

Adjustments to Reduced Cash Transfers: Religious Safety Nets and Children's Long-Term Outcomes

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February 17, 2026

Abstract

This paper examines how families adjust to changes in unconditional cash transfers, and how these adjustments affect children's long-term outcomes. In 2003, Israel reformed its child allowance program, significantly reducing unconditional cash benefits for large families. Using a sharp date-of-birth cutoff introduced by the reform, we show that Arab families responded by reducing completed fertility and increasing paternal employment. Consequently, we find little evidence that the decline in transfers negatively affected the education or labor outcomes of Arab children. In contrast, Jewish families substituted for the loss in government benefits by enrolling their school-aged children in ultra-Orthodox religious schools, without changing their fertility or labor supply. These schools act as informal safety-nets by providing valuable services unavailable in mainstream public schools but focus primarily on religious studies over secular subjects. In the long run, this substitution between formal and informal safety nets resulted in lower educational attainment among Jewish students and may have steered them toward a more religious lifestyle. Our results highlight the importance of existing support structures in determining the effects of policy changes, particularly in contexts where religious and public welfare systems compete.

JEL codes: Z12, J13, J22, H41, I38

Keywords: Child allowance, Human capital, Religion, Cash benefits, Fertility, Labor supply

*Previously circulated as "Religious Safety Nets and their Effects on Human Capital." We are grateful to Eli Berman, Libertad González, Anna Aizer, Jesse Shapiro, Peter Hull, Jesse Bruhn, Samuel Bazzi, Victor Lavy, Richard Akresh, and seminar participants at the University of Pennsylvania, Vanderbilt University, Brown University, Purdue University, the University of Illinois Urbana-Champaign, the ifo Institute, Stockholm University, the Hebrew University, and Tel-Aviv University. We also thank participants at the 2023 NBER Summer Institute, the SOLE Annual Conference, the BSE summer forum 2024, and the EALE 2024. For their invaluable advice on the ultra-Orthodox education system, we thank Eitan Regev and Elia Yachin from the Haredi Institute for Public Affairs, and Neta Barak-Koren. The project was supported by funding from the US-Israel Binational Science Foundation, Grant Number 2020162, the Maurice Falk Institute for Economic Research in Israel, and the Office of Research Services at the University of Colorado Denver. Assaf Kott was supported by funding from the Policy Impacts Early Career Scholars Grant. As always, all errors are our own. Contact the corresponding author, Hani Mansour, at hani.mansour@ucdenver.edu.

1 Introduction

The behavioral adjustments of families to income shocks depend not only on economic constraints but also on the institutional and social support systems available to them (Moffitt, 1992; Aizer, Hoynes, and Lleras-Muney, 2022). In many settings, families may turn to informal community-based religious and charitable networks, or to relatives, to substitute for or complement government support (Hungerman, 2005; Chen, 2010; Iyer, 2016; Auriol et al., 2020; Ruffini, Ozturk, and Pekgun, 2025; Aizer, Grafton, and Pérez, 2025). While family adjustments to income shocks have been studied in various settings, it remains unclear how different parental decisions affect children’s long-term outcomes (Heckman and Mosso, 2014; Hendren and Sprung-Keyser, 2020), and how the availability of alternative support options influences these adjustments and their consequences for children.

In this article, we study how families with and without access to institutionalized religious support, or religious safety nets, adapted to a significant reduction in unconditional welfare transfers, and how this shaped their children’s long-term outcomes. We use a reform in Israel’s child allowances program, which provides families with a nontaxable monthly allowance for each child from birth until they turn 18. Prior to 2003, the allowance schedule increased with birth order. The 2003 reform linearized the benefits schedule, substantially reducing the monthly allowance provided for fourth- or higher-order children born after June 1, 2003 compared to children of the same birth order born just before this date. The differential reduction in child allowances generated an immediate financial need for resource-constrained households, with monthly transfers declining by approximately \$75. Over time, the cumulative loss for treated families was sizable, averaging about \$9,200 over more than 10 years, the equivalent of roughly six months of full-time minimum-wage employment. Notably, transfers for subsequent children born after 2003 did not vary across this cutoff, ensuring that families on either side faced the same marginal cost of having additional children.

Although the reform was applied equally to all Israeli citizens, only Jewish families had access to ultra-Orthodox (UO) religious schools that offer in-kind amenities unavailable in mainstream public schools, such as longer school days, free meals, and subsidized childcare (Schiffman, 2005).¹ While publicly funded, UO schools do not follow the mandatory curriculum set by the Ministry of Education (MoE), prioritizing religious studies over secular subjects (State Comptroller and Ombudsman, 2020). Despite their religious emphasis, many of these schools welcome and actively recruit students from non-UO Jewish families, effectively serving as a religious safety net for families willing to compromise on the quality of their children’s secular education.

¹Ultra-Orthodox Jews describe communities within Judaism that strictly adhere to Jewish laws and traditions and reject modern values (Berman, 2000). In 2003, about 6% of the Israeli population could be classified as UO, and by 2022 their share increased to 13% (retrieved from the Israeli Central Bureau of Statistics Social Survey Table Generator).

Importantly, Arab citizens of Israel did not have access to religious schools that provide similar in-kind amenities. Therefore, although Arab families may have relied on the support of family or community members to meet short-term needs, they did not face the same tradeoff over the quality of their children's education.²

To estimate the fertility, labor market, and school choice adjustments in response to the negative income shock, we use the sharp date-of-birth cutoff introduced by the reform in a regression discontinuity design (RDD). Our analysis focuses on the adjustments of Jewish and Arab families whose fourth- or higher-order child was born in 2003, for whom the difference in allowances across the reform cutoff was substantial. We then apply the same approach to estimate the consequences of the decline in transfers for children's long-term outcomes, including education, employment, marriage, and fertility. The timeline of the legislation made it difficult for families to manipulate the timing of births in response to the reform. Nevertheless, to validate the research design, we provide evidence that families on either side of the cutoff are similar across a wide range of demographic and economic characteristics, and we verify that there is no discontinuous jump in births around the cutoff. In addition, we show that the results are robust to varying bandwidth sizes, alternative model choices, and donut-hole specifications, further mitigating concerns about endogenous birth timing.

We utilize administrative data covering the universe of families with a child born in 2003 and retrieve the child's exact date of birth from the population registry. We also obtain information on the birth years of all older and younger siblings to identify family size at the time of the reform, determine birth order, and estimate fertility responses. These data are linked to restricted administrative records from the Israel Tax Authority, which allow us to estimate short- and long-term effects on parental labor supply. In addition, we use data from the Ministry of Education to determine the type of schools children are enrolled in and to track long-term outcomes such as high school completion, matriculation, and postsecondary education, including religious seminaries. Finally, we rely on population registry data to estimate effects on children's age at marriage and age at first birth.

The results indicate that Arab families, who did not have access to UO schools, adjusted to the decline in benefits by reducing their fertility and increasing their labor supply. Fertility declined soon after the reform was implemented and remained lower in the long term, resulting in a 10 percent decrease in completed fertility. While Arab mothers did not change their labor supply, we observe an increase in the number of months that Arab fathers were employed in the long-term. These adjustments appear to have mitigated the

²Arab citizens of Israel, many of whom (but not all) identify as Palestinian, comprise about 20% of Israel's population. At the time of the reform, approximately 81% of Israel's Arab population was Muslim, 11% Christian, and the remainder belonged to the Druze religious minority (Central Bureau of Statistics, Israel, 2022).

potential negative effects of reduced child allowances on children's outcomes. In fact, we find some evidence that the decline in transfers reduced the likelihood of high school dropout among Arab girls and increased the labor supply of boys in early adulthood.

In contrast, the decline in child allowances had no effect on the short-term or completed fertility of Jewish families. In fact, the estimated effect on completed fertility is positive, though not statistically significant. Moreover, there is little evidence that Jewish mothers or fathers responded to the reform by increasing their labor supply, either soon after the implementation of the reform or in the long run.

How did Jewish families adjust to reduced transfers? Consistent with the role of religious schools as informal safety nets, we find that treated Jewish families were about 4 percent more likely to enroll their elementary school-aged children (ages 5-12 in 2003) in UO schools. This effect is roughly twice as large for boys compared to girls, presumably due to the higher returns to religious education among boys, as it enables them to attend postsecondary religious seminaries (Yeshiva), thereby deferring military service and securing generous government funding. This is also reflected in the fact that, around the time of the reform, there were nearly twice as many UO elementary schools exclusively for boys as for girls.³ Interestingly, we find a much smaller, insignificant change in the probability that younger children aged 0-4 in 2003 are ultimately enrolled in UO schools. These findings suggest that when parents experience a decline in transfers, their investment decisions in children's human capital vary depending on the child's age and gender ([Shah and Steinberg, 2017](#)).

The decline in transfers and the subsequent decline in school quality carry significant long-term consequences for children's outcomes. We find that affected boys exhibit a higher enrollment rate in UO high schools, along with substantially higher dropout rates and a lower likelihood of obtaining a high school diploma. Notably, these boys are 4.6 percentage points less likely to pursue postsecondary education, with a much smaller, statistically insignificant, increase in their likelihood of attending a Yeshiva, and no change in employment. They are also more likely to marry by age 20 and to have their first birth before age 22, suggesting a more religious lifestyle. Overall, these findings may indicate that affected children were more likely to rely on the publicly funded safety net as adults.⁴

We confirm that the increase in UO school enrollment is not driven by families who we identify as UO prior to the reform, since these families would have chosen UO schools regardless. We also show that UO parents did not respond to the decline in benefits by reducing their fertility or increasing labor supply. Although UO families may have relied on informal community support ([Berman, 2000](#)), the reduction in

³In 2005, there were 287 UO schools exclusively for boys compared to 162 for girls (retrieved on September 3rd, 2025 from https://infocenter.education.gov.il/all/extensions/Mabat_R/Mabat_R.html).

⁴In addition to child allowances, Israel offers different types of safety net programs, such as guaranteed minimum income and disability insurance. Unfortunately, we do not observe these transfers in our data.

benefits lowered the educational attainment of UO children by about half the decline for boys from non-UO families. This suggests that compromising on school quality roughly doubled the long-term adverse effects for non-UO boys.

The paper makes two main contributions to the literature. First, we contribute to the literature on unconditional cash transfers by examining how families respond to reduced transfers and how their choices map onto children's long-term outcomes. A large body of literature has studied the effects of social safety nets on children's outcomes in the U.S. and other countries, while also analyzing how they affect parental fertility and labor supply choices (Moffitt, 1992; Aizer, Hoynes, and Lleras-Muney, 2022; Shah and Gennetian, 2024). Examples include studies of the U.S. Food Stamps Program (Hoynes and Schanzenbach, 2012; Hoynes, Schanzenbach, and Almond, 2016; Bailey et al., 2023), the EITC (Dahl and Lochner, 2012; Hoynes, Miller, and Simon, 2015; Manoli and Turner, 2016-2017; Bastian and Michelmore, 2018), welfare-to-work experiments (Gennetian and Miller, 2002; Clark-Kauffman, Duncan, and Morris, 2003; Morris and Gennetian, 2003), child tax benefits (Milligan and Stabile, 2011), and various large-scale welfare reforms in the U.S. and other developed countries (Aizer et al., 2016; Løken, Lommerud, and Reiso, 2018; Hartley, Lamarche, and Ziliak, 2022; Kalil et al., 2023; Shanan, 2024; Dustmann, Landersø, and Andersen, 2024). However, these programs are means-tested or rely on other forms of conditional transfers and cannot be directly compared to the effects of unconditional cash transfers. Studies of universal child-related benefits mostly focused on their positive effect on fertility, estimating a combination of income and price effects (Milligan, 2005; Cohen, Dehejia, and Romanov, 2013; González, 2013). More recent work exploits specific settings or policy features to evaluate the income effect of child-related policies on maternal labor supply, reporting mixed results (Baker, Messacar, and Stabile, 2023; Mari, 2024; Jensen and Blundell, 2024).⁵ Finally, studies of unconditional cash transfers to newborns in poor families found no short-term effects on children's development and health (Hart et al., 2024; Sperber et al., 2023).

Meanwhile, evidence on the long-term effects of unconditional transfers to families is scarce, and whether they are an effective tool for promoting child development remains uncertain (Heckman and Mosso, 2014; Hendren and Sprung-Keyser, 2020).⁶ Studies examining one-time cash transfers during infancy yield conflicting evidence on their long-term effects on children. Some find positive impacts on human capital accumulation, adult earnings, and health in the U.S. and Australia (Barr, Eggleston, and Smith, 2022; Gendre et al., 2023), while others find little effect on test scores or health in Spain (Borra et al., forthcoming). These

⁵Goldin et al. (2024) estimates the effect of work requirements in child tax credits on maternal labor supply.

⁶Evidence from developing countries mostly focus on short-term effects on children's cognition, health, and education with little evidence on parent's behavioral responses and on the persistence of these effects in the long run (Baird, McIntosh, and Özler, 2011; Macours, Schady, and Vakis, 2012; Amarante et al., 2016; Haushofer and Shapiro, 2016; Baird, McIntosh, and Özler, 2019).

inconclusive results may reflect differences in liquidity constraints between settings with varying levels of safety nets or access to child-friendly policies (Borra et al., forthcoming). Variation in liquidity constraints may also explain the heterogeneous findings on the long-term effects of permanent income shocks (Mari, 2024; Akee et al., 2010). For instance, Mari (2024) shows that a cap on allowances for higher-order children in the Netherlands only adversely affected the outcomes of children in low-income families.⁷

Our study shows how families with differing access to informal safety nets respond to the same permanent reduction in unconditional cash transfers, leading to heterogeneous short-term adjustments that in turn generate markedly different long-term consequences for children's outcomes. By reducing their completed fertility, Arab families were able to offset negative impacts on their children's education, consistent with a quantity-quality tradeoff (Black, Devereux, and Salvanes, 2005; Angrist, Lavy, and Schlosser, 2010; Bagger et al., 2020). This finding suggests that pro-natal policies aimed at increasing family size may carry unintended costs in terms of reduced child quality. In contrast, Jewish families maintained their fertility by shifting school-aged boys into UO schools, effectively securing short-term financial relief at the expense of long-run human capital accumulation.⁸ Thus, substituting unconditional transfers with conditional support may distort the intended effects of policy reforms, negatively impacting children's outcomes. The results are also consistent with evidence that families adjust their investments heterogeneously depending on children's age at the time of the shock while discounting future consequences in favor of alleviating immediate financial needs (Shah and Steinberg, 2017; Carrillo, 2020; Dustmann, Landersø, and Andersen, 2024).

Second, we contribute to the literature on religious institutions as ex-post insurers by examining how access to religious safety nets affects intra-household behavioral responses to income shocks and children's long-term outcomes. In his seminal work, Berman (2000) argues that the low labor supply and high fertility rates among UO men serve as a commitment device to their community which provides mutual insurance to its members. Building on this idea, Dehejia, DeLeire, and Luttmer (2007), Chen (2010), and Auriol et al. (2020) provide evidence that insurance is an important determinant of religiosity, while Hungerman (2005), Scheve, Stasavage et al. (2006), Gruber and Hungerman (2007), Dills and Hernández-Julián (2014) show that government and church activities function as substitutes.⁹

⁷Evidence on labor supply responses to unearned income shocks, whether from transitory sources like lottery winnings or more permanent sources such as annual dividends from natural resources, is largely null (Cesarini et al., 2017; Jones and Marinescu, 2022; Mortenson et al., 2018). Similarly, studies of lotteries find only modest effects on fertility and child development (Cesarini et al., 2016, 2023). However, the generalizability of these findings may be limited due to sample selection concerns and the possibility that windfall gains trigger different behavioral responses than welfare benefits (Thaler and Johnson, 1990).

⁸Abdulkadiroğlu, Pathak, and Walters (2018) show that when given the opportunity, parents in Louisiana chose private schools that were academically underperforming. The authors suggest this may reflect parents' willingness to trade off school quality for other attributes, such as religious instruction or peer environment.

⁹The finding that economic distress increases religiosity can also be consistent with a mechanism through which religious organizations provide spiritual or coping insurance against future risk (Auriol et al., 2020).

To our knowledge, this is the first study to show that religious schools provide insurance to non-community members at the cost of compromising their children’s secular education, while crowding out alternative adjustment mechanisms, such as fertility and labor supply. In addition, we are the first to document how reliance on religious safety nets impacts children’s development, potentially leading to lasting intergenerational economic and cultural effects. These findings have significant implications for the design and effectiveness of public policies in contexts where religious institutions receive public funding and when state and religious governance structures coexist (Acemoglu et al., 2020; Basurto, Dupas, and Robinson, 2020; Bazzi, Hilmy, and Marx, 2023).

The remainder of the paper is organized as follows. Section 2 describes the institutional background of Israel’s child allowance program and the 2003 reform. Section 3 describes the data sources and the sample used in the analysis. In section 4 we detail the empirical strategy and investigate the validity of the research design. We discuss the results in section 5 and conclude in section 6.

2 Institutional Background

2.1 The 2003 Child Allowances Reform

Israel’s child allowances program, established in 1959, is a nontaxable monthly income transfer that all mothers receive for every child, from birth until that child turns 18. Importantly, eligibility for the allowance does not depend on the mother’s marital status, employment status, her household’s income, or the overall number of children in the household, and can be thought of as a monthly unconditional cash transfer lasting for 18 years per child (Frish, 2004; Cohen, Dehejia, and Romanov, 2013).¹⁰

Although eligibility for the child allowance program is unconditional, the magnitude of the payment was historically designed to increase with parity at an increasing rate from the third to the fifth child, remaining constant for sixth or higher parity children.¹¹ As can be seen in Table 1, before 2003 payments almost doubled for third- compared to second-born children and for fourth- compared to third-born children. This convex schedule was a key interest of UO communities, where fertility rates are extremely high, and was therefore a critical demand of the UO parties that represent them.

In February 2003, a new government coalition, which did not include these parties, announced its in-

See, for example, the work of Ager and Ciccone (2017) and Sinding Bentzen (2019).

¹⁰Moreover, eligibility for other welfare programs is not determined based on the income from child allowances.

¹¹Households assigned a veteran status received a larger allowance from 1975-1993. However, starting in 1994, the transfer’s generosity was no longer tied to military service (Frish, 2008).

tention to linearize the payment schedule for newly born children. According to this so-called Netanyahu reform, payments for children born after June 1, 2003, would be fixed regardless of their birth order, while children born before that date would continue to benefit from a convex payment schedule, albeit with lower amounts. This significant decline in allowance generosity could not be expected by the public as the details of the reform were first revealed on April 29, 2003, and it was voted into law on May 29, 2003. The linearization of the schedule disproportionately impacted groups with high fertility rates such as the UO, whose average total fertility rate in 2003 exceeded 7, as well as religious Jewish families and Muslim families, whose fertility rates in 2003 were approximately 4 and 4.5, respectively (Hleihel, 2017; Israel Central Bureau of Statistics, 2024).

