, although this group is included in all full-sample analyses.

lege degree, regardless of partnership status. CTC eligibility extends to a far greater earnings threshold than the EITC or any other means-tested government benefit, and it provides relatively more aid to partnered mothers with and without a college degree. See online supplement figure S.4 for more details.<sup>13</sup>

**Hybrid Model Results and Counterfactuals**

Tables 1 and 2 show results from the hybrid regression models of income-to-poverty ratios for total income and for each income source. These models estimate the effects of between-person variation in first birth cohort and within-person variation in postbirth income

13. Supplementary analyses of family income shares reinforce these observations (see online supplement figures S.5–S.6). Generally, there is relative stability across cohorts in the share of total family income coming from mothers, fathers, and government transfers for the three groups. This reflects the fact that most changes are relatively small for mothers without a college degree (single and partnered), and that for mothers with a college degree, the largest shift comes from prebirth improvements in both mothers’ and fathers’ contributions, leaving the shares relatively similar across decades. Despite the stability, these plots do show that the share of family income coming from fathers’ contributions declines for single mothers without a college degree, that the share coming from government transfers increases for partnered mothers without a college degree, and that the share

**Table 1.** Hybrid Regression Coefficients for Income-to-Poverty Ratios for Total Family Income and for Each Income Source, Pooled Sample

	Family Income	Her Contributions	His Contributions	Government Contributions
1990s	0.193*** (0.0665)	0.200*** (0.0299)	-0.0200 (0.0512)	0.00438 (0.00312)
2000s	0.595*** (0.0882)	0.395*** (0.0401)	0.162** (0.0680)	0.00752** (0.00353)
2010s	0.817*** (0.102)	0.602*** (0.0481)	0.194*** (0.0738)	-0.000303 (0.00375)
Birth#1980s	-0.557*** (0.0324)	-0.454*** (0.0183)	-0.136*** (0.0254)	0.0287*** (0.00287)
Birth#1990s	-0.505*** (0.0320)	-0.453*** (0.0174)	-0.107*** (0.0252)	0.0364*** (0.00216)
Birth#2000s	-0.571*** (0.0554)	-0.460*** (0.0292)	-0.173*** (0.0429)	0.0246*** (0.00218)
Birth#2010s	-0.521*** (0.0604)	-0.409*** (0.0341)	-0.177*** (0.0440)	0.0256*** (0.00264)
Constant	2.849*** (0.0501)	0.913*** (0.0225)	1.890*** (0.0390)	0.0418*** (0.00257)
Observations	267,084	267,084	267,084	267,084
R-squared	0.012	0.027	0.002	0.009
<b>Tests for birth effect differences across decades</b>				
1980s versus 1990s	0.052	0.002	0.029	0.008*
1980s versus 2000s	-0.014	-0.006	-0.038	-0.004
1980s versus 2010s	0.036	0.045	-0.041	-0.003

Source: Survey of Income and Program Participation (SIPP), 1984–2018 panels.

Note: Robust standard errors in parentheses. Income-to-poverty ratios are computed using the US federal poverty thresholds. Each income component is divided by the monthly poverty threshold. Data for the 2010s decade come from the redesigned 2014 and 2018 panels.

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

changes across decades for our full sample and subsamples. In these models, the constant represents the 1980s income-to-poverty ratio in the months prior to first birth, and indicators for the 1990s, 2000s, and 2010s represent changes in prebirth income across decades, relative to 1980s levels. Interactions show within-person changes in income postbirth (versus prebirth) across decades, which we call “birth effects.” Rows at the bottom of the tables show tests for the statistical significance of differences in

within-person birth effects across decade (that is, difference-in-difference estimates).

Table 1, for the full sample, shows increases in the total prebirth income-to-poverty ratio and in mothers’ prebirth income-to-poverty contributions decade to decade, relative to the 1980s (as indicated by statistically significant decade indicators). Increases in fathers’ prebirth contributions were only apparent in the 2000s and 2010s, and changes were smaller than for mothers’ contributions. Pre-

coming from mothers’ contributions and government transfers slightly increases for partnered mothers with a college degree.

birth government contributions were close to zero, with statistically significant but small increases in the 2000s. We found no evidence that birth effects had changed across decades (as shown in post-hoc tests shown at the bottom of the table), except for a small increase in postbirth government support from the 1980s to 1990s.

