# Parental Death, Inheritance, and Labor Supply in the United States

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#### Abstract

Does parental death influence the next generation's labor supply? To what extent is this response mediated by inherited wealth? Answering these questions advances our understanding of household earnings dynamics and wealth accumulation as well as aggregate wealth inequality. We are the first to study how inheritances affect labor supply in the U.S. using large-scale administrative data. Leveraging federal tax and Social Security records, we estimate event studies around parental death to investigate impacts on adult children. We find that parental death causes sizable gains in investment income—our main proxy for inheritances—and proportionate reductions in labor supply, with annual per-adult investment income at the tax unit level increasing by about \$300 (45 percent) and annual per-adult wage earnings decreasing by \$600 (2 percent) on average. These earnings responses are large relative to the implied wealth transfer. Income effects are the dominant channel through which parental death reduces earnings, with children of wealthier parents exhibiting larger earnings reductions. Over six years, inheritances slightly equalize the distribution of investment income.

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#### 1 Introduction

Throughout the world, population aging is reshaping workforces, pension systems, health-care, and wealth distributions. As larger cohorts reach old age, parental deaths—and any inheritances they trigger—will affect more households. We examine whether parental death is economically consequential for adult children. While popular media frequently cite intergenerational wealth gaps as evidence that younger generations stand to inherit substantial wealth from older ones, these cross-cohort differences may simply reflect life-cycle consumption patterns and need not translate into inheritances large enough to affect children's economic behavior. Moreover, while wealth and income transfers often increase consumption of leisure, parental death may affect children's economic well-being through other channels such as grief or foregone childcare. The aggregate impact of inheritances and corresponding earnings adjustments on wealth inequality is also not obvious. In the United States, the absence of wealth and inheritance registries and barriers to constructing parent-child linkages in administrative data have constrained credible evidence on these questions.

This paper generates new insights on how inheritances affect labor supply in the U.S. by using a rich parent-child linked panel dataset to identify parental deaths and causally infer inheritances. We construct this dataset from federal tax and Social Security records for the universe of Social Security Number holders from 1994 to 2022, yielding a panel of nearly two million adult children who lose their last living parent from 2005 to 2022. We examine the effect of parental death on income flows earned from investments—the component of wealth we directly observe—and on labor earnings. Our analysis is based on an event study design that compares outcomes of individuals before and after their parent dies with outcomes of individuals who lose a parent in a later year.

The canonical labor supply model (MaCurdy, 1981) assumes perfect foresight, implying that receipt of an inheritance has no impact on permanent income and therefore does not alter labor supply. To rationalize the possibility of earnings responses upon receiving an inheritance, we introduce a simple extension to the conventional model in which inheritances are a shock to assets that is not fully anticipated. By adjusting the budget constraint to permit such a shock, we show that the optimal choice of hours is decreasing in the amount of unanticipated inheritance.

Testing this prediction empirically, we find that parental death causes a sizable and sustained increase in per-adult investment income—on average, 45 percent of the baseline mean—suggesting an expansion of the underlying asset base. Using capitalization factors from the literature, this income flow corresponds to a per-adult stock of wealth of around \$13,900 and a total stock of \$20,500 at the tax unit-level. Simultaneously, parental death

reduces per-adult earnings by about 2 percent of the baseline mean on average, with 60 percent of the initial reduction persisting after six years. On the extensive margin, the share of tax units (individuals or married couples) with positive investment income initially increases by four percentage points (20 percent of the baseline mean), declining to half this gain after six years. The effect on the share of tax units with positive earnings is economically insignificant. We find trivial to modest effects on other labor market outcomes and on marriage, divorce, and geographic moves.

Investment income is an imperfect proxy for inheritances that reflects inherited housing incompletely and many other assets not at all. We summarize the components of inheritances likely to be captured by investment income based on institutional features of wealth transfers and benchmark our results to self-reported data from the Survey of Consumer Finances (SCF) on inheritances and household portfolio composition. From this exercise, we estimate that our causal estimates capture between approximately 1/7 to 1/2 of total inheritances. In a sample of children in the SCF comparable to those in our sample, we find that the share of households who have received an inheritance from a parent is about 16 percent, with an unconditional mean and median inheritance value of about \$39,000 (approximately double the stock captured by our investment income measure) and \$0, respectively.

Combining various indicators for receipt of information returns associated with wealth-related activities, we provide causal evidence on how the likelihood of receiving an inheritance varies by socioeconomic and demographic group, including along dimensions not available in the SCF. We find patterns that mirror broader wealth inequality: children of parents in the top income quartile are nearly eight times more likely to receive an inheritance than children of parents in the bottom quartile.

We perform various evaluations to assess the relative quantitative importance of income and non-income mechanisms. To isolate the effect of inheritances on earnings, we study treatment effect heterogeneity along numerous dimensions, including demographic characteristics obtained from linked Census data that are unobserved in many previous studies of windfall income. Across subsamples, we find that earnings reductions generally mirror investment income gains, with both outcomes scaling markedly with parental income.

Next, we implement a two-stage least squares regression of earnings on investment income that uses interactions of parental death and individual characteristics as instruments. We find that, on average over our post-period and assuming the share of inheritances captured by investment income is constant across groups, a dollar gain in investment income leads to an 18-65 cent reduction in earnings. Furthermore, the line of best fit passes through the origin: we cannot reject that children receiving no inheritance undergo no changes in earnings.

Additional evidence on compositional changes in wealth resulting from parental death comes from studying impacts on the probability of receiving information returns triggered by wealth-related activities. In particular, the probability of receiving Form 1099-R—issued to all child beneficiaries of retirement accounts during our study period—doubles relative to its baseline mean. The probability of receiving Form 1099-S, which often accompanies a house sale, also rises.

The earnings response is muted among children whose dying parents had no observable wealth in our data prior to death, as identified by tax records and Census homeownership data. Among these children, investment income remains flat but earnings fall by half the amount of the broader sample in the year of parent death. In subsequent years, effects are virtually indistinguishable from zero. Together, our results suggest that the role of non-income factors in mediating earnings effects is concentrated in the year of death.

Comparing earnings responses among children who lose a first versus a last elderly parent, we find that investment income gains are much smaller after the death of a first parent, consistent with that parent leaving wealth to a surviving spouse. Earnings reductions are also smaller after the death of a first parent, though they are larger in proportion to impacts on investment income than in the case of a last parent death. One interpretation for this finding, consistent with our extension of the labor supply model, is that small inheritances are largely unanticipated when a first parent dies.

Through heterogeneity analyses, we demonstrate that several non-income mechanisms such as the loss of informal childcare, compensatory labor supply to offset parent healthcare costs (i.e., added worker effects), and co-employment among children and parents are unlikely to play a significant role. Comparing responses to the death of own parents versus parents-in-law also casts doubt on grief as a prominent driver of earnings reductions, although we find limited evidence that this mechanism operates in the year of death. Finally, we show that elimination of eldercare responsibilities substantially increases earnings among children who were cohabiting with parents prior to death, the only group for whom we find a positive earnings response. We conclude that inheritances are the dominant source of labor supply reductions following parental death, but psychological effects or logistical obligations related to bereavement and estate settlement are needed to rationalize the universal reduction across groups in the year of death.

Despite stark differences in both who receives an inheritance and how much they receive, parental death and associated inheritances slightly compress inequality in the child distribution of investment income or, equivalently, the component of wealth that generates investment income. This result is consistent with smaller inheritances representing larger proportional increases in wealth for poorer individuals. Inheritances further reduce wealth

inequality by mildly equalizing the earnings distribution, since those with larger inheritances reduce their earnings by more.

Our paper is the first to document behavioral responses to inheritances in the U.S. using comprehensive administrative data. The most similar study to ours, Nekoei and Seim (2023), examines responses to parental death in Sweden, a setting with different inequality dynamics, a stronger social safety net, and higher labor force participation rates than the U.S. The authors find that labor earnings initially decline by one percent following parental death and fully recover within seven years, a similar result to ours. They also document an initial increase in individual wealth of about USD 6,100 that falls to USD 3,000 after seven years. This increase is much smaller and less sustained than the wealth gains implied by our results on investment income. Recent work by Brülhart et al. (2025) also documents long-lasting earnings reductions in response to moderately-sized inheritances in one Swiss canton. Building on these papers, we provide precise heterogeneity results that allow us to explore dimensions of inequality and mechanisms underlying the earnings response to parental death in U.S., the world's richest country by total household wealth. In doing so, we also shed light on direct earnings effects of parental death, a virtually universal but understudied life event relative to others such as child-bearing and own health shocks.

Within the U.S., existing work on labor supply responses to inheritances is limited to older studies that use either survey data from the Panel Study on Income Dynamics (PSID) or one percent samples of estate tax returns that capture only the largest inheritances for a small number of years in the 1980s (Holtz-Eakin et al., 1993; Joulfaian and Wilhelm, 1994). Unlike these papers, we directly quantify earnings responses for a broad swath of the U.S. population using a granular dataset and a credible control group.

Our paper also complements previous work on labor supply responses to windfall income, chiefly lottery winnings (Cesarini et al., 2017; Picchio et al., 2018; Bulman et al., 2021; Golosov et al., 2024) and, more recently, unconditional transfers in two U.S. states (Vivalt et al., 2025). In this literature, a key parameter is the marginal propensity to earn (MPE), which represents the decrease in annual earnings associated with an annual dollar increase in unearned income for the rest of one's life. Estimating an MPE using our results requires stronger assumptions than in these settings, since we do not directly observe total inheritances and cannot identify the unanticipated portion of inheritances. Imposing these additional assumptions yields a range that aligns with recent estimates by Golosov et al. (2024) and Vivalt et al. (2025). In addition, like Golosov et al. (2024) we find that earnings reductions are increasing in baseline earnings.