Despite frequent changes to the allowance schedule in subsequent years, the sharp date-of-birth cutoff set by the reform remained significant, resulting in substantial variation in payments to families with a fourth- or higher-parity child born in 2003, depending on whether the birth occurred before or after this cutoff (see Table 1). For example, in 2004, a mother with four children under the age of 18 whose fourth child was born in June 2003 received NIS 616 (\$191) per month in child allowances, compared to NIS 1,048 (\$324) per month received by a mother whose fourth child happened to be born in May 2003.¹²

To further illustrate the significance of the difference in child allowances generated by the reform's cutoff, Figure 1 plots the yearly child allowance payments for households with the same number and age distribution of children, except that the fourth child was born either just before or just after the June 2003 cutoff (depicted in black solid line and a dashed gray line, respectively). In this simulation, we assume a three-year spacing between siblings, which only affects the years in which older siblings age out of the program. The difference between the payments received by these two types of households changed over the years but remained substantial (20 to 50 percent) until 2012 when the oldest sibling turned 18, and the fourth child became third for the purpose of the allowance calculation. A smaller difference remained for three additional years until another sibling aged out of eligibility, and starting in 2015 the benefit amounts leveled out for the two households. Over the period 2003-2015, the difference in transfers between the households amounted to NIS 27,300 (\$8,800), roughly one-third of the average yearly earnings for similar families in our data in 2000. As this simulation highlights, the age structure of older siblings is an additional source of variation in allowance amounts and will thus be controlled for in the empirical analysis.

In Appendix Figure A.1, we present additional simulations. Panel A compares families with the same age structure as in Figure 1, except that a fifth child was born in 2006, after the reform. Because the monthly allowances for this additional child are equal between the two families, regardless of the exact timing of the

¹²We use 2021 NIS throughout the paper, and the average exchange rate for that year which was 1 USD = 3.23 NIS.

fourth birth, the difference between the payments they received remains identical to the difference in Figure 1. This demonstrates that the 2003 reform did not generate variation across the June 1 threshold in *expected* benefits for future children who were not yet conceived at the time of its enactment. Panels B, C, and D present this comparison for families with 2, 3, and 5 children, respectively, in which the last child was born in 2003. These figures show that the June 1 cutoff had no impact on the amount of child allowances received by families with a second birth in 2003, and that starting with the third child, the difference in benefits across the cutoff increases with the parity of the child born in 2003. In our analysis, we focus on families with a fourth or higher-order birth in 2003 since the difference in benefits for a third birth is relatively small.

2.2 Ultra-Orthodox Schools in Israel

Israel's schooling system is predominantly public, especially at the elementary education level. The system was designed to accommodate the country's significant ethnic and religious diversity and can be broadly categorized into four types of schools: Arab, Jewish-secular, Jewish-religious, and Jewish-UO. While the first three types differ somewhat in curriculum and funding, they all adhere to the same regulations set by the Ministry of Education (MoE), including mandatory standards for core subjects such as Math, English, and Science. The MoE also regulates teaching hours per student, class sizes, and the scope of extracurricular activities schools may offer. Accordingly, the MoE directly manages most school budgets, employs teachers, and pays their salaries based on a collective agreement.

In contrast, UO schools operate as autonomous entities. They are run by nonprofit organizations that receive direct state funding but face minimal oversight regarding their curriculum, teaching hours, or teachers' salaries. This autonomy allows UO schools to prioritize religious studies at the expense of secular education (Kingsbury, 2020; Perry-Hazan, Barak-Corren, and Nachmani, 2024).¹³ In practice, even in UO schools that officially declare teaching the subjects required for the state-administered high school diploma exams ("Bagrut"), only 7% of boys and 20% of girls are eligible for a diploma, compared to over 70% in non-UO Jewish schools (State Comptroller and Ombudsman, 2020).

Meanwhile, the flexible administration of their budgets, combined with additional funding from unique government transfers and private donations, enables UO schools to offer amenities not available in other types of schools (Schiffer, 1999).¹⁴ These amenities include longer school days, hot meals, and transportation

¹³In principle, up to 45% of UO schools' funding could be withheld if the MoE's standards for core subjects are not met. However, in practice, their funding is rarely suspended even when there is clear evidence of noncompliance, and UO schools that claim to teach these subjects often fail to do so adequately (State Comptroller and Ombudsman, 2020).

¹⁴The organizations that manage UO schools are often affiliated with political parties that secure these transfers during coalition negotiations. These payments are typically routed through the Ministry of Religious

(Kamil, 2001; Weissbrod, 2003; Blass and Bleikh, 2016; Lipiner and Zussman, 2021). Many UO elementary schools also subsidize after-school care, while UO high schools commonly provide subsidies for boys attending boarding schools (Schiffer, 1999). Despite the insular nature of UO communities, many UO schools leverage these amenities to actively recruit non-UO students, thereby gaining the political support of their families (Schiffman, 2005; Lipiner and Zussman, 2021). At the same time, many non-UO and even non-religious families may consider enrolling their children in these schools for the amenities they offer. This option is particularly relevant for the large share of Jewish families who are religious or traditional (“Masorti”) and place a high value on religious studies, especially for boys.¹⁵ In fact, the share of Jewish students enrolled in UO schools was 20% in 2004 and 24% in 2010, well above the share of UO children in the population (Blass and Bleikh, 2016).

3 Data

We utilize rich administrative data on the universe of Israeli households who had a child in 2003 to study the effects of the reduction in allowances. The population registry provides exact dates of birth for children born in 2003 and year of birth for all their siblings. Birth timing of children born up to 2003 is critical for implementing our identification strategy, whereas birth timing of younger siblings serves as an outcome in our analysis of fertility choices following the reform. Basic demographics of parents and children such as sex, ethnicity (Jews/Arabs), locality of residence in 2003, birth and immigration year, and country of origin come from the population registry. We also use the socioeconomic rank of their residential locality, following the ten-cluster system of the Israeli Central Bureau of Statistics. In the registry data, we also observe the marital status of the children and their fertility outcomes as they age, with records updated through 2021.

We combine these data with children’s educational records, which we obtain from the Ministry of Education. For each child, we identify the type of school that they attend each year (secular, religious, or UO) and their outcomes in state-administered matriculation exams between 2000-2020.¹⁶ Students must pass a

Services to bypass MoE supervision, which officially prohibits such funding. UO boarding schools also receive support from the Ministry of Labor (Schiffer, 1999).

¹⁵Jewish Israelis are typically categorized into four levels of religiosity: UO, religious, traditional, and secular. The “traditional” category refers to individuals who do not fully adhere to the entire set of Orthodox religious commandments, but instead observe them flexibly, based on family tradition or personal preference. Appendix Figure A.2(a) shows the distribution of self-reported religiosity among adult Jewish Israelis, based on the 2004 Israeli Social Survey. Figure A.2(b) focuses on a sub-sample of parents aged 20–39 with more than three children, which is more comparable to our study sample. In this sub-sample, over 50% are UO and 40% are either religious or traditional.

¹⁶We build on the official classification of school type recorded by the MoE but further refine it using data from the Haredi Institute for Public Affairs, a research institute that specializes in collecting and analyzing data related to the UO (“Haredi”) society in Israel. Based on their data, we redefined the classification of

series of these exams that add up to at least 20 credits in order to receive a high school diploma known as “Bagrut”. Each exam is on a specific subject and associated with a number of credits between 1 to 5, indicating its level of difficulty. Our data provides information both on Bagrut eligibility and on the total number of credits awarded, which is a measure of the quality of the diploma. This diploma is an important prerequisite for college enrollment and is required for many entry-level positions in the labor market. For children who are old enough to attain postsecondary education, we use annual records of schooling years to infer whether and when they were enrolled in postsecondary studies. These records are available up to 2021.

Lastly, data on labor market outcomes come from the Israel Tax Authority records, which include information on salary workers as reported by their employers and on self-employed individuals. For parents, we use data for the years 2000-2013, allowing us to follow parents’ outcomes for 10 years after the reform. For the children, we look at early labor market outcomes using data for the years 2015-2020. During these periods, we observe the annual number of months worked and annual labor earnings. In these tax data, an individual is considered to have worked in a given month if they report positive income, regardless of the number of hours they work.

Table 2 presents descriptive statistics for families with births in 2003. We restrict our sample to Jewish and Arab families where both the mother and the father were present in the household at the time of birth.¹⁷ Column 1 presents characteristics of all families with births that year, while Column 2 focuses on families whose fourth- or higher-parity birth occurred in 2003, the main group analyzed in our study. The high-parity sample has parents with lower labor force participation and substantially lower parental earnings compared to the overall sample. This is notable given that mothers and fathers in this sample are, on average, more than 3.5 years older. Arab and UO Jewish families are overrepresented in the high parity sample, consistent with the higher fertility rates in these population groups. This is also in line with mothers in these families having their first child at a younger age. Column 3 restricts the sample to families with a high-parity birth within a 70-day bandwidth around the cutoff (our main sample for the analysis). Despite potential seasonality in birth timing, the characteristics of this restricted sample remain virtually identical to the entire sample of high parity births.

In Columns 4 and 5 of Table 2, we further divide this sample by Arabs and Jews, respectively. We run our analysis separately for these two distinct population groups, which differ on several important background

3.5% of the schools in our sample.

¹⁷Approximately 2% of the families in Israel are classified as neither Jewish nor Arab and belong to various population groups, such as immigrants from the former Soviet Union who have Jewish relatives but are not Jewish themselves. In addition, we exclude families whose 2003 births occurred abroad (about 7% of the population), and families with missing data on other children’s birth timing or on other covariates (about 6% of the population). Approximately 1.5% of the remaining families are single-parent households at the time of birth.

characteristics. Jewish fathers have higher labor earnings than Arab fathers despite the fact that, on average, they work fewer months per year. This anomaly reflects the fact that the sample of Jewish families includes two types of households that differ in terms of male labor force participation: UO (54.3%) and non-UO.¹⁸ While non-UO Jewish men mostly work full-time and earn more than their Arab counterparts, UO Jewish men are known to have extremely low labor market participation rates, as they are expected to attend Yeshiva and devote their time to religious studies. Turning to the mothers, both Jewish and Arab mothers earn less than their husbands. However, Arab mothers only work an average of 1.4 months of employment per year with average annual earnings of NIS 6,436, roughly equivalent to full-month earnings at the minimum wage.

4 Methodology

4.1 Empirical Strategy

We estimate the causal effect of reduced child allowances using a regression discontinuity design based on the precise birth date of the child born in 2003 around the reform’s cutoff (the pivotal child). As discussed above, children born after June 1, 2003, in families with at least two children under the age of 18 received a lower monthly allowance than those in similarly sized families born just before June 1. However, because the difference in allowances for third-born children is relatively small, our analysis focuses on families whose fourth- or higher-birth order child was born in 2003. We conduct placebo tests using families whose first or second child was born in 2003, as the reform should not have produced any difference in the allowance for children born on either side of the cutoff.

An important feature of the reform is that the differential allowance only applied to the “pivotal” child born in 2003 and did not impact the payment schedule that families across the threshold received for their older children or for additional children born after 2003. Thus, the cost of having an additional child is similar for families on either side of the cutoff. Moreover, any other policy change or event is expected to have the same effect on families on both sides of the cutoff. Therefore, any difference in outcomes between households with births before and after the cutoff can be attributed to the income effect of reducing cash transfers.

Although the change in the allowance is tied to the pivotal child, we assume that families pool resources across children. Thus, we consider the treatment to vary at the household level while estimating the effects

¹⁸We define families as UO in 2003 if all school-aged children are enrolled in UO schools or if the father attends a Yeshiva.

of reduced child allowances on both household- and individual-level outcomes. First, we estimate the effects on household-level fertility, and mothers' and fathers' employment. Then, we investigate the potential adjustment through school stream choice at the individual child level, including only children born up to 2003. This sample restriction is crucial since the conception of children born after 2003 may have been affected by the treatment. In addition, we use the same sample to study the long-term outcomes of children, including high school dropout, high school diploma eligibility and quality, postsecondary attainment, and age at marriage and parenthood. To investigate long-term effects, the sample is further restricted to children who are sufficiently old to be observed in the data.

Formally, we estimate the following specification:

$$Y_i = \alpha + \beta D_{h(i)} + f(days_{h(i)}) + \theta' X_i + \epsilon_i, \quad (1)$$

where Y_i is the outcome of child i in household h . $D_{h(i)}$ is an indicator equal to one if the pivotal child in household h was born on or after June 1, 2003 (the reform cutoff). The running variable $days_{h(i)}$ is defined as the number of days between the exact date of birth in 2003 and the cutoff date. In our main specification, $f(days_{h(i)})$ is a linear trend in this variable, which is interacted with $D_{h(i)}$ to allow it to vary across the cutoff (Gelman and Imbens, 2019). As shown below in the RD figures, this specification appears to fit the data well. X_i is a vector of individual-level characteristics that are time-invariant or measured prior to 2003. These characteristics include sex, birth-cohort indicators, parents' age and its quadratic, mother's age at first birth, months of employment and labor earnings in 2000 for each of the parents, an indicator for being identified as UO before 2003, indicators for socioeconomic rank based on the locality of residence, and district fixed effects. Because the amount of child allowances and their duration depend on the age distribution of existing children, X_i also includes indicators for the age composition of siblings in 2003, and an indicator for twins birth in 2003.¹⁹ ϵ_i is an idiosyncratic error term. Standard errors are clustered at the household level.

Equation 1 is estimated separately for the Arab and Jewish populations. For each of these groups, we use a fixed bandwidth of 70 days around the cutoff and check the robustness of the results to alternative and optimally selected bandwidths (Calonico et al., 2019; Calonico, Cattaneo, and Farrell, 2020).²⁰ The advantage of using a fixed bandwidth is that the treatment effects for all outcomes and time horizons are

¹⁹Siblings' age composition is controlled for using a set of variables for the number of siblings at each of the following age categories in 2003: 1-4, 5-9, 10-13, 14-17. Siblings who reached the age of 18 are not taken into account when calculating allowances. Only a few families in our sample had children aged 18 or over in 2003.

²⁰The fact that our main results hold even with very narrow bandwidths suggests that the linear specification of the trend in the running variable provides a reliable local approximation.

estimated using the same sample. In addition, we test the robustness of our results to different weighting methods. We estimate a similar specification for parental labor supply and fertility outcomes, with the exception that the vector X includes only covariates at the household level.

4.2 Investigating the Validity of the Research Design

The main assumption underlying our strategy is that families across the reform cutoff date are, on average, comparable on both observed and unobserved characteristics. Stated differently, if it were not for the differential impact of the reform across the birth date cutoff, these outcomes would have evolved smoothly for families across the threshold.

To investigate the validity of this assumption, we first test whether families responded to the reform by changing their date of birth. Since the policy change was only publicly announced one month before the June 1 cutoff, households could not have manipulated their treatment status by changing the timing of conception. Nonetheless, families already carrying a pregnancy would have had an incentive to give birth before the cutoff to maximize the allowance for their newborn child. As [Gans and Leigh \(2009\)](#) and [LaLumia, Sallee, and Turner \(2015\)](#) show, there is evidence that expecting parents change their timing of birth in response to policy shocks. These changes are achieved through inductions and cesarean sections.²¹ Therefore, we test for manipulation of the running variable following [McCrory \(2008\)](#) and [Cattaneo, Jansson, and Ma \(2018\)](#) by plotting the distributional density of fourth or higher parity births around the reform cutoff. As can be seen from Figure 2, there is no significant discontinuity in the number of births at the cutoff when we include all population groups in the analysis. Panels (a) and (b) of Figure 3 show that the same is true for the Arab and Jewish sub-populations separately.

To further assess the plausibility of the identifying assumption, we test for balance in observed household characteristics across the reform cutoff. For this purpose, we estimate a specification similar to Equation 1 using each of the observed household characteristics as an outcome. The results in Table 3 provide evidence that the differences between treatment and comparison households for the entire population, as well as separately for the Arab and Jewish populations, are small and statistically insignificant. The only marginally significant difference is in the locality-level socioeconomic rank for Arab families. Nonetheless, to improve precision, all these characteristics are included as controls in the regressions. Additionally, we check the robustness of our findings to donut hole RD specifications, which omit observations close to the

²¹These procedures are less prevalent in Israel compared to other OECD countries. For instance, in 2002, data from the OECD shows that the rate of cesarean sections in Israel was 153 out of 1,000 live births compared to 212 in the UK, 234 in Canada, and 366 in Italy. Late-term abortions in Israel are not easily accessible, and women from religious backgrounds are unlikely to use them as a contraceptive method.

cutoff to avoid potential bias due to manipulation in birth timing.

5 Results

5.1 The Magnitude of the Change in Transfers

We begin by estimating the size of the reduction in child allowances experienced by families giving birth around the cutoff date. While child allowance receipt is not directly observed, we can accurately impute it based on the three observed factors that determine the monthly payments: the number of children under 18 in each household, their birth order, and their birth dates. Based on these factors, we calculate the total yearly allowance received by each household and sum these annual amounts until the pivotal child turns 18. Appendix Figure A.3 shows the distribution of treatment intensity, defined as the difference in total allowances between families with a fourth- or higher-order birth occurring within a 10-week window across the June 1, 2003 cutoff. On average, treated families experienced a total decline of about NIS 30,762 (\$9500), with a standard deviation of NIS 8,273 (\$2,561).

Panels (a) and (b) of Figure 4 illustrate the sharp decline in child allowances for Jewish and Arab families with a fourth- or higher-parity birth after the cutoff. Based on equation 1, we estimate that Jewish families with a post-cutoff birth experienced a reduction of NIS 31,728 in transfers relative to households with pre-cutoff birth, while Arab families experienced a decline of NIS 30,824. Since, on average, families received differential benefits for their pivotal child for 10.5 years, this translates to a reduction of about NIS 250 (\$75) per month. In Panels (c) and (d) of Figure 4 we define an alternative measure of exposure to the reform per child by dividing the annual amount of the decline in benefits by the number of children below age 18 in the household and aggregating these annual amounts for each child over the years. Based on this measure, we estimate that Jewish and Arab families with a post-cutoff birth experienced a reduction of NIS 6,084 and NIS 6,364 in transfers per child, respectively, relative to similarly-sized households with pre-cutoff birth.

5.2 Parental Adjustments

5.2.1 Fertility and Employment

Standard economic theory assumes that children are a normal good and, thus, predicts that a decline in non-labor income would lead to a reduction in fertility (Becker, 1960; Lindo, 2010). In addition, parents are expected to adjust their labor supply and increase their employment in response to a negative income shock

(see e.g., Keane, 2011). In this section, we test these predictions separately for Jewish and Arab families.