Table 2 shows results for the three subgroups we consider throughout this paper. Panel A shows results for single women without a college degree at first birth. For this group, there was little evidence of change in prebirth total income, except for a statistically significant but small increase in the 2000s, relative to the 1980s. Mothers' prebirth income contributions increased in the 2000s and 2010s, offsetting declines in fathers' contributions over the same decades. In the postbirth months, small declines in mothers' contributions were entirely offset by increases in fathers' and government support across all four decades. Changes in birth effects across decades were not statistically significant.

Among partnered (married or cohabiting) mothers without a college degree (table 2, panel B), we found no evidence of change in total prebirth income across decades, although we saw small, statistically significant changes in mothers' prebirth contributions. In the postbirth months, total income, mothers' contributions, and fathers' contributions all declined (fathers' driven in part by separation/divorce), and government support increased. Separations were concentrated among cohabiting parents, whose partnerships are less stable than those of married mothers. We found evidence that the negative impact of births on mothers' earnings declined in the 2000s and 2010s relative to the 1980s, but the size of this decline was relatively modest, and it only resulted in a statistically significant improvement in postbirth total income in the 2010s relative to the 1980s.

Results for partnered mothers with a college degree (table 2, panel C) tell a different story about prebirth income: relative to groups without a college degree, there was much stronger evidence of increases in the prebirth family income-to-poverty ratio across decades, and this held for mothers' and fathers' contribu-

tions, consistent with descriptive findings just discussed. Similar to partnered mothers without a college degree, total postbirth income declined substantially, with declines in contributions from both mothers and fathers, but small increases in government support. None of the income changes after birth (or birth effects) differed significantly across decades.

Table 3 uses a counterfactual analysis to calculate how each income source contributes (or not) to changes in new parents' postbirth economic position across decades. First, we generate predicted values for the components of income-to-poverty ratios across decades, separately for months before and after birth, and we sum these to generate estimates of total income. Next, we again generate predicted values across decades for pre- and postbirth months, but fix pieces of the prediction to simulate the model implications of holding key income components constant over time. Row 1 shows these values based on predictions from the model in table 1, and subsequent rows show how these predicted values change when we fix key components to their 1980s estimates.

Substantively speaking, these simulations show what the family income-to-poverty ratio would be in the 2010s if specific income components had not changed since the 1980s. For instance, row 2 shows the simulated 2010s family income-to-poverty ratio if the impact of births on mothers' contributions (or birth effects) had not changed since the 1980s. Each row holds constant an additional income source, thus allowing us to disentangle their additive effects. Row 5 simulates the 2010s family income-to-poverty ratio assuming her prebirth contributions were held constant since the 1980s, in addition to holding constant the impact of births on any of the income sources (mothers' contributions, fathers' contributions, and government contributions). Simulations predicting lower-than-observed 2010s family income-to-poverty ratios indicate that changes in the income component held constant at the 1980s levels help explain the improvement in new families' economic well-being. By contrast, simulations predicting higher-than-observed values indicate that changes in the income component held constant at the 1980s levels worsen families' eco-

**Table 2.** Hybrid Regression Coefficients for Income-to-Poverty Ratios for Total Family Income and for Each Income Source, by Mothers' Joint Partnership and College Status at Birth

