Income Support, Marriage, and Family Stability

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Abstract

Whether income support programs disincentivize marriage has long generated policy debate. We leverage data from a large-scale U.S.-based randomized controlled trial to examine the causal effects of a multi-year monthly unconditional cash transfer to mothers with low income on preregistered measures of marriage and family structure. The cash transfer increased marriage with children's biological fathers within a year after birth, had no destabilizing effects on new or existing marriages, and did not increase single parenthood. We do not find that marriage resulted in additional contributions of income from the spouse, despite hypotheses that marriage will benefit children through increased household resources.

JEL codes: D13, I31, I32, I38, J12, J13, J16
Keywords: poverty, marriage, family structure, children, family stability, welfare†

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* Corresponding author: Hema Shah, Department of Economics, Duke University, hema.shah@duke.edu. We thank Peter Arcidiacono, Jason Baron, Greg Duncan, Bilge Erten, Nathan Fox, Jorge Luis Garcia, Sarah Halpern-Meekin, Melissa Kearney, Arnaud Maurel, Natasha Pilkauskas, Pengpeng Xiao, Hirokazu Yoshikawa, and participants of the Duke Labor Lunch, 2023 Southern Economic Association annual meeting, and 2025 Public Policy and Child Wellbeing Workshop for feedback.

† This work is independently initiated and builds on the parent grant, which is a multidisciplinary collaboration of the seven principal investigators: Kimberly G. Noble, Katherine Magnuson, Greg J. Duncan, Lisa A. Gennetian, Hirokazu Yoshikawa, Nathan A. Fox, and Sarah Halpern-Meekin.

Preregistration for this study can be accessed via Open Science Framework at https://osf.io/xu953. The broader Baby's First Years study was preregistered with clinicaltrials.gov (https://clinicaltrials.gov/ct2/show/NCT03593356)

and the AEA RCT registry (https://www.socialscienceregistry.org/trials/3262). The research in this paper is funded at Duke University by the Eunice Shriver National Institutes of Child Health and Human Development (NICHD) Diversity Supplement Award to the parent grant of the Baby's First Years (BFY) study. The BFY Study was supported by the Eunice Kennedy Shriver National Institute of Child Health and Human Development of the National Institutes of Health under Award Number R01HD087384. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. The BFY study was additionally supported by the U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation; Andrew and Julie Klingenstein Family Fund; Annie E. Casey Foundation; Arnold Ventures; Arrow Impact; BCBS of Louisiana Foundation; Bezos Family Foundation, Bill and Melinda Gates Foundation; Bill Hammack and Janice Parmelee, Brady Education Fund; Chan Zuckerberg Initiative (Silicon Valley Community Foundation); Charles and Lynn Schusterman Family Philanthropies; Child Welfare Fund; Esther A. and Joseph Klingenstein Fund; Ford Foundation; Greater New Orleans Foundation; Heising-Simons Foundation; Holland Foundation; Jacobs Foundation; JPB Foundation; J-PAL North America; Lozier Foundation; New York City Mayor's Office for Economic Opportunity; Perigee Fund; Robert Wood Johnson Foundation; Sherwood Foundation; Valhalla Foundation; Weitz Family Foundation; W.K. Kellogg Foundation; and three anonymous donors. The funders for this study had no role in the analyses or preparation of the manuscript. We also thank the University of Michigan Survey Research Center, our partners in recruitment and data collection.

I. Introduction

Marriage disincentives have long been a central concern in the design of income support policy for families with children in the United States. Indeed, economic models of the family posit several channels through which income support programs may reduce the relative gains to marriage (Becker 1973, 1974, 1981). Most income support benefits in the U.S. are means-tested at the household level; therefore, marriage may deem mothers ineligible by placing two-parent, dual-earner households above the income threshold for benefit receipt (Moffitt 1992; Lopoo and Raissian 2014). With or without means-testing, income support may increase single parents' financial independence without a second earner in the household (Moffitt 1992).

Since the 1980s, the share of children living with married parents has declined dramatically, particularly among households with low income (Lundberg et al. 2016; Cabrera et al. 2022; Kearney 2023). As of 2023, nearly 25% of households with children in the U.S. do not have a married spouse present (Current Population Survey 2023). Children with two married parents are more likely to flourish than children with other living arrangements (Ribar 2015; Cabrera et al. 2022; Johnston et al. 2025). Living with married parents is associated with greater monetary and time investments in children, which have positive effects on children's health and development (Lundberg et al. 2016; Kearney 2023). As such, recent work (Kearney 2023; Fomby 2024; Wilcox 2024; Wilcox and Hawkins 2024) has renewed interest in "put[ting] a conversation about family … at the center of the policy discussions about income inequality" (Kearney 2023). One important aspect of such conversations is the elimination of embedded marriage penalties from programs designed to support families (Wilcox 2024).

Whether income support programs disincentivize marriage in the absence of embedded marriage penalties remains an open question. In this paper, we examine the causal impact of a

monthly unconditional cash transfer on marriage and other preregistered measures of family structure over the first three years of children's lives. We leverage data from the Baby's First Years (BFY) study, a randomized controlled trial consisting of 1,000 mothers with low income recruited in hospital postpartum wards in four U.S. cities. Between 2018 and 2019, mothers were randomized to receive a $333 ("high-cash") or $20 ("low-cash") monthly unconditional cash gift beginning shortly after giving birth. The transfer examined here is unique in that it was delivered directly to mothers for 76 months, uninterrupted and invariant to any changes in marriage and family composition, generating a novel test of the impact of an income shock without embedded marriage penalties. While the evidence base evaluating the impacts of unconditional cash transfers is rapidly expanding (Shah and Gennetian 2024; Page 2024), no prior U.S. cash transfer studies investigate marriage and single parenthood.

We find that mothers receiving the high-cash gift were more likely than mothers in the low-cash gift group to be married to the biological father of their child one year after birth. This increase in marriage was not through new relationships but rather through transitions to marriage, as mothers receiving the high-cash gift were less likely than mothers in the low-cash gift group to separate and more likely to marry their cohabiting partners during the year after birth. Our results provide a contemporary update to evidence from the early 2000s suggesting that the period following birth forms a "magic moment" during which unwed parents are romantically involved, optimistic about marriage, and responsive to improvements in financial stability (Reichman et al. 2001, McLanahan and Beck 2010). Approximately 80% of mothers in the BFY sample were unmarried at the time of their child's birth and approximately 40% were residing with their child's biological father, in line with Census Bureau data on low-income populations in similar geographic regions.

The impact of the high-cash gift on marriage was substantial in magnitude. Mothers in the high-cash gift group were 5.2 percentage points (24%) more likely to be married and 4.6 percentage points (18%) less likely than mothers in the low-cash gift group to be cohabiting with a nonspouse romantic partner one year after birth. Mothers in the high-cash gift group who were cohabiting at the time of birth were 15.4 percentage points (91%) more likely than cohabiting mothers in the low-cash gift group to marry the biological father of their child within a year after birth.

Further, we find no evidence that mothers in the high-cash gift group who married during their child's first year of life or prior to giving birth were more likely to separate in subsequent years and no evidence of increases in single parenthood after three years, defined as mothers residing without a romantic partner. Effects on marriage were diminished after children's first year of life due to naturally occurring increases in marriage among mothers in the low-cash gift group over time. Our findings that the high-cash gift increased marriage and decreased relationship dissolution during children's first year of life have important implications for child wellbeing, given the well-documented detrimental effects of family instability on children's outcomes (Lee and McLanahan 2015; Cavanagh and Fomby 2019).

We do not find that marriage resulted in additional contributions of income from the spouse, despite hypotheses that marriage will benefit children through increased availability of household resources. We find a negative impact of the high-cash gift on earned income contributed by mothers' spouses and cohabiting partners during the first year after birth, which was larger among spouses than cohabiting partners. Despite declines in spouses' and cohabiting partners' earned income, the cash gift led to a net increase in annual household income and child-specific expenditures.

This study makes several contributions to economics research. We offer new evidence to a broader empirical literature evaluating the impacts of income shocks on child and family wellbeing (Aizer et al. 2022; Page 2024) by considering a source of nonlabor income that is predictable in size, frequency and duration. Economists have previously studied the impacts of income shocks induced by casino dividends (Akee et al. 2010) and lottery winnings (Hankins and Hoekstra 2022; Bulman et al. 2022; Tsai et al. 2022; Cesarini et al. 2023; Golosov et al. 2024), generally finding null or positive effects on marriage.

Second, this study provides contemporary evidence of the causal effects of an income support policy with no embedded marriage disincentive on marriage and single parenthood, contributing to policy debates and a rich historical literature regarding marriage disincentives and the design of income support to families with low income (Lopoo and Raissian 2014). Prior evidence garnered from the welfare reform era (Knox et al. 2000; Blank 2002; Moffitt 2003; Gennetian and Knox 2003, 2004; Acs and Nelson 2004; Grogger and Karoly 2005; Bitler et al. 2006; Moffitt et al. 2020) and expansions of the EITC and CTC (Ellwood 2000; Dickert-Conlin and Houser 2002; Herbst 2011; Michelmore 2018; Pilkauskas et al. 2024) reflects embedded marriage disincentives induced by household-level income thresholds and provides a range of estimates which are typically small in magnitude. Unconditional cash transfers have no direct incentive effects on marriage, as the transfer amount is not reduced based on changing family circumstances or additional income gained from forming a two-parent household. Recent experimental evidence has renewed interest in the effects of unconditional cash transfers to United States families with children (Shah and Gennetian 2024; Page 2024). Yet, since the negative income tax experiments of the 1970s (Hannan et al. 1977; Groeneveld et al. 1980; Keeley 1987; Hannan and Tuma 1990; Cain and Wissoker 1990), little evidence has emerged on

the relationship between unconditional income support and marriage. An exception is Vivalt et al. (2024), finding no significant impacts of unconditional cash transfers on marriage or divorce among a broad sample of men and women with low income.

Third, our work leverages novel survey data to link changes in family structure with changes in household resources in response to a recurring income shock. As such, we contribute to a broad theoretical and empirical literature beginning with Becker (1973, 1974, 1981) which seeks to understand and quantify the gains to marriage. Further, by analyzing a recurring income shock during children's first three years of life, we contribute to the literature on parental investments in early childhood. This period is crucial for both children's development (Knudsen et al. 2006) and their parents' romantic relationships (Reichman et al. 2001; McLanahan and Beck 2010). Economic theory predicts that married two-parent households will have greater monetary and time resources available to invest in children, and that greater child investments will improve children's cognitive and noncognitive outcomes, particularly when experienced during early childhood (Becker and Tomes 1976; Cunha and Heckman 2007; Del Boca et al. 2014; Fiorini and Keane 2014; Attanasio et al. 2022). By examining household income and child expenditures, we can directly evaluate whether marriages induced by the unconditional cash transfer translated to greater resources invested in children.