In Table 4, we estimate the effect of the reduction in allowances on the number of subsequent children born shortly after the reduction in transfers (up to 2006) and over a longer period (up to 2013), which can be considered as completed fertility for most families.²² This measure counts the number of additional children born starting from 2004, the year after the reduction in child allowances. The results in Panel A for Jewish households show small and statistically insignificant effects on both short- and long-term fertility (Columns 1 and 2, respectively). Moreover, in contrast to theoretical predictions, the point estimates are positive. These findings imply that Jewish families did not adjust to the change in allowances by decreasing fertility.

Panel B presents the same estimates for Arab families. The results in Column 1 indicate that Arab families reduced their fertility by 0.046 children born within three years of the reduction in child allowances. Although this effect is not statistically significant at conventional levels, it persists in the long term, as evidenced by the significant decline of 0.109 children reported in Column 2. Notably, both the short and the long-term estimates indicate an approximately 12% reduction in fertility relative to the control mean. The overall reduction in completed fertility amounts to 1.8% from an average of 6.1 children.

Figure 5 presents graphical evidence for these RD estimates, showing a clear discontinuous drop at the cutoff in both short- and long-term fertility for Arab parents, and no comparable discontinuity for Jewish parents. Figure 6 shows the estimated effects on fertility year-by-year after 2003. The results confirm that the decline in fertility for Arab families appeared almost immediately after the reduction in transfers and kept increasing over time proportionally to the increase in the control mean (presented in the lower panel of Figure 6). At the same time, the estimated effects for Jewish families are close to zero during the first seven years and then become positive, though insignificant.

The second margin of parental adjustment we consider is employment. In Columns 3-4 of Table 4, we report the effects of the reduction in child allowances on the cumulative number of months worked during the three years following the reduction in transfers (2004-2006) by fathers and mothers, respectively. Columns 5-6 present the estimated effects on employment in the long run, 8-10 years after the reduction in transfers (2011-2013). On average, Arab men worked about 23 months during the 3-year period following the reduction in transfers, just over 7.5 months per year. Jewish men worked slightly less during the same period, approximately 6 months per year. Average employment modestly increases for Jewish men in the long run and remains stable for Arab men. The low levels of employment among Jewish men can be explained by the high share of UO men in the sample who typically attend religious seminaries and have low attachment to the labor market (Berman, 2000). The underemployment of Arab men can be explained through more

²²Our results remain practically identical when we restrict the sample to mothers over age 30, for whom this measure more accurately reflects completed fertility.

traditional factors, such as limited access to labor markets, language and discriminatory barriers, and lower levels of skills ([Yashiv and Kasir, 2011, 2015](#)). Jewish mothers in our sample worked less than their partners in the short run but matched them in the long run. Their employment was also substantially higher than that of Arab mothers who, on average, worked about 1.5 months per year in the short run and less than 3 months per year in the long run. The employment rates of Arab women in Israel, especially those with a large number of children, have been historically very low. In contrast, many UO Jewish women who typically have large families work outside the home and provide for their families while their husbands attend religious seminaries ([Cahaner and Malach, 2023](#)).

The results in Panel A of Table 4 show little evidence that the decline in benefits affected either short- or long-term employment of Jewish parents. In contrast, Panel B reports positive effects for Arab fathers. Specifically, the estimated increase of 0.9 months in the short run corresponds to a non-negligible 3.9% increase relative to the mean, although it is not statistically significant. This effect increases to almost 8% in the long run and becomes significant at the 5% level. Appendix Table A.1 shows that both earnings and the probability of earning above the median rise for Arab fathers in the short and long run. The long-run effect on earnings above the median is statistically significant, corresponding to an increase of roughly 5 percentage points.

Overall, we find that Arab families adjusted to the reduction in cash transfers through decreased maternal fertility and increased paternal labor supply. In contrast to the lack of response for Jewish families, these adjustments align with theoretical predictions and empirical evidence that children and leisure are normal goods.²³

These findings are robust to varying the size of the bandwidth (Appendix Figure A.4).²⁴ In addition, the estimated effects for Arab families, which are presented in Appendix Table A.2, are somewhat larger and more precisely estimated when we assign higher weights to observations near the cutoff using a triangular kernel function (Panel A), and do not change when we remove observations in an eight-day donut hole around the cutoff (Panel B). Lastly, in Appendix Table A.3, we conduct two placebo tests that confirm the absence of any observed responses when applying the reform cutoff day (June 1) to a sample of births during 2002

²³Mismeasurement of outcomes due to selective emigration is unlikely to drive our results, given the low emigration rates in our sample of large families in Israel. In 2002, only about 0.5% of the Israeli population left the country for at least one year, and [Gould and Moav \(2007\)](#) show that marriage, parenthood, and low education substantially reduce the likelihood of emigration.

²⁴Panels (a)-(b) in Appendix Figure A.4 plot estimates for short- and long-term fertility adjustments for Arab families. Panels (c)-(d) plot short- and long-term term employment adjustments for Arab fathers. We vary the bandwidths between 21 and 105 days, depicted on the horizontal axis. Our preferred coefficient based on the 70-day window is reported in yellow, while the [Calonico, Cattaneo, and Farrell \(2020\)](#) automatic bandwidth is plotted in green. Although not reported, the fertility and employment results for Jewish families are similar when varying the size of the bandwidth.

or when we examine parity-one and parity-two births in 2003 for which the cutoff was irrelevant.²⁵

For Arab mothers, the magnitude of the effect on fertility is comparable, albeit somewhat lower, to other findings in the literature on the fertility effects of child-related policies. To facilitate comparison, we estimate the effect of an additional \$1,000 (converted using purchasing power parity) in child allowances and instrument the allowance amounts with the 2003 reform cut-off. Estimates from this two-stage least squares (TSLS) exercise are presented in Appendix Table A.4. The results indicate that each additional \$1,000 increases fertility by approximately 1.4% ($\frac{0.013}{0.92}$).²⁶ The modest labor supply response to the reduction in transfers aligns with existing literature (Cesarini et al., 2017; Jones and Marinescu, 2022; Sauval et al., 2024).

Based on the TSLS estimates in A.4, we can also evaluate heterogeneity in fertility responses by treatment intensity. The results indicate that increasing treatment intensity from the 25th to the 75th percentile of the distribution in Appendix Figure A.3 raises the estimated effect on the number of subsequent children by 37% — from 0.095 to 0.13.

5.2.2 Children’s Schooling Streams

The lack of fertility and labor supply responses among Jewish families suggests they may have adjusted to the decline in cash transfers by relying on informal safety nets and reducing their investments in children’s human capital. As discussed in Section 2, Jewish families in Israel can offset the decline in their income by enrolling their children in UO schools, which provide amenities and services at no additional cost. One common example of such amenities is extended school hours with lunches, which at the time cost about 500 NIS, on average, per month/child in traditional public schools, roughly twice the average monthly reduction in child allowances that families experienced.²⁷ Thus, in this section, we examine the possibility that treated Jewish families substituted the unconditional transfers provided by the government with benefits that are conditional on enrolling children in UO schools at the expense of secular education quality.

In Table 5, we estimate the effect of the reduction in child allowances on the likelihood that families enroll their children in a UO school after 2003. Columns 1-2 present the results for siblings of the pivotal child who

²⁵While we do not report these results, using a triangular kernel or a donut hole specification does not change the estimated results for Jewish families. Similarly, we do not observe any parental responses among Jewish families when using a cutoff day of June 1 for 2002 births or parity-one and parity-two births in 2003. Finally, we do not find significant effects on fertility or labor supply for either Jewish or Arab families with a third birth in 2003. This is likely because the decline in transfers is much smaller for these families.

²⁶Milligan (2005) found a 2.6% increase per CAD 1,000, and Raute (2019) reports a 2.1% increase per EUR 1,000.

²⁷Calculated from the 2004 Household Expenditure Survey (converted to 2021 NIS), administered by the Israeli Central Bureau of Statistics; also see Knesset report on the costs of after-school care https://fs.knesset.gov.il/globaldocs/MMM/96666b2e-1571-e711-80d6-00155d0a6d26/2_96666b2e-1571-e711-80d6-00155d0a6d26_11_10437.pdf (in Hebrew).

were 5-12 years old in 2003. These children were about to enter or were already enrolled in elementary school at the time of the reduction in transfers, and switching them to a UO school would have enabled families to gain access to important amenities that could substitute for the immediate loss in cash transfers. The results in Column 1 Panel A confirm that the reduction in transfers increased the likelihood that elementary school-aged children in 2003 ever enrolled in a UO school at the elementary level (grades 1-8) by 2.7 percentage points, or by about 4% relative to the mean among families in the control group. The results in Column 2 of Panel A indicate that these effects persisted in high school (grades 9-12), with a similar 3.2 percentage points increase in enrollment probability (5% increase relative to the control mean). Both effects are statistically significant at the 1% level. Figures 7 (a) and (b) present the same findings graphically demonstrating a clear discontinuous increase in UO enrollment after the reform cutoff.²⁸ Although not reported in Table 5, we also find that the likelihood of enrolling children in UO elementary schools is similar for those aged 5-7 and those aged 8-12. However, the increase in UO high school enrollment is larger and only statistically significant for children aged 5-7 (6.3 vs 2.2 percentage points, respectively). This suggests that once younger children enter a UO track, it is harder for parents to reverse that decision compared to older children.

Consistent with the larger return to religious schooling for boys, we find larger effects for boys (Panel B) than for girls (Panel C). Specifically, the results indicate that the reduction in transfers increased the probability that elementary school-aged Jewish boys ever enrolled in a UO elementary school by 4.9 percentage points, an effect that is statistically significant at the 1% level (Column 1, Panel B), while having a much smaller and statistically insignificant effect on girls (Column 1, Panel C). The estimated effect on enrolling in a UO high school is also larger for boys than for girls.²⁹

Appendix Table A.5 reports the corresponding estimates per \$1,000 in transfers, using a TSLS specification where the transfer amount is instrumented by the 2003 reform cut-off. On average, each \$1,000 reduction in transfers increases the likelihood of enrolling elementary-school-aged boys in a UO school by a 0.5 percentage point. These estimates point to substantial heterogeneity: moving families from the 25th to the 75th percentile of treatment intensity raises UO enrollment by about 1.5 percentage points.

We also find substantial heterogeneity by children's age. Columns 3 and 4 of Table 5 present the results for children who were 0-4 years old in 2003. These children were too young to be enrolled in school at the time of the reduction in child allowances, and thus, their families could not have changed their schooling track at the time of the reform to gain access to the amenities provided by UO schools. The results indicate

²⁸The effects are larger when we restrict the sample to families that did not enroll any of their children in UO schools prior to 2003. Ideally, we would focus our analysis on non-UO families. However, we identify religiosity based on school type, and in some families, the children are too young to be in school before 2003.

²⁹We find a similar corresponding decrease in the likelihood that elementary school-aged boys are ever enrolled in religious non-UO schools. This suggests that the children whose enrollment was affected come from religious or traditional families.

that the reduction in transfers had little impact on the likelihood that Jewish boys or girls in this age group ever attended a UO school at any grade, suggesting that parents used UO schools as an adjustment margin rather than a shift in educational preferences. Consistent with this interpretation, 5.2% of families in the control group enrolled children in both UO and non-UO schools, demonstrating a willingness to compromise on one child's education to reduce costs without fully committing to UO schooling for ideological or religious reasons.

We also find no evidence that the reduced transfers impacted the probability of ever enrolling in a UO high school among children who were 13-17 years old in 2003 (See Columns 5-6 in Appendix Table A.6). This is expected since it would have been substantially more difficult to change schooling tracks at this stage.

Two additional placebo tests are presented in Appendix Table A.6, confirming the lack of an effect when we apply the June 1 cutoff date to a sample of 2002 births (Columns 1-2) and when we examine parity-one and parity-two births in 2003 (Columns 3-4). Concurrently, the results for boys and girls aged 5-12 in 2003 are robust to alternative bandwidth selections (Appendix Figure A.5) and to using a triangular kernel or an eight-day donut hole around the cutoff (Appendix Table A.7).³⁰

Overall, these findings imply that Jewish families adjusted to the decline in transfers by changing their investments in the human capital of elementary school-aged boys to gain access to amenities provided by UO schools. The fact that these adjustments varied by children's age and gender indicates this was a compromise for the parents rather than a change in their schooling preferences, which is consistent with the role of UO schools as informal insurance. Moreover, the differential access to this informal insurance offers a plausible explanation for the contrasting responses of Jewish and Arab families.³¹

5.3 Children's Long-Term Outcomes

Building on the different adjustments made by Jewish and Arab parents in response to the reduction in child allowances, we next examine the effects on children's long-term outcomes, including earning a Bagrut diploma, dropping out of high school, pursuing postsecondary education, employment, marriage, and fertility. Specifically, for Jewish families, the decision to enroll some children in UO schools may have had persistent effects on academic trajectories by altering the quality of early childhood education. For Arab families, adjustments in fertility and parental employment could have offset potential negative effects on children's

³⁰We do not find significant effects on UO enrollment for children in families with a third birth in 2003. This could be because the decline in transfers is much smaller for these families, or because they are less likely to be on the margin of sending their kids to religious schools.

³¹This differential response is unlikely to be driven by pre-reform earnings differences between Arab and Jewish families. Jewish families with below-median income in 2003, who are more comparable to the average Arab family, also responded to the decline by increasing enrollment of school-aged boys in UO schools.

long-term educational and economic prospects. We interpret these patterns as consequences of the distinct short-term strategies employed by Jewish and Arab parents, though we acknowledge that other channels may have contributed to the observed effects of the reduction in transfers on children's long-term outcomes. The analysis in this section focuses on siblings of the pivotal child, born at or before 2002, and aged at least 19 in 2021, the last year available in our data for these outcomes.

5.3.1 School Quality and the Outcomes of Jewish Children

Enrolling children in UO schools served as an alternative safety net for Jewish families. As explained above, these schools provide lower-quality secular education, and their students' attainment in the Bagrut matriculation exams is extremely low. Thus, we first focus on the effects of the reduction in child allowances on the likelihood of receiving the Bagrut matriculation diploma and on the quality of the diploma obtained (measured by the total number of credits earned). Earning this diploma is essential for academic higher education and many non-academic job opportunities, though it is possible to graduate high school by completing 12 years of schooling without obtaining the diploma. Therefore, we also separately estimate the effect of the reduction in transfers on the likelihood of dropping out.

In Columns 1-3 of Table 6, we focus on Jewish children aged 5-12 in 2003, which is the group whose enrollment decisions were affected by the reduction in transfers. Panel A reports the results for this group, while Panels B and C present the results for boys and girls, respectively. The results in Column 1 indicate that the reduction in child allowances decreased the likelihood of obtaining a Bagrut diploma by about 3 percentage points (10% relative to the control mean), and by 3.7 percentage points for boys (17% relative to the control mean). The magnitude of the negative effects on earning a Bagrut diploma mirrors those estimated for UO high school enrollment in Column 2 of Table 5. The decline in Bagrut eligibility for boys is driven by a 2.5 percentage points increase in the likelihood of dropping out (36% relative to the control mean), and by a 24% decrease in Bagrut credits (Columns 2-3 of Table 6). These negative effects for boys remain significant when we adjust for multiple hypothesis testing.³² In line with our findings that boys were more likely to be transferred to UO schools following the shock, the estimated effect for girls is smaller and insignificant. We also do not detect any statistically significant changes in these outcomes for Jewish boys and girls who were 1-4 years old at the time of the reduction in transfers.³³

³²We use two methods to account for multiple hypothesis testing. First, we calculate sharpened False Discovery Rate q-values ranging between 0.001 to 0.026 for the outcomes of boys 5-12 and of all children (Anderson, 2008). Second, we apply the family-wise error rate correction proposed by Romano and Wolf (2005), obtaining adjusted p-values of 0.001 to 0.039 for these samples.

³³We exclude children born in 2003, who are included in the analysis of schooling streams because they are too young to observe their matriculation outcomes in the last available year of data.

Taken together, these results indicate that the reduction in transfers influenced the educational outcomes of Jewish boys who switched schooling tracks, while younger and female siblings were largely shielded from long-term negative effects. These findings align with prior research showing that parental human capital investments vary by age at exposure and gender, and with evidence that parents tend to discount the future consequences of their short-term adjustments (Shah and Steinberg, 2017; Carrillo, 2020; Dustmann, Landersø, and Andersen, 2024).

Long-Term Effects on Education and Employment. The changes observed in high school matriculation may lead to long-term effects on postsecondary educational attainment and employment in early adulthood. Table 7 examines these long-term effects when the affected children were aged 19-26. Column 1 evaluates the likelihood of attending postsecondary education, Column 2 focuses on the likelihood of enrollment in Yeshiva religious seminaries, and Columns 3 and 4 assess employment outcomes, including annual months employed and the likelihood of ever being employed. The outcomes are measured based on the years observed for each individual within this age range and either indicate participation in a specific activity at any point during this period or present the average over these years.

Among Jewish boys, the reduction in transfers led to a 4.2 percentage point significant decline in postsecondary enrollment, corresponding to a 20% decrease relative to the mean (Column 1).³⁴ This decrease is similar in magnitude to the effect on enrollment in UO schools. If boys avoid postsecondary education because they commit to the UO lifestyle, we would expect to see a corresponding increase in Yeshiva attendance. In fact, the results in Column 2, suggest a 2.5 percentage point increase in the likelihood of attending a religious seminary (about a 4% increase), but this effect is not statistically significant. Thus, we conclude that although some may have attended a Yeshiva, the decline in the likelihood of pursuing secular postsecondary education was not entirely offset by an increase in religious seminary attendance.

While the decline in educational attainment may negatively impact labor market prospects, it could also increase the time available for work. This effect may be particularly pronounced within the age range we observe, as these years typically correspond to postsecondary education in Israel. An additional negative effect on employment may be expected if some men adopt the UO lifestyle, which emphasizes full-time religious studies and discourages labor market participation. The results on employment for boys show little evidence of a change in the number of annual months employed or the likelihood of ever being employed (Columns 3 and 4 in Panel A), suggesting these opposing factors may offset each other.

Turning to Jewish girls, we find no statistically significant effects on either postsecondary education or

³⁴When we account for multiple hypothesis testing, this result is marginally significant with a q-value of 0.06 and a Romano-Wolf adjusted p-value of 0.059.

employment. However, the point estimate for postsecondary educational attainment is sizable, suggesting a decline of 3.4 percentage points, or 9% relative to the control mean. This may indicate that some girls experienced negative educational impacts from the decline in transfers, either due to fewer financial resources, their parents' choice of high school stream (where we also observe a negative but insignificant estimate), or spillover effects from male siblings.