	Family Income	Her Contributions	His Contributions	Government Contributions
<b>Panel A. No college, no partnered</b>				
1990s	0.0214 (0.0395)	0.0458 (0.0337)	-0.0301 (0.0202)	-0.00570 (0.00952)
2000s	0.132*** (0.0448)	0.150*** (0.0385)	-0.0372* (0.0212)	-0.00930 (0.0105)
2010s	0.0550 (0.0493)	0.147*** (0.0448)	-0.0883*** (0.0198)	-0.0245** (0.0110)
Birth numbers 1980s	0.0821*** (0.0285)	-0.137*** (0.0202)	0.126*** (0.0239)	0.0838*** (0.00913)
Birth numbers 1990s	0.109*** (0.0218)	-0.111*** (0.0184)	0.0915*** (0.0131)	0.101*** (0.00614)
Birth numbers 2000s	0.0731** (0.0289)	-0.125*** (0.0258)	0.0965*** (0.0178)	0.0603*** (0.00597)
Birth numbers 2010s	0.0452 (0.0362)	-0.109*** (0.0349)	0.0464*** (0.0122)	0.0625*** (0.00725)
Constant	0.690*** (0.0321)	0.419*** (0.0270)	0.144*** (0.0174)	0.121*** (0.00827)
Observations	74,639	74,639	74,639	74,639
R-squared	0.004	0.009	0.009	0.030
Postbirth differences across decades				
1980s versus 1990s	0.027	0.026	-0.034	0.017
1980s versus 2000s	-0.009	0.012	-0.029	-0.023
1980s versus 2010s	-0.037	0.028	-0.079	-0.021
<b>Panel B. No college, partnered</b>				
1990s	0.0673 (0.0697)	0.109*** (0.0323)	-0.0565 (0.0560)	0.00503* (0.00293)
2000s	0.0355 (0.0829)	0.0640 (0.0406)	-0.0827 (0.0651)	0.0167*** (0.00359)
2010s	0.0769 (0.105)	0.0980** (0.0480)	-0.0660 (0.0870)	0.0138*** (0.00446)
Birth numbers 1980s	-0.603*** (0.0363)	-0.449*** (0.0222)	-0.172*** (0.0283)	0.0134*** (0.00290)
Birth numbers 1990s	-0.512*** (0.0420)	-0.406*** (0.0194)	-0.139*** (0.0371)	0.0143*** (0.00198)
Birth numbers 2000s	-0.477*** (0.0606)	-0.310*** (0.0299)	-0.231*** (0.0522)	0.0166*** (0.00253)
Birth numbers 2010s	-0.284*** (0.0872)	-0.256*** (0.0400)	-0.0957 (0.0729)	0.0157*** (0.00364)
Constant	2.982*** (0.0518)	0.811*** (0.0242)	2.147*** (0.0417)	0.0208*** (0.00223)
Observations	115,799	115,799	115,799	115,799
R-squared	0.009	0.025	0.002	0.006
Postbirth differences across decades				
1980s versus 1990s	0.091	0.043	0.033	0.001
1980s versus 2000s	0.125	0.139***	-0.059	0.003
1980s versus 2010s	0.319**	0.192***	0.076	0.002

**Table 2.** (continued)

	Family Income	Her Contributions	His Contributions	Government Contributions
<b>Panel C. College, partnered</b>				
1990s	0.547*** (0.157)	0.397*** (0.0836)	0.145 (0.126)	0.00208 (0.00174)
2000s	1.561*** (0.207)	0.758*** (0.106)	0.784*** (0.170)	-0.00129 (0.00171)
2010s	1.619*** (0.205)	1.006*** (0.108)	0.599*** (0.154)	-2.83e-05 (0.00260)
Birth numbers 1980s	-1.227*** (0.101)	-0.853*** (0.0560)	-0.382*** (0.0857)	0.00605** (0.00280)
Birth numbers 1990s	-1.254*** (0.0800)	-0.947*** (0.0488)	-0.317*** (0.0628)	0.00338** (0.00144)
Birth numbers 2000s	-1.431*** (0.138)	-1.010*** (0.0747)	-0.448*** (0.111)	0.00229* (0.00139)
Birth numbers 2010s	-1.107*** (0.108)	-0.767*** (0.0670)	-0.368*** (0.0847)	0.00374*** (0.00122)
Constant	5.137*** (0.124)	1.744*** (0.0681)	3.387*** (0.0981)	0.00502*** (0.00131)
Observations	70,966	70,966	70,966	70,966
R-squared	0.038	0.052	0.011	0.001
Tests for birth effect differences across decades				
1980s versus 1990s	-0.027	-0.094	0.065	-0.003
1980s versus 2000s	-0.204	-0.157	-0.066	-0.004
1980s versus 2010s	0.120	0.086	0.014	-0.002

Source: Survey of Income and Program Participation (SIPP), 1984–2018 panels.