The paper proceeds as follows: Section II discusses the historical policy background and literature on which our current work expands. Section III provides an overview of the data and experimental income variation. Section IV discusses the empirical methodology. Section V presents results, beginning with intent-to-treat (ITT) estimates of the impact of unconditional cash transfers on marriage and other measures of family structure and moving to analysis of

household income and expenditures. Section VI concludes and discusses the results in the context of past and present policy experimentation.

II. Background

a. Theory

In the absence of embedded marriage disincentives, the primary channel through which unconditional cash transfers may impact marriage is by enabling single parents to be financially independent. Theoretical models of marriage market search predict that financial independence will decrease marriage by allowing single mothers to remain single for longer and be more selective when choosing romantic partners and by allowing partnered mothers to exit relationships with low-quality partners (Aizer et al. 2024). On the other hand, financial independence may increase marriage among partnered mothers by alleviating financial sources of relationship conflict and stress (Weiss 1997; Ananat 2024) or by enabling couples to satisfy perceived financial prerequisites for marriage (Gibson-Davis et al. 2005). Mothers may view marriage as a commitment to be taken after a certain level of maturity and financial stability has been reached, influenced by changing cultural norms (Bau and Fernández 2023).

b. Policy background

The United States has a long history of providing targeted income support to single mothers, beginning with the early 20th century Mothers' Pension (MP) program, which was designed to substitute for a husband's income among widowed or abandoned mothers who had not remarried. The Mother's Pension program was later replaced by Aid to Families with Dependent Children (AFDC), which restricted eligibility almost exclusively to unmarried mothers (Moffitt 1998). The hypothesized connection between marriage and AFDC participation was a primary motivating factor for the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), the landmark 1996 welfare reform legislation replacing AFDC with Temporary

Assistance for Needy Families (TANF). TANF devolved authority to individual states in the form of block grants and fixed federal fiscal contributions; it also reduced lifetime benefit generosity through time limits on welfare receipt, strengthened work requirements, and tightened eligibility criteria (PRWORA 1996). The original legislative text makes clear the aim of promoting marriage: "(1) Marriage is the foundation of a successful society. (2) Marriage is an essential institution of a successful society which promotes the interests of children. (3) Promotion of responsible fatherhood and motherhood is integral to successful child rearing and the well-being of children" (PRWORA 1996).

Since the 1996 welfare reforms, safety net generosity in the U.S. has expanded for families with married parents and declined for single parent families without earnings, in part due to the expansion of income support programs with smaller marriage penalities (Schmidt et al. 2025). Such programs include tax credits such as the Earned Income Tax Credit (EITC), which embeds a marriage penalty for many dual-earner couples and a marriage incentive for single-earner couples (Nichols and Rothstein 2016), and the Child Tax Credit (CTC), which does not embed a substantial marriage penalty (Urban-Brookings Tax Policy Center 2024). In recent years, policymakers have shown interest in unconditional cash transfer programs, which are context-invariant and do not embed any marriage penalties (Page 2024; Shah and Gennetian 2024).

c. Empirical evidence

Existing empirical evidence on the relationship between income support policy and marriage provides mixed results and focuses on policies which embed various explicit and implicit marriage discincentives. Evidence from the negative income tax (NIT) experiments of the 1970s suggested that net income increases increased divorce rates (Hannan et al. 1977; Groeneveld et al. 1980; Keeley 1987; Hannan and Tuma 1990), effectively halting support for NIT policies although marital dissolution effects were likely overstated (Cain and Wissoker 1990).

Aizer et al. (2024) find that the Mothers' Pension (MP) program, the early 20th century precursor to Aid to Families with Dependent Children (AFDC), delayed remarriage among eligible widows but had no effect on lifetime remarriage rates. Research studying the impacts of the AFDC program on marriage concludes that AFDC benefit generosity had small incentive effects on marriage (Moffitt 1998; Moffitt 2003), despite the fact that AFDC participation was almost exclusively restricted to single-parent households.

Quasi-experimental studies provide mixed evidence of the impacts of welfare reform on marriage (Blank 2002; Moffitt 2003; Moffitt et al. 2020) and on other measures of family structure including grandparent coresidence (Acs and Nelson 2004; Bitler et al. 2006). Experimental evidence from the welfare-to-work experiments finds that reforms leading to net income increases had positive impacts on marriage and marital stability (Knox et al. 2000; Gennetian and Knox 2003, 2004; Grogger and Karoly 2005). Additionally, PRWORA allowed states to utilize discretionary funding to enact a host of bundled programs, including programs explicitly designed to promote marriage (Maynard et al. 1998). Thus, the effects of welfare reform encompass both reductions in benefit generosity and other bundled policy reforms.

Additional evidence on income support and family structure in the United States comes from studies of tax credit policies, namely the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC). Early studies of the EITC and EITC expansions typically find small or insignificant effects on marriage (Ellwood 2000; Dickert-Conlin and Houser 2002; Herbst 2011), which could potentially be explained by lack of knowledge about the presence and magnitude of marriage incentives (Tach and Halpern-Meekin 2014). More recently, Michelmore (2018) finds a negative effect of EITC expansion on marriage and a corresponding increase in nonmarital cohabitation. Pilkauskas et al. (2024) extend this line of work in the context of the 2021

temporary expansion of the Child Tax Credit, finding that CTC expansion decreased household size among mothers with low income by reducing cohabitation with romantic partners.

III. The Baby's First Years Study and Data Description

a. Unconditional cash transfer intervention

The Baby's First Years (BFY) intervention is a monthly unconditional cash transfer disbursed to mothers of newborns ("focal children") starting at the child's birth. Eligible mothers[1] with newborns were recruited from 12 hospitals in four metropolitan areas: New York City, New Orleans, the greater Omaha metropolitan area, and the Twin Cities (Minneapolis and St. Paul). In total, 1,000 eligible mother-infant dyads were recruited between May 2018 and June 2019 (Noble et al. 2021). Eligibility criteria for the study included (1) mother 18 years or older with the exception of Nebraska, where the age of consent was 19 years or older; (2) self-reported household income below the federal poverty threshold in the calendar year prior to the interview, counting the newborn; (3) healthy full-term singleton birth (i.e., 37 weeks' gestation or greater; not in the NICU; no known developmental or neurological problems); (4) child scheduled to be discharged into the custody of the birth mother; (5) mother living in the state of recruitment and not being "highly likely" to move to a different state or country in the next 12 months; and (6) mother's proficiency in English or Spanish for the purposes of available child outcome measurement.

[1] The gender of the person who gave birth was not collected at the time of enrollment. For ease of exposition, the term "mother" is used throughout the paper in referring to this parent. Survey materials referred to mothers' romantic partners using male gendered language such as "husband", "boyfriend", and "father"; therefore, we are unable to identify same-sex relationships and we use male pronouns to refer to mothers' romantic partners.

Once mothers consented to participate in the research study and completed a baseline survey, they were randomized into one of two treatment groups. Mothers in the high-cash gift group (40% of the sample) received monthly gifts of $333 ($3,996/year), while mothers in the low-cash gift group received a $20 monthly gift ($240/year). The treatment amount is equivalent to increasing the annual income of a family of three residing at the poverty line ($21,330 in 2019) by approximately 20% and is similar in magnitude to the average $3,200 lump-sum EITC payment for families with children. The cash gifts are distributed via a Mastercard debit card labeled with a "4MyBaby" logo. The cash disbursements began upon enrollment, and were automatically loaded on the debit card each month on the day of the child's birth date, accompanied by a text message reminder (Gennetian et al. 2023). Participants continued to receive the cash gifts on an opt-out basis regardless of changing family circumstances, and a number of steps were taken to ensure that receipt of the cash transfer does not deem families ineligible for other government benefits and services.[2] Mothers were initially told that the payments would continue for 40 months. In June 2021, when children were approaching their third birthdays, mothers were informed that cash gifts would continue for another year (for a total of 52 months). This was extended again in June 2022 for an additional two years (for a total of 76 months).

[2] The cash transfer is a gift available through charitable organizations and as such not taxable. Agreements were secured with state and local officials to minimize risk of the cash gift interfering with eligibility for public benefits, including Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), Medicaid, childcare subsidies, and Head Start. In two of the four sites, state legislation was secured to ensure this; other sites relied on state and local administrative rulings. Mothers were informed of any risk to their income eligibility for other programs prior to consenting to receive the cash gift.

b. Data and sample characteristics

In addition to baseline data collected shortly after child birth, we use data from three annual survey waves, collected at child ages 1, 2, and 3 (hereafter referred to as waves 1, 2, and 3).[3] The three survey waves had high overall response rates of 93%, 92%, and 92%, respectively. Selected baseline demographic characteristics for the full sample are presented in Table 1. Approximately 80% of mothers in the sample reported household income below the federal poverty threshold at baseline. The sample is racially and ethnically diverse: 42% of mothers in the sample are Black and 41% are Hispanic. Randomization successfully achieved baseline equivalence across 30 baseline characteristics for the full enrolled sample of 1,000 mother-infant dyads and within each site (see Noble et al. 2021; Gennetian et al. 2024).

[3] While additional waves of annual survey data were collected after age 3, availability of the comprehensive household roster is limited to children's first three years of life.

Table 1: Baseline Demographics

	Mean (Standard Deviation)	Sample Size
Total annual household income in U.S. dollars	21,851.417 (21,359.965)	932
Below 50% of federal poverty threshold	0.363	932
50% to <100% of federal poverty threshold	0.427	932
100% to <200% of federal poverty threshold	0.181	932
200% of federal poverty threshold or higher	0.029	932
White	0.101	998
Black	0.415	998
Hispanic	0.410	998
Mother's age in years	27.034 (5.817)	1,000
Site: New Orleans, Louisiana	0.295	1,000
Site: Twin Cities, Minnesota	0.121	1,000
Site: Omaha, Nebraska	0.295	1,000
Site: New York City, New York	0.289	1,000

Notes: N = 1,000 baseline survey completers.

Baseline family structure characteristics are presented in Table 2. We use rich data on family structure from a complete "household roster," which lists all household members currently residing with the mother and child as well as their relationship to the mother and an indicator for whether they contribute to household income. The design of the household roster was based on the Moving to Opportunity Study (Katz et al. 2001). Prior economics literature similarly relies on self-reports of one family member to identify family structure, leveraging survey datasets such as the Survey of Income and Program Participation (e.g. Moffitt et al. 2020) or the Current Population Survey (e.g. Bitler et al. 2006).