Long-Term Effects on Marriage and Fertility. Lastly, we analyze data from the population registry to estimate effects on children's age at marriage and age at first birth. Figures 8 and 9 present the estimated effects on a set of indicators for ever being married and for having a first child by a certain age between 20-26, respectively. The lower panel in each of the figures displays the share of the sample that were married or had their first child by each age. The results indicate that Jewish boys were about 4 percentage points more likely to marry by age 20 and to have their first child before age 22. We interpret this pattern as indicative of a shift towards a more religious and traditional lifestyle among impacted boys. In contrast, we find no significant or meaningful effects among Jewish girls.

Ultra-Orthodox Families. A natural question is whether the educational outcomes of UO children were affected, given that their families would have enrolled them in UO schools regardless of the transfer amounts. To examine this, we focus the analysis on a sample of Jewish families who enrolled all their children in UO schools prior to 2003. This definition likely misses some UO families whose children were born prior to 2003 but are too young to be enrolled in school at the time of the reform. Indeed, Appendix Table A.8 shows no evidence that these families were more likely to enroll their children in UO schools. We also do not find evidence that UO families adjusted to the reduction in child allowances by reducing fertility or increasing employment (Appendix Table A.9).

Berman (2000) argued that UO families may be less vulnerable to income shocks due to their access to community-based mutual insurance or charitable support. However, the negative effects on children's human capital in Appendix Table A.10 suggest that parents adjusted along unobserved margins that lowered educational attainment. Specifically, we find that both the likelihood of obtaining a Bagrut diploma and the number of Bagrut credits decrease for boys across all ages, though the estimates for younger boys are imprecise. We interpret these findings as capturing the adverse effect of the income shock on children's outcomes *in the absence of adjustments in school type, fertility, or parental labor supply*. Based on this interpretation, the smaller estimated effect for UO boys aged 5–12 (−2.4 percentage points) compared to non-UO boys of the same age (−5.3 percentage points) reflects the additional adverse effect of the adjustment in school quality. This interpretation is further supported by the finding that the long-term effects on

the education of UO and non-UO children aged 1–4, neither of whom changed school type, are similar in magnitude.

5.3.2 Parental Adjustments and the Outcomes of Arab Children

We have shown that Arab families responded to the decline in transfers by reducing fertility and increasing paternal employment. These parental adjustments may have mitigated the negative effects of the transfer reduction on children’s long-term outcomes and may have even contributed to improvements in their educational attainment and labor market prospects.

Accordingly, the results in Table 8 show that the reduction in transfers had no negative effects on the high school outcomes of Arab children. In fact, there is some evidence of positive effects among children aged 1–4 in 2003. In particular, we find a substantial and significant decrease in the likelihood of dropping out of high school driven mainly by girls (Panel A, Column 5). These results are consistent with a quantity-quality tradeoff in which a decline in fertility increases human capital (Black, Devereux, and Salvanes, 2005; Angrist, Lavy, and Schlosser, 2010; Bagger et al., 2020).

Long-Term Effects on Education and Employment. We find additional support for improvement in the outcomes of Arab children when we examine long-term effects on postsecondary educational attainment and employment outcomes. The results in Table 9 suggest that boys have increased their labor supply, working 0.46 additional months per year at the ages 19–26 (Column 2), with no impact on the likelihood of ever being employed (Column 3). Meanwhile, consistent with the null effects on earning a Bagrut diploma, we do not detect any effects on postsecondary educational attainment for either boys or girls (Column 1).

Long-Term Effects on Marriage and Fertility. We conclude the analysis of long-term outcomes for Arab children by examining the effects on their likelihood of ever being married and of having a first child by a certain age between 20–26. The results in Figure 10 for boys indicate a decline in the likelihood of ever being married starting at age 22, but the effects are not precisely estimated. The results for girls are small and are not statistically significant. Similarly, we find little evidence that the reduction in transfers led to a change in the likelihood of having a child at young ages for both boys and girls (Figure 11). These results align with the null effects on human capital accumulation.

6 Conclusion

This paper examines how access to informal insurance through religious institutions impacts family responses to cuts in social welfare programs, and how those responses translate into long-term outcomes for children. Exploiting a sharp discontinuity in Israel’s 2003 child allowance reform which reduced unconditional cash transfers to large families, we show that Jewish and Arab families adjusted along markedly different margins, reflecting unequal access to alternative forms of support.

Among Jewish families, the reduction in unconditional cash transfers led to increased enrollment of school-aged boys in UO schools, especially in households not previously affiliated with UO communities. These schools offer valuable short-term support—such as extended school hours and subsidized services but prioritize religious education. As a result, affected boys were less likely to complete high school or pursue postsecondary education, and more likely to adopt a traditional religious lifestyle in early adulthood. Jewish parents, however, did not choose to enroll school-aged girls or their younger children in UO schools, indicating that UO schools served as an adjustment to reduced transfers rather than a change in their preferences for schooling stream.

In contrast, Arab families, who lacked access to comparable religious safety nets, responded to the income shock through more standard economic adjustments, reducing fertility and increasing paternal labor supply. These changes not only helped buffer the effects of reduced transfers, but may have improved children’s educational and labor market outcomes.

These findings highlight the importance of alternative safety nets in the design and reform of social safety-net programs. In this case, support from publicly funded religious institutions led to unintended consequences by allowing some Jewish families to maintain fertility at the cost of reducing children’s human capital and potentially increasing long-term dependence on formal safety nets. Arab families without access to such institutions, on the other hand, were compelled to make economically efficient and potentially development-enhancing adjustments in response to reduced income transfers.

The differential adjustments carry starkly different welfare implications. Using the Marginal Value of Public Funds (MVPF) framework proposed by [Hendren and Sprung-Keyser \(2020\)](#), we estimate an MVPF below one for Arab families while the MVPF for Jewish families approached infinity, even under conservative assumptions.³⁵ These figures imply that, generally, increasing child allowances to large families is an ineffi-

³⁵For Arab families, the net cost of increasing child allowances for high parity children includes a *negative* fiscal externality because of the change in fathers’ labor supply. In contrast, for Jewish families, the net cost in the presence of religious schools includes *positive* fiscal externalities due to the expected life-cycle increase in children’s earnings and thus, in tax revenues. These positive externalities are calculated based on the estimated change in postsecondary attainment (Table 7) and estimates on the returns to education in the Israeli context ([Lavy, 2021](#)). The social welfare implications of changes in completed fertility following the

cient public investment because it reduces future tax revenues by lowering labor supply and reducing human capital, making the cost of child allowances greater than families' willingness to pay for them. However, in the presence of alternative conditional transfers, such as the amenities provided by religious schools, the cost of these unconditional transfers is offset by the distortionary effects of the informal safety net.

Our findings add to the ongoing discussion of cross-country variation in the effects of cash transfers to families. A recent contribution by [Borra et al. \(forthcoming\)](#) suggests that the generosity of the welfare system plays a key role in explaining these differences. We extend this argument by showing that, even within a single country, heterogeneous responses to changes in transfers—and the resulting differential impacts on children—are closely linked to the type of safety net available to each group. Our findings also contribute to understanding the effectiveness of pronatal policies by providing estimates of the pure income effect of child-related transfers. As fertility rates decline in many countries, child-related cash transfers have attracted growing policy interest. We find that for Arab families, who lacked access to the informal safety net, the reduction in transfers prompted a response consistent with standard economic models. This suggests that child allowances can positively affect completed fertility through the income effect alone.

More broadly, this study underscores the need for policy evaluations that consider both the behavioral margins available to families and the broader institutional environment in which they operate. Effective welfare reform requires a careful accounting of how policy changes interact with existing support structures to shape long-term economic and social outcomes, particularly in contexts where religious and public welfare systems coexist and compete.

cut in child allowances are more complex and beyond the scope of this paper.

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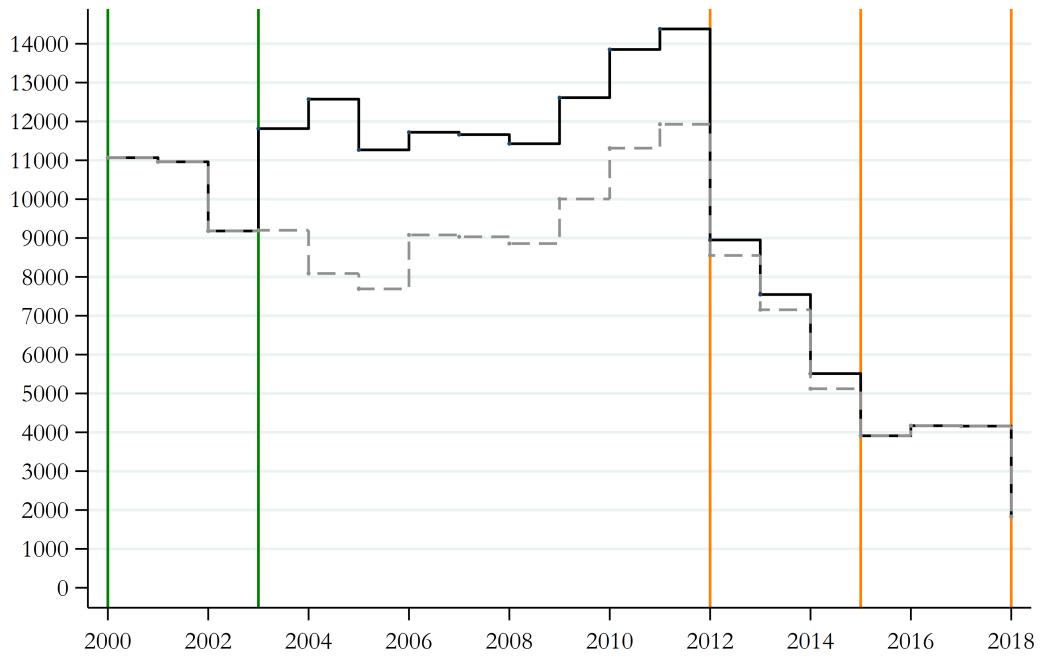
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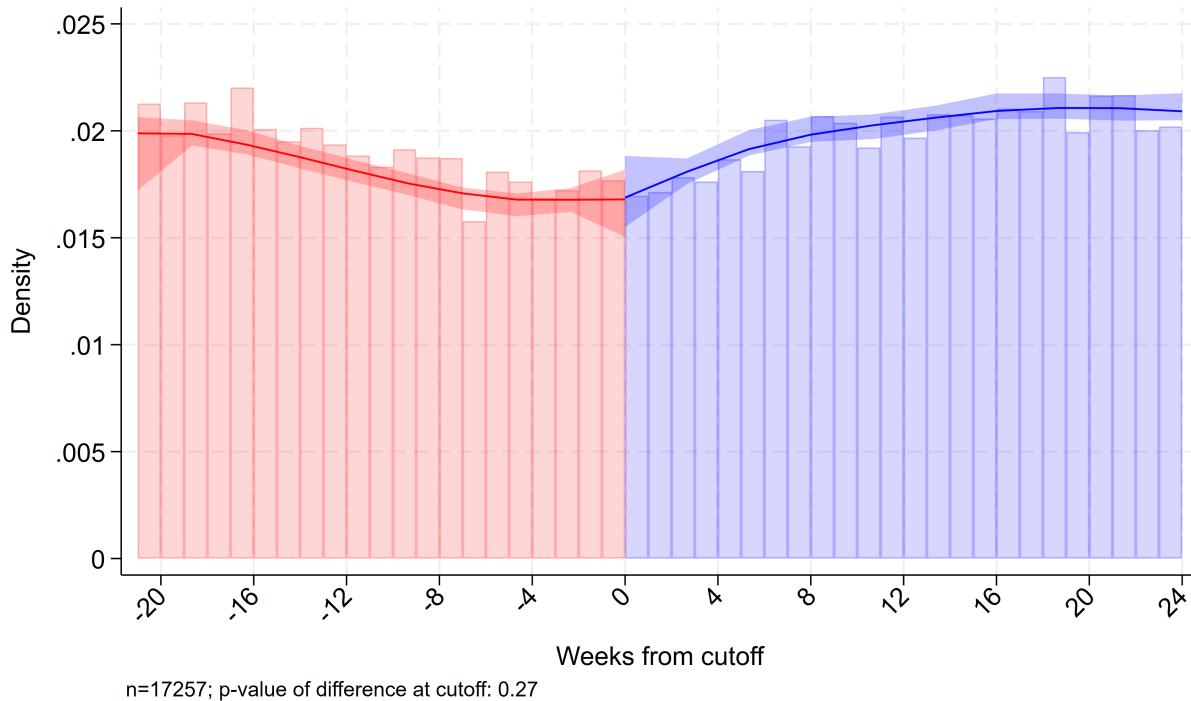
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Figure 1: Total Simulated Annual Child Allowances by Treatment Status 2000-2018,
4th Child Born in 2003



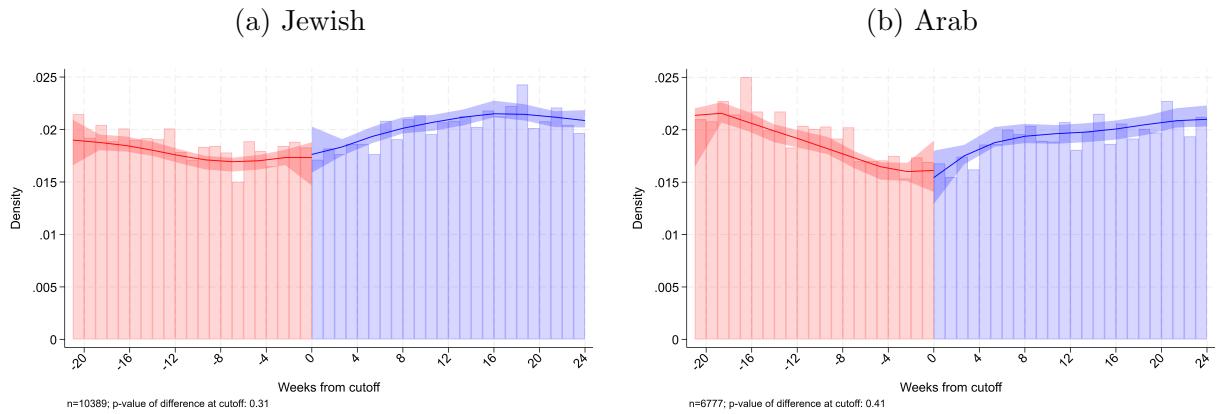
Notes - This Figure displays simulated yearly child allowance to be received in NIS by a family whose 4th child was born in 2003. All amounts are in 2021 NIS. Solid and dashed lines indicate the amount when the birth in 2003 occurred pre-June (untreated) and post-June (treated), respectively. The vertical orange line indicates that a child reached the age of 18 and the mother no longer receives an allowance for that child. The green vertical line indicates a birth. We assume a three years spacing between births. The overall gap in allowances between treated and untreated families in this simulation is NIS 27,300.

Figure 2: Manipulation Test



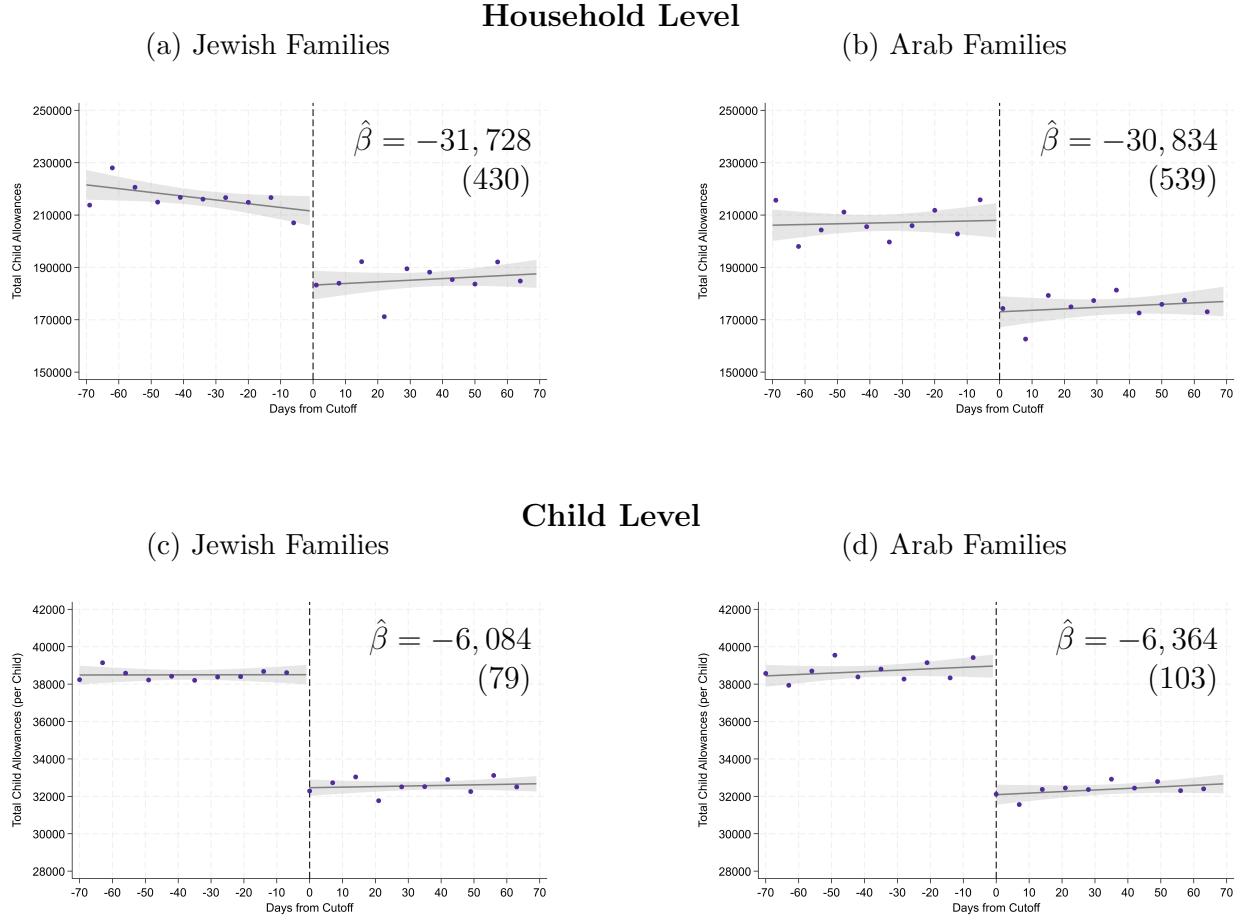
Notes - The figure displays the distributional density of four or higher parity births around the reform cutoff of June 1, 2003 (McCrary, 2008; Cattaneo, Jansson, and Ma, 2018). The number of observations and the p-value for the significance of the discontinuity at zero is listed just below the graph. Histograms denote the distribution of births.