Note: Robust standard errors in parentheses. Income-to-poverty ratios are computed using the US federal poverty thresholds. Each income component is divided by the monthly poverty threshold. Data for the 2010s decade come from the redesigned 2014 and 2018 panels.

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

**Table 3.** Predicted and Simulated Changes in Postbirth Family Income-to-Poverty Ratio for the Pooled Sample

	1980s	2010s	Change	Percent Explained
Predicted postbirth family income-to-poverty ratio	2.66	3.44	0.78	
CF1: Fixing birth effects on her contributions to 1980s	2.66	3.43	0.77	1.08
CF2: CF1 + Fixing birth effects on his contributions to 1980s	2.66	3.47	0.81	-5.75
CF3: CF2 + Fixing birth effects on government contributions to 1980s	2.66	3.44	0.78	3.84
CF4: CF3 + Fixing her prebirth contributions to 1980s	2.66	2.88	0.22	73.07
CF5: CF4 + Fixing his prebirth contributions to 1980s	2.66	2.67	0.01	26.62
CF6: CF5 + Fixing government prebirth contributions to 1980s	2.66	2.66	0.00	1.15
Total				100

Source: Survey of Income and Program Participation (SIPP), 1984–2018 panels.

Note: Data for the 2010s decade comes from the redesigned 2014 and 2018 panels.

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

conomic well-being, and thus do not help explain the improvement.

The results showed that if the birth effects on income contributions of mothers, fathers, and government had not changed since the 1980s, the total predicted income-to-poverty ratio would have remained at a very similar observed value (3.44 in row 4). This indicated that declines in birth effects on mothers' earnings (commonly called motherhood penalties) had not had much of a role in improving the families' average income adequacy after first birth between the 1980s and the 2010s. If we further held mothers' prebirth contributions to their 1980s estimates, the predicted postbirth income in the 2010s dropped substantially to 2.88, or 16 percent relative to the prior row, illustrating the importance of increases over time in mothers' prebirth earnings to improvements in the overall economic well-being of new parents. Additionally, holding fathers' prebirth contributions to their 1980s estimates, the predicted postbirth income in the 2010s dropped from 2.88 to 2.67, or another 7 percent. Together, increases in mothers' and fathers' prebirth income accounted for 73 percent and 27 percent, respectively, of overall income improvements of new parents from the 1980s to the 2010s.

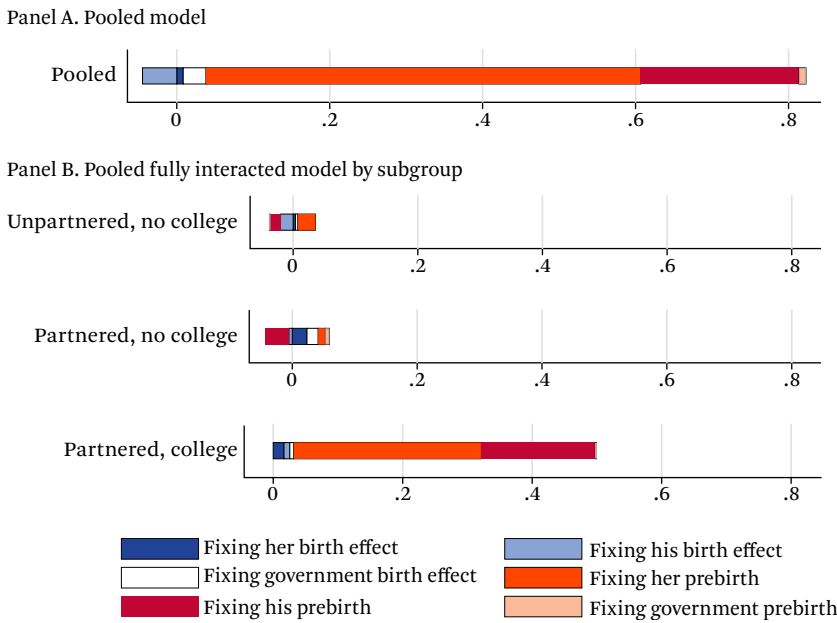
Figure 5 plots the decomposition results from the simple pooled model described in table 3, and it also displays the results for this exercise from the fully interacted model with binary indicators for each subsample of mothers: single mothers without a college degree; partnered mothers without a college degree; and partnered mothers with a college degree. Detailed results for the fully interacted model are available in online supplement table S.4. Simulations with a positive sign reflect income components that helped explain the improvement in families' economic well-being, whereas simulations with a negative sign reflect income components that were negatively associated with families' improved economic well-being.<sup>14</sup> Recall from earlier in this paper that income changes across decades appeared concentrated among the group of partnered mothers with a