Roughly 80% of mothers were unmarried at baseline, and over 60% were not residing with any romantic partner. Nearly all married mothers, 95%, were married to the biological father of the focal child. The prevalence of unmarried mothers in the BFY sample at baseline is higher than in a comparable sample of mothers living in poverty generated using 2019 Current

Population Survey (CPS) data, in which 57.8% of mothers are unmarried. However, overall single parenthood is similar, with 57.9% of mothers in the CPS sample residing without a father in the household.[4] Marriage rates align more closely between BFY and CPS data within Census Bureau regions. Mothers in the high-cash gift group were 7.4 percentage points more likely to be single at baseline; thus, we adjust all estimated effects for baseline family structure characteristics in addition to estimating effects separately by baseline family structure. Appendix D demonstrates that treatment effects are robust to addressing baseline imbalances using inverse probability of treatment weighting; indeed, weighted estimates suggest that the baseline imbalance in single parenthood likely biases treatment effects toward zero.[5]

[4] Source: Authors' own calculations using data from the 2019 Current Population Survey Annual Social and Economic Supplements (CPS ASEC). Analysis is restricted to 1,464 women living in households with income below the official poverty line whose youngest child in the household is below 5 years of age at the survey date. We define "unmarried" as reporting marital status "single, never married." We define "father in the household" using the total number of fathers in the household, which could include fathers other than the biological fathers of the focal children. Therefore, we may overstate the prevalence of father coresidence in CPS data. Estimates are weighted using mothers' individual survey weights.

[5] We find that the positive effect of the high-cash gift on marriage is driven by mothers who were cohabiting at baseline, not by single mothers. Thus, the baseline imbalance in single parenthood cannot explain the positive effect of the high-cash gift on marriage and is likely to bias the estimated effect toward zero in the full sample. This hypothesis is confirmed by inverse probability of treatment weighted (IPTW) estimates of the average treatment effect on the treated (ATT), shown in Appendix D.

Table 2: Baseline Family Structure

	Low-Cash Gift Group Mean (Standard Deviation)	High-Cash Gift Group Mean (Standard Deviation)	Full Sample Mean (Standard Deviation)	Full Sample N	*p*-value
Mother married	0.210	0.218	0.214	988	0.743
Mother married to biological father of focal child	0.202	0.208	0.204	998	0.808
Mother cohabiting	0.263	0.221	0.246	988	0.130
Mother single, never married	0.429	0.503	0.459	988	0.021
Mother divorced/separated	0.051	0.028	0.041	988	0.068
Earned income from romantic partner in household[a]	14,245.826	15,435.485	14,686.935	356	0.396
	(13,958.934)	(10,300.207)	(12,723.258)		
Grandparent in household	0.293	0.275	0.286	1,000	0.529
Other relative or unrelated adult in household	0.250	0.265	0.256	1,000	0.593
Total earned income from grandparents, other relatives, and unrelated adults in household[b]	12,632.947	12,068.166	12,413.394	373	0.674
	(22,980.967)	(15,133.635)	(20,273.167)		
Biological father in household	0.397	0.352	0.379	1,000	0.154
No adults other than mother in household	0.275	0.310	0.289	1,000	0.236
Total number of adults in household	2.100	2.240	2.156	1,000	0.236
	(1.788)	(1.852)	(1.814)		
Total number of children in household	1.827	1.760	1.800	1, 000	0.530
	(1.621)	(1.571)	(1.601)		

Notes: N = 1,000 baseline survey completers.

[a] Earned income from romantic partner is missing if there is no romantic partner living in the household.

[b] Earned income from grandparents, other, relatives, and unrelated adults is missing if there are no other adults living in the household.

[c] *p*-values were derived from a series of OLS regressions in which each respective baseline characteristic was regressed on the treatment status indicator using robust standard errors and site fixed effects.

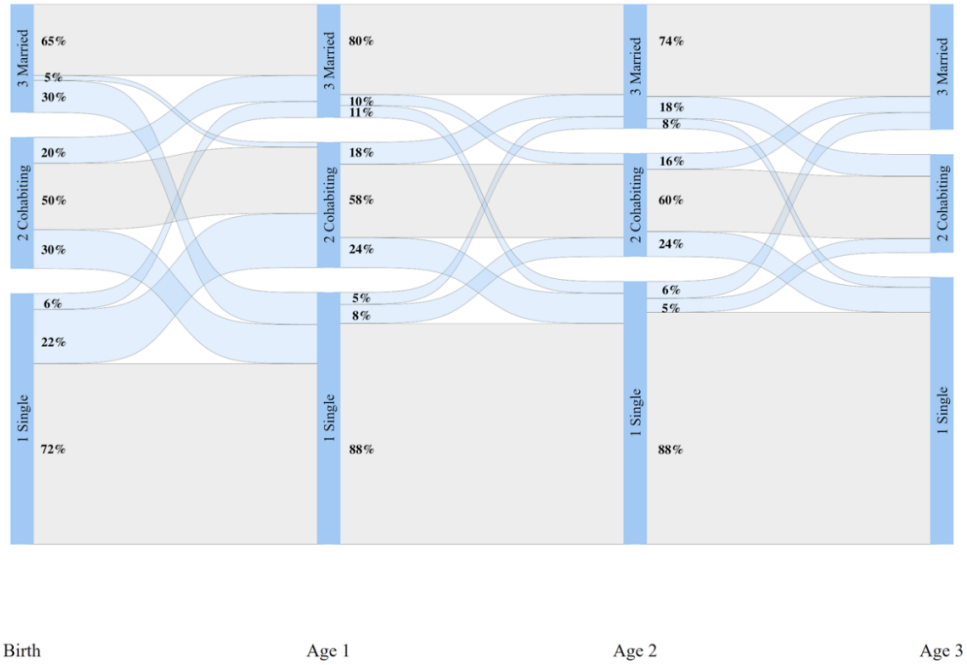
[d] See footnote 5 for a discussion of the baseline imbalance in single parenthood.

We use living with a spouse as a proxy for marriage at survey waves 1, 2, and 3.[6] Throughout the paper, we use three mutually exclusive categories to define family structure: "single parenthood", living without any romantic partner; "cohabitation", living with a nonspouse romantic partner; and "marriage", living with a spouse.[7] Transitions in family structure are defined as transitions between these three categories from one annual wave of survey data collection to the next. Figure 1 depicts transitions between marriage, cohabitation, and single parenthood between baseline and wave 3 by treatment group, restricting the sample to mothers with data available at each survey wave. In both the low-cash and high-cash gift groups, the majority of mothers who were married at baseline remained married at wave 3 and the majority of mothers who were single remained single at wave 3. Cohabitation, on the other hand, is a relatively unstable state with notable differences across treatment groups. Between birth and age 1, 34% of cohabiting mothers in the high-cash gift group and only 20% in the low-cash gift group transitioned to marriage, while 20% of cohabiting mothers in the high-cash gift group and 30% in the low-cash gift group transitioned to single parenthood. Overall, 53% of mothers in the sample have an observed transition at least once between birth and wave 3.

[6] At wave 3, a survey item on maternal marital status was asked. See Appendix A for a comparison of the survey item on maternal marital status with the household roster survey item on living with a spouse at wave 3.

[7] We acknowledge that many non-coresident or "social" fathers maintain involvement in their children's lives in other ways, playing a potentially important role that is unmeasured in our analysis (Tach et al. 2014).

a. Low-cash gift group



b. High-cash gift group

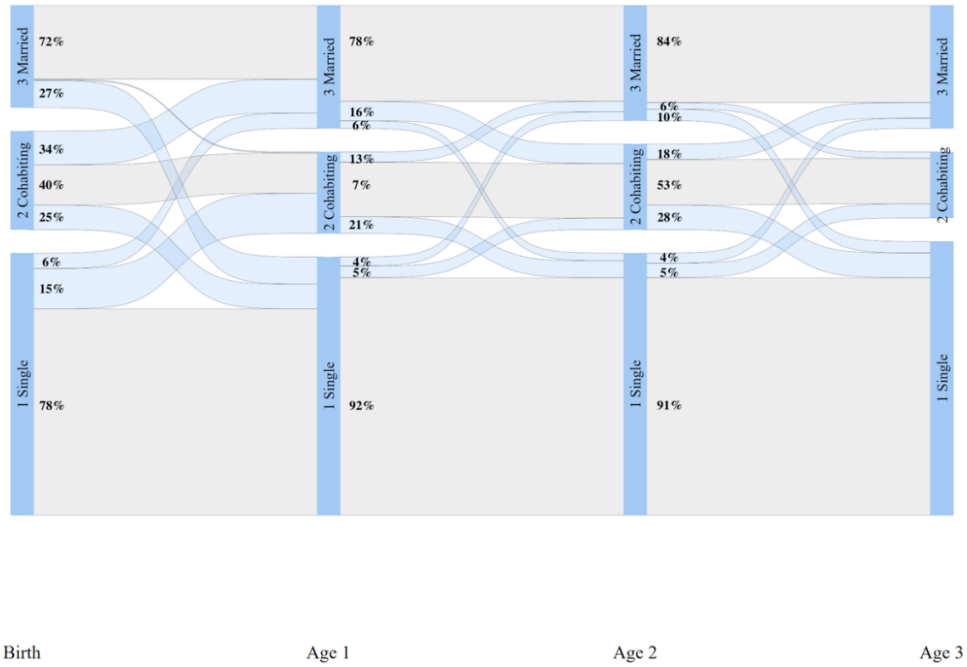


Figure 1: Single Parenthood Transitions from Baseline to Wave 3

Economic theories of paternal investments in children hypothesize that intrahousehold resource allocations depend on biological preferences (e.g. Samuelson 1956; Becker 1981). We distinguish between biological and nonbiological father relationships by matching the first name of the focal child's biological father with the first name of each household member listed on the household roster. If the mother reports living with a spouse or nonspouse romantic partner whose first name matches that of the focal child's biological father, the spouse or nonspouse romantic partner is coded as the biological father.[8] While we define the term "biological father" in relation to the focal child, romantic partners who are not biologically related to the focal child may be biologically related to other children in the household due to the high incidence of multipartner fertility among families with low income (Guzzo 2014).[9]

In addition to measures of family structure, we evaluate measures of household income and household expenditures. We measure total annual pre-tax household income as the sum of mothers' earnings, household earnings contributed by spouse and non-spouse romantic partners living in the household, household earnings contributed by other household members, government income such as welfare, supplemental security income, unemployment benefits, and social security received by household members, and all other sources of income such as child

[8] At waves 1, 2, and 3, a survey item on marital status between the mother and the biological father of the focal child was asked. At waves 1 and 2, a survey item on cohabitation between the mother and the biological father of the focal child was asked. See Appendix A for a comparison of survey-based and name-based biological father classifications. All name-based classifications were manually verified, using last names when available, to confirm the accuracy of the string-matching procedure.