Figure 3: Manipulation Tests for Jewish and Arab Families



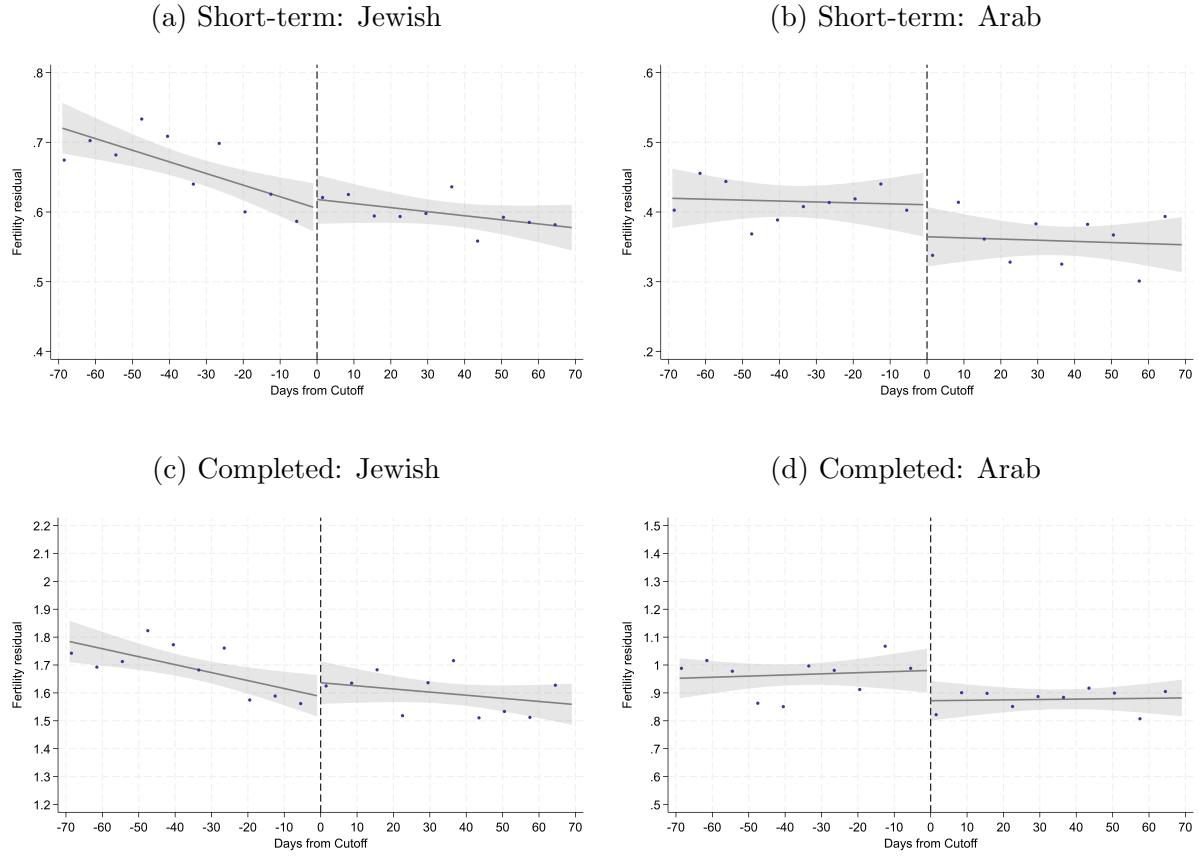
Notes - Panel (a) and (b) present the distributional density of four or higher parity births around the reform cutoff of June 1, 2003 for Jewish and Arab families (McCrary, 2008; Cattaneo, Jansson, and Ma, 2018). The number of observations and the p-value for the significance of the discontinuity at zero are listed just below the graph. Histograms denote the distribution of births.

Figure 4: The Change in Transfers for Jewish and Arab Families



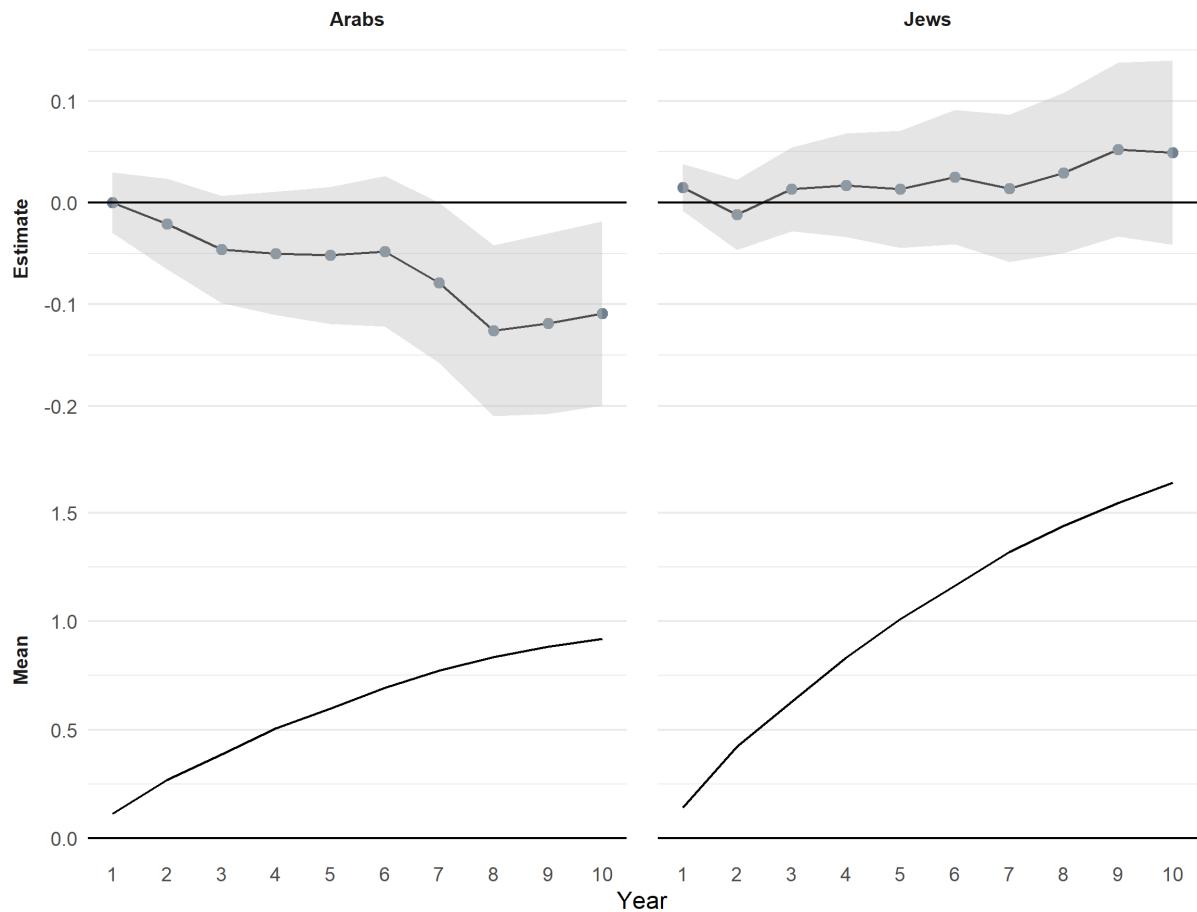
Notes - This figure displays the mean child allowance at the family level (Panels (a) and (b)) and at the child level (Panels (c) and (d)) against the birthdate of each family's fourth or higher parity born in a 10 weeks bandwidth around the June 1, 2003 cutoff, with the x-axis centered at the cutoff. Panels (a) and (c) focus on Jewish families while Panels (b) and (d) show only Arab families. The sample for each group contains both the child born around the cutoff and their older siblings. Each point represents an average over a seven-days bin. Fitted linear lines of the underlying data are allowed to vary across the cutoff date. The allowance is calculated as follows: For each household-year we calculate child allowances, which are determined by the number and birthdates of children in the household that year. For the per-child measure, this annual household total is divided by the number of children under 18 in that year. These annual amounts are then summed across all years until the child reaches age 18 (for the per-child measure) or until the youngest child in the sample turns 18 (for the household level measure).

Figure 5: The Effects of Reducing Transfers on Short-term and Completed Fertility



Notes - This figure displays residualized fertility against the birthdate of each mother's fourth or higher parity child who was born in a 10 weeks bandwidth around the June 1, 2003 cutoff, with the x-axis centered at the cutoff. Panels (a) and (b) show short-term fertility, defined as the number of subsequent children born up to 2006. Panels (c) and (d) show completed fertility, defined as the number of subsequent children born up to 2013. The samples in Panels (a) and (c) include Jewish mothers while the samples in Panels (b) and (d) include Arab mothers. Residuals are obtained by regressing the fertility outcome on the set of controls in equation 1, where the sample mean is added to the residual.

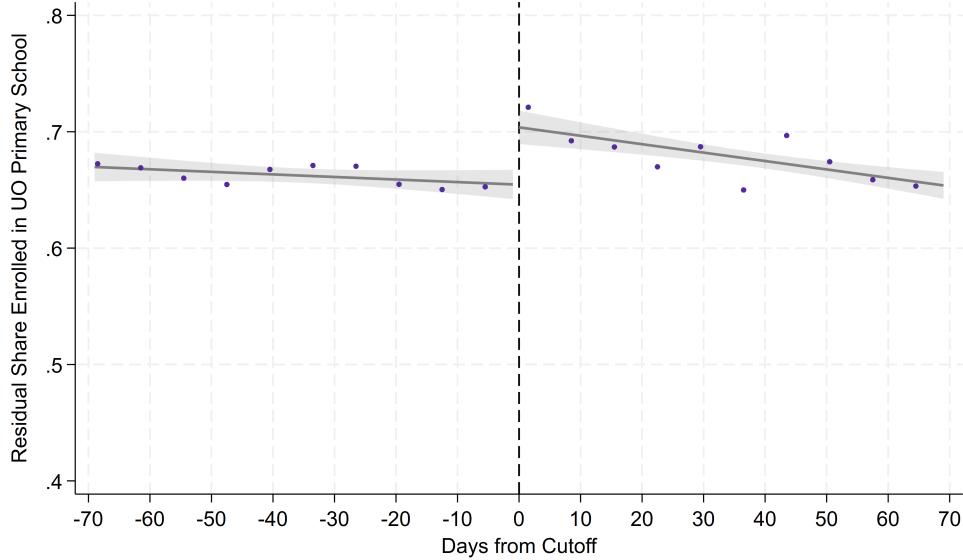
Figure 6: The Dynamic Effect of Reducing Transfers on Fertility



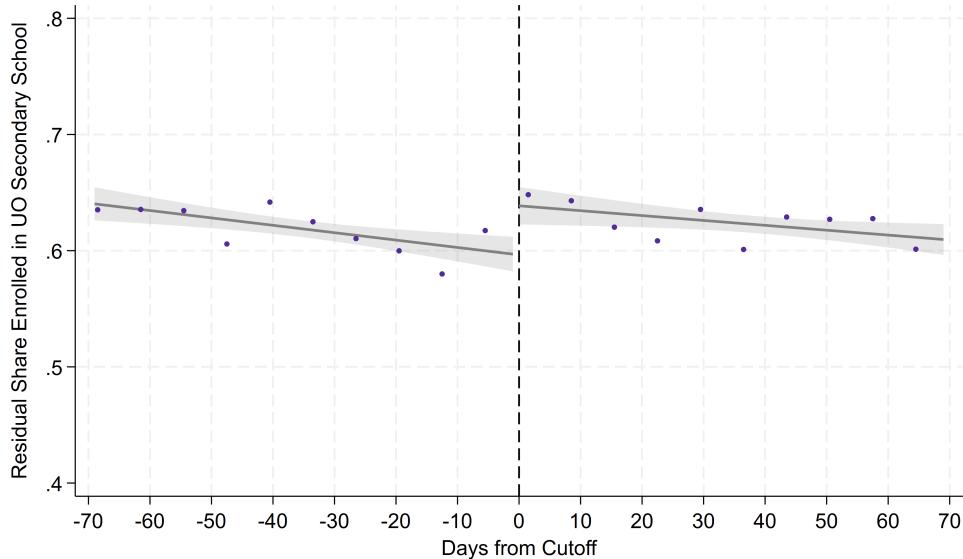
Notes - This figure displays the effects of reducing child allowances on the number of subsequent children in the household for each year following 2003, separately for Jews and Arabs. The sample includes families whose 4th (or higher parity) child was born in 2003. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions. The corresponding means are presented below the estimates, separately for each group. The gray areas indicate 90% confidence intervals.

Figure 7: The Effects of Reducing Transfers on Enrollment in Ultra-Orthodox Schools,
Jewish boys age 5-12 in 2003

(a) Grades 1-8

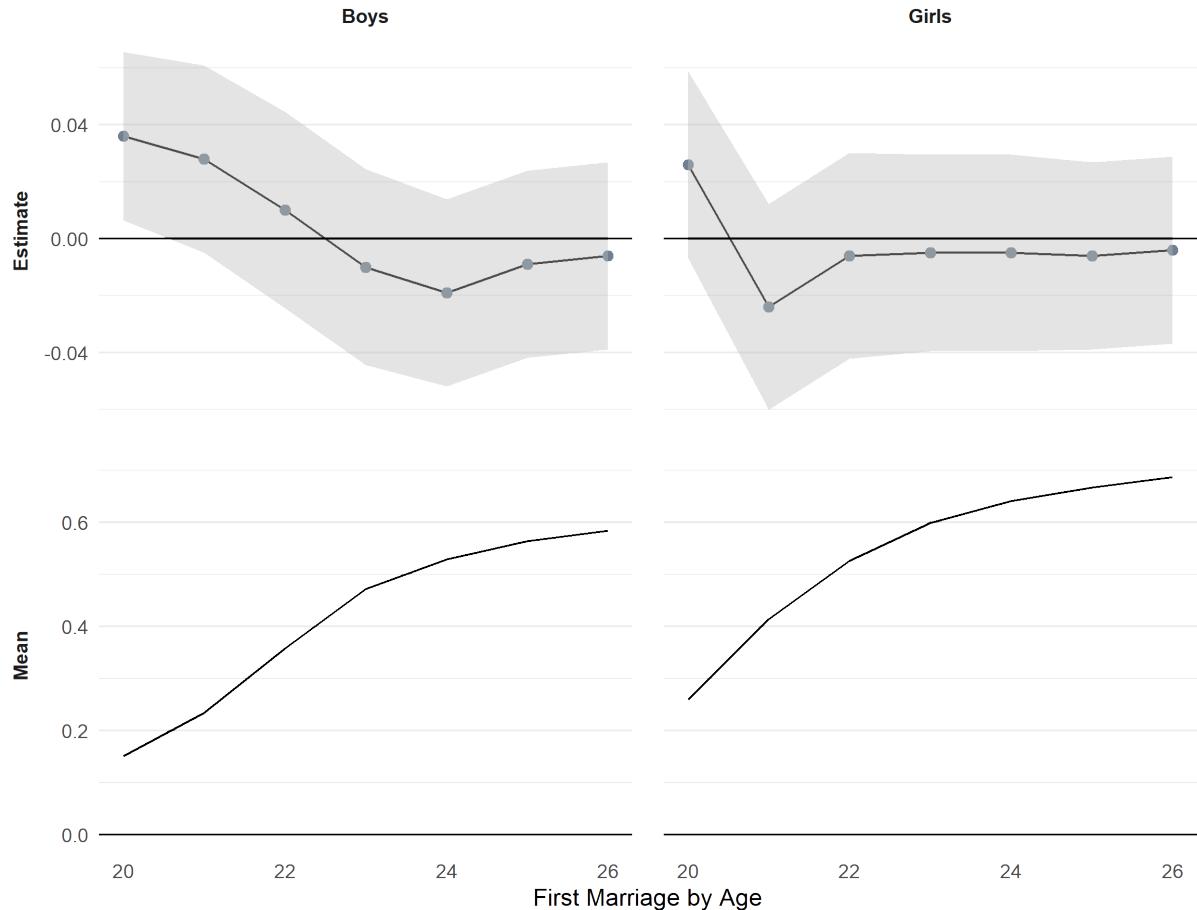


(b) Grades 9-12



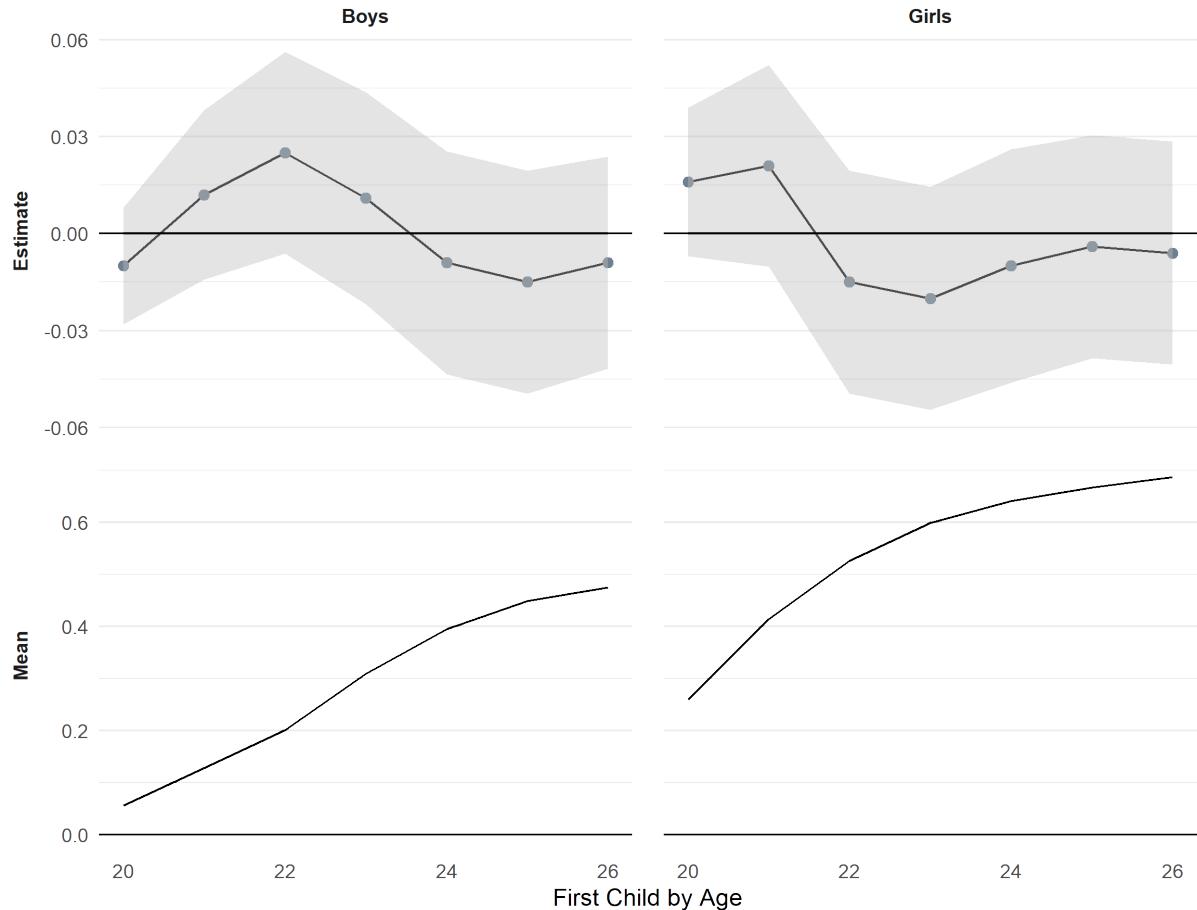
Notes - This figure displays residualized enrollment in ultra-Orthodox (UO) schools against the birthdate of each family's fourth or higher parity child who was born in a 10 weeks bandwidth around the June 1, 2003 cutoff, with the x-axis centered at the cutoff. The sample includes elementary-school-aged (5-12) older siblings of the pivotal child (born in 2003). Panel (a) presents the probability of being ever enrolled in a UO school during grades 1 to 8 while Panel (b) shows the same probability for grades 9 to 12. Residuals are obtained by regressing the enrollment outcomes on the set of controls in equation 1, where the sample mean is added to the residual.