college degree. Two key findings emerged. The first was that fixing birth effects did relatively little to change predicted postbirth income from the 1980s to the 2010s, that is, motherhood penalties remained fairly stable across four decades. The one exception was the decline in the birth effect on mothers' contributions (or motherhood penalty) among partnered mothers without a college degree, which accounted for 7 percent of the overall increase in predicted family income from the 1980s to the 2020s. The second was that prebirth income increases among college-educated women accounted for more than half of the increase in the family income-to-poverty ratio from the 1980s to the 2010s, while other prebirth income changes played a smaller role. Increases in prebirth earnings among partnered mothers with a college degree accounted for 57 percent of the improvement in overall family income among new mothers across decades, relative to a 36 percent contribution from increases in prebirth earnings among fathers in this group. Increases in prebirth contributions among single mothers without a college degree accounted for 5 percent of the estimated improvement in postbirth family income over time, but this contribution was offset by declines in fathers' prebirth contributions among partnered mothers without a college degree (due largely to separation or divorce).

These results also showed that the very small change in family income for mothers without a college degree (single and partnered) from the 1980s to the 2010s resulted from offsetting changes. For example, among single mothers who lack a college degree, predictions for the overall postbirth adjusted family income were 0.72 in the 1980s and 2010s. Results suggested that increases in mothers' prebirth contributions offset declines in fathers' pre- and postbirth contributions (the latter not statistically significant, per table 2). Among partnered mothers without a college degree, predictions for postbirth adjusted family income increase from 2.77 to just 2.85. These small changes were due largely to increases in mothers' postbirth contributions (offsetting

14. The total improvement in families' economic well-being equals the sum of the simulations with a positive sign minus the sum of the simulations with a negative sign. For instance, in figure 5, panel A,  $0.83 - 0.5 = 0.78$ .

**Figure 5.** Decomposition of the Contributions to Changes in Postbirth Family Income-to-Poverty Ratio Between the 1980s and 2010s First Birth Cohorts



*Source:* Survey of Income and Program Participation (SIPP), 1984–2018 panels.  
*Note:* Figure 5 shows results for the simulation decomposition. Data for the 2010s decade come from the redesigned 2014 and 2018 panels. Panel A shows results for the simple pooled model (presented in table 5) and panel B shows results for the pooled fully interacted model by subgroups. Panel B bars should be read as additive. The total change in panel A and panel B are not the same because the analytical sample differs. Panel A includes all women who have a first birth during SIPP, whereas Panel B only includes women in the three groups examined in this study; therefore, it excludes the group of women unpartnered and with a college degree at birth. Areas show the contribution of each simulation to explain changes in postbirth family income-to-poverty ratio between the 1980s and 2010s first birth cohorts. For instance, in Panel A our calculation for this change is 0.78 (from 2.66 in the 1980s to 3.44 in the 2010s). The area corresponding to the simulation “fixing her birth effect,” indicates how much holding constant the impact of birth on her income contributions to the 1980s values changes the 2010s postbirth family income (see second row in table 3) for the pooled sample. This simulation reduces the change in postbirth family income-to-poverty ratio by 0.01 units (from 0.78 to 0.77). Areas below zero indicate that the simulation does not contribute to explain the increase in postbirth family income-to-poverty ratio between the 1980s and the 2010s because they indicate that the increase would have been even greater under that scenario. For instance, for the pooled sample in panel A, the simulation that fixes his birth effect results in a larger change in postbirth family income-to-poverty ratio than the one observed (a change of 0.81 rather than 0.78). See the third row in table 3. This reflects the fact that the negative impact of births on men’s contributions has become larger over time (see table 1) and that, had this change not taken place, families’ postbirth income position would have been better.