[9] Costanzo et al. (2025) find small positive effects of the high-cash gift on pregnancy among married or cohabiting mothers, with no increases among single mothers.

support.[10] We measure total monthly household expenditures on child-specific goods using maternal reports of money spent on books, toys, clothes, diapers, electronics, and activities in the past month.

IV. Empirical Methodology

We estimate a series of ordinary least squares (OLS) regressions separately for each wave of data to provide wave-by-wave ITT estimates of the impacts of the unconditional cash transfer:

$$(1) \qquad Y_{ist} = Z_{ist}\pi_t + X_{i0}\beta_t + \delta_{st} + \varepsilon_{ist}$$

Here, Y is the family structure outcome of interest for mother-infant dyad i at wave t in site s. X is a vector of baseline covariates, including maternal and household characteristics,[11] and δ

[10] All components of household income are maternal reports. Prior calendar year earnings correspond to either 2018 or 2019 at wave 1, 2019 or 2020 at wave 2, and 2020 or 2021 at wave 3. For each source of income, reporting follows a similar format of questions starting with the total amount, the unit of reporting and then an unfolding scale to impute income if the mother expresses uncertainty. More detail on income measurement can be found in Gennetian et al. (2024). Note that at wave 1, the prior calendar year included some time before randomization. Impacts on household income and earnings differ from prior studies using BFY data (Sauval et al. 2024; Gennetian et al. 2024) due to differences in earnings denominations, inflation adjustments, and truncation procedures.

[11] The full baseline covariate list is as follows: mother's age, years of schooling, household income without cash gift (discretized into six bins), net worth (discretized into six bins), general health, mental health, race, ethnicity, relationship status from the baseline relationship survey (including indicators for married, cohabiting with nonspouse partner, single and never married, divorced/separated, other, and unknown), number of adults in the mother's household (from the household roster), number of other children born to the mother, mother smoked during pregnancy, mother drank alcohol during pregnancy, biological father living with the mother, child sex, birth weight, gestational age at birth, and birth order. In addition to baseline covariates, all models control for child age at interview (in months above target age; for example, age in months minus 36 for wave 3 outcomes) and an indicator

is a vector of site fixed effects. Z is a treatment group indicator; therefore, π is the ITT estimate of the causal effect of assignment to the high-cash gift treatment group. Transaction-level data from the cash gift debit card suggests that compliance with treatment status is high; that is, nearly all mothers in the sample utilized the debit card to spend the cash gift (Halpern-Meekin et al. 2024). Thus, the intent-to-treat (ITT) estimate in this setting can be considered a close approximation to a local average treatment effect (LATE).

To examine heterogeneity by family structure at baseline, we estimation equation (1) separately among three subgroups: mothers who were married at baseline, mothers who were cohabiting with a nonspouse romantic partner at baseline, and mothers who were single at baseline.[12] Analogous specifications to equation (1) are used to analyze the impacts of the high-cash gift on household income and expenditures. The *p*-values in all main tables are unadjusted for multiple hypothesis testing, with multiple testing adjustments presented in Appendix B.[13]

for whether the wave 1 survey was conducted in person or by phone to capture the onset of the COVID-19 pandemic during fielding.

[12] Subgroup specifications include the same covariate list as in equation (1), removing indicators for baseline relationship status.

[13] Numerous outcomes are evaluated; however, many of the outcomes considered are mutually exclusive categories of the same underlying construct. Take, for example, "mother's spouse in household" and "mother's nonspouse romantic partner in household." These measures are mutually exclusive and reflect the same underlying hypothesis. See Appendix B for Westfall-Young family-wise error rate (FWER) adjusted *p*-values.

V. Results

a. Impacts on single parenthood

Table 3 presents wave-by-wave ITT estimates of the impacts of the cash gift on marriage and other measures of family structure in the full sample, corresponding to specification (1). Mothers in the high-cash gift group were 5.2 percentage points more likely to be married at wave 1, a 24% increase relative to the wave 1 low-cash gift group mean, and 4.6 percentage points less likely to be cohabiting with a nonspouse partner, an 18% decrease. This increase in marriage was primarily with the biological fathers of the focal children. Mothers in the high-cash gift group were 4.8 percentage points more likely to be married to and 4.5 percentage points less likely to be cohabiting with the biological father of the focal child at wave 1. Mothers in the high-cash gifr group were 3.6 percentage points less likely to separate between baseline and wave 1.

We find no effect on the likelihood that mothers are single, defined as residing without any romantic partner. We find no effect on "doubling up" with other household members, including the focal child's grandparents, other relatives, and unrelated adults.

Tables 4, 5, and 6 present impacts by family structure at the time of the child's birth. Table 5 demonstrates that positive effects on marriage are largely driven by an increase in marriage among mothers who were cohabiting at baseline. Between baseline and wave 1, mothers in the high-cash gift group who were cohabiting at baseline were 14.5 percentage points more likely to transition from cohabitation to marriage. Relative to the wave 1 low-cash gift group marriage rate of 18.9% among mothers cohabiting at baseline, this represents an increase of over 75%. Mothers in the high-cash gift group who were cohabiting at baseline were 15.4 percentage points (91%) more likely to be married to the biological father of the focal child in particular at wave 1.

Tables 3 and 5 demonstrate that mothers in the high-cash gift group were less likely to transition from cohabitation to marriage between wave 1 and wave 2, although this difference is not statistically significant in the full sample or among the subsample of mothers cohabiting at baseline. In other words, the marriage rate in the low-cash gift group partially "caught up" to that of the high-cash gift group between wave 1 and wave 2, suggesting that a portion of the positive effect on marriage at wave 1 reflects a shift in marriage timing. Note that the positive effect on marriage at wave 1 was prior to the onset of the COVID-19 pandemic while the null effect on marriage at wave 2 was during the height of the pandemic. Thus, it is possible that the pandemic setting muted the effects of the high-cash gift on marriage after wave 1.

Tables 3 and 5 demonstrate null effects on separations after wave 1, suggesting that mothers in the high-cash gift group who married during their child's first year of life remained married and were no more likely than mothers in the low-cash gift group to separate in subsequent years. Positive effects on marriage cannot be explained by mothers' intentions to marry, as there were no statistically detectable effects on intention to marry the focal child's biological father in the full sample or among any subgroup.

Table 3: Impacts on Family Structure, Waves 1–3

	Wave 1 (2019– 2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Mother plans to marry biological father	−0.035	0.020		0.333
	(0.038)	(0.037)		
Married	0.052*	0.013	0.028	0.235
	(0.024)	(0.024)	(0.025)	
To biological father	0.048*	0.006	0.018	0.220
	(0.024)	(0.024)	(0.024)	
To non-biological father	0.004	0.006	0.008	0.017
	(0.009)	(0.009)	(0.011)	
Cohabiting	-0.046+	-0.008	-0.045+	0.224
	(0.026)	(0.026)	(0.025)	
With biological father	-0.045+	-0.002	-0.044+	0.189
	(0.025)	(0.024)	(0.023)	
With non-biological father	-0.002	-0.005	-0.002	0.035
	(0.011)	(0.011)	(0.012)	
Single	-0.008	-0.005	0.018	0.541
	(0.028)	(0.029)	(0.031)	
Grandparent in household	−0.041	−0.023	−0.008	0.221
	(0.026)	(0.025)	(0.025)	
Other relative or unrelated adult in household	0.007	0.002	0.004	0.230
	(0.027)	(0.028)	(0.028)	
No adults other than mother in household	−0.000	−0.015	0.022	0.334
	(0.028)	(0.031)	(0.030)	
Total number of children in household	−0.000	0.084	0.004	2.658
	(0.062)	(0.065)	(0.064)	
Total number of adults in household	−0.017	0.000	−0.021	1.716
	(0.056)	(0.059)	(0.060)	
Separation since last wave[b]	−0.036+	−0.027	0.015	0.124
	(0.021)	(0.019)	(0.018)	
Entered marriage or cohabitation since last wave[b]	−0.028	−0.011	−0.005	0.089
	(0.020)	(0.016)	(0.017)	
Cohabitation to marriage since last wave	0.028+	−0.021	0.004	0.042
	(0.015)	(0.013)	(0.012)	
Minimum sample size	672	625	922	1,297
Maximum sample size	931	922	922	2,775

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, marital status, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, father living with the mother, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).
Plans to marry biological father available at wave 1 and wave 2 only.

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

[b] Separation is defined as the transition from marriage or cohabitation to living without any romantic partner. Entered cohabiting relationship is defined analogously as the transition from living without any romantic partner to marriage or cohabitation.

Table 4: Impacts on Family Structure, Waves 1–3
Mothers Married at Baseline

	Wave 1 (2019– 2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Married	0.028	0.057	-0.026	0.670
	(0.059)	(0.060)	(0.063)	
To biological father	0.030	0.066	-0.031	0.627
	(0.068)	(0.069)	(0.068)	
To non-biological father	-0.003	-0.010	-0.001	0.046
	(0.030)	(0.031)	(0.030)	
Cohabiting	-0.057+	-0.030	-0.034	0.046
	(0.031)	(0.025)	(0.025)	
With biological father	-0.031	-0.021	-0.019	0.031
	(0.025)	(0.023)	(0.021)	
With non-biological father	-0.026	-0.009	-0.015	0.014
	(0.019)	(0.009)	(0.014)	
Single	0.014	-0.027	0.061	0.288
	(0.056)	(0.057)	(0.063)	
Grandparent in household	-0.043	0.018	0.041	0.151
	(0.053)	(0.054)	(0.054)	
Other relative or unrelated adult in household	-0.008	0.009	0.043	0.194
	(0.062)	(0.063)	(0.070)	
No adults other than mother in household	-0.002	-0.062	-0.054	0.191
	(0.056)	(0.060)	(0.047)	
Total number of children in household	-0.021	0.051	0.012	3.054
	(0.127)	(0.114)	(0.128)	
Total number of adults in household	-0.154	0.057	0.011	1.892
	(0.142)	(0.148)	(0.172)	
Separation since last wave[b]	0.014	-0.018	0.015	0.131
	(0.056)	(0.027)	(0.031)	
Minimum sample size	200	201	196	597
Maximum sample size	200	201	196	597

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

[b] Separation is defined as the transition from marriage or cohabitation to living without any romantic partner. Entered cohabiting relationship is defined analogously as the transition from living without any romantic partner to marriage or cohabitation.