Figure 8: The Effects of Reducing Transfers on Age at First Marriage,
Jewish children age 5-12 in 2003



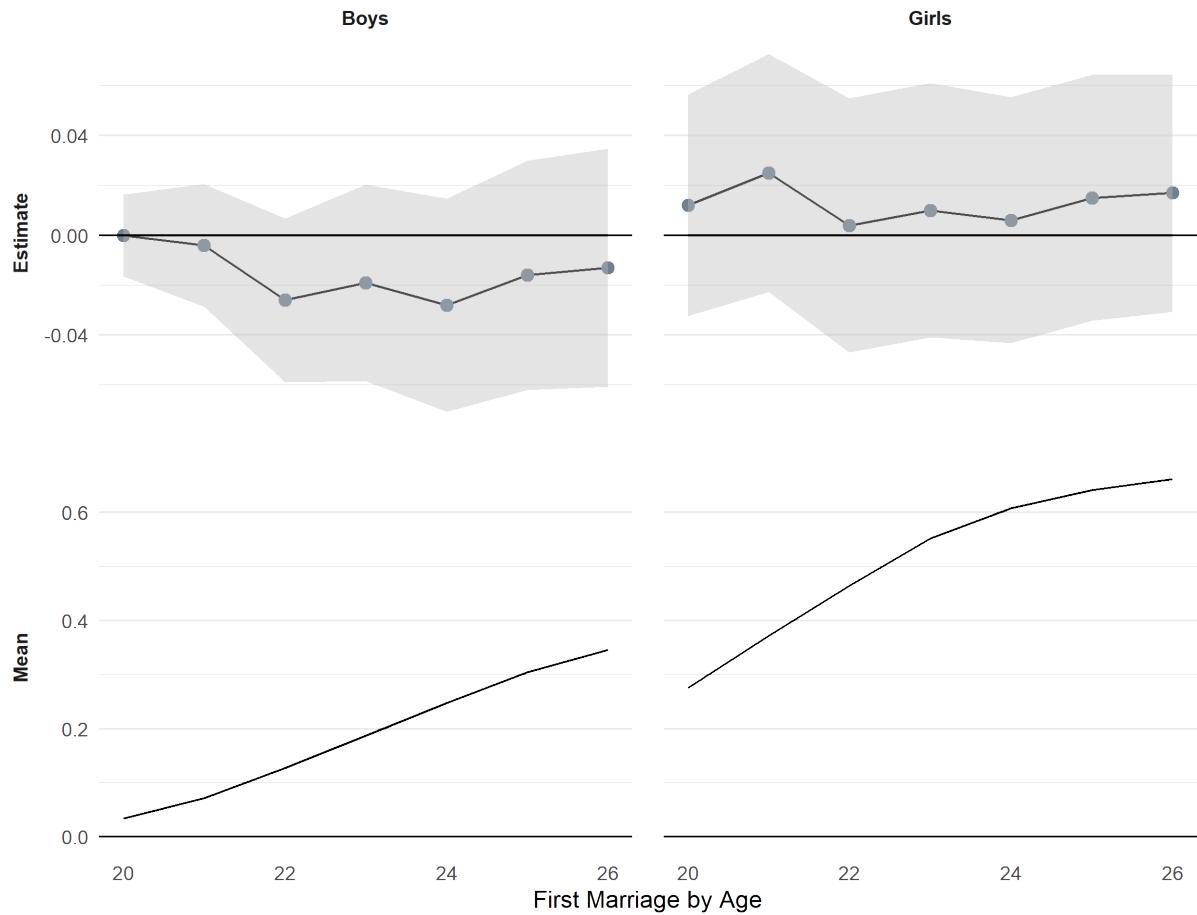
Notes - This figure displays the effects of reducing child allowances on the likelihood of being married between the ages of 20-26 for Jewish individuals who were 5-12 years old whose fourth sibling was born in 2003. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions. The corresponding means are presented below the estimates, separately for each group. The gray areas indicate 90% confidence intervals.

Figure 9: The Effects of Reducing Transfers on Age at First Birth,
Jewish children age 5-12 in 2003.



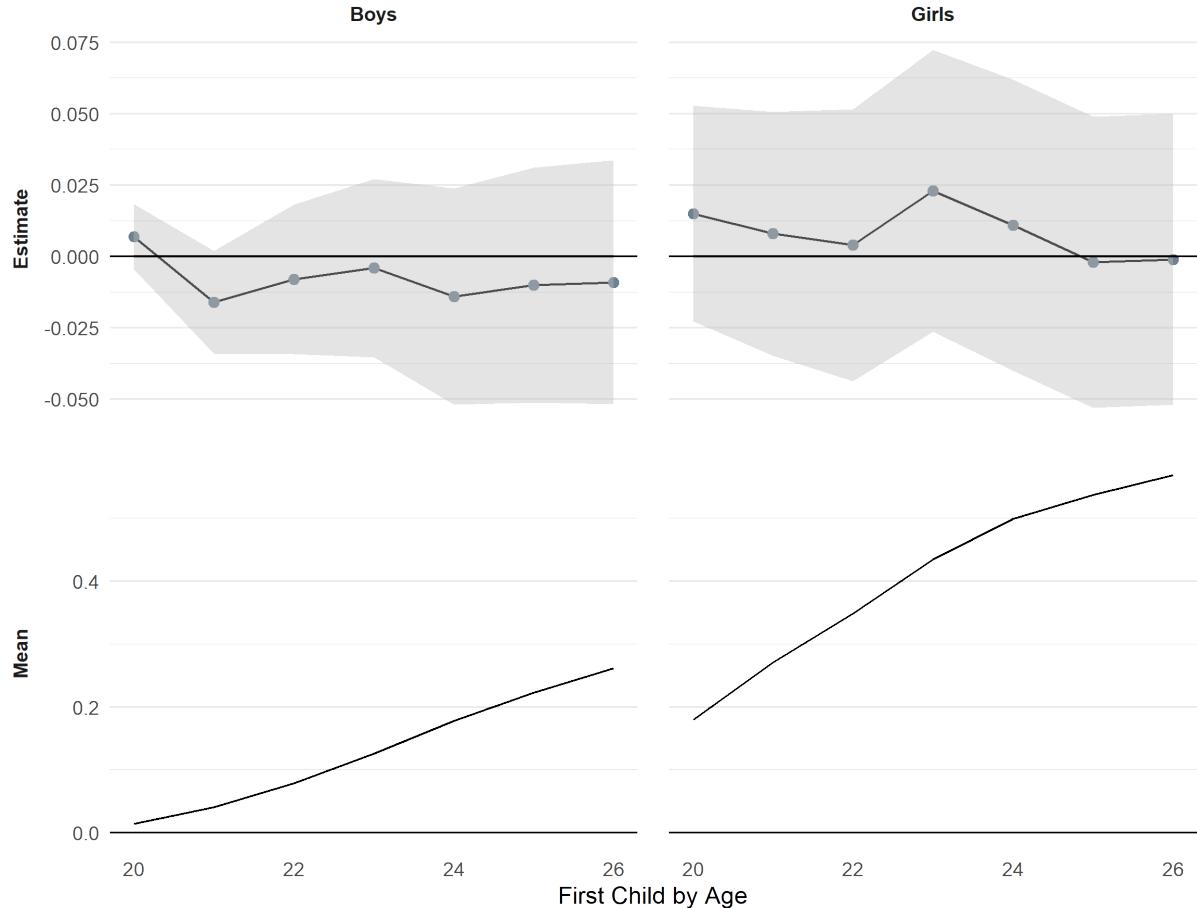
Notes - This figure displays the effects of reducing child allowances on the likelihood of having a first child between the ages of 20-26 for Jewish individuals who were 5-12 years old whose fourth sibling was born in 2003. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions. The corresponding means are presented below the estimates, separately for each group. The gray areas indicate 90% confidence intervals.

Figure 10: The Effects of Reducing Transfers on Age at First Marriage,
Arab children age 5-12 in 2003



Notes - This figure displays the effects of reducing child allowances on the likelihood of being married between the ages of 20-26 for Arab individuals who were 5-12 years old whose fourth sibling was born in 2003. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions. The corresponding means are presented below the estimates, separately for each group. The gray areas indicate 90% confidence intervals.

Figure 11: The Effects of Reducing Transfers on Age at First Birth,
Arab children age 5-12 in 2003



Notes - This figure displays the effects of reducing child allowances on the likelihood of having a first child between the ages of 20-26 for Arab individuals who were 5-12 years old whose fourth sibling was born in 2003. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions. The corresponding means are presented below the estimates, separately for each group. The gray areas indicate 90% confidence intervals.

Table 1: Allowance Schedule (2021 NIS)

Year	2001		2002		2003		2004		2005		2009		2012	
	Birth Order among Children under Age 18		Children Born before Jun-03	Children Born after Jun-03										
1	228	192	182	182	154	154	149	149	178	178	179	179	179	179
2	228	192	182	182	154	154	149	149	178	178	267	267	267	267
3	457	381	313	182	213	154	194	149	248	212	300	267	300	267
4	926	774	666	182	527	154	447	149	447	230	468	267	468	267
5+	1142	956	802	182	605	154	498	149	395	178	398	179	398	179

Notes - This table reports the allowance schedule for selected years by birth order. The allowance amounts are in 2021 NIS.

Table 2: Descriptive Statistics, Families with Births in 2003

	4th and higher parity births				
	Birth +/- 70 Days from June 1, 2003				
	All (1)	All (2)	All (3)	Jewish (4)	Arab (5)
Jewish	0.724 (0.447)	0.628 (0.483)	0.630 (0.483)		
Arab	0.276 (0.447)	0.372 (0.483)	0.370 (0.483)		
Jewish UO before 2003	0.163 (0.369)	0.341 (0.474)	0.344 (0.475)	0.547 (0.498)	
Father's age in 2003	32.692 (6.260)	36.427 (5.902)	36.480 (5.844)	36.580 (5.864)	36.311 (5.807)
Mother's age in 2003	29.257 (5.492)	32.880 (4.836)	32.890 (4.814)	33.487 (4.764)	31.874 (4.728)
Father's months of employment in 2000	7.480 (5.319)	6.292 (5.637)	6.264 (5.648)	5.817 (5.748)	7.024 (5.390)
Mother's months of employment in 2000	5.809 (5.293)	4.035 (5.198)	4.022 (5.198)	5.545 (5.407)	1.432 (3.550)
Father's labor earnings in 2000	84,995 (198,979)	65,868 (108,999)	66,683 (109,375)	74,534 (128,020)	53,325 (64,420)
Mother's labor earnings in 2000	38,412 (97,552)	24,408 (87,876)	25,174 (125,193)	36,187 (155,947)	6,436 (20,144)
Mother's age at first birth	25.306 (4.889)	22.266 (3.179)	22.258 (3.212)	22.676 (3.050)	21.545 (3.354)
Number of children	2.755 (1.827)	5.406 (1.550)	5.397 (1.551)	5.532 (1.644)	5.167 (1.359)
Twin birth	0.023 (0.149)	0.029 (0.168)	0.031 (0.172)	0.036 (0.187)	0.021 (0.142)
Male birth	0.512 (0.500)	0.514 (0.500)	0.511 (0.500)	0.521 (0.500)	0.495 (0.500)
Locality SES	4.521 (2.439)	3.330 (2.085)	3.318 (2.083)	3.910 (2.285)	2.310 (1.108)
Observations	130,401	32,708	11,606	7,310	4,296

Notes - This table reports summary statistics for families with a birth in 2003. Column 1 reports statistics for all families, while Column 2 reports statistics for the subsample of families with a fourth or higher parity birth. In Column 3 the sample is further restricted to families with a birth in a 70-day bandwidth around the June 1, 2003 cutoff. Columns 4 and 5 separate the sample to Jewish and Arab populations, respectively. The values of all variables refer to 2003 unless indicated otherwise. Standard deviations are reported in parentheses.

Table 3: Balancing Tests, Families with 4+ Children (in 2003)

	All (1)	Jewish (2)	Arab (3)
Jewish	-0.021 (0.018)		
Arab	0.021 (0.018)		
Jewish UO	-0.002 (0.018)	0.014 (0.023)	
Father's age	0.217 (0.224)	0.213 (0.280)	0.236 (0.375)
Mother's age	0.214 (0.180)	0.154 (0.223)	0.418 (0.297)
Father's months of employment in 2000	0.042 (0.213)	0.097 (0.270)	-0.122 (0.338)
Mother's months of employment in 2000	0.102 (0.196)	0.157 (0.254)	0.244 (0.218)
Father's labor earnings in 2000	522 (3,982)	1,318 (5,770)	294 (3,948)
Mother's labor earnings in 2000	7,243 (7,157)	11,614 (11,073)	1,055 (1,269)
Mother's age at first birth	0.068 (0.121)	0.131 (0.143)	0.022 (0.212)
Number of children	0.088 (0.065)	0.095 (0.087)	0.099 (0.092)
Twin Birth	0.003 (0.006)	0.002 (0.008)	0.005 (0.009)
Male birth	0.011 (0.019)	0.022 (0.024)	-0.007 (0.032)
Locality SES	-0.118 (0.079)	-0.066 (0.107)	-0.118* (0.068)
Observations	11,606	7,310	4,296

Notes - This table reports results from regressions testing for balance of observable characteristics. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The outcomes are listed in each row and each estimate represents a separate regression. Column 1 reports the results for the entire population. Columns 2 and 3 report results for the Jewish and Arab sub-populations, respectively. The values of all variables refer to 2003 unless indicated otherwise. Robust standard errors are reported in parentheses. *** = significant at 1% level, ** = significant at 5% level, * = significant at 10% level.

Table 4: The Effects of Reducing Transfers on Fertility and Employment

	Subsequent Children		Months Employed 2004-2006		Months Employed 2011-2013	
	2004-2006 (1)	Up to 2013 (2)	Fathers (3)	Mothers (4)	Fathers (5)	Mothers (6)
Panel A: Jewish						
Treatment	0.013 (0.025)	0.059 (0.055)	-0.730 (0.609)	-0.643 (0.535)	0.254 (0.650)	-0.951 (0.615)
Control mean	0.629	1.640	20.615	16.999	22.255	22.250
Observations	7,310	7,310	7,310	7,310	7,310	7,310
Panel B: Arab						
Treatment	-0.046 (0.032)	-0.109** (0.055)	0.891 (0.768)	0.132 (0.483)	1.786** (0.827)	-0.570 (0.728)
Control mean	0.386	0.920	23.079	4.708	23.214	8.551
Observations	4,296	4,296	4,296	4,296	4,296	4,296

Notes - This table reports the effects of reducing child allowances on the number of subsequent children in the household and on the cumulative number of months employed by each of the parents. The sample includes families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for Jewish families, while Panel B reports the effects for Arab families. Columns 1, 3, and 4 report the effect within 3 years of the reduction in transfers, whereas columns 2, 5, and 6 report the effect 8 to 10 years after the reduction in transfers. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Robust standard errors are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table 5: The Effects of Reducing Transfers on Enrollment in Ultra-Orthodox Schools

	Ages 5-12		Ages 0-4	
	Grades 1-8 (1)	Grades 9-12 (2)	Grades 1-8 (3)	Grades 9-12 (4)
Panel A: All				
Treatment	0.027*** (0.010)	0.032*** (0.012)	0.013 (0.014)	0.005 (0.015)
Control mean	0.670	0.616	0.684	0.622
Observations	18,079	18,079	16,864	16,864
Panel B: Boys				
Treatment	0.049*** (0.013)	0.042*** (0.014)	0.008 (0.016)	0.013 (0.017)
Control mean	0.670	0.621	0.686	0.621
Observations	9,261	9,261	8,676	8,676
Panel C: Girls				
Treatment	0.006 (0.013)	0.023 (0.015)	0.020 (0.017)	-0.003 (0.019)
Control mean	0.669	0.611	0.683	0.623
Observations	8,818	8,818	8,188	8,188

Notes - This table reports the effects of reducing child allowances on the probability of enrolling Jewish children in ultra-Orthodox (UO) schools at grades 1 to 8 (columns 1 and 3) and at grades 9 to 12 (columns 2 and 4). The sample includes children in Jewish families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for both boys and girls, while Panels B and C report the effects by gender. Columns 1 and 2 report the effects for children ages 5-12 in 2003, whereas columns 3 and 4 report the effects for children ages 0-4. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table 6: The Effects of Reducing Transfers on the Educational Attainment of Jewish Children

	Ages 5-12			Ages 1-4		
	Bagrut Diploma (1)	HS Dropout (2)	Bagrut Credits (3)	Bagrut Diploma (4)	HS Dropout (5)	Bagrut Credits (6)
Panel A: All						
Treatment	-0.030** (0.013)	0.019** (0.009)	-1.259*** (0.360)	-0.014 (0.018)	-0.006 (0.011)	-0.484 (0.466)
Control mean	0.287	0.057	10.147	0.304	0.067	9.319
Observations	18,079	18,079	18,079	9,411	9,411	9,411
Panel B: Boys						
Treatment	-0.037** (0.016)	0.025** (0.012)	-1.890*** (0.454)	-0.019 (0.020)	-0.004 (0.017)	-0.659 (0.567)
Control mean	0.215	0.069	7.983	0.195	0.080	6.344
Observations	9,261	9,261	9,261	4,813	4,813	4,813
Panel C: Girls						
Treatment	-0.023 (0.018)	0.011 (0.010)	-0.615 (0.482)	-0.013 (0.027)	-0.007 (0.014)	-0.461 (0.666)
Control mean	0.364	0.045	12.422	0.421	0.052	12.509
Observations	8,818	8,818	8,818	4,598	4,598	4,598