declines in fathers’ pre- and postbirth contributions that were not statistically significant, as shown in table 2). For more details, see also online supplement table S.5.

In supplementary analysis, we examined

whether paid family leave could have played a role in improving mothers’ income after birth in the most recent decades. Online supplement figure S.10 shows trends in family income in states with paid family leave and in states with-

out paid family leave. The comparison of trends indicated that paid leave policy appeared to moderate the impact of births on family income. In states with paid family leave, the decline in family income associated with first births started in month 4 after birth, and the postbirth recovery happened faster (family income was below prebirth levels only for four–five months). By comparison, in states without paid family leave, the decline in family income associated with first births began even before birth, and postbirth recovery was comparatively slower (family income remained below prebirth levels for ten–twelve months). Although paid family leave appeared to moderate the impact of births on family income, the pattern of postbirth family income improvement in the recent period was found in states with and without family leave. This indicated that paid family leave was not a main driver of average improvements in postbirth family income since the 1980s.

### SUMMARY AND DISCUSSION

Katheryn Edin and Laura Lein's (1997) landmark study shed critical light on the economic survival strategies of mothers in the early 1990s and the varied income sources they used to make ends meet. Countervailing changes in the intervening decades in demographic, economic, and policy contexts leave open questions about the economic security of parents and their children. We examined income dynamics of new parents from the year before and up to two years after first birth, using monthly data from the SIPP from 1983 to 2019. We focused on the transition to parenthood, which creates new demands on time and money and strains families' economic resources. Leveraging detailed income data, we analyzed how countervailing changes have impacted new families' economic well-being for the overall population and for subgroups defined by mothers' partnership and educational status at first birth.

We find that the average economic well-being of new parents has improved across decades, but that this improvement is largely a product of growing inequality. Only mothers who are partnered and have a college degree at

first birth have seen improvements in their families' economic well-being, whereas mothers who do not have a college degree (either single or partnered) have not seen meaningful changes in their families' economic well-being. Our counterfactual decomposition results are strikingly clear: nearly all the overall improvement in economic well-being from the 1980s to the 2010s is accounted for by changes in the college-educated group, and all of their change stems from improvements prior to birth, with 57 percent of the overall change due to increases in women's prebirth earnings and 36 percent due to increases in men's prebirth earnings. Three implications can be drawn. The first is that despite improvements in education, more employment, and older age at first birth for all groups of mothers, only college-educated women have been able to translate better economic prospects into higher earnings prior to birth. The second is that even among the college-educated, better economic prospects have not led to declines in motherhood earnings penalties following birth. With the exception of small declines among partnered mothers without a college degree, motherhood penalties have been persistent over four decades. The third is that despite dramatic changes in the nature of public support, we find little change in its average contributions to changes in families' economic well-being across decades.

Consistent with prior work, our study demonstrates that new parents experience substantial declines in income adequacy, as measured by the income-to-poverty ratio, resulting in income precarity for many families. Mothers who do not have a college degree at first birth (whether single or partnered) are especially vulnerable to income inadequacy after birth, given their lower prebirth income levels, and we show that the income dynamics of these groups have changed little over four decades. While patterns of income inadequacy among the most vulnerable mothers have not deteriorated across the period observed, disadvantaged mothers' characteristics changed in ways that should have improved their economic standing, such as increased age at first birth and years of completed education. Stagnation in

the financial well-being of most new families (with the exception of married or cohabiting mothers with a college degree) is discouraging because it has occurred despite increases in mothers' human capital and labor supply pre- and postbirth. This pattern suggests limited capacity to further improve their financial well-being through their earned income alone during this critical early stage for children's development.