Table 5: Impacts on Family Structure, Waves 1–3
Mothers Cohabiting with Nonspouse Romantic Partner at Baseline

	Wave 1 (2019– 2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Mother plans to marry biological father	-0.009	0.067		0.502
	(0.079)	(0.084)		
Married	0.145*	0.013	0.066	0.193
	(0.067)	(0.067)	(0.067)	
To biological father	0.154*	0.018	0.073	0.179
	(0.067)	(0.066)	(0.067)	
To non-biological father	-0.009	-0.005	-0.008	0.014
	(0.016)	(0.006)	(0.008)	
Cohabiting	-0.067	-0.027	-0.112	0.422
	(0.074)	(0.076)	(0.071)	
With biological father	-0.056	-0.009	-0.096	0.381
	(0.074)	(0.074)	(0.069)	
With non-biological father	-0.010	-0.018	-0.017	0.042
	(0.026)	(0.024)	(0.025)	
Single	-0.079	0.014	0.047	0.385
	(0.066)	(0.073)	(0.074)	
Grandparent in household	-0.036	-0.023	-0.025	0.195
	(0.048)	(0.048)	(0.045)	
Other relative or unrelated adult in household	-0.022	0.033	-0.018	0.244
	(0.062)	(0.066)	(0.065)	
No adults other than mother in household	-0.058	-0.058	0.041	0.248
	(0.056)	(0.065)	(0.068)	
Total number of children in household	0.120	0.231	0.266+	2.378
	(0.125)	(0.154)	(0.137)	
Total number of adults in household	0.073	0.087	-0.032	1.845
	(0.125)	(0.132)	(0.137)	
Separation since last wave[b]	-0.079	0.026	-0.005	0.209
	(0.066)	(0.055)	(0.046)	
Cohabitation to marriage since last wave	0.145*	-0.069	0.025	0.111
	(0.067)	(0.045)	(0.037)	
Minimum sample size	215	194	222	409
Maximum sample size	230	220	222	672

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).
Plans to marry biological father available at wave 1 and wave 2 only.

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

[b] Separation is defined as the transition from marriage or cohabitation to living without any romantic partner. Entered cohabiting relationship is defined analogously as the transition from living without any romantic partner to marriage or cohabitation.

Table 6: Impacts on Family Structure, Waves 1–3
Mothers Single at Baseline

	Wave 1 (2019– 2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Mother plans to marry biological father	-0.060	-0.045		0.227
	(0.048)	(0.044)		
Married	0.012	-0.008	0.041	0.070
	(0.023)	(0.029)	(0.029)	
To biological father	-0.007	-0.038	0.008	0.065
	(0.020)	(0.027)	(0.025)	
To non-biological father	0.019+	0.028*	0.033*	0.004
	(0.011)	(0.013)	(0.016)	
Cohabiting	-0.054	0.006	-0.034	0.180
	(0.035)	(0.037)	(0.037)	
With biological father	-0.068*	0.001	-0.047	0.144
	(0.034)	(0.033)	(0.032)	
With non-biological father	0.010	0.005	0.013	0.036
	(0.015)	(0.019)	(0.021)	
Single	0.042	0.002	-0.008	0.750
	(0.040)	(0.044)	(0.045)	
Grandparent in household	-0.046	-0.019	0.001	0.280
	(0.043)	(0.042)	(0.040)	
Other relative or unrelated adult in household	0.008	0.036	0.005	0.229
	(0.039)	(0.043)	(0.039)	
No adults other than mother in household	0.066	0.031	0.034	0.435
	(0.045)	(0.046)	(0.047)	
Total number of children in household	-0.097	0.003	-0.123	2.652
	(0.104)	(0.103)	(0.101)	
Total number of adults in household	-0.068	0.039	0.022	1.537
	(0.079)	(0.086)	(0.079)	
Entered marriage or cohabitation since last wave[b]	-0.042	0.034	0.028	0.126
	(0.040)	(0.028)	(0.028)	
Minimum sample size	381	357	418	738
Maximum sample size	419	418	418	1255

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).
Plans to marry biological father available at wave 1 and wave 2 only.

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

[b] Separation is defined as the transition from marriage or cohabitation to living without any romantic partner. Entered cohabiting relationship is defined analogously as the transition from living without any romantic partner to marriage or cohabitation.

b. Implications for household income and expenditures

The receipt of the high-cash gift increased marriage rates during children's first year of life by increasing transitions to marriage among mothers who were cohabiting at the time of birth. In this section, we analyze whether the receipt of the high-cash gift also led to changes in the composition of household income, particularly income contributed by mothers' spouses and cohabiting partners, and changes in child-focused expenditures. Increased monetary investments in children are a key mechanism through which married two-parent families are hypothesized to improve children's outcomes.

To evaluate the composition of household income, we use variables from the household roster indicating whether each household member contributes to household income. Additionally, we use survey variables measuring mothers' earnings, earnings of spouse and non-spouse romantic partners living in the household, earnings of other adult household members, government income, and all other sources of income. If a mother indicates on the household roster that her spouse or cohabiting partner contributes to household income, we assume that his contribution to household income is equal to his earnings.[14] If a mother indicates that her spouse or cohabiting partner does not contribute to household income or if no romantic partner is present in the household, we impute spouse or cohabiting partner contributions as 0.

Models of household bargaining predict that transitions from cohabitation from marriage will increase spouses' commitment by increasing relationship dissolution costs through laws governing child support, child custody, and property division upon divorce (Calvo 2023; Lafortune and Low 2023). Models of household labor supply predict that the income effect of the

[14] While we define total household income to include spouses' and romantic partners' entire earned income, as is standard, we make no assumptions regarding whether household members exercise equal control over household income.

cash gift will reduce both spouses' and cohabiting partners' labor supply and, subsequently, their earnings, so long as they derive sufficient utility from leisure or disutility from work. These models suggest two opposing mechanisms through which the cash gift could impact spouses' and cohabiting partners' contributions to household income and, subsequently, household expenditures:

Prediction 1 (Increased Commitment):

Transitions from cohabitation to marriage induced by the high-cash gift will increase spouses' commitment, thus increasing their contributions to household income.

Prediction 2 (Behavioral Labor Supply Response):

The income effect of the high-cash gift will decrease labor supply among both spouses and cohabiting partners, subsequently decreasing their earnings contributed to household income.

Given these opposing predictions, the net effect of the high-cash gift on romantic partners' contributions to household income is theoretically ambiguous. We provide ITT estimates of the impact of the cash gift on household income composition in Table 7. We find no statistically detectable increases in annual household income contributed by romantic partners. In fact, we find that the high-cash gift led to a decrease in romantic partners' household income contributions at wave 1, the time period when high-cash gift group households were more likely to be married than low-cash gift group households.

We next test whether romantic partners' contributions increased, within households, after transitioning from cohabitation to marriage (Prediction 1). We estimate the following two-way

fixed effects (TWFE) model among mothers cohabiting at baseline, pooling across both treatment groups:

$$(2) \qquad Y_{it} = \alpha_i + \gamma_t + \theta Marriage_{it} + \epsilon_{it}$$

Here, Y is the romantic partner's contribution to income in household i at wave t. $Marriage_{it}$ indicates a transition to marriage between wave $t-1$ and wave t; therefore, θ represents the average within-household change in romantic partners' contributions to household income during the year immediately following marriage. Results are presented in Table 8. Consistent with Prediction 1, we find that romantic partners' contributions to household income increased following the transition from cohabitation to marriage, although the estimate is imprecise.

We then test whether decreases in household income contributions in response to the high-cash gift were present among both spouses and cohabiting partners (Prediction 2). Here, we do not impute income; therefore, we are comparing spouses' contributions to household income between the high-cash and low-cash gift groups only using households with a spouse present at the time of the survey, and analogously for cohabiting partners' contributions. Results are presented in Table 9. We find that the decline in household income contributions was present among both spouses and cohabiting partners at waves 1 and 2.[15]

[15] Note that wave 2 data collection coincided with the height of the COVID-19 pandemic. Mothers' receipt of the high-cash gift may have enabled their spouses and cohabiting partners to extend job search following pandemic-related job loss.

Table 7: Impacts on Household Income Composition, Waves 1–3

	Wave 1 (2019–2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Total HH income (including cash gift)	3,015.390*	3,574.251+	2,971.670+	27,430.541
	(1,250.408)	(1,846.078)	(1,727.171)	
Spouse or cohabiting partner contributes to HH income	0.001	0.006	-0.025	0.409
	(0.028)	(0.029)	(0.030)	
Spouse or cohabiting partner contribution to HH income	-1,333.937+	-792.119	159.727	8,355.837
	(783.790)	(945.836)	(999.996)	
Spouse or cohabiting partner income share (excluding cash gift)	-0.019	-0.010	-0.012	0.239
	(0.021)	(0.021)	(0.019)	
Grandparent contributes to HH Income	-0.037	-0.015	-0.019	0.180
	(0.024)	(0.023)	(0.022)	
Other relative or unrelated adult contributes to HH Income	0.006	-0.001	0.018	0.125
	(0.023)	(0.022)	(0.022)	
Grandparent, other relative, or unrelated adult contribution to HH income	202.081	844.268	677.440	3,461.476
	(702.812)	(1,317.010)	(947.323)	
Grandparent, other relative, or unrelated adult income share (excluding cash gift)	0.006	0.006	0.012	0.089
	(0.016)	(0.015)	(0.012)	
Mother contributes to household income	-0.001	-0.031	-0.019	0.691
	(0.031)	(0.031)	(0.032)	
Mother contribution to HH income	39.167	-535.379	-1,463.160	9,961.146
	(605.730)	(948.977)	(976.061)	
Mother income share (excluding cash gift)	0.008	0.018	-0.018	0.375
	(0.024)	(0.026)	(0.024)	
Minimum sample size	891	880	884	2655
Maximum sample size	931	922	922	2775

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, marital status, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

[b] All variables are imputed as 0 if no corresponding household member is present. For example, "Spouse contributes to household income" is imputed as 0 if no spouse is present in the household.

Table 8: Change in Romantic Partner Income Contribution after Marriage, TWFE Estimate

	Impact of Marriage
Romantic partner contribution to HH income	992.052
	(1,921.747)
Sample size	434

Notes: + $p<0.1$; * $p<0.05$; ** $p<0.01$. Standard error in parentheses, clustered at the household level.