Notes - This table reports the effects of reducing child allowances on the educational attainment of Jewish children. The sample includes children in Jewish families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for both boys and girls, while Panels B and C report the effects by gender. Columns 1 to 3 report the effects for children ages 5-12 in 2003, whereas columns 4 to 6 report the effects for children ages 1-4. Children born in 2003 (i.e., those who were age 0 in 2003) are excluded, as they reached grade 12 in 2021, a year for which we have no data. Columns 1 and 4 report results on matriculating high school by obtaining a Bagrut diploma. Columns 2 and 5 report results on dropping out of high school before the completion of twelve years of schooling. Columns 3 and 6 report results on the quality of the diploma by examining the unconditional overall number of Bagrut units. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table 7: The Effects of Reducing Transfers on the Long-Term Outcomes of Jewish Children

	Any Post-Secondary (1)	Any Yeshiva (2)	Months Employed (Annual) (3)	Ever Employed (4)
Panel A: Boys				
Treatment	-0.042** (0.017)	0.025 (0.020)	0.037 (0.152)	0.004 (0.020)
Control mean	0.213	0.656	3.442	0.730
Observations	9,261	9,261	9,261	9,261
Panel B: Girls				
Treatment	-0.034 (0.021)		0.114 (0.134)	-0.008 (0.007)
Control mean	0.382		7.698	0.979
Observations	8,818		8,818	8,818

Notes - This table reports the effects of reducing child allowances on long term outcomes of Jewish children aged 5-12 at the time of the reduction in transfers. The sample includes children in Jewish families whose fourth (or higher parity) child was born in 2003. Panel A presents results for boys, while Panel B presents results for girls. Columns 1, 2, and 4 report effects on ever attending postsecondary schooling, ever attending Yeshiva, or ever being employed from age 19 to 26 (or last available year), respectively. Column 3 reports the effect on average annual months employed between age 19 to 26 (or last available year). All regressions include controls as specified in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table 8: The Effects of Reducing Transfers on the Educational Attainment of Arab Children

	Ages 5-12			Ages 1-4		
	Bagrut Diploma (1)	HS Dropout (2)	Bagrut Credits (3)	Bagrut Diploma (4)	HS Dropout (5)	Bagrut Credits (6)
Panel A: All						
Treatment	-0.013 (0.021)	-0.015 (0.020)	0.237 (0.565)	0.001 (0.029)	-0.057** (0.026)	0.786 (0.730)
Control mean	0.357	0.206	13.190	0.406	0.195	13.679
Observations	9,736	9,736	9,736	4,682	4,682	4,682
Panel B: Boys						
Treatment	0.000 (0.026)	-0.013 (0.030)	0.361 (0.709)	-0.025 (0.039)	-0.024 (0.041)	-0.138 (0.989)
Control mean	0.238	0.287	9.512	0.280	0.274	9.589
Observations	4,791	4,791	4,791	2,166	2,166	2,166
Panel C: Girls						
Treatment	-0.024 (0.030)	-0.011 (0.023)	-0.003 (0.717)	0.012 (0.039)	-0.078*** (0.029)	1.213 (0.953)
Control mean	0.468	0.131	16.643	0.513	0.128	17.167
Observations	4,945	4,945	4,945	2,516	2,516	2,516

Notes - This table reports the effects of reducing child allowances on the educational attainment of Arab children. The sample includes children in Arab families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for both boys and girls, while Panels B and C report the effects by gender. Columns 1 to 3 report the effects for children ages 5-12 in 2003, whereas columns 4 to 6 report the effects for children ages 1-4. Children born in 2003 (i.e., those who were age 0 in 2003) are excluded, as they reached grade 12 in 2021, a year for which we have no data. Columns 1 and 4 report results on matriculating high school by obtaining a Bagrut diploma. Columns 2 and 5 report results on dropping out of high school before the completion of twelve years of schooling. Columns 3 and 6 report results on the quality of the diploma by examining the unconditional overall number of Bagrut units. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table 9: The Effects of Reducing Transfers on the Long-Term Outcomes of Arab Children

	Any Post-Secondary (1)	Months Employed (Annual) (2)	Ever Employed (3)
Panel A: Boys			
Treatment	-0.006 (0.024)	0.457** (0.230)	0.000 (0.011)
Control mean	0.196	7.988	0.971
Observations	4,791	4,791	4,791
Panel B: Girls			
Treatment	0.010 (0.031)	0.238 (0.236)	0.004 (0.022)
Control mean	0.336	4.828	0.819
Observations	4,945	4,945	4,945

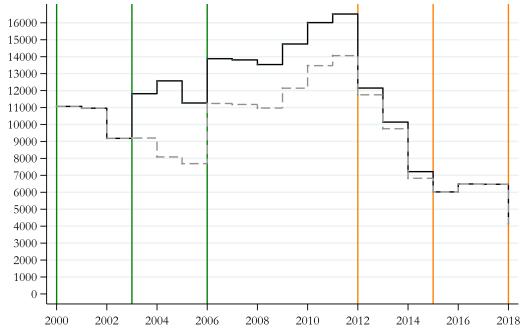
Notes - This table reports the effects of reducing child allowances on long term outcomes of Arab children aged 5-12 at the time of the reduction in transfers. The sample includes children in Arab families whose fourth (or higher parity) child was born in 2003. Panel A presents results for boys, while Panel B presents results for girls. Columns 1 and 3 report effects on ever attending postsecondary schooling and employment status from age 19 to 26 (or last available year), respectively. Column 2 reports the effect on average annual months employed from age 19 to 26 (or last available year). All regressions include controls as specified in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Adjustments to Reduced Cash Transfers: Religious Safety Nets and Children's Long-Term Outcomes

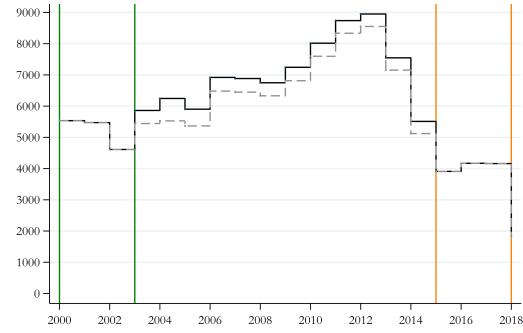
Online Appendix

Figure A.1: Total Simulated Annual Child Allowances by Treatment Status 2000-2018

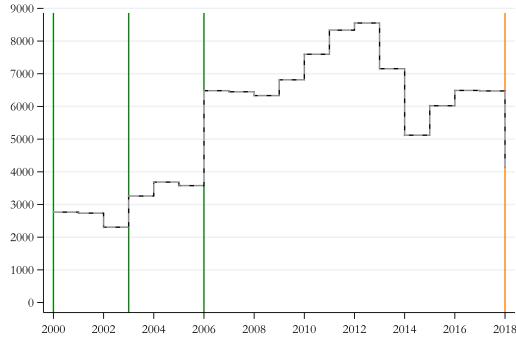
(a) 4th in 2003 and 5th in 2006, gap NIS 27,300



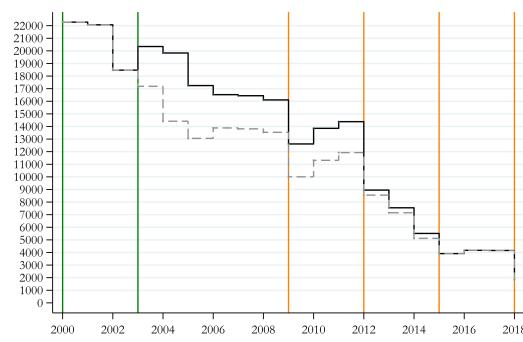
(c) 3rd in 2003, gap NIS 5,397



(b) 2nd in 2003, gap NIS 0

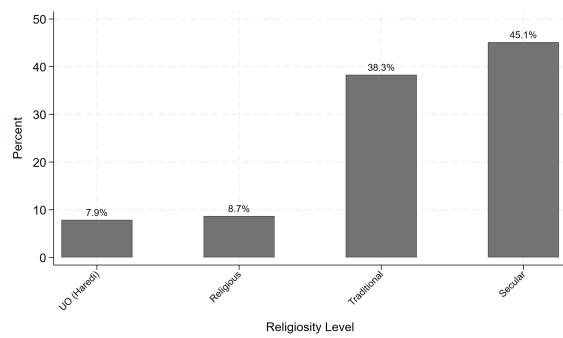


(d) 5th in 2003, gap NIS 29,382

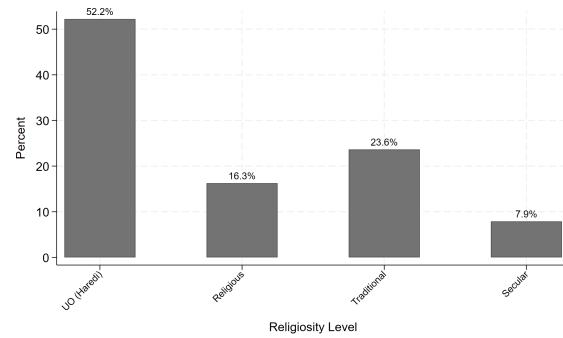


Notes - This Figure displays simulated yearly child allowance to be received in NIS by a family whose 4th child was born in 2003. All amounts are in 2021 NIS. Solid and dashed lines indicate the amount when the birth in 2003 occurred pre-June (untreated) and post-June (treated), respectively. The vertical orange line indicates that a child reached the age of 18 and the mother no longer receives an allowance for that child. The green vertical line indicates a birth. We assume a three years spacing between births.

Figure A.2: Religiosity Levels for Jewish Adults in Israel



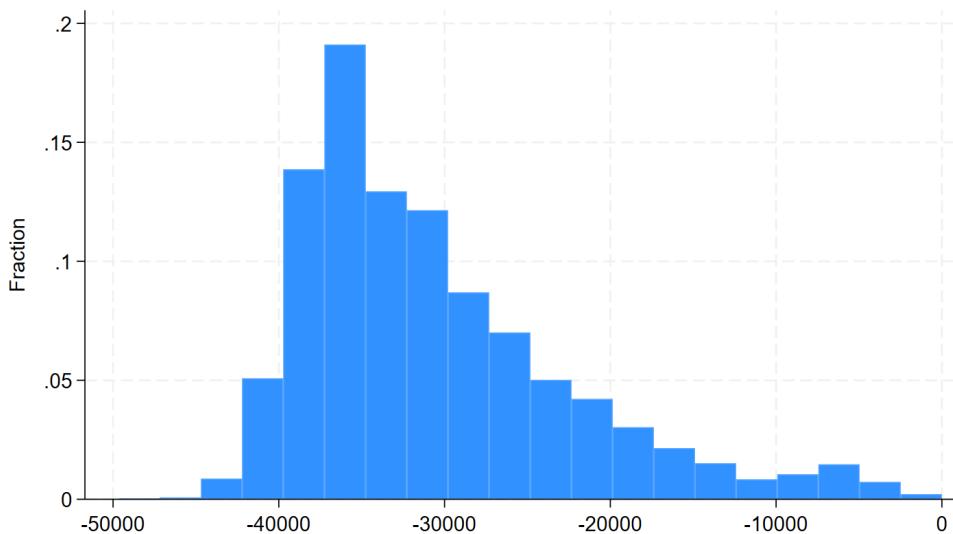
(a) All



(b) Age 20-39, 4+ Children

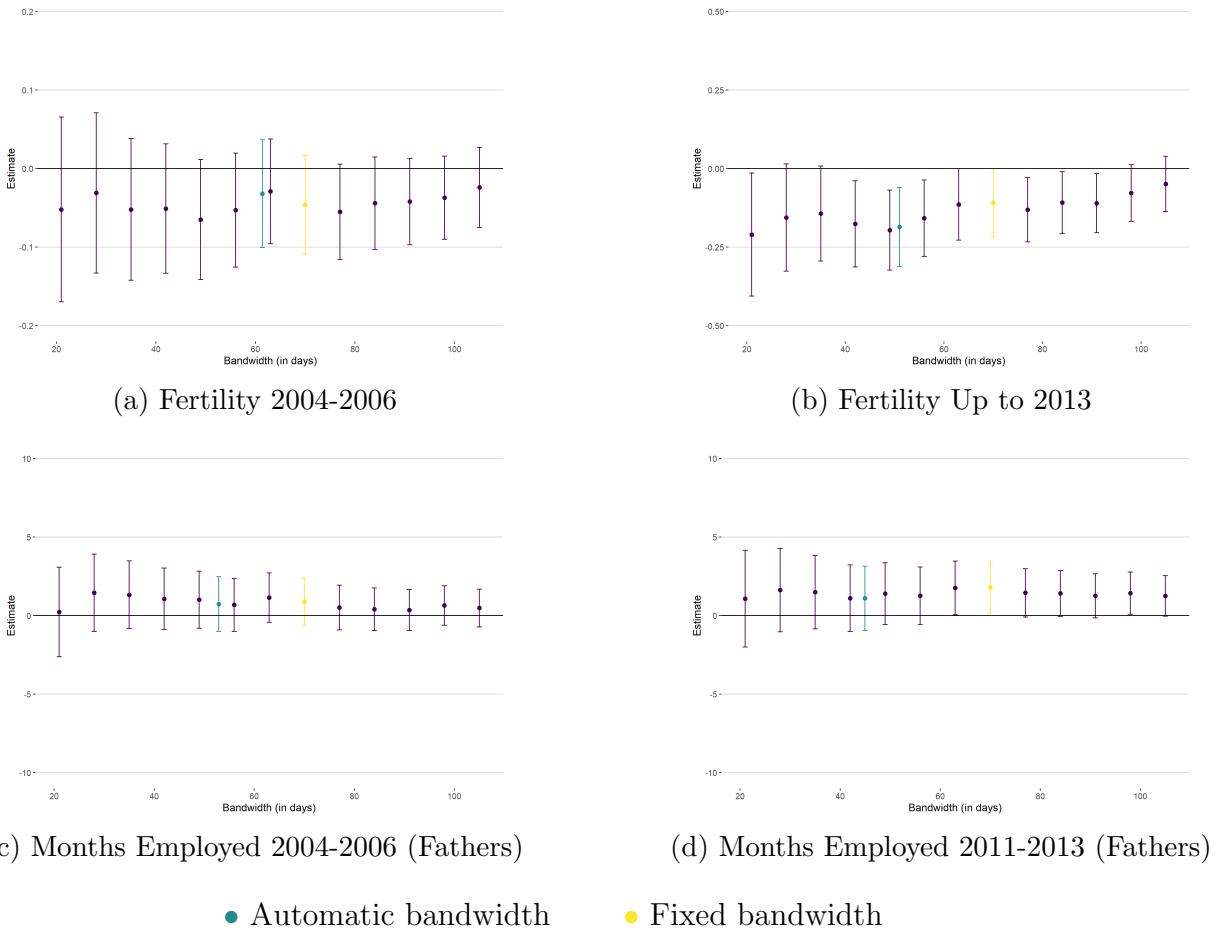
Notes - This figure displays the distribution of self-reported religiosity levels for Jewish participants of the Israeli Social Survey in 2004. Panel (b) restricts the sample to parents aged 20-39, with at least four children.

Figure A.3: The Distribution of Treatment Intensity



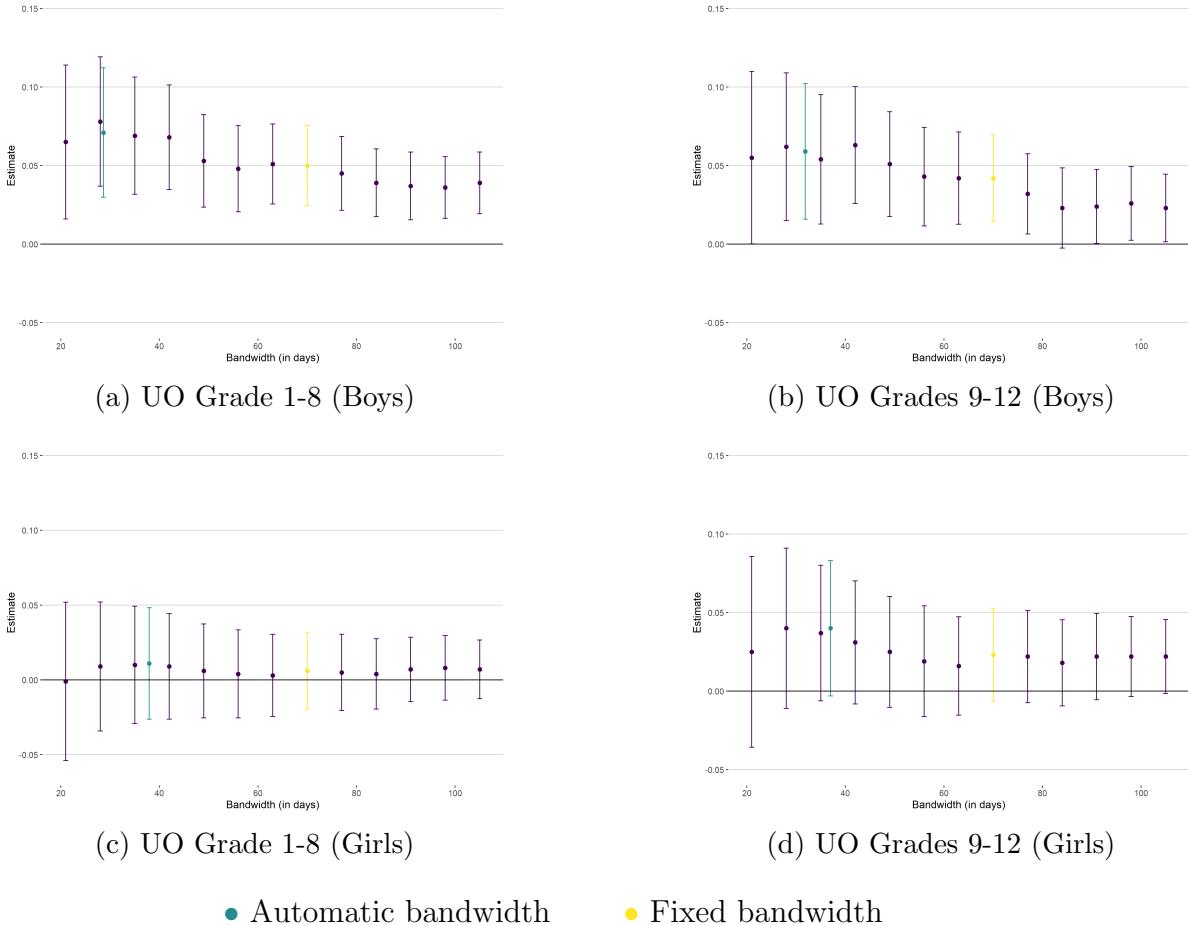
Notes - This figure shows the distribution of treatment intensity for families with a fourth or higher-order birth within a 10-week window after the June 1, 2003 cutoff. Treatment intensity is calculated by simulating, for each family, a counterfactual stream of child allowance transfers as if the post-cutoff birth had occurred before the cutoff. The simulated amount is then subtracted from the actual sum of child allowance transfers received by the household. All amounts are in 2021 NIS.