Our article makes four key contributions to the existing literature on the economic well-being of new parents and their children. First, it extends recent literature on income dynamics among parents (Harvey and Dunifon 2023; Stanczyk 2020) to assess change across four decades that span the 1990s welfare reform, the introduction of the EITC and the CTC, and important changes in family formation and men's and women's economic prospects. Second, we differentiate between the contributions of mothers, fathers, and public support to better understand how income flows have changed in concert with changes in policies, partnering, and economic prospects. Third, and relatedly, we parse out changes in the economic well-being of families before and after a first birth. In doing so, we find relative stability in income changes following birth, including persistent motherhood earnings penalties (except for slight declines in the penalty among partnered mothers without a college degree). Finally, we provide novel evidence on the diverging destinies of parents and their children. Comparing new mothers by partnership and college degree status at first birth shows increases across decades in education, employment, and age at first birth among all groups, but increases across decades in family income around the transition to parenthood only among the college-educated.

Our study has limitations and presents areas for further research. For instance, a substantial proportion of single mothers without a college degree live with other household adults with income prior to birth (about 80 percent), which means they may have access to additional resources in the household, including in-kind support such as meals and childcare. If we included the totality of other household

members' income in our estimates for single mothers without a college degree, at least half of their household income would come from this source. Yet, flows of exchange in extended households are often complex and contested (Harvey 2026). Since data limitations prevent us from clearly identifying whether, and to what extent, coresident kin share resources with unpartnered new mothers, our definition of family income, including only nuclear families and governmental programs, provides a cleaner approach to these new mothers' resources. However, an important and open question is how to think about the potential contributions of coresidential kin and the extent to which their resources are shared with new mothers and their children. Additionally, research shows that some government transfers are underreported in surveys like the SIPP (Meyer et al. 2015). It is possible that we underestimate the amount of government transfers new parents rely on, although the growing relevance of tax-related benefits, which we can impute using tax simulation, makes government transfer estimates less sensitive to response bias.

Moreover, our data are not well-suited to analyze the impact of paid family leave policies. By 2019 (the final year of observation in our study), only a handful of states had implemented paid family leave programs, leaving us with insufficient observations of paid family leave receipt. Supplementary analyses suggest that paid family leave policies might moderate the effect of births on income inadequacy by delaying and reducing the duration of birth penalties, but they also indicate that the improvements in postbirth income across decades cannot be attributed to paid family leave policies, as these improvements are observed in both states with and without paid family leave and are largely driven by changes in prebirth incomes. As more states adopt these policies, however, the moderating effects of these policies might become more visible in population-level estimates. Future research addressing the impact of paid family leave programs on mothers' financial well-being will be critical (Hill et al. 2026, this issue).

Amid substantial changes in the economy,

mothers' demographic characteristics, and public policy, one of the biggest takeaways of this study is that the economic vulnerability of new parents—and in particular of single mothers and those with less than a college degree—has changed little. More of these women have attended college over the years, though they have not yet earned a degree; they are older at first birth and more likely employed before birth. These characteristics are generally rewarded by the employment-based safety net that has largely replaced cash transfers since the mid-1990s. In the early years of parenthood, however, this support system seems to be failing many new parents, who face caretaking demands that are difficult to reconcile with employment, particularly low-wage employment that may be unpredictable and come with little flexibility or benefits (Lambert et al. 2019; Schneider and Harknett 2019; Ananat and Gassman-Pines 2021). State paid leave policies are slowly starting to fill gaps, but they exist in only a handful of states, are short-lived, and many poor women do not qualify due to the kinds of jobs they hold (Hill et al. 2026, this issue). Despite increases in public spending on childcare subsidies after the 1996 welfare reform, childcare continues to be hard to come by and expensive, and often inadequate to meet the needs of parents with nonstandard schedules (Kwon et al. 2026, this issue). Policies are needed that recognize and address the particular vulnerabilities that come along with the transition to parenthood and support families at this critical stage of the life cycle.

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