Table 9: Impacts on Romantic Partner Income Contribution by Family Structure, Waves 1-3

	Wave 1 (2019 - 2020) [a]	Wave 2 (2020 - 2021) [a]	Wave 3 (2021 - 2022) [a]	Low Cash Gift Group Mean (2019 - 2022)
A. Married				
Spouse contributes to HH Income	-0.065+	-0.057	-0.090+	0.930
	(0.037)	(0.047)	(0.048)	
Spouse contribution to HH income	-5,566.886**	-1,373.622	950.941	22,108.182
	(2,065.142)	(2,575.114)	(3,412.281)	
B. Cohabiting				
Cohabiting partner contributes to HH Income	0.014	0.023	0.068	0.847
	(0.057)	(0.054)	(0.068)	
Cohabiting partner contribution to HH income	-3,566.445	-3,282.430	7,241.804	16,903.267
	(2,584.338)	(3,711.714)	(5,893.932)	
Minimum sample size	172	153	140	
Maximum sample size	222	225	231	

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

[b] All variables are missing if no corresponding household member is present. For example, "Spouse contributes to household income" is missing if no spouse is present in the household.

An alternative explanation for the decline in romantic partners' household income contributions in the high-cash gift group is that spouses and cohabiting partners in the high-cash gift group are negatively selected on earnings. Appendix C demonstrates that average partner quality, measured using age and years of completed schooling, does not differ significantly between treatment groups, suggesting that selection is unlikely to explain the results. One potential explanation for similarities in partner quality across treatment groups is that increasing marriage market stratification (Greenwood et al. 2014) and declining economic prospects for low-skilled male workers (Edin and Nelson 2013) have created a shortage of "marriageable men", a term coined by Wilson (1987), in the communities we study. Thus, mothers in our sample may not have access to marriage offers from partners of heterogeneous quality, as is assumed in traditional models of marriage market search. Alternatively, mothers in both the high-cash and low-cash gift groups may not be intensively searching for new romantic partners in the years immediately following child birth. In the absence of differential selection into marriage and cohabitation resulting from differential marriage market search behavior across

treatment groups, we interpret declining paternal contributions to household income as reflective of a behavioral labor supply response to the high-cash gift.

Despite declines in paternal contributions to household income, the cash gift led to a net increase in annual household income, including earned income, unearned income, and the value of the cash gift, as shown in Table 8. Moreover, the cash gift led to increases in household expenditures on child-specific goods including books, toys, and clothes, as shown in Table 10.

Table 10: Impacts on Monthly Child-Specific Expenditures by Family Structure, Waves 1-3

	Wave 1 (2019 - 2020) [a]	Wave 2 (2020 - 2021) [a]	Wave 3 (2021 - 2022) [a]	Low Cash Gift Group Mean (2019 - 2022)
A. Married				
Child-focused expenditure index	114.461	108.253**	154.279*	285.553
	(80.500)	(35.333)	(60.939)	
Money spent on diapers	6.458			74.143
	(15.723)			
Money spent on books	6.197	15.168**	18.979**	20.183
	(3.902)	(4.992)	(6.637)	
Money spent on toys	21.952	15.645	44.520**	64.079
	(14.084)	(9.794)	(15.892)	
Money spent on clothes	64.488	41.153+	67.441	142.950
	(64.693)	(21.088)	(46.279)	
Money spent on electronics	17.085	24.325+	-6.088	17.729
	(13.758)	(14.247)	(9.261)	
Money spent on activities		9.504	28.048*	28.915
		(7.254)	(12.550)	
B. Cohabiting				
Child-focused expenditure Index	17.537	4.483	-68.944	359.496
	(41.525)	(58.128)	(53.265)	
Money spent on diapers	-10.917			75.202
	(8.796)			
Money spent on books	11.092*	2.623	13.355	24.033
	(4.796)	(6.692)	(12.499)	
Money spent on toys	-5.234	5.265	-1.356	89.896
	(16.880)	(19.421)	(15.660)	
Money spent on clothes	16.716	-18.665	-68.873*	172.462
	(21.215)	(27.826)	(34.459)	
Money spent on electronics	4.367	5.099	1.372	19.221
	(9.127)	(16.703)	(5.229)	
Money spent on activities		6.613	-13.825	44.442
		(16.200)	(15.400)	
C. Single				
Child-focused expenditure Index	61.416*	77.658	47.369	371.482
	(25.750)	(56.088)	(34.669)	
Money spent on diapers	15.525*			68.860
	(6.878)			
Money spent on books	6.319**	6.294	16.546**	26.408
	(2.175)	(4.542)	(5.678)	
Money spent on toys	18.796+	27.172*	8.223	93.656
	(9.924)	(13.441)	(12.019)	
Money spent on clothes	19.005	8.098	-2.358	175.728
	(14.373)	(22.095)	(16.296)	
Money spent on electronics	-1.220	22.653	0.462	25.852
	(5.049)	(17.717)	(6.512)	
Money spent on activities		14.995	19.960	47.642
		(14.331)	(14.270)	
Married Sample Size	222	225	231	
Cohabiting Sample Size	209	182	168	
Single Sample Size	501	515	523	

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).

Money spent on diapers available at wave 1 only. Money spent on activities available at wave 2 and wave 3 only.

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

c. Summary of estimated treatment effects

Table 11 summarizes selected treatment effects from Tables 3-10. We find that the receipt of monthly unconditional cash transfers increased transitions from cohabitation to marriage and decreased separations during the first year of children's lives. Increased transitions from cohabitation to marriage were primarily with the biological fathers of the focal children. We do not find increased separations after wave 1, suggesting that marriages were sustained during children's first three years of life. Increases in marriage and improvements in family stability do not, however, translate to increases in household income from mothers' romantic partners.

Table 11: Summary of Selected Treatment Effects

Outcome	Direction of Estimated Effect		
	Wave 1	Wave 2	Wave 3
A. Marriage and family stability			
Mother plans to marry	0	0	
Married	+	0	0
With biological father	+	0	0
Cohabiting	−	0	−
With biological father	−		−
Single	0	0	0
Separation since last wave	−	0	0
Entered marriage or cohabitation since last wave	0	0	0
Cohabitation to marriage since last wave	+	0	0
B. Household income and expenditures			
Romantic partner contribution to household income			
Married subsample	−	0	0
Cohabiting subsample	0	0	0
Child-focused expenditures			
Married subsample	0	+	+
Cohabiting subsample	0	0	0
Single subsample	+	0	0

Notes: Effects reported as 0 (null) if not statistically significant at the 10% level.

VI. Conclusion

This paper offers a contemporary appraisal of the impacts of income support, with no embedded marriage disincentive, on marriage, family stability, and household income composition among families with low income during the first three years of children's lives. We find a 24% increase in marriage during children's first year of life, primarily through transitions from cohabitation to marriage and primarily between mothers and the biological fathers of their children.

The estimated effect is economically significant and policy relevant. The 24% increase in marriage we document is similar in magnitude to the 18% increase resulting from the subset of 1990s welfare-to-work experiments that expanded earnings disregards without time limits on welfare use (Gennetian and Knox 2003). The largest marriage elasticity estimates garnered from the AFDC program suggest that marriage would change by no more than 30% in response to a 25% change in welfare benefit generosity (Moffitt 1998). Further, we find no evidence of subsequent dissolution of marriage through children's first three years of development.

As a source of stable income support, evidence points to how unconditional cash transfers can support overall family stability as well: Mothers in the high-cash gift group were less likely to separate from their romantic partner during the first year of their children's lives and no more likely to separate in subsequent years. This is noteworthy given prior literature on the harmful effects of family instability on children's outcomes (Lee and McLanahan 2015; Cavanagh and Fomby 2019).

Policy debates regarding income support and marriage are typically argued out of concern for availability of household resources and resulting impacts on children's well-being. We speak to this debate by evaluating whether transitions to marriage led to changes in household income

composition and household expenditures. We find no evidence to suggest that marriage led to increases in net annual household income from spouses. In fact, the high-cash gift decreased spouses' and cohabiting partners' earnings contributions during children's first year of life. While spouses' and cohabiting partners' income decreased, net household income increased along with household expenditures on child-specific goods including books, toys, and clothes. Moreover, marriage may have additional unmeasured benefits in the short and long term, as our analysis is limited to maternal reports of spouses' monetary contributions to the household, excluding, for example, the quality and quantity of time invested in children.

Our results relate to two prior analyses of the Baby's First Years study. Costanzo et al. (2025) find that the Baby's First Years cash gift increased pregnancy rates among married and cohabiting mothers, with no increases among single mothers. Escueta et al. (2025) find that the Baby's First Years cash gift increased emotional abuse among married mothers, particularly those with low relative bargaining power, with no corresponding increase among cohabiting mothers. Thus, marriage may have costs in addition to the measured and unmeasured benefits.

Our findings are particularly relevant as a contemporary update to income support policy experimentation not seen since the 1990s welfare reform era. Policy reforms, such as the expanded Child Tax Credit, guaranteed income pilot programs (Shah and Gennetian 2024), and recent experimental evaluations including the Stockton Economic Empowerment Demonstration (West et al. 2020), Chelsea Eats (Liebman et al. 2022), the Open Research Unconditional Income Study (Bartik et al. 2024; Miller et al. 2024; Vivalt et al. 2024), and a recent experimental evaluation in Anderson City, South Carolina (García et al. 2025) offer a body of potential new evidence to questions of income support, marriage, and family stability. Such questions have not

previously been explored in the context of pronounced declines in marriage among low-income individuals in recent decades.

We find no evidence that income support in the form of monthly unconditional cash transfers will disincentivize marriage and disrupt family stability. Our results suggest that, by improving financial stability, income support without embedded marriage disincentives may increase marriage and improve family stability. Marriage promotion and family stability may in fact be an unintended positive consequence of the larger policy agenda disseminating unconditional cash aid to families with children.

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Appendix A: Legal Marriage and Cohabitation

Mothers are surveyed about their legal marital status at baseline and wave 3 only. Living with a spouse is measured through the household roster at every wave; therefore, we use living with a spouse as a proxy for marriage throughout the analysis. At wave 3, 55 mothers report being legally married but not living with a spouse (Table A1). This could be due to the phrasing used in the household roster survey, which asks mothers about people currently living in the household and therefore could exclude spouses who are seasonal workers or spouses of foreign-born mothers who still live in the mother's country of origin. Some baseline characteristics support the latter hypothesis: 73% of the 55 mothers are Hispanic (versus 42% of the full wave 3 sample), 67% are not U.S.-born (versus 33% of the full wave 3 sample), and 73% report that the biological father of the focal child is not U.S.-born (versus 35% in the full wave 3 sample). Mothers from New Orleans are underrepresented, and mothers from New York City are overrepresented among the sample of mothers who report being legally married but not living with any romantic partner. 59 mothers report living with a spouse but do not report being legally married, suggesting that some mothers in the sample may consider themselves to be informally married while lacking legal marriage status.