Finally, our paper brings new evidence to bear on a long-standing literature concerning the share of inherited wealth in aggregate private wealth (Kotlikoff and Summers, 1981; Modigliani, 1986; Alvaredo et al., 2017). This literature has historically assumed inelastic labor supply with respect to inheritances. Our study finds large labor supply responses to a fixed level of inheritance, implying that inheritances may play a larger role in aggregate wealth than previously believed. Our study also complements a related literature that studies intergenerational wealth elasticities and patterns (Black et al., 2020; Adermon et al., 2018; Wolff, 2002; Bernheim, 1991) by documenting that inheritances reflected in investment income vary dramatically by parental income.

## 2 Theoretical framework

In this section, we present the conventional model of optimal labor-consumption choice with perfect foresight, following MaCurdy (1981). Next, we discuss how inheritances, as a shock to assets that is not fully anticipated, can shift individuals' labor supply. The derivation follows Pistaferri (2003).

With perfect foresight, an individual solves the following problem:

$$\max \sum_{t=0}^{T} (1-\delta)^{-t} u(c_{it}, h_{it}, \mathbf{Z}_{it})$$

subject to the budget constraint

$$a_{it+1} = (1 + r_{t+1})(a_{it} + w_{it}h_{it} - c_{it})$$
(2.1)

which requires that the present value of permanent income equals the present value of lifetime consumption:

$$A_0 + \sum_{t=0}^{T} \left( \frac{w_{it} h_{it}}{\prod_{k=0}^{t} (1+r_k)} \right) = \sum_{t=0}^{T} \left( \frac{c_{it}}{\prod_{k=0}^{t} (1+r_k)} \right)$$
(2.2)

where  $\delta$  is the intertemporal discount rate, c is consumption, h is hours of work,  $\mathbf{Z}$  is a vector of preference shifters, a is assets, r is the real interest rates, and c is the real hourly wage.

If inheritances were fully anticipated, their present value would be captured by the  $A_0$  component of permanent income (initial assets). Therefore, receipt of an inheritance would not alter the optimal choice of hours or consumption at the time of inheritance or beyond. In contrast, if inheritances are not fully anticipated, the individual's problem is:

$$\max E_t \sum_{t=0}^{T} (1-\delta)^{-t} u(c_{it}, h_{it}, \mathbf{Z}_{it})$$

subject to the budget constraint

$$a_{it+1} = (1 + r_{t+1})(a_{it} + w_{it}h_{it} - c_{it}) + q_{it+1}$$
(2.3)

where  $E_t(.) = E(.|\Omega_{it})$  is the subjective expectation that conditions on the individual information set  $\Omega_{it}$  at time t and  $q_{it} \equiv a_{it} - E_{t-1}(a_{it})$ . The budget constraint requires that assets at t+1 are equal to assets accumulated in t plus an innovation in assets. This innovation could represent any unexpected shock to assets, such as negative health shocks, uninsured disasters, lottery winnings, or inheritances. We assume rational expectations such that  $E_{t-1}(q_{it}) = 0$ .

Conditions for an optimum are satisfaction of the budget constraint and the first-order conditions:

$$\frac{\partial u(c_{it}, h_{it}, \mathbf{Z}_{it})}{\partial c_{it}} = \lambda_{it} \tag{2.4}$$

$$-\frac{\partial u(c_{it}, h_{it}, \mathbf{Z}_{it})}{\partial h_{it}} = \lambda_{it} w_{it}$$
(2.5)

$$\lambda_{it} = E_t \left( \frac{1 + r_{t+1}}{1 + \delta} \lambda_{it+1} \right) \tag{2.6}$$

where  $\lambda$  is the Lagrange multiplier, representing the marginal utility of wealth.

Equations 2.4 and 2.5 can be solved to obtain Frisch demand functions for consumption and hours of work, which hold  $\lambda$  constant. Assuming isoelastic, additively separable utility, one can obtain an approximate log-linear specification for hours of work:

$$\ln h_{it} \approx \mathbf{Z}'_{it}\alpha + \eta \ln w_{it} + (\eta + \varphi) \ln \lambda_{it}$$
 (2.7)

Plugging equation 2.6 into equation 2.7 and taking first differences yields the Euler equation for labor supply:

$$\Delta \ln h_{it} \approx \Delta \mathbf{Z}'_{it} \alpha + \eta \Delta \ln w_{it} - (\eta + \varphi) E_{t-1}(r_t - \delta)$$

$$+ (\eta + \varphi) (\ln \lambda_{it} - E_{t-1}(\ln \lambda_{it}))$$

$$- (\eta + \varphi) \ln E_{t-1}(e^{\ln \lambda_{it} - E_{t-1}(\ln \lambda_{it})})$$

$$(2.8)$$

We now assume that the solution for  $\lambda_{it}$  is such that its log can be approximated as a linear function of assets (which are assumed to be uncertain), log wages (which are assumed to be certain), and an error term:

$$(\eta + \varphi) \ln \lambda_{it} = \sum_{\tau=0}^{T-t} (\gamma_{\tau} E_t(a_{it+\tau})) + \gamma_w \ln w_i + \nu_i$$
(2.9)

Here we have assumed that wages are fixed; allowing them to evolve deterministically does not affect the results below. Note that concavity of preferences implies  $\gamma_{\tau}$  and  $\gamma_{w}$  are negative for all  $\tau$ .

Using equation 2.9, the innovation in the marginal utility of wealth can be written as

$$(\eta + \varphi)(\ln \lambda_{it} - E_{it-1}(\ln \lambda_{it})) = \sum_{\tau=0}^{T-t} \left( \gamma_{\tau}(E_t(a_{it+\tau}) - E_{t-1}(a_{it+\tau})) \right)$$
(2.10)

Plugging equation 2.3 into equation 2.10 yields:

$$(\eta + \varphi)(\ln \lambda_{it} - E_{it-1}(\ln \lambda_{it})) = q_{it} \left( \gamma_0 + \sum_{\tau=1}^{T-t} \gamma_\tau \prod_{k=1}^{\tau} (1 + r_{t+k}) \right)$$
 (2.11)

Therefore, referring back to equation 2.8, the Euler equation for labor supply is proportional to the innovation in assets,  $q_{it}$ , multiplied by a negative constant. An unanticipated inheritance is a positive innovation in assets that results in a reduction in hours worked. The extent to which an inheritance is unanticipated is captured by the magnitude of the innovation, with a lower degree of anticipation corresponding to a larger reduction in hours worked.

We have highlighted anticipation as it is a distinctive determinant of responses to inheritances, in contrast to settings with windfall income gains. Nonetheless, frictions such as credit constraints or consumption commitments may cause inheritances to reduce labor supply even under full anticipation. We also note that parental death may affect labor supply through other channels. One possibility is that grief from parental death lowers productivity, representing a negative shock to wages in this model. As shown in Pistaferri (2003), the predicted impact of such a shock on labor supply is ambiguous. Since the effect may be negative, as with a positive asset shock, we will evaluate the role of grief (and other mechanisms) in Section 7.

## 3 Data

#### 3.1 Data sources and sample construction

We link multiple administrative, Census and survey datasets using the Census Bureau's data linkage infrastructure (Wagner and Layne, 2014). We start from a commingled set of federal tax information containing the universe of individuals who have a Social Security Number

(SSN) from 1994 to 2022, similar to Chetty et al. (2020). This dataset includes key fields from the IRS Form 1040 and the Social Security Administration's Numident records provide sex and dates of birth and death. We link children to parents using fields on the 1040 that indicate dependent claiming. We define an individual's parents to be the one or two individuals who claimed her as a dependent in the first year she was claimed. We restrict claimees to being under 24, the age limit for dependents, at the time they are claimed. We then construct a balanced panel of adult children with linked parents from 2005 to 2022, the years for which W-2 data are available.

To obtain our main estimation sample, we define treatment as experiencing the death of a parent who is age 65 or older and who is one's last parent to die, including single parent deaths.<sup>2</sup> We then restrict to children in the treated sample. In our sample, only a very small share of individuals have a spouse who also loses an elderly, last parent during the sample period. We drop these individuals from the sample to guarantee that all married couples only undergo treatment, as we define it, once. We then link to the Census Bureau's Environmental Impacts Frame (Voorheis et al., 2023), which provides harmonized address history information along with race and ethnicity for the near population sourced from administrative records and the Census Bureau's Master Address File. To assign education and homeownership, we link to the short and long form Decennial Censuses and American Community Surveys from 2000 through 2022.

Our inability to observe dependent claiming prior to 1994 has important consequences for our sample. First, we only observe parent-child linkages for people whose parents were filing taxes when their children were age 24 or under. Second, the sample consists of adult children belonging to birth cohorts from 1971 to 1987, meaning that the oldest children we observe are only age 51 by 2022, the end of our sample period.<sup>3</sup> As such, the dying parents we observe are necessarily either parents who had children relatively late in life or parents who die relatively early deaths, or both. We discuss this selection in Section 3.3.

#### 3.2 Terminology and key variables

This section outlines the key variables used in our estimation. Further details on variable definitions can be found in Appendix Table C.