Figure A.4: Robustness to Alternative Bandwidths: Effects on Fertility and Employment of Arab Families



Notes - This figure displays robustness checks for Arab parents of reducing child allowances on several outcomes. Bandwidths vary from 21 to 105 days, as depicted on the horizontal axis. Panels (a) and (b) report effects on short-term and completed fertility adjustments. Panels (c) and (d) report effects on short- and long-term employment adjustments for Arab fathers. The coefficient based on the 70-day bandwidth is reported in yellow, and the Calonico, Cattaneo, and Farrell (2020) automatic bandwidth is plotted in green.

Figure A.5: Robustness to Alternative Bandwidths: Effects on Enrollment in Ultra-Orthodox Schools



Notes - This figure displays robustness checks for Jewish parents of reducing child allowances on several outcomes. Bandwidths vary from 21 to 105 days, as depicted on the horizontal axis. Panels (a) and (b) report effects on the probability of enrolling children in UO schools for boys. Panels (c) and (d) report effects on the probability of enrolling children in UO schools for girls. The coefficient based on the 70-day bandwidth is reported in yellow, and the [Calonico, Cattaneo, and Farrell \(2020\)](#) automatic bandwidth is plotted in green.

Table A.1: The Effects of Reducing Transfers on Labor Earnings and on the Probability of Exceeding the Median

	Labor Earnings 2004-2006		Labor Earnings 2011-2013		> Median 2004-2006		> Median 2011-2013	
	Fathers (1)	Mothers (2)	Fathers (3)	Mothers (4)	Fathers (5)	Mothers (6)	Fathers (7)	Mothers (8)
Panel A: Jewish								
Treatment	-585 (8,228)	-238 (4,407)	-10,838 (10,909)	-3,483 (6,350)	0.002 (0.018)	-0.021 (0.018)	-0.010 (0.020)	-0.037* (0.019)
Control mean	206,621	105,571	266,627	164,869	0.491	0.488	0.493	0.489
Observations	7,310	7,310	7,310	7,310	7,310	7,310	7,310	7,310
Panel B: Arab								
Treatment	4,871 (7,044)	-986 (1,908)	8,742 (9,868)	-4,337 (3,408)	0.035 (0.027)	0.036 (0.022)	0.048* (0.029)	0.016 (0.028)
Control mean	157,557	17,926	200,050	44,655	0.491	0.235	0.500	0.372
Observations	4,296	4,296	4,296	4,296	4,296	4,296	4,296	4,296

Notes - This table reports the effects of reducing child allowances on labor earnings of each of the parents (columns 1-4) and on the probability of having above median labor earnings (columns 5-8), separately for each subgroup. The sample includes families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for Jews, while Panel B reports the effects for Arabs. Columns 1, 2, 5 and 6 report the effect within 3 years of the reduction in transfers, whereas columns 3, 4, 7 and 8 report the effect 8 to 10 years after the reduction in transfers. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated for each regression using families who gave birth to their 4th child prior to June 1, 2003. Robust standard errors are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table A.2: Robustness Tests: Fertility and Employment of Arab Families

	Subsequent Children		Months Employed 2004-2006		Months Employed 2011-2013	
	2004-2006 (1)	Up to 2013 (2)	Fathers (3)	Mothers (4)	Fathers (5)	Mothers (6)
Panel A: Kernel						
Treatment	-0.047* (0.027)	-0.147** (0.063)	0.931 (0.828)	-0.033 (0.524)	1.535* (0.902)	-0.523 (0.800)
Control mean	0.386	0.920	23.079	4.708	23.214	8.551
Observations	4,296	4,296	4,296	4,296	4,296	4,296
Panel B: Donut						
Treatment	-0.046 (0.037)	-0.111* (0.063)	1.006 (0.869)	0.228 (0.540)	1.966** (0.933)	-0.993 (0.823)
Control mean	0.386	0.921	23.047	4.623	23.178	8.456
Observations	4,066	4,066	4,066	4,066	4,066	4,066

Notes - This table reports robustness checks for Arab parents of reducing child allowances on the number of subsequent children in the household and on the cumulative number of months employed by each of the parents. The sample includes families whose 4th (or higher parity) child was born in 2003. Panel A reports estimates using a triangular kernel function, while Panel B reports estimates obtained after removing observations in an eight-day donut hole around the cutoff (four days on each side). Columns 1, 3, and 4 report the effect within 3 years of the reduction in transfers, whereas columns 2, 5, and 6 report the effect 8 to 10 years after the reduction in transfers. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. Robust standard errors are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table A.3: Placebo Tests: Fertility and Employment of Arab Families

	Subsequent Children		Months Employed 2004-2006		Months Employed 2011-2013	
	2004-2006 (1)	Up to 2013 (2)	Fathers (3)	Mothers (4)	Fathers (5)	Mothers (6)
Panel A: 2002 Placebo Cutoff						
Treatment	0.034 (0.033)	0.060 (0.054)	0.649 (0.776)	-0.115 (0.450)	-0.769 (0.830)	-0.915 (0.682)
Control mean	0.400	0.842	23.113	4.466	23.219	7.574
Observations	4,368	4,368	4,368	4,368	4,368	4,368
Panel B: Parity 1 and 2						
Treatment	-0.008 (0.027)	-0.060 (0.046)	0.224 (0.542)	-0.224 (0.562)	-0.581 (0.559)	0.349 (0.646)
Control mean	0.841	1.992	26.829	10.307	27.408	13.921
Observations	6,938	6,938	6,938	6,938	6,938	6,938

Notes - This table reports robustness checks for Arab parents of reducing child allowances on the number of subsequent children in the household and on the cumulative number of months employed by each of the parents. The sample includes families whose 4th (or higher parity) child was born in 2003. Panel A reports estimates from applying the reform cutoff day of June 1 to a sample of births during 2002, while Panel B reports estimates examining 1- and 2-parity births in 2003. Columns 1, 3, and 4 report the effect within 3 years of the reduction in transfers, whereas columns 2, 5, and 6 report the effect 8 to 10 years after the reduction in transfers. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. Robust standard errors are reported in parentheses.
*** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table A.4: Two-stage Least Squares Estimates of the Effects of Child Allowances Transfers on Fertility and Employment (in \$1,000)

	Subsequent Children		Months Employed 2004-2006		Months Employed 2011-2013	
	2004-2006 (1)	Up to 2013 (2)	Fathers (3)	Mothers (4)	Fathers (5)	Mothers (6)
Panel A: Jewish						
Treatment	-0.001 (0.003)	-0.005 (0.006)	-0.033 (0.067)	0.073 (0.061)	-0.025 (0.075)	0.108 (0.071)
Control mean	0.629	1.640	19.189	16.999	22.255	22.250
Observations	7,310	7,310	7,310	7,310	7,310	7,310
Panel B: Arab						
Treatment	0.005 (0.004)	0.013** (0.006)	-0.102 (0.090)	-0.011 (0.057)	-0.213** (0.097)	0.066 (0.086)
Control mean	0.386	0.920	21.651	4.708	23.214	8.551
Observations	4,296	4,296	4,296	4,296	4,296	4,296

Notes - This table reports the effects of additional \$1,000 (using purchasing power parity conversion rate) in child allowances on the number of subsequent children in the household and on the cumulative number of months employed by each of the parents. Child allowances are defined as follows: for each household-year we calculate child allowances, which are determined by the number and birthdates of children in the household that year. These amounts are then summed across all years. Child allowances are instrumented with the cutoff rule (reduced-form and first stage equation are presented in equation 1). The sample includes families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for Jewish families, while Panel B reports the effects for Arab families. Columns 1, 3, and 4 report the effect within 3 years of the reduction in transfers, whereas columns 2, 5, and 6 report the effect 8 to 10 years after the reduction in transfers. All regressions include the same set of controls and fixed effects as in the baseline specifications. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table A.5: Two-stage Least Squares Estimates of the Effects of Child Allowances Transfers on Enrollment in Ultra-Orthodox Schools (in \$1,000)

	Ages 5-12		Ages 0-4	
	Grades 1-8 (1)	Grades 9-12 (2)	Grades 1-8 (3)	Grades 9-12 (4)
Panel A: All				
Treatment	-0.0032*** (0.0012)	-0.0036*** (0.0013)	-0.0015 (0.0015)	-0.0006 (0.0016)
Control mean	0.670	0.616	0.684	0.622
Observations	18,079	18,079	16,864	16,864
Panel B: Boys				
Treatment	-0.0055*** (0.0014)	-0.0046*** (0.0016)	-0.0011 (0.0017)	-0.0015 (0.0019)
Control mean	0.670	0.621	0.686	0.621
Observations	9,261	9,261	8,676	8,676
Panel C: Girls				
Treatment	-0.0008 (0.0015)	-0.0027 (0.0017)	-0.0020 (0.0018)	0.0003 (0.0020)
Control mean	0.669	0.611	0.683	0.623
Observations	8,818	8,818	8,188	8,188

Notes - This table reports the effects of additional \$1,000 (using purchasing power parity conversion rate) in child allowances on the probability of enrolling Jewish children in ultra-Orthodox (UO) schools at grades 1 to 8 (columns 1 and 3) and at grades 9 to 12 (columns 2 and 4). Child allowances are defined as follows: for each household-year we calculate child allowances, which are determined by the number and birthdates of children in the household that year. These amounts are then summed across all years. Child allowances are instrumented with the cutoff rule (reduced-form and first stage equation are presented in equation 1). The sample includes children in Jewish families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for both boys and girls, while Panels B and C report the effects by gender. Columns 1 and 2 report the effects for children ages 5-12 in 2003, whereas columns 3 and 4 report the effects for children ages 0-4. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table A.6: Placebo Tests: Enrollment in Ultra-Orthodox Schools

	2002 Births		Parity 2		Ages 13+	
	Grades 1-8 (1)	Grades 9-12 (2)	Grades 1-8 (3)	Grades 9-12 (4)	Grades 1-8 (5)	Grades 9-12 (6)
Panel A: All						
Treatment	-0.004 (0.010)	0.002 (0.012)	-0.005 (0.017)	-0.005 (0.013)	0.018 (0.034)	0.014 (0.020)
Control mean	0.674	0.624	0.062	0.034	0.571	0.535
Observations	17,529	17,529	1,684	1,684	2,196	2,196
Panel B: Boys						
Treatment	-0.001 (0.012)	0.013 (0.014)	-0.033 (0.025)	0.011 (0.014)	-0.011 (0.046)	0.020 (0.026)
Control mean	0.681	0.627	0.070	0.029	0.541	0.507
Observations	8,904	8,904	836	836	997	997
Panel C: Girls						
Treatment	-0.006 (0.012)	-0.010 (0.015)	0.020 (0.024)	-0.019 (0.023)	0.028 (0.044)	0.007 (0.030)
Control mean	0.668	0.620	0.053	0.039	0.597	0.560
Observations	8,625	8,625	848	848	1,199	1,199

Notes - This table reports robustness checks for the effects of reducing transfers on the probability of enrolling Jewish children in ultra-Orthodox (UO) schools at grades 1 to 8 (Columns 1, 3 and 5) and at grades 9 to 12 (Columns 2, 4 and 6). Panel A reports the effects for both boys and girls, while Panel B and C report the effects by gender. The sample for Columns 1 and 2 report the results of a placebo exercise using the arbitrary cutoff date of June 2, 2002—one year before the actual cutoff and adjusted by one day to align with the same day of the week. Columns 3 and 4 report the results of placebo exercise using families whose 2nd child was born in 2003 (1st born children are too young for this analysis). Column 5 and 6 report the effect among children age 13 and older (in 2003) from families with a fourth or higher parity birth in 2003. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table A.7: Robustness Tests: Enrollment in Ultra-Orthodox Schools

	Triangular Kernel		Donut	
	Grades 1-8 (1)	Grades 9-12 (2)	Grades 1-8 (3)	Grades 9-12 (4)
Panel A: All				
Treatment	0.031*** (0.012)	0.036*** (0.013)	0.030** (0.012)	0.037*** (0.013)
Control mean	0.670	0.616	0.671	0.618
Observations	18,079	18,079	17,083	17,083
Panel B: Boys				
Treatment	0.054*** (0.014)	0.047*** (0.016)	0.052*** (0.014)	0.049*** (0.016)
Control mean	0.670	0.621	0.672	0.624
Observations	9,261	9,261	8,761	8,761
Panel C: Girls				
Treatment	0.007 (0.015)	0.024 (0.017)	0.008 (0.015)	0.028 (0.017)
Control mean	0.669	0.611	0.669	0.611
Observations	8,818	8,818	8,322	8,322

Notes - This table reports robustness checks for the effects of reducing transfers on the probability of enrolling Jewish children in ultra-Orthodox (UO) schools at grades 1 to 8 (Columns 1 and 3) and at grades 9 to 12 (Columns 2 and 4). The sample includes Jewish children in families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for both boys and girls, while Panels B and C report the effects by gender. Columns 1 and 2 report the results using triangular kernel weighting, while columns 3 and 4 report the results using an eight-day donut hole (four days on each side). All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table A.8: The Effects of Reducing Transfers on Enrollment in ultra-Orthodox Schools for pre-2003 ultra-Orthodox Families

	Ages 5-12		Ages 0-4	
	Grades 1-8	Grades 9-12	Grades 1-8	Grades 9-12
	(1)	(2)	(3)	(4)
Panel A: All				
Treatment	0.002 (0.006)	0.018 (0.014)	0.003 (0.010)	0.008 (0.016)
Control mean	0.988	0.927	0.962	0.897
Observations	11,274	11,274	10,273	10,273
Panel B: Boys				
Treatment	0.004 (0.008)	0.021 (0.017)	-0.003 (0.012)	0.028 (0.020)
Control mean	0.986	0.931	0.961	0.898
Observations	5,794	5,794	5,277	5,277
Panel C: Girls				
Treatment	0.001 (0.007)	0.017 (0.018)	0.010 (0.013)	-0.013 (0.021)
Control mean	0.990	0.922	0.964	0.896
Observations	5,480	5,480	4,996	4,996

Notes - This table reports the effects of reducing child allowances on the probability of enrolling Jewish children in ultra-Orthodox (UO) schools at grades 1 to 8 (columns 1 and 3) and at grades 9 to 12 (columns 2 and 4). The sample includes children in pre-2003 ultra-Orthodox families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for both boys and girls, while Panels B and C report the effects by gender. Columns 1 and 2 report the effects for children ages 5-12 in 2003, whereas columns 3 and 4 report the effects for children ages 0-4. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table A.9: The Effects of Reducing Transfers on the Fertility and Employment of pre-2003 Ultra-Orthodox Families

	Subsequent Children		Months Employed 2004-2006		Months Employed 2011-2013	
	2004-2006 (1)	Up to 2013 (2)	Fathers (3)	Mothers (4)	Fathers (5)	Mothers (6)
	Treatment	-0.020 (0.037)	-0.022 (0.080)	-0.870 (0.858)	-0.388 (0.672)	0.685 (0.952)
Control mean	0.864	2.275	14.485	14.216	17.592	19.398
Observations	3,998	3,998	3,998	3,998	3,998	3,998

Notes - This table reports the effects of reducing child allowances on the number of subsequent children in the household and on the cumulative number of months employed by each of the parents. The sample includes pre-2003 ultra-Orthodox families whose 4th (or higher parity) child was born in 2003. Columns 1, 3, and 4 report the effect within 3 years of the reduction in transfers, whereas columns 2, 5, and 6 report the effect 8 to 10 years after the reduction in transfers. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Robust standard errors are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.

Table A.10: The Effects of Reducing Transfers on the Educational Attainment of pre-2003 ultra-Orthodox Children

	Ages 5-12			Ages 1-4		
	Bagrut Diploma	HS Dropout	Bagrut Units	Bagrut Diploma	HS Dropout	Bagrut Units
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: All						
Treatment	-0.019 (0.013)	0.013 (0.011)	-0.646* (0.368)	-0.025 (0.019)	-0.015 (0.013)	-0.366 (0.493)
Control mean	0.086	0.056	3.442	0.162	0.069	4.744
Observations	11,274	11,274	11,274	6,280	6,280	6,280
Panel B: Boys						
Treatment	-0.024** (0.011)	0.015 (0.015)	-0.649* (0.379)	-0.027 (0.017)	-0.018 (0.020)	-0.590 (0.490)
Control mean	0.032	0.059	1.376	0.049	0.079	1.657
Observations	5,794	5,794	5,794	3,231	3,231	3,231
Panel C: Girls						
Treatment	-0.018 (0.021)	0.009 (0.015)	-0.818 (0.583)	-0.020 (0.032)	-0.014 (0.017)	0.023 (0.780)
Control mean	0.144	0.053	5.678	0.285	0.057	8.123
Observations	5,480	5,480	5,480	3,049	3,049	3,049

Notes - This table reports the effects of reducing child allowances on the educational attainment of Jewish children. The sample includes children in pre-2003 ultra-Orthodox families whose 4th (or higher parity) child was born in 2003. Panel A reports the effects for both boys and girls, while Panels B and C report the effects by gender. Columns 1 to 3 report the effects for children ages 5-12 in 2003, whereas columns 4 to 6 report the effects for children ages 1-4. Children born in 2003 (i.e., those who were age 0 in 2003) are excluded, as they reached grade 12 in 2021, a year for which we have no data. Columns 1 and 4 report results on matriculating high school by obtaining a Bagrut diploma. Columns 2 and 5 report results on dropping out of high school before the completion of twelve years of schooling. Columns 3 and 6 report results on the quality of the diploma by examining the unconditional overall number of Bagrut units. All regressions include the controls listed in equation 1. The bandwidth is 70 days in all regressions and the running variable is allowed to vary on either side of the cutoff. The control means are calculated using families who gave birth to their 4th child prior to June 1, 2003. Standard errors clustered at the household level are reported in parentheses. *** = significant at 1 percent level, ** = significant at 5 percent level, * = significant at 10 percent level.