Table A1: Legal Marriage and Living with Spouse

	Household Roster Classification	
	Living with Spouse	Not Living with Spouse
Wave 3 Survey		
Legally married	172	55
Not legally married	59	636

Mothers are surveyed about their legal marital status with the biological father of the focal child at wave 1, wave 2, and wave 3. Mothers are not directly surveyed about their

cohabitation status with the biological father of the focal child. Therefore, for consistency, we define both marriage and cohabitation with the biological father using the household roster. If the mother reports living with a spouse or cohabiting partner whose first name matches that of the focal child's biological father, the spouse or cohabiting partner is coded as the biological father. A similar proportion of mothers at waves 1, 2, and 3 report living with a spouse whose name matches that of the biological father but do not report being legally married to the biological father or vice versa.

Table A2: Legal Marriage and Living with Biological Father, Waves 1-3

	Household Roster Name-Based Classification	
	Living with spouse (biological father)	Not living with spouse (biological father)
Wave 1 Survey		
Legally married to biological father	144	66
Not legally married to biological father	63	656
Wave 2 Survey		
Legally married to biological father	159	62
Not legally married to biological father	50	616
Wave 3 Survey		
Legally married to biological father	158	52
Not legally married to biological father	53	658

Table A3 demonstrates that, despite inconsistencies between survey-based and household-roster based definitions of marriage, ITT estimates of the impact of the high-cash gift are robust to alternate definitions.

Table A3: Impacts on Survey-Based and Household Roster-Based Definitions of Marriage, Waves 1-3

	Wave 1 (2019 - 2020)[a]	Wave 2 (2020 - 2021)[a]	Wave 3 (2021 - 2022)[a]	Low-Cash Gift Group Mean (2019 - 2022)
Married				
Survey			0.023	0.238
			(0.021)	
Household Roster	0.052*	0.013	0.028	0.235
	(0.024)	(0.024)	(0.025)	
Married to Biological Father				
Survey	0.032*	0.015	0.019	0.225
	(0.013)	(0.017)	(0.019)	
Household Roster	0.048*	0.006	0.018	0.220
	(0.024)	(0.024)	(0.024)	
Minimum Sample Size	905	887	921	922
Maximum Sample Size	931	922	922	2775

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, marital status, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, father living with the mother, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

Appendix B: Westfall-Young Adjusted *p*-values

Tables A4 through A8 present ITT estimates on primary outcome variables[16] with Westfall-Young adjusted *p*-values to account for multiple hypothesis testing. The Westfall-Young adjustment is a step-down resampling method that corrects for the family-wise error rate within a conceptual grouping, or "family," of hypotheses (Westfall and Young 1993). Variables are placed into broad conceptual families corresponding to table panels.[17] Statistical precision is diminished after applying this conservative correction procedure.

[16] Transition variables (separation, entered marriage or cohabitation, cohabitation to marriage) are omitted because they are collinear with the other family structure outcomes by construction.
[17] Tables with only one panel indicate that all variables are placed into one family.

Table A4: Impacts on Family Structure with Westfall-Young Adjusted *p*-values, Waves 1–3

	Wave 1 (2019–2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Mother plans to marry biological father	−0.035	0.020		0.333
	(0.038)	(0.037)		
	[0.818]	[0.982]		
Married	0.052*	0.013	0.028	0.235
	(0.024)	(0.024)	(0.025)	
	[0.162]	[0.982]	[0.684]	
To biological father	0.048*	0.006	0.018	0.220
	(0.024)	(0.024)	(0.024)	
	[0.206]	[0.987]	[0.893]	
To non-biological father	0.004	0.006	0.008	0.017
	(0.009)	(0.009)	(0.011)	
	[0.974]	[0.975]	[0.893]	
Cohabiting	-0.046+	-0.008	-0.045+	0.224
	(0.026)	(0.026)	(0.025)	
	[0.268]	[0.982]	[0.282]	
With biological father	-0.045+	-0.002	-0.044+	0.189
	(0.025)	(0.024)	(0.023)	
	[0.268]	[0.987]	[0.252]	
With non-biological father	-0.002	-0.005	-0.002	0.035
	(0.011)	(0.011)	(0.012)	
	[0.974]	[0.982]	[0.902]	
Single	-0.008	-0.005	0.018	0.541
	(0.028)	(0.029)	(0.031)	
	[0.974]	[0.987]	[0.893]	
Grandparent in household	−0.041	−0.023	−0.008	0.221
	(0.026)	(0.025)	(0.025)	
	[0.404]	[0.768]	[0.990]	
Other relative or unrelated adult in household	0.007	0.002	0.004	0.230
	(0.027)	(0.028)	(0.028)	
	[0.995]	[0.983]	[0.990]	
No adults other than mother in household	−0.000	−0.015	0.022	0.334
	(0.028)	(0.031)	(0.030)	
	[1.000]	[0.933]	[0.922]	
Total number of children in household	−0.000	0.084	0.004	2.658
	(0.062)	(0.065)	(0.064)	
	[1.000]	[0.680]	[0.990]	
Total number of adults in household	−0.017	0.000	−0.021	1.716
	(0.056)	(0.059)	(0.060)	
	[0.995]	[0.983]	[0.990]	
Minimum sample size	672	625	922	1,297
Maximum sample size	931	922	922	2,775

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$, corresponding to unadjusted *p*-values. Westfall-Young adjusted *p*-values in brackets. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, marital status, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, father living with the mother, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).

Plans to marry biological father available at wave 1 and wave 2 only.

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

Table A5: Impacts on Family Structure with Westfall-Young Adjusted *p*-values, Waves 1–3
Mothers Married at Baseline

	Wave 1 (2019– 2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Married	0.028	0.057	-0.026	0.670
	(0.059)	(0.060)	(0.063)	
	[0.933]	[0.787]	[0.908]	
To biological father	0.030	0.066	-0.031	0.627
	(0.068)	(0.069)	(0.068)	
	[0.933]	[0.787]	[0.907]	
To non-biological father	-0.003	-0.010	-0.001	0.046
	(0.030)	(0.031)	(0.030)	
	[0.973]	[0.872]	[0.976]	
Cohabiting	-0.057+	-0.030	-0.034	0.046
	(0.031)	(0.025)	(0.025)	
	[0.363]	[0.657]	[0.636]	
With biological father	-0.031	-0.021	-0.019	0.031
	(0.025)	(0.023)	(0.021)	
	[0.623]	[0.787]	[0.808]	
With non-biological father	-0.026	-0.009	-0.015	0.014
	(0.019)	(0.009)	(0.014)	
	[0.623]	[0.787]	[0.775]	
Single	0.014	-0.027	0.061	0.288
	(0.056)	(0.057)	(0.063)	
	[0.973]	[0.872]	[0.786]	
Grandparent in household	-0.043	0.018	0.041	0.151
	(0.053)	(0.054)	(0.054)	
	[0.869]	[0.985]	[0.884]	
Other relative or unrelated adult in household	-0.008	0.009	0.043	0.194
	(0.062)	(0.063)	(0.070)	
	[0.998]	[0.985]	[0.884]	
No adults other than mother in household	-0.002	-0.062	-0.054	0.191
	(0.056)	(0.060)	(0.047)	
	[0.998]	[0.811]	[0.753]	
Total number of children in household	-0.021	0.051	0.012	3.054
	(0.127)	(0.114)	(0.128)	
	[0.998]	[0.985]	[0.993]	
Total number of adults in household	-0.154	0.057	0.011	1.892
	(0.142)	(0.148)	(0.172)	
	[0.773]	[0.985]	[0.993]	
Minimum sample size	200	201	196	597
Maximum sample size	200	201	196	597

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$, corresponding to unadjusted *p*-values. Westfall-Young adjusted *p*-values in brackets. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

Table A6: Impacts on Family Structure with Westfall-Young Adjusted *p*-values, Waves 1–3
Mothers Cohabiting with Nonspouse Romantic Partner at Baseline

	Wave 1 (2019–2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Mother plans to marry biological father	-0.009	0.067		0.502
	(0.079)	(0.084)		
	[0.920]	[0.899]		
Married	0.145*	0.013	0.066	0.193
	(0.067)	(0.067)	(0.067)	
	[0.160]	[0.990]	[0.708]	
To biological father	0.154*	0.018	0.073	0.179
	(0.067)	(0.066)	(0.067)	
	[0.122]	[0.980]	[0.658]	
To non-biological father	-0.009	-0.005	-0.008	0.014
	(0.016)	(0.006)	(0.008)	
	[0.920]	[0.895]	[0.708]	
Cohabiting	-0.067	-0.027	-0.112	0.422
	(0.074)	(0.076)	(0.071)	
	[0.841]	[0.961]	[0.406]	
With biological father	-0.056	-0.009	-0.096	0.381
	(0.074)	(0.074)	(0.069)	
	[0.898]	[0.990]	[0.505]	
With non-biological father	-0.010	-0.018	-0.017	0.042
	(0.026)	(0.024)	(0.025)	
	[0.920]	[0.899]	[0.757]	
Single	-0.079	0.014	0.047	0.385
	(0.066)	(0.073)	(0.074)	
	[0.700]	[0.990]	[0.757]	
Grandparent in household	-0.036	-0.023	-0.025	0.195
	(0.048)	(0.048)	(0.045)	
	[0.797]	[0.862]	[0.927]	
Other relative or unrelated adult in household	-0.022	0.033	-0.018	0.244
	(0.062)	(0.066)	(0.065)	
	[0.797]	[0.862]	[0.949]	
No adults other than mother in household	-0.058	-0.058	0.041	0.248
	(0.056)	(0.065)	(0.068)	
	[0.790]	[0.810]	[0.927]	
Total number of children in household	0.120	0.231	0.266+	2.378
	(0.125)	(0.154)	(0.137)	
	[0.790]	[0.475]	[0.236]	
Total number of adults in household	0.073	0.087	-0.032	1.845
	(0.125)	(0.132)	(0.137)	
	[0.797]	[0.862]	[0.949]	
Minimum sample size	215	194	222	409
Maximum sample size	230	220	222	672

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$, corresponding to unadjusted *p*-values. Westfall-Young adjusted *p*-values in brackets. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).
Plans to marry biological father available at wave 1 and wave 2 only.
[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

Table A7: Impacts on Family Structure with Westfall-Young Adjusted *p*-values, Waves 1–3