Some economic outcomes are reported at the tax unit level and cannot be attributed to a specific individual for married couples. Therefore, for consistent comparison of all outcomes across both single and married tax units, unless otherwise noted we report outcomes on a

<sup>&</sup>lt;sup>1</sup>1994 is the earliest year of tax data in which dependent claiming fields are available.

<sup>&</sup>lt;sup>2</sup>In heterogeneity analysis, we explore outcomes when treatment is defined as the death of a first (elderly) parent.

<sup>&</sup>lt;sup>3</sup>The range of birth cohorts among dying parents is 1916 to 1957.

Golosov et al. (2024) and others, we define this number as two for individuals with filing status "married filing jointly" and one otherwise. Therefore, single person tax units include non-filers and filers who do not file jointly. We obtain filing status and spouse identity from the 1040.

Tax variables. Wage earnings or simply earnings refers to the sum of pre-tax wages, tips, salary taxable fringe benefits paid by all employers (i.e., the sum of earnings across W-2 forms) for an individual in a given year. It does not include self-employment income (i.e., self-employment business, farm, or partnership income). We define investment income as the sum of taxable and tax-exempt interest income, taxable dividend income, and gross rental income in a given year. For non-filers, we set these quantities equal to \$0. Adjusted gross income, or AGI, is the sum of total labor earnings, investment income, pension and retirement income, taxable Social Security payments, capital gains, unemployment compensation, business income, farm income, royalties, and real estate income in a given year and is net of above-the-line deductions.<sup>4</sup> We report all monetary values in inflation-adjusted 2022 U.S. dollars using the Consumer Price Index for All Urban Consumers (CPI-U) to adjust.<sup>5</sup> We also use indicators for the receipt of certain information returns, described in Section 5, as outcome variables.

Research design variables. The treatment year is the year of death of the individual's elderly, last parent. We refer to all individuals who experience the death of such a parent in the same year as a treatment cohort. The baseline year is defined as one year prior to the treatment year. The event time  $\ell$  for treatment cohort c is the calendar year  $t = c + \ell$ , where  $\ell$  may be positive or negative.

#### 3.3 Descriptive statistics

Column 1 of Table 3.1 reports a set of summary statistics for individuals and parents in our sample—that is, the sample of individuals with at least one linked parent who lose an elderly, last parent during the sample period. Our final sample consists of nearly two million unique adult children and 1.4 million parent deaths from 2010-2022. All summary statistics are measured in their baseline year, i.e., one year prior to parent death. Each statistic is a weighted average using cohort size as weights. We find that, consistent with the selection described above, individuals in our sample lose their last parent when both they and the parent are relatively young, about 38 years old and 73 years old, respectively. Appendix Table A.1 reproduces the Social Security Administration's cohort life table for the closest

<sup>&</sup>lt;sup>4</sup>Real estate income includes but is not limited to rental income.

<sup>&</sup>lt;sup>5</sup>We winsorize monetary variables at the 0.1 and 99.9th percentiles.

available cohort (1940) to the average parent birth cohort in our sample (1943). The table suggests that, approximately, male (female) dying parents in our sample belong to the first one half (one third) of their birth cohort to die.

In column 2, we present corresponding summary statistics for a randomly drawn 10 percent sample of all individuals belonging to the same birth cohorts as those in our sample and with at least one linked parent (unconditional on parental death). Individuals and parents in our sample earn less and have lower investment income than their counterparts in the any parent sample, consistent with early (parental) mortality being more prevalent among lower income groups. In the case of parents, lower AGI and lower investment income among parents in our main sample reflects not just lower socioeconomic status but also the fact that parent tax units in the main sample consist of only the sole remaining parent. In spite of these differences, the final four rows of Table 3.1 demonstrate that individuals in our sample are well represented in each quartile of the earnings distribution of the any parent sample.

Identifying parent linkages requires parents to have filed taxes in the 1990s, and filers are lower income than non-filers on average. Appendix Table A.2 reproduces key summary statistics for our main sample and compares them to summary statistics from a randomly drawn 10 percent sample of all individuals belonging to the same birth cohorts, unconditional on linkage to any parent. The table illustrates that median wage earnings in our main sample are only slightly lower than in the full population of SSN-holders belonging to the same birth cohorts. Employment shares are comparable across the two samples. Strikingly, the Black share of our main sample remains substantially higher than that of the full population, indicating the extent to which early mortality varies by race. In combination with Table 3.1, Appendix Table A.2 illustrates that, while conditioning on linkage to a parent selects for higher socioeconomic status than the full population, conditioning on linkage to a parent who dies early results in a sample that is slightly disadvantaged relative to the full population.

#### 3.4 Measuring inheritances

<u>Institutional background.</u> In the U.S., there is no requirement that parents bequeath assets to their children upon death. There are, however, benefits to bequeathing wealth to one's children upon death rather than during one's lifetime. Namely, bequeathed wealth is generally not taxed due to the tax code's step-up basis feature and absence of meaningful estate taxation. The step-up basis stipulates that when an heir inherits an asset the asset's value is reset to its fair market value at the time of the original owner's death, rather than the value it had when it was originally purchased by the decedent.

With a filing threshold of \$28M for married couples as of 2025, the federal estate tax binds

Table 3.1: Summary statistics

	Main sample (last parent dies)	Any linked parent $(10\% \text{ sample})$ $(2)$
Children	( )	( )
Age	38.26	36.03
Birth year	1979	1981
Female	0.49	0.49
Married	0.37	0.45
White	0.57	0.65
Black	0.21	0.14
Hispanic	0.15	0.15
Number of linked parents	1.47	1.69
Has female linked parent	0.76	0.90
Has male linked parent	0.71	0.79
Has positive wage earnings	0.74	0.79
Wage earnings	\$42,300	\$50,140
Wage earnings (median)	\$27,890	\$36,890
Wage earnings (cond. on positive)	\$57,510	\$63,440
Tax unit investment income	\$1,583	\$2,020
Tax unit investment income (median)	\$0	\$0
Relative Q1 earnings share	0.31	0.25
Relative Q2 earnings share	0.26	0.25
Relative Q3 earnings share	0.22	0.25
Relative Q4 earnings share	0.20	0.25
Parents		
Dying parent age at death	73.59	73.33
Dying parent female	0.55	0.54
Oldest parent birth year	1943	1952
Oldest parent number of kids	1.95	2.48
1994 tax unit AGI	\$71,580	\$95,030
1994 tax unit AGI (median)	\$51,910	\$73,690
Tax unit investment income	\$3,478	\$8,249
Tax unit investment income (median)	\$0	\$0.53
Number of unique individuals	1,939,000	4,655,000
Number of unique parent deaths	1,416,000	216,000

Notes: This table presents, in column 1, descriptive statistics for our main estimation sample of individuals who lose an elderly, last parent. All monetary values are reported in 2022 U.S. dollars. In the upper section of the table, we report mean characteristics for children (except where otherwise noted). All values in column 1 are measured one year prior to parental death and reported as cohort size-weighted averages. Column 2 reports the same statistics for all individuals in the same birth cohorts as our main sample (1971-1987) to whom we can link at least one parent. All values are reported as averages across calendar years that correspond to the baseline year in the main sample, using treatment cohort shares in the main sample as weights. We also construct earnings quartiles of the any parent sample for each calendar year. In column 1, we report the share of individuals in the main sample whose earnings in the baseline year fall into each of these quartiles. For the any parent sample, the share is 0.25 for each quartile by construction. In the middle section of the table, we report mean characteristics for parents (except where otherwise noted). Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

for only about 0.1 percent of decedents (Alvaredo et al., 2017).<sup>6</sup> The few states that impose estate or inheritance taxes also have large exemptions. Inter vivos gifts are generally also not taxed, but any sale of assets to facilitate such gifts is subject to capital gains taxation. Only annual gifts above \$38,000 per married couple are reportable (in 2025). Amounts exceeding this exclusion amount are subject to taxation only if they also exceed a lifetime gift exemption, which is equal to the estate tax exemption and therefore seldom binds.

While the transfer of inherited assets is typically not taxed, distributions from inherited tax-deferred retirement accounts are taxable as ordinary income. Non-spouse beneficiaries listed on retirement accounts must contact the account-holder's financial institution or plan administrator to establish an "inherited account" into which funds are transferred. In addition to taxes on retirement withdrawals, individuals face taxes on income earned from inherited financial assets, investment properties, or other sources. Life insurance death benefits are generally tax-exempt.

When a parent dies, any debts are paid from their estate, and only what remains can be inherited. Heirs do not personally inherit those debts. The main exception is secured debts such as mortgages and car loans. If heirs wish to retain the assets in such cases (e.g., keep the family home), they must continue making loan payments or refinance.

<u>Proxies for inheritances.</u> As mentioned in Section 3.2, our main proxy for inheritances—investment income—reflects returns on dividends, interest income, and rental income from financial assets and investment properties. To the extent that assets such as retirement accounts or proceeds from house sales are reinvested in financial assets, investment income reflects these components of inheritances. This is unlikely in the case of retirement assets, since retirement is a highly tax-advantaged means of holding wealth. To the extent that financial assets are liquidated or draw down (for consumption or to pay down debt) investment income underestimates inheritances. In Section 5.2, we will show that back-of-the-envelope comparisons to public data imply that investment income captures between 15 and 52 percent of total inheritances.

We also measure additional signals of receiving an inheritance in the form of indicators for the receipt of information returns, known as 1099 forms (or Form 1098 in the case of the form issued by mortgage interest payments). Like W-2s, these forms are filed with the IRS by firms (financial institutions or closing agents in the case of the 1099-S) and appear in our data regardless of whether individuals file taxes in a given year. Our data include indicators for receiving Form 1099-R, which reports retirement account distributions or rollovers; Forms 1099-INT and 1099-DIV, which indicate receipt of annual interest or dividend income; Form

<sup>&</sup>lt;sup>6</sup>Each spouse has an exemption of \$14 million; any unused portion of the first deceased spouse's exemption can be preserved and added to the surviving spouse's exemption.

1099-S, which documents proceeds from real estate transactions; and Form 1098, which reports mortgage interest payments. These forms capture extensive margin changes in the forms of wealth they are associated with to varying degrees.

Children who inherit retirement accounts should nearly universally receive Form 1099-R in at least one year of our post-period. The reason is that, after parental death, a listed child beneficiary must open an inherited retirement account, into which funds are transferred, with the relevant financial institution or employer plan administrator. During our sample period, IRS rules stipulated that child beneficiaries of retirement accounts either begin taking annual required minimum distributions (RMDs) by December 31 of the year following the parent's death or withdraw the full account balance within five years.

With respect to housing, closing agents generally must file Form 1099-S for home sales but are exempt from this requirement if sellers certify their property as a primary residence and the property meets certain excludability criteria regarding the sale price and capital gain. During our sample period, median house sale prices imply that many sales by owner-occupiers would not be reported. In contrast, heirs who sell an inherited house typically would receive the form since in most cases the house would not have been their primary residence. Mortgage servicers issue Form 1098 to borrowers except in rare cases (namely, when interest paid is under \$600 per year).

Forms 1099-INT and 1099-DIV are issued to individuals holding financial assets unless those assets generate under \$10 in interest or dividend income per year. The primary form of non-income bearing financial assets held by households are traditional checking and savings accounts, which yield little to no interest. However, based on the 2010-2016 average national interest rate for checking accounts of 0.06 percent, balances of roughly \$17,000 would suffice to generate at least \$10 in interest, implying limited scope for receipt of these forms to underestimate inheritances from financial assets (Federal Deposit Insurance Corporation).<sup>9</sup>

These details, along with other components of inheritances are captured by neither investment income nor information returns (namely, business income and non-housing durable goods such as vehicles), are summarized in Appendix Table A.3.

<sup>&</sup>lt;sup>7</sup>More precisely, the house must have been a primary residence for two of the prior five years. In addition, both the sale price and gain must be below \$250,000 (for single sellers) or \$500,000 (for married sellers). In practice, absent such certification, closing agents often issue the form by default.

<sup>&</sup>lt;sup>8</sup>During our sample period, the median U.S. home price in nominal terms ranged from about \$220,000 to \$310,000 (Federal Reserve Bank of St. Louis).

<sup>&</sup>lt;sup>9</sup>The average national savings rate was higher, about 0.10 percent, during this time period.

## 4 Research design

Our parameter of interest is a treatment cohort-weighted average treatment effect of losing a last, elderly parent on a given outcome as measured in post-death year  $c + \ell$ . To recover our parameter of interest, we make use of the quasi-random timing of parental death in a staggered adoption event study by comparing outcomes for individuals who lose a parent in a given treatment cohort to outcomes for individuals who lose a parent in a later treatment cohort. Following Fadlon and Nielsen (2021) and Nekoei and Seim (2023), we impose that control individuals for a given treatment cohort undergo treatment within  $\delta$  years of that treatment cohort. We set  $\delta = 6$  in order to enable evaluation of treatment effects up to  $\ell = 5$ .

We additionally require that controls belong to the same pre-treatment earnings tercile, racial/ethnic group (white/non-white), and birth cohort as the treatment cohort. Conditioning on pre-treatment earnings and racial group limits comparisons of individuals whose earnings are evolving differently prior to treatment; conditioning on birth cohort limits the potential for age effects to confound our results. Our identification assumption, therefore is that, in the absence of treatment, the outcomes of treated individuals would have followed the same trend as the outcomes of individuals belonging to the same demographic group who lose their last, elderly parent within six years. Our justification for making this (conditional) parallel trends assumption is that parental death is universal, and its precise timing generally cannot be foreseen.

We implement our approach using the stacked differences-in-differences estimator, first developed by Cengiz et al. (2019). Relative to the traditional two-way fixed effects DiD estimator, stacking avoids comparisons of treated individuals to previously treated individuals. For each treatment cohort  $c \in [2010, 2016]$ , the subset of treatment cohorts that are balanced in event time for  $l \in [-5, 5]$ , we form multiple "stacks." Each stack consists of all observations with  $l \in [c_i - 5, c_i + 5]$  for all individuals l in treatment cohort l who belong to a given demographic cell, as well as all available not-yet-treated observations for individuals l is treatment cohorts l and estimate the

<sup>&</sup>lt;sup>10</sup>Our results are not sensitive to larger choices of  $\delta$ .

<sup>&</sup>lt;sup>11</sup>Henceforth we use the term "racial group," where white includes white Hispanic and non-white includes non-white Hispanic

<sup>&</sup>lt;sup>12</sup>Using the Callaway and Sant'Anna (2021) estimator yields very similar point estimates. Relative to that estimator, the stacked approach greatly simplifies inference, especially when conducting heterogeneity analyses.

 $<sup>^{13}</sup>$ In heterogeneity analyses, we additionally include any characteristics that we condition on in the stack definition. Note that, given the construction of stacks, conditioning on time-varying characteristics in  $\ell = -1$  requires all individuals in a stack to share these characteristics in the calendar year prior to parental death for the *treated* cohort. Conditioning in this way avoids mean reversion.

following event study equation on this stacked dataset:

$$Y_{its} = \sum_{\ell \neq -1} \beta_{\ell} D_{its}^{\ell} + \alpha_{is} + \psi_{ts} + \epsilon_{its}$$

$$\tag{4.1}$$

where  $Y_{its}$  is the realized outcome of individual i at calendar year t for stack s.  $D_{its}^{\ell} = 1(t - c_i = \ell_{it})$  is an indicator for individual i at year t for stack s is treated  $\ell$  periods from now.  $\alpha_{is}$  and  $\psi_{ts}$  represent a set of individual  $\times$  stack and calendar year  $\times$  stack fixed effects, respectively. In all regressions, we normalize the baseline year,  $\ell = -1$ , to 0 and cluster standard errors at the level of the dying parent.

When reporting event time parameter estimates, we report the number of unique individuals in the regression and the number of stacks. Our main sample consists of 714 stacks corresponding to the combination of the seven treatment cohorts for which we estimate treatment effects, 17 birth cohorts, three income terciles, and two racial groups. Appendix Figure B.1 reports the count of unique individuals per treatment cohort in our main sample.

## 5 Behavioral responses to parental death

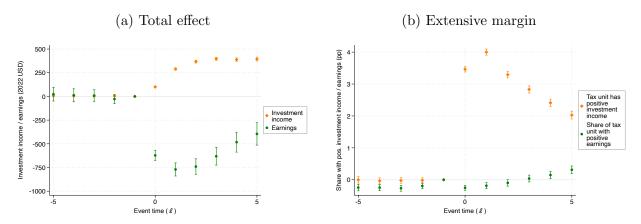
## 5.1 Investment income and earnings responses

In panel (a) of Figure 5.1 we plot our estimated event time coefficients  $\beta_{\ell}$  from equation 4.1 for our two main outcomes: per-adult investment income and per-adult earnings at the level of the tax unit. There is no evidence of differential trends between current and later treated individuals in pre-treatment event times -5 to -2 for either outcome, supporting the common trends assumption. The series labeled "Investment income" illustrates that, over the five year post-period, investment income of treated individuals increases by about \$300 a year on average relative to that of later treated individuals. This increase represents a 45 percent gain relative to the baseline mean. The second series in panel (a) shows that annual earnings of treated individuals fall by about \$600, or about 1.8 percent of the baseline mean.

We report event time and DiD coefficients for investment income and earnings in Appendix Table A.5. In Appendix Figure B.2, as a robustness check, we report results from fitting a Poisson model to the data. The coefficient estimates imply similar percentage changes in per-adult investment income and earnings as those implied by Figure 5.1. Our results are not impacted by the omission of parent deaths or observations during the years of the Covid pandemic (2020-2021).

Since investment income is flow income generated by underlying assets, we interpret the observed spike in investment income as evidence of new wealth from inheritances. Event

Figure 5.1: Effect of parental death on investment income and labor supply



Notes: This figure presents estimates of the effect of losing a parent on four outcomes, based on estimating equation 4.1. Panel (a) displays per-adult outcomes, whereas outcomes in panel (b) are at the level of the tax unit. 95 percent confidence intervals are displayed, clustering on dying parent. We use c-1 as the omitted event time. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

study results for the constituent components of investment income can be found in Appendix Figure B.3. Taxable interest income, tax-exempt income, dividend income, and rental income are primarily generated by debt instruments, municipal bonds, corporate stocks and mutual funds, and investment properties, respectively. The plot illustrates that gains in investment income are driven by increases in dividends and rental income, which roughly flatten in the third year following parental death. Using annual asset class-specific capitalization factors from Saez and Zucman (2016) for 2010-2016, we estimate that the observed overall investment income flow of \$300 corresponds to a stock of roughly \$13,900. The capitalization factors we use can be found in Appendix Table A.6.

Panel (b) illustrates that the effect of parental death on the share of individuals whose tax unit records any positive investment income is about three percent, averaging across post-period years, relative to a baseline mean of about 20 percent. The impact on the share of an individual's tax unit with any positive earnings (i.e., the share that is employed) is negligible. This is intuitive, given that the average value of the transfer is small relative to a stream of future earnings and individuals in our sample are only 38 years old on average, far from retirement age.

Table 5.1 reports impacts on the probability of switching employers, the number of W-2s received, and W-2 deferred compensation (generally contributions to 401(k)s). Parental death causes small increases in the first two outcomes, suggesting that switching jobs or shifting to more part-time employment may be a channel through which individuals reduce hours. The effect on deferred compensation is insignificant, implying it is not the case that

individuals maintain their baseline earnings but augment retirement saving.

Table 5.1: DiD estimates for additional labor supply outcomes

	Employer mobility	W-2 form count	Deferred compensation
	(1)	(2)	(3)
DiD estimate	.0052	.0124	-2.191
	(.0006)	(.0010)	(2.666)
Baseline mean	.2126	1.055	950.06
N individuals	774,000	1,939,000	1,939,000

Notes: This table reports DiD estimates for the probability of switching employers, per-adult count of W-2 forms received, and W-2 deferred compensation. For employer mobility, we restrict the sample to individuals with an Employer Identification Number (EIN) populated in every year. Since EIN comes from the W-2, this restriction imposes that individuals always have positive earnings. Employers are identified by the EIN on the individual's largest W-2. When computing standard errors (reported in parenthesis), we cluster on dying parent. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

With respect to dynamics, in panel (a) we see that earnings losses peak in the year after parental death, consistent with behavioral responses occurring mostly in the year of death for those bereaved early in the year and mostly in the following year for those bereaved later. In panel (b), the impact on the share of individuals with positive (tax unit-level) investment income also peaks in  $\ell = 1$ . As with earnings, within-year timing can explain this peak: parents who die midway through a given year may still earn investment income up until their death. Such income is reported on the parent's final income return (usually filed by an executor, next-of-kin, or legal heir) rather than the child's.

The longer lag before the peak in the total effect on investment income likely reflects delays in the transfer of assets. Probate, the legal process that authorizes the distribution of assets in a will, or non-trivial estates with no will, can range in duration from a few months to a few years.<sup>14</sup> The duration of closing a trust, an estate planning tool used by middle-and higher-income households, depends on its complexity; various law firm websites suggests an average of about one year.<sup>15</sup> Financial assets in trusts are often disbursed quickly, but a trust cannot be closed until real estate is transferred. After trust settlement, selling property and reinvesting proceeds into a taxable account would create a lag before investment income peaks. The fact that investment income eventually flattens while the extensive margin falls,

<sup>&</sup>lt;sup>14</sup>The probate court of Fulton County, Georgia, indicates that its process "has an average range of 6 to 12 months," while that of Harris County, Texas, states that "simple cases may resolve in a few months; more complex estates can take a year or longer" (Fulton County Probate Court; Harris County Public Probate Administrator).

<sup>&</sup>lt;sup>15</sup>See Parker Law Offices; The Legacy Lawyers; Geiger Law Office; Moran & Associates; SSR Elder Law & Estate Planning.

warrants further discussion. We discuss this result in Section 6.3.

In Appendix Table A.7, we examine other margins of adjustment to parental death beyond earnings that we can observe in our data: marriage, divorce, and geographic mobility. We find trivial impacts on the probability of new marriage and new divorce, and a small increase in the probability of changing Census tracts.

## 5.2 Share of inheritances captured by investment income gains

Above, we documented an average annual increase in per-adult investment income of about \$300 across our sample, corresponding to a stock of wealth about \$13,900 based on the capitalization factors from Saez and Zucman (2016) mentioned earlier (documented in Appendix A.6). The total investment income gain at the tax unit level (which, based on our sample construction, results from the death of a single parent) is about \$460, corresponding to a stock of about \$20,500 using an asset class-averaged capitalization factor of 44.5. As described in Section 3.4, these measures fail to capture several components of inheritances. Hence, it is challenging to determine what share of total inheritances the stock of wealth associated with \$1 of investment income represents.

A first pass at estimating this share is to compare investment income of the dying parent in the year prior to death with the aggregate inheritance across children implied by our tax unit-level DiD estimate of \$461.\frac{16}{16}\$ Table 3.1 documents that, in the baseline year, the dying parent's tax unit recorded \$3,478 in investment income. The table also indicates that dying parents on average have 1.95 children. Hence, a naive estimate of the share of inheritances we capture is:

$$\frac{\$461 \times 1.95}{\$3,478} = 26\%$$

This approach is flawed for several reasons. First and most obviously, the investment income of a parent incompletely reflects total parent assets, such that the above ratio overestimates the share of inheritances captured. This is especially true if the DiD estimate for a child reflects reinvestment of proceeds on the sale of inherited housing, since parent-side investment income does not include bequeathed housing.

The approach may also underestimate the share of inheritances captured by investment income. One reason pertains to data limitations in our parent-child linkage procedure. Namely, children above the age of 18 during the early years for which dependent claiming information is available are unobserved. Since most linkages come from these early years, this

<sup>&</sup>lt;sup>16</sup>Since our sample restricts to tax units that undergo treatment only once during the sample period, it is reasonable to assume that the tax unit-level DiD estimate corresponds to the inheritance received by a single individual.

source of measurement error downwardly biases the true number of children a parent has. In addition, there are multiple explanations for leakage between parent assets at baseline and inheritances. These include parental debt paid out of the estate; unobserved spending in a parent's last year of life; and non-child recipients of inheritances such as surviving partners in situations where a parent has remarried or never filed jointly with a co-parent, other relatives, or charity.

Due to these factors, a simple comparison of parent baseline investment income and child investment income responses provides neither a lower nor an upper bound on the true share of inheritances captured by investment income. We therefore employ two methods to establish approximate bounds by combining our investment income results with data from the Survey of Consumer Finances.

Method 1: Benchmarking to child-reported inheritances. To better understand how our estimates compare to survey data on the magnitude of total inheritances, we benchmark to the Survey of Consumer Finances, a cross-sectional survey that asks households whether they have ever received an inheritance and, if so, its total value and source. We first pool the SCF waves that align with our study window—2010, 2013, and 2016. We then restrict to households where at least one member (respondent or spouse) has no living parent and was born in the same birth cohort range as children in our main estimation sample. Appendix D provides details on our procedure, and documents that respondents in the resulting SCF sample have similar median and mean per-adult wage earnings as children in our sample.

The unconditional mean inheritance in the resulting SCF sample is about \$39,400, nearly twice as large as the unconditional mean inheritance reflected in investment income obtained in our sample ( $\approx \$20,500$ ). The share who receive an inheritance from a parent in the SCF is 16.4 percent and the mean inheritance among respondents who report receiving one is about \$240,200. This amount is nearly twice that of the conditional mean inheritance we obtain by normalizing the unconditional mean in our sample by the SCF inheritance share ( $\$20,500 / 0.164 \approx \$125,200$ ). In summary, assuming that investment income gains capture one half of total inheritances allows us to match two key moments in the SCF.

Although this result is compelling, it does not accord very well with general knowledge about household asset portfolio composition among the majority of the wealth distribution. In reality, all but the very wealthy hold a much larger share of their wealth in housing than in financial assets that bear investment income. While inherited housing is reflected in our investment income estimate to the extent that it is sold and reinvested (or rented), this channel seems unlikely to reconcile investment income-bearing assets comprising a full one

<sup>&</sup>lt;sup>17</sup>Since SCF respondents are selected to have experienced early death of last parents, we do not expect much bias from observing household rather than individual inheritances.

half of total inheritances. For this reason, we view one half as an upper bound on the share of inheritances that investment income gains capture and turn to an alternative approximation method below.

Method 2: Benchmarking to parent-reported balance sheets. The SCF also surveys households about the composition and magnitude of their assets and liabilities across different asset classes. This allows us to approximate the share of assets that bear investment income for a given household. We restrict to parents who are age 65 or above, unmarried or widowed, and have children away from home who are age 18 or older. We also drop respondents in the top and bottom one percent of the net worth distribution.

In this sample, we find that assets that generate investment income represent about 26 percent of gross assets, which in turn represent about 151 percent of net worth (i.e., gross assets net of liabilities). Gross assets that would manifest as investment income are similar to the stock associated with investment income of dying parents in our IRS sample. The asset classes with the largest share of gross assets are primary residences (48 percent of gross assets) and vehicles (about 11 percent).<sup>18</sup>

We next scale the ratio of aggregate child investment income gains per parent to parent baseline investment income by these shares:

$$\frac{\$461 \times 2.8 \text{ children/parent}}{\$3,478} \times \frac{\text{assets bearing investment income}}{\text{net worth}} \approx 0.147$$

This result implies that, if debt were the only form of leakage between parents and children, our investment income measure would capture about 15 percent of total inheritances. However, such a low share implies an implausibly large unconditional mean inheritance of around ( $$461 \times 44.5/0.147 \approx $140,000$ ).

In summary, combining our causal estimates on children and a key moment for parents in our data with survey-based descriptive statistics from the SCF implies that investment income gains capture between 15 and 52 percent of inheritances. The two approaches we use each have drawbacks that suggest the true bounds are much narrower.<sup>19</sup>

## 5.3 Causal and survey evidence on the distribution of inheritances

The distribution of causal effects on investment income is not econometrically identified without the implausible assumption of rank invariance.<sup>20</sup> Therefore, our empirical analysis

<sup>&</sup>lt;sup>18</sup>We exclude assets that generally cannot be passed down to children, such as defined benefit pension entitlements, when calculating gross assets.

<sup>&</sup>lt;sup>19</sup>A more comprehensive analysis is forthcoming.

<sup>&</sup>lt;sup>20</sup>Rank invariance implies that every individual's potential outcome in the treated state is a (weakly) increasing function of their potential outcome in the control state. This precludes scenarios in which lower-

cannot furnish results on, for example, the median investment income gain (or implied inheritance). One indication that the distribution is highly skewed is that the median investment income among dying parents, as shown in Figure 3.1. Another is that, as shown below in Section 9, even after the death of a last parent, 76 percent of children still hold only \$0 in investment income

As documented in Section 5.2 and Appendix D, the Survey of Consumer Finances also indicates a highly uneven distribution of inheritances, with an unconditional median inheritance of \$0 and an inheritance share of approximately 16 percent in a sample comparable to ours. Our data allow us to obtain evidence causal evidence on heterogeneity in the probability of receiving an inheritance across socioeconomic and demographic groups, including along dimensions not observed in the SCF (parental income and college attainment). To do so, we use the proxies for wealth transfers discussed in Section 5.1 to construct indicator variables for undergoing a change in wealth attributable to various sources. These indicators are defined by the appearance of retirement distributions, housing sales, or notable changes in investment income, as captured by the 1099 flags described in Section 3.4. Appendix C provides further details on the construction of these change in wealth variables.

We then estimate a simple difference in means for these variables using our stacked dataset.<sup>21</sup> That is, we estimate

$$Y_{i\ell d} = \beta D_{s(i,\ell)d} + \epsilon_{i\ell d} \tag{5.1}$$

where  $Y_{i\ell d}$  is an indicator for unit i in treatment state s undergoing a change in wealth and  $D_{s(i,\ell)d}$  is an indicator for whether the unit is treated in stack d. We cluster standard errors at the level of the dying parent. The difference in means for treated and control units represents the share of individuals who receive an inheritance from a given source.

Our results are summarized in Table 5.2. Because, as discussed in Section 3.4, our approach cannot pick up all measures of inheritances even with the 1099 forms we observe, these shares underestimate true inheritance shares. However, because these proxies span a broad set of asset classes among which inheritances are distributed, this measurement error is unlikely to cause significant bias in heterogeneity in the probability of receiving an inheritance across subsamples.

We find that, across almost all subsamples, the largest inheritance shares correspond to the indicator for undergoing a change in wealth due to retirement accounts. In Appendix

rank heirs receive large inheritances or higher-rank heirs receive small inheritances.

<sup>&</sup>lt;sup>21</sup>We make slight modifications to the sample relative to our main estimating sample from Section 5.1. First, we impose that control units belong to treatment cohorts c+4 through c+6 (rather than starting in c+1) to ensure clean controls given that some outcome variables' definitions involve restrictions during  $\ell \in [-3, 2]$ . Second, we drop duplicate individuals within a stack since the outcome is time-invariant.

Table 5.2: Share of individuals who receive an inheritance from a last parent

-	Control	Treated	Difference	N individuals
	(1)	(2)	(3)	
Main sample	0.2041	0.3280	0.1239	1,939,000
	(0.0003)	(0.0007)	(0.0007)	
Male	[0.2027]	[0.3219]	[0.1192]	992,000
	(0.0004)	(0.0009)	(0.0010)	
Female	[0.2057]	[0.3344]	[0.1287]	947,000
	(0.0004)	(0.0009)	(0.0010)	
No college	[0.1901]	[0.3041]	[0.1140]	237,000
	(0.0008)	(0.0018)	(0.0019)	
College	[0.2565]	[0.4788]	[0.2224]	199,000
	(0.0009)	(0.0021)	(0.0023)	
White	[0.2128]	[0.3886]	[0.1758]	1,112,000
	(0.0004)	(0.0010)	(0.0010)	
Black	[0.1572]	[0.2035]	[0.0462]	288,000
	(0.0007)	(0.0015)	(0.0016)	
Hispanic	[0.2112]	[0.2691]	[0.0579]	412,000
	(0.0006)	(0.0013)	(0.0014)	
Parent 1994 AGI Q1	[0.1680]	[0.2036]	[0.0356]	446,000
	(0.0006)	(0.0011)	(0.0012)	
Parent 1994 AGI Q2	[0.1952]	[0.2802]	0.0850	444,000
	(0.0006)	(0.0013)	(0.0014)	
Parent 1994 AGI Q3	[0.2167]	[0.3819]	0.1652	443,000
	(0.0006)	(0.0015)	(0.0016)	
Parent 1994 AGI Q4	[0.2507]	0.5202	0.2695	442,000
	(0.0006)	(0.0017)	(0.0017)	

Notes: This table reports means and difference in means for treated and control individuals across different subsamples, based on equation 5.1 and using an indicator for undergoing a change in wealth from retirement distributions, as described in Section 5.3. When computing standard errors (reported in parenthesis), we cluster on dying parent. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.4, we show corresponding shares for the union of indicators for experiencing a change in wealth for different sources, which are similar but slightly smaller than results based on retirement wealth in a couple subsamples, a peculiarity that is consistent with treated units receiving new wealth from multiple coincident sources when they receive an inheritance, as opposed to control units undergoing changes haphazardly from isolated sources.<sup>22</sup>

The key result of Table 5.2 is that the probability of receiving an inheritance from a last parent is nearly eight times higher among children with parents in the top 1994 AGI quartile than those in the bottom. This finding is consistent with a highly skewed distribution of

<sup>&</sup>lt;sup>22</sup>To see how inheritances shares based on the union of sources may be smaller than those based on any single source, consider a scenario with 100 treated units—half of whom gain wealth from both retirement and housing—and 100 control units, one quarter of whom gain wealth from retirement only and one quarter from housing only. In this case, the inheritance share based on retirement is 0.25 whereas the inheritance share based on the union is zero.

inheritances, and broader patterns of wealth inequality.

#### 6 Income effects

### 6.1 Treatment effect heterogeneity

In Section 5.1, we established that investment income and earnings of treated individuals demonstrate divergent patterns after parental death.

In Figure 6.1, we examine heterogeneity in these effects along three dimensions: own and parental income, own demographic characteristics, and parental demographic characteristics. As with other results, we condition on own characteristics but report outcomes on a peradult basis. We report own outcomes, which are very similar, in Appendix Tables A.9-A.13. All time-varying characteristics pertain to the year prior to the parent's death (with the exception of parent age, which is age at death).

In panel (a), we consider heterogeneity by own wage earnings tercile in the year prior to parent death and three measures of parental income, all of which are at the level of the dying parent's tax unit: AGI in 1994 (the first year in which we observe parents), investment income in 1994, and investment income in the baseline year.<sup>23</sup> We divide parental AGI into quartiles. Since the investment income distribution of parents (as well as children) is very skewed, we divide this variable into a bin for having \$0 investment income in a given year (bin 1) and bins for below- or above-median conditional on having non-zero investment income (bins 2 and 3). We find that, across virtually every measure, income is highly predictive of both investment income and earnings responses, which display striking symmetry across subsamples. This result is consistent with studies documenting strong intergenerational transmission of wealth, and supports the hypothesis that income effects drive the observed labor supply response (Charles and Hurst, 2003; Killewald et al., 2017; Black et al., 2020).

In panel (b), we find a close mirroring of earnings and investment income responses across groups defined by sex, race, age, and college attendance. The relative magnitudes of investment income effects by group follow broader trends in wealth inequality, reflecting a stark racial wealth gap and disparities by college attendance. We discuss heterogeneity by geographical distance to parent in Section 7, as the dynamics are notable. Panel (c) documents a weaker relationship between the two outcomes when conditioning on demographic characteristics of the dying parent, though earnings results are less precise and do not preclude symmetric responses.

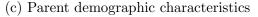
<sup>&</sup>lt;sup>23</sup>We use AGI rather than wage earnings as our main measure of parental income because W-2s are not available prior to 2005.

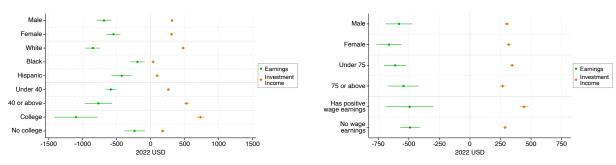
Figure 6.1: DiD estimates across outcomes and heterogeneity dimensions

(a) Own and parental income

#### Own earnings Tercile 2 Tercile 3 Parent 1994 AGI Quartile 3 Earnings Quartile 4 Parent 1994 inv. inc Bin 2 Bin 3 Parent $\ell = -1$ inv. inc. Bin 2 Bin 3 -2000 -1000 Ó 1000 2000 2022 USD







Notes: This figure presents DiD estimates for investment income and earnings across groups defined by different socioeconomic and demographic characteristics. 95 percent confidence intervals are displayed, clustering on dying parent. All time-varying characteristics pertain to the year prior to the parent's death (with the exception of parent age, which is age at death). Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

We report additional heterogeneity analyses based on current and childhood household characteristics in Appendix Figure B.4. Interestingly, panel (e) of the figure provides mixed insights regarding how parents divide their estates among children. The first three rows of the panel indicate that investment income increases monotonically with number of siblings. Aggregate investment income gains across siblings are similar for only children and those with two siblings, and slightly higher for those with one sibling. In contrast, investment income gains are slightly larger among younger children than older children. Existing evidence on division of inheritances is also inconclusive: Menchik (1980) and Wilhelm (1996) find that most estates are divided exactly using small samples of probate records and estate taxes, whereas Francesconi et al. (2023) document that one-third of parents with wills surveyed in

<sup>&</sup>lt;sup>24</sup>A limitation of our data is that we cannot observe siblings who were over 24, the age limit for dependent claiming, in 1994. As such, our calculation of number of siblings and birth order is inaccurate for some children claimed in earlier years.

the Health and Retirement Survey plan to divide their estates unequally among children.

Overall, Figure 6.1 and Appendix Figure B.4 illustrate a strong inverse relationship between investment income and earnings across many, but not all, demographic and socioeconomic dimensions. Measures and correlates of own and parental income are especially strong predictors of both outcomes.

#### 6.2 Instrumental variables analysis

Next, in a complementary attempt to understand the extent to which income effects explain the observed labor supply response, we construct the plot shown in Figure 6.2. To make this plot, we estimate effects for our two main outcomes in sixteen different subsamples defined by the interaction of three key heterogeneity dimensions: sex, 1994 parent AGI quartile, and racial group (white / non-white). We then plot DiD coefficients for earnings against coefficients for investment income, and fit a line of best fit through these points, using weighted least squares with the number of individuals per group as weights. Thus, the x-axis of the plot is analogous to the first-stage and the y-axis to the reduced form of an overidentified two-stage least squares regression of earnings on investment income, where the instruments are interactions of an indicator for being treated in the post-period and indicators for belonging to each subsample.

This figure provides a few useful insights. First, it formalizes the symmetry in earnings and investment income responses we observed in Section 6.1. Because we created this plot using group-level effects rather than two-stage least squares estimates, we are able to visualize the line of best fit's constant and confirm that it is near but not equal to zero (when the exclusion restriction is assumed to be true, the constant is zero by construction). That is, on average over six years, tax units receiving zero investment income have only small reductions in earnings. This finding accords with our results from Figure 6.4. Appendix Table A.14 presents results from estimating this system via two-stage least squares. We find that the overidentification test's p-value is 0.012. Since the J-test is insignificant at the one percent level—implying the degree of misspecification is mild—and the constant from our visual IV is indistinguishable from zero, we interpret the slope of the line of best fit as the causal effect of investment income on earnings.

The line's slope indicates that, for every dollar of flow investment income that is derived from inheritances over this period, on average tax units drop their earnings by \$1.31.<sup>25</sup> Under the assumption that the share of inheritances captured by investment income is constant across groups, and using the range of parameter estimates for this share established in

<sup>&</sup>lt;sup>25</sup>The slope reflects a relationship at the tax unit, rather than individual, level because both the y- and x-axis are per-adult responses.

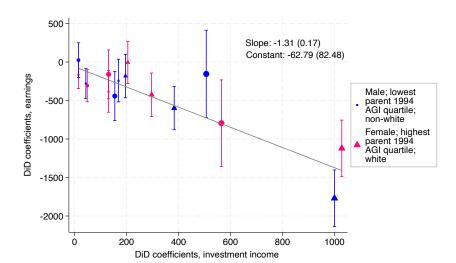


Figure 6.2: Visual IV estimates of the effect of investment income on earnings

Notes: This figure plots DiD estimates for earnings against DiD estimates for investment income for sixteen different subsamples, as detailed in Section 6.2. Whiskers mark 95 percent confidence intervals for the earnings estimates. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Section 5.2, this slope implies that a dollar gain in investment income leads to an 18-65 cent reduction in earnings.

A third, ancillary observation from Figure 6.2 relates to the MPE, an important parameter in the labor supply literature. In general, for a given individual, the MPE is a function of income and wages. Under Stone–Geary preferences, however, it collapses to a constant (which may vary across individuals due to different preference parameters) (Deaton and Muellbauer, 1980). For this reason, papers that estimate MPEs generally assume a Stone-Geary utility function. Our finding that the earnings response is linear in investment income is consistent with Stone-Geary preferences.

While Figure 6.2 documents that parental income is a strong predictor of investment income and earnings reductions, it does not elucidate whether high or low-income children of wealthy parents drive the average earnings response. To explore heterogeneity by own income, we repeat the exercise among terciles of the distribution of children's own earnings in the baseline year. We present regression statistics for these plots in Table 6.1; Appendix Figure B.5 presents corresponding heterogeneity figures. Like Golosov et al. (2024), we find that earnings responses are increasing in baseline income. Whereas tax units where children are in the bottom tercile reduce earnings by 88 cents for every dollar of investment income, those where children are in the top tercile reduce earnings by \$1.34 cents.

Table 6.1: Summary of visual IV results across subsamples

	Full sample	Tercile 1 baseline earnings	Tercile 2 baseline earnings	Tercile 3 baseline earnings
	(1)	(2)	(3)	(4)
Slope	-1.31	-0.88	-1.02	-1.34
	(0.17)	(0.21)	(0.25)	(0.29)
Constant	-62.79	123.50	-187.70	-245.10
	(82.48)	(83.79)	(79.64)	(205.00)
$\mathbb{R}^2$	0.82	0.55	0.54	0.61
N individuals	1,774,000	725,000	860,500	765,000

Notes: This table reports regression statistics associated with Figure 6.2 and Appendix Figure B.5. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

#### 6.3 Additional evidence on inheritances

We have presented evidence that income effects from receiving an inheritance are the leading mechanism through which parental death affects labor supply. To obtain a more complete picture of inheritances, and insights into how individuals use them, we study the effect of parental death on the probability of undergoing a change in wealth recorded by the information returns we observe. In Figure 6.3 we plot these effects, which represent impacts in a given year relative to the baseline share, not cumulative impacts. We report baseline shares of children receiving these forms in Figure 6.3; corresponding shares of children with a dying parent who receives them are shown in Appendix Table A.8. Additional details on the construction of these variables can be found in Appendix C.

Interest and dividends. Parental death raises the probability of receiving a 1099-INT and 1099-DIV by about six and three percentage points by  $\ell=1$ , respectively, a roughly 30 percent increase relative to the baseline mean in both cases. These results mirror the marked difference in the dynamics of effects on investment income between panels (a) and (b) of Figure 5.1. Whereas extensive margin impacts suggest that, on average, individuals draw down their inherited wealth, the total effect on investment income suggests that they maintain it. A natural reconciliation is heterogeneity: many heirs receive small inheritances that trigger a 1099 flag but are quickly depleted, while wealthier heirs keep their wealth intact and drive the total effect. This theory aligns with evidence of faster depletion among lower-wealth heirs in Nekoei and Seim (2023).

<u>Housing</u>. With respect to inheritances consisting of housing, Figure 6.3 demonstrates that the probability of receiving a 1099-S roughly doubles for treated individuals in each of the three years following parental death relative to its baseline mean of one percent. This estimate may be upwardly biased since, as described in Section 3.4, pre-inheritance house sales do

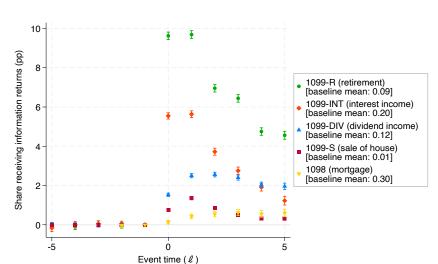


Figure 6.3: Effect on additional wealth-related outcomes

Notes: This figure presents estimates of the effect of losing a parent on indicator variables that correspond to tax-reportable changes in wealth, based on estimating equation 4.1. 95 percent confidence intervals are displayed, clustering on dying parent. We use c - 1 as the omitted event time. We also report baseline means among treated individuals. 1099 indicators are available in our data beginning in 2010 and the 1098 indicator is available beginning in 2013, limiting our ability to estimate pre-treatment coefficients for all treatment cohorts. For this reason, we estimate treatment effects for the 2015 and 2016 treatment cohorts only, enabling us to estimate pre-treatment coefficients through  $\ell$  = -5 for the 1099 indicator outcomes and through  $\ell$  = -2 for the 1098 outcome. Using later-treated cohorts that are not balanced in event time (i.e. after 2016) to estimate earlier coefficients for the 1098 outcome confirms the absence of differential trends between treated and control observations. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

not necessarily trigger a 1099-S. Regardless, the impact on house sales that we measure is puzzlingly low in absolute terms: the cumulative effect is about four percent whereas at least 26 percent of dying parents own a house (not including those who own outright) in the baseline year. If—as a lower bound—a quarter of parents bequeath a house to their children, we would expect to also see a much larger share of children selling a house and receiving a 1099-S.

Why does the share of children who sell a house according to this measure shift by so little? First, in sibling buyouts only the selling sibling is issued a 1099-S.<sup>27</sup> Second, the tax code encourages retaining an inherited home as a rental property: the stepped-up building value becomes its depreciable basis, enabling larger deductions than if the property were newly purchased. This tax advantage, coupled with generally high rental returns (see Appendix Table A.6), can favor renting over selling. Third, some heirs may retain the house

 $<sup>^{26}</sup>$ In the 2010 Decennial, we find that 37 percent of dying parents had a mortgage and 26 percent owned their house free and clear.

<sup>&</sup>lt;sup>27</sup>If siblings sell jointly, each one receives a 1099-S.

as a residence; about one fifth of children in our sample cohabited with their parent in the baseline year. Even so, we appear to underestimate impacts on house sales, likely due to inconsistent issuance of Form 1099-S.

The probability of receiving a 1098—i.e., being a mortgage-holder—displays a trivial increase among treated individuals relative to the baseline mean. If individuals receive inheritances, the expected sign of the 1098 effect is ambiguous ex-ante as heirs may use their inheritance either to pay down an existing mortgage, assume a new mortgage, or assume their parent's mortgage. Our results suggest that the latter two scenarios are at least as common as fully paying down an existing mortgage, but our data unfortunately do not allow us to determine the extent to which individuals reduce their mortgage debt.

<u>Retirement accounts.</u> Figure 6.3 illustrates that the impact of parental death on the probability of receiving a 1099-R is equal in magnitude to the baseline mean in the first two years of parental death. Given that children in our sample are not of retirement age, the nine percent baseline mean likely reflects early withdrawals and account rollovers.

If all child beneficiaries elected to take annual RMDs, the series would be flat. The fact that it declines indicates that most individuals liquidate their parent's accounts, which in turn suggests that many individuals face credit constraints since lump sum withdrawals are usually disadvantageous from a tax perspective.<sup>28</sup> The fact that the sum of effects over six years is roughly equal to the difference in individuals' own and parent baseline shares supports this theory.<sup>29</sup> However, we cannot rule out that other changes in retirement activity in response to parental death, such as rollovers or early withdrawals, influence these estimates.

In summary, we find that parental death has a sizable and significant impact on the probability of receiving most information returns that an inheritance might trigger.

#### 6.4 Earnings responses when parents have no wealth

To further explore the extent to which earnings responses are driven by inheritances, in Figure 6.4 we present effects for our two main outcomes among the subsample of individuals whose dying parents have no observable wealth in our data prior to death. We define having no observable wealth as not receiving a 1099-R, having zero investment income, and not being a homeowner a home in 2010 (the latest year for which we can observe homeownership status completely; in later years we only observe mortgage-holder status). This definition

<sup>&</sup>lt;sup>28</sup>Withdrawals forgo tax-deferred growth and, if large, may raise one's tax bracket.

<sup>&</sup>lt;sup>29</sup>We expect most parents with retirement accounts to have begun receiving 1099-Rs before they die. For the average parent birth cohort in our sample, RMDs were required from age 70.5 onward, whereas the average age of parents at death is 74.

is not perfect as it may understate the share of parents with no wealth by assuming that parents with retirement accounts who are not yet taking withdrawals or who have paid down a mortgage since 2010 have no wealth (although, as discussed in Section 6.3, we believe the former scenario is uncommon). In contrast, it may overstate the share by including parents with only very small pensions or more mortgage debt than home equity.<sup>30</sup>

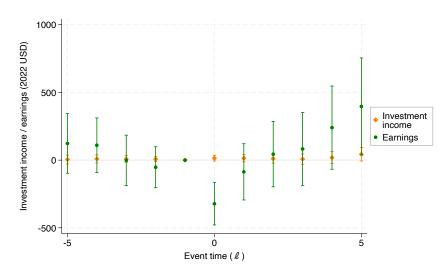


Figure 6.4: Effects among subsample whose parents have no wealth at  $\ell$  - 1

Notes: This figure presents estimates of the effect of losing a parent on two outcomes, based on estimating equation 4.1. 95 percent confidence intervals are displayed, clustering on dying parent. We use c - 1 as the omitted event time. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Figure 6.4 demonstrates that individuals whose parents had no observable wealth at baseline, about one fifth of the sample, do not gain any investment income after the parent's death, supporting our use of investment income as a proxy for inheritance. Earnings fall significantly only in the year of parent death; the reduction in all other years is virtually indistinguishable from 0, although we cannot reject substantial gains in earnings. The magnitude of the earnings drop in the year of death is about half that of our headline findings in Figure 5.1. From this plot, we infer that parental death affects earnings primarily through inheritances, but that non-income channels have a temporary, smaller negative effect. We discuss the possible nature of these channels in Section 7.

 $<sup>^{30}</sup>$ A more rigorous approach examining earnings responses among children with high versus low predicted investment income gains based on parent characteristics is forthcoming.

#### 6.5 Responses to the death of a first parent

We examine outcomes among children who lose a first parent, who should receive much smaller inheritances on average. For this comparison, we restrict to the set of individuals with two linked parents, such that first and last parent to die are mutually exclusive.

Figure 6.5 shows that the effect on per-adult investment income of a first parent's death is much more muted than that of a last parent's death. This pattern is consistent with first parent assets frequently passing to the surviving spouse rather than children. The fact that children receive some investment income on average may reflect cases where parents have divorced or separated since the time of dependent claiming. It may also reflect surviving spouses responding to the death by transferring some assets to children—for example, by selling a house or making gradual gifts.

However, although the gain in investment income among children who lose a first parent is at most 40 percent that of children who lose a last parent (in  $\ell = 5$ ), children of first parents drop the earnings in the year of death by 70 percent as much as children of last parents. In addition, children of first parents do not display the same earnings recovery as children of last parents. This differential recovery is unlikely to be the result of first parent children losing a second parent, as the two subsamples do not contain many overlapping individuals. Moreover, reweighting baseline earnings of children of first parents to match those of last parents does not alter the findings.

One explanation for these effects that is consistent with a pure income effects story is that the degree of anticipation matters greatly and varies substantially across first and last parent deaths. As shown in Section 2, in a conventional labor supply model the change in hours resulting from an exogenous shock to assets is proportional to the unanticipated portion of the shock. It is plausible that, although inheritances are smaller after the first parent's death, their unanticipated component is still relatively large. In other words, the unanticipated portion of small inheritances from a first parent may be nearly as large as that of larger inheritances from a second parent. This may be especially true in our setting: since parent deaths occur at a relatively young age, they are less likely to have clear estate plans or plans of which children are informed. For example, using data from the Health and Retirement Survey and the Asset and Health Dynamics among the Oldest Old Surveys, Hurd and Smith (2001) find that subjective survival probabilities are positively correlated with subjective probabilities of leaving an inheritance.

While differential anticipation of inheritances offers one account of the varied earnings responses we see across first and last parents, we have not ruled out other explanations. For example, first parent deaths may cause greater bereavement or create an obligation to provide eldercare for the surviving parent. Moreover, we wish to reconcile why earnings fall

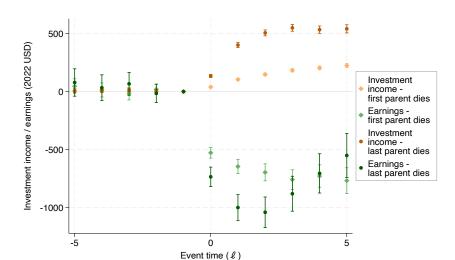


Figure 6.5: Responses to first parent death versus last parent death

Notes: This figure presents estimates of the effect of losing a parent on two outcomes, based on estimating equation 4.1, for two samples: the sample of individuals with two linked parents who lose a first, elderly parent and the sample of individuals with two linked parents who lose a last, elderly parent. 95 percent confidence intervals are displayed, clustering on dying parent. We use c-1 as the omitted event time. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

in response to zero investment income in our main sample. In the next section, we assess the plausibility of mechanisms beyond income effects.<sup>31</sup>

## 7 Non-inheritance mechanisms

Social and economic ties between parents and adult children are, of course, complex. The sociology literature on intergenerational family relations documents strong affective ties among American parents and children and largely episodic material support such as financial transfers, access to professional networks, lodging, transportation, child care or eldercare, and household help (Swartz, 2009; Silverstein and Bengtson, 1997). Here we review whether proxies in our data for various forms of intergenerational solidarity influence on the earnings response to parental death.

Loss of child care. In light of evidence that informal care by grandparents can mitigate child penalties from studies such as Karademir et al. (2024) and Anstreicher and Venator (2025), one possibility is that the earnings reductions we observe reflect a loss of child care. We view this as unlikely for three reasons. First, as shown in panel (b) of Figure 6.1, women's average earnings reductions are slightly smaller than men's in absolute terms. This result also

<sup>&</sup>lt;sup>31</sup>We focus on these mechanisms in the context of our main sample, where children lose a last parent; additional analyses for the sample where a first parent dies are forthcoming.

holds in proportional terms relative to the baseline mean (-1.5 and -2 percent for women and men, respectively). Second, as shown in panel (c) of the same figure, the earnings response does not vary with the sex of the dying parent, whereas ample evidence documents that grandmothers provide the majority of grandparent-provided child care (Pew Research Center, 2013; U.S. Census Bureau, 2024). Third, panel (a) of Appendix Figure B.4 shows that filers with dependents in our data exhibit a slightly *smaller* earnings reduction than filers with no dependents.

Added worker effects. Several papers document spousal labor supply adjustments that buffer negative income shocks to the other spouse, or "added worker effects" (Blundell et al., 2016; Autor et al., 2019; Stephens, 2002). Could it be that parental illness is a negative income shock that induces children to work more leading up to the death, resulting in a sharp earnings decline after death? If this were true, we would expect added worker effects and corresponding earnings reductions after death to be muted among children of higher income parents. We find the opposite: the magnitude of children's earnings reductions consistently scale with parent income. The absence of pre-trends in our event study also casts doubt on this explanation.

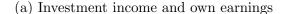
Co-employment. If children work alongside their parents, either in a family business or another arrangement, the death of a parent could constitute a direct work disruption. In most cases, individuals working in family businesses receive W-2s, so such disruptions would be observable.<sup>32</sup> We view this mechanism as unlikely to be driving our results, since only 30 percent of children in our sample have a dying parent who is employed at all