Mothers Single at Baseline

	Wave 1 (2019–2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Mother plans to marry biological father	-0.060	-0.045		0.227
	(0.048)	(0.044)		
	[0.597]	[0.771]		
Married	0.012	-0.008	0.041	0.070
	(0.023)	(0.029)	(0.029)	
	[0.816]	[0.989]	[0.458]	
To biological father	-0.007	-0.038	0.008	0.065
	(0.020)	(0.027)	(0.025)	
	[0.816]	[0.528]	[0.924]	
To non-biological father	0.019+	0.028*	0.033*	0.004
	(0.011)	(0.013)	(0.016)	
	[0.437]	[0.207]	[0.198]	
Cohabiting	-0.054	0.006	-0.034	0.180
	(0.035)	(0.037)	(0.037)	
	[0.448]	[0.995]	[0.766]	
With biological father	-0.068*	0.001	-0.047	0.144
	(0.034)	(0.033)	(0.032)	
	[0.311]	[0.998]	[0.458]	
With non-biological father	0.010	0.005	0.013	0.036
	(0.015)	(0.019)	(0.021)	
	[0.816]	[0.989]	[0.882]	
Single	0.042	0.002	-0.008	0.750
	(0.040)	(0.044)	(0.045)	
	[0.680]	[0.998]	[0.924]	
Grandparent in household	-0.046	-0.019	0.001	0.280
	(0.043)	(0.042)	(0.040)	
	[0.663]	[0.944]	[0.990]	
Other relative or unrelated adult in household	0.008	0.036	0.005	0.229
	(0.039)	(0.043)	(0.039)	
	[0.823]	[0.892]	[0.990]	
No adults other than mother in household	0.066	0.031	0.034	0.435
	(0.045)	(0.046)	(0.047)	
	[0.481]	[0.926]	[0.857]	
Total number of children in household	-0.097	0.003	-0.123	2.652
	(0.104)	(0.103)	(0.101)	
	[0.686]	[0.986]	[0.633]	
Total number of adults in household	-0.068	0.039	0.022	1.537
	(0.079)	(0.086)	(0.079)	
	[0.686]	[0.944]	[0.983]	
Minimum sample size	381	357	418	738
Maximum sample size	419	418	418	1255

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$, corresponding to unadjusted *p*-values. Westfall-Young adjusted *p*-values in brackets. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).
Plans to marry biological father available at wave 1 and wave 2 only.

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

Table A8: Overall Impacts on Household Income Composition with Westfall-Young Adjusted *p*-values, Waves 1–3

	Wave 1 (2019–2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Total HH income (including cash gift)	3,015.390*	3,574.251+	2,971.670+	27,430.541
	(1,250.408)	(1,846.078)	(1,727.171)	
	[0.138]	[0.417]	[0.560]	
Spouse or cohabiting partner contributes to HH income	0.001	0.006	-0.025	0.409
	(0.028)	(0.029)	(0.030)	
	[0.712]	[0.999]	[0.982]	
Spouse or cohabiting partner contribution to HH income	-1,333.937+	-792.119	159.727	8,355.837
	(783.790)	(945.836)	(999.996)	
	[0.227]	[0.892]	[0.982]	
Spouse or cohabiting partner income share (excluding cash gift)	-0.019	-0.010	-0.012	0.239
	(0.021)	(0.021)	(0.019)	
	[0.784]	[0.971]	[1.000]	
Grandparent contributes to HH Income	-0.037	-0.015	-0.019	0.180
	(0.024)	(0.023)	(0.022)	
	[0.665]	[0.976]	[0.982]	
Other relative or unrelated adult contributes to HH Income	0.006	-0.001	0.018	0.125
	(0.023)	(0.022)	(0.022)	
	[0.999]	[0.999]	[0.982]	
Grandparent, other relative, or unrelated adult contribution to HH income	202.081	844.268	677.440	3,461.476
	(702.812)	(1,317.010)	(947.323)	
	[0.999]	[0.976]	[0.982]	
Grandparent, other relative, or unrelated adult income share (excluding cash gift)	0.006	0.006	0.012	0.089
	(0.016)	(0.015)	(0.012)	
	[0.999]	[0.976]	[0.954]	
Mother contributes to household income	-0.001	-0.031	-0.019	0.691
	(0.031)	(0.031)	(0.032)	
	[0.999]	[0.931]	[0.982]	
Mother contribution to HH income	39.167	-535.379	-1,463.160	9,961.146
	(605.730)	(948.977)	(976.061)	
	[0.999]	[0.976]	[0.703]	
Mother income share (excluding cash gift)	0.008	0.018	-0.018	0.375
	(0.024)	(0.026)	(0.024)	
	[0.999]	[0.976]	[0.982]	
Minimum sample size	891	880	884	2655
Maximum sample size	931	922	922	2775

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$, corresponding to unadjusted *p*-values. Westfall-Young adjusted *p*-values in brackets. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, marital status, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate OLS regression with covariates.

[b] All variables are imputed as 0 if no corresponding household member is present. For example, "Spouse contributes to household income" is imputed as 0 if no spouse is present in the household.

Appendix C: Romantic Partner Quality

Table A9 compares the average partner quality of biological fathers who are married to mothers in the high-cash versus low-cash gift group at each survey wave, measuring biological fathers' partner quality using age and years of completed schooling and restricting the sample to mothers surveyed at all three waves. We use characteristics of biological fathers because they are the only romantic partners for whom we have baseline data, which is unconfounded by potential behavioral responses to the cash transfers. We do not find any statistically detectable differences in partner quality between treatment groups or within treatment groups over time.

Table A9: Partner Quality of Married Biological Fathers, Waves 1–3

	Baseline (2018–2019)	Wave 1 (2019–2020)	Wave 2 (2020–2021)	Wave 3 (2021–2022)
Education				
High-Cash Gift Group Mean	11.68	11.77	11.70	11.70
Low-Cash Gift Group Mean	11.11	11.22	11.22	11.32
Age				
High-Cash Gift Group Mean	33.91	32.99	33.14	32.83
Low-Cash Gift Group Mean	33.49	33.49	33.11	33.15

Notes: Analysis is limited to the N = 857 mothers with data available at each survey wave.

Appendix D: Inverse Probability of Treatment-Weighted Estimates

Table A10 presents ITT estimates on primary family structure outcome variables, weighting observations by the inverse probability of treatment to generate an estimate of the average treatment effect on the treated (ATT) (Rosenbaum and Rubin 1983; Abadie and Imbens 2016). We estimate the probability of treatment using a logit model:

$$(3) \qquad Z_{ist} = X_{i0}\beta_t + \eta_{ist}$$

Here, *Z* is a treatment group indicator. *X* is a vector of baseline covariates, including maternal and household characteristics. The covariate list is defined as in equation (1), excluding all post-randomization covariates (child age at interview and an indicator for whether the wave 1 survey was conducted in person or by phone). η_{ist} follows a type 1 extreme value (Gumbel) distribution, so that the estimated probability of treatment is:

$$(4) \qquad \hat{p}_{ist} = \frac{\exp\left(X_{i0}\widehat{\beta}_t\right)}{1+\exp\left(X_{i0}\widehat{\beta}_t\right)}$$

Using the estimated probability of treatment, we calculate ATT weights as follows, so that all high-cash gift group observations (*Z*=1) receive weight 1 and low-cash gift group observations with a higher probability of treatment (that is, low-cash gift group observations which more closely resemble the high-cash gift group on observables) receive higher weight.

$$(5) \qquad w_{ist} = Z_{ist} + (1 - Z_{ist})\left(\frac{\hat{p}_{ist}}{1-\hat{p}_{ist}}\right)$$

We then estimate equation (1) using an OLS regression weighted by w_{ist}. We find that weighted estimates of the ATT are larger in magnitude than unweighted ITT estimates presented in Table 3. This result aligns with hypotheses that the baseline imbalance in single parenthood biases the ITT estimate of the effect on marriage toward zero because the positive effect of the high-cash gift on marriage is driven by non-single mothers.

Table A10: Impacts on Family Structure with Inverse Probability of Treatment Weights

	Wave 1 (2019– 2020)[a]	Wave 2 (2020–2021)[a]	Wave 3 (2021–2022)[a]	Low-Cash Gift Group Mean (2019–2022)
Mother plans to marry biological father	-0.053	0.007		0.333
	(0.038)	(0.037)		
Married	0.053*	0.009	0.030	0.235
	(0.024)	(0.025)	(0.024)	
To biological father	0.050*	0.001	0.020	0.220
	(0.024)	(0.025)	(0.024)	
To non-biological father	0.004	0.007	0.009	0.017
	(0.008)	(0.009)	(0.010)	
Cohabiting	-0.055*	-0.017	-0.050*	0.224
	(0.025)	(0.025)	(0.025)	
With biological father	-0.055*	-0.014	-0.052*	0.189
	(0.024)	(0.024)	(0.023)	
With non-biological father	-0.003	-0.003	0.002	0.035
	(0.010)	(0.010)	(0.012)	
Single	-0.000	0.008	0.021	0.541
	(0.028)	(0.030)	(0.031)	
Grandparent in household	-0.045+	-0.022	-0.002	0.221
	(0.025)	(0.025)	(0.024)	
Other relative or unrelated adult in household	0.005	0.001	-0.003	0.230
	(0.027)	(0.028)	(0.028)	
No adults other than mother in household	0.007	-0.008	0.030	0.334
	(0.029)	(0.031)	(0.031)	
Total number of children in household	0.006	0.096	0.008	2.658
	(0.062)	(0.064)	(0.063)	
Total number of adults in household	-0.027	-0.012	-0.029	1.716
	(0.054)	(0.057)	(0.060)	
Separation since last wave[b]	-0.040+	-0.027	0.012	0.124
	(0.021)	(0.019)	(0.017)	
Entered marriage or cohabitation since last wave[b]	-0.040+	-0.013	0.002	0.089
	(0.021)	(0.016)	(0.017)	
Cohabitation to marriage since last wave	0.026+	-0.023+	0.004	0.042
	(0.014)	(0.013)	(0.012)	
Minimum sample size	671	624	920	1,295
Maximum sample size	929	920	920	2,769

Notes: Standard errors in parentheses. + $p<0.10$; * $p<0.05$; ** $p<0.01$. Covariates from baseline survey: mother's age, completed schooling, household income, net worth, general health, mental health, race and ethnicity, marital status, number of adults in the household, number of other children born to the mother, smoked during pregnancy, drank alcohol during pregnancy, father living with the mother, child's sex, birth weight, gestational age at birth. Other covariates: phone interview, child age at interview (in months above target age).
Plans to marry biological father available at wave 1 and wave 2 only.

[a] Each cell in columns 1, 2, and 3 corresponds to the estimated coefficient on the treatment indicator from a separate weighted OLS regression with covariates.

[b] Separation is defined as the transition from marriage or cohabitation to living without any romantic partner. Entered cohabiting relationship is defined analogously as the transition from living without any romantic partner to marriage or cohabitation.

Appendix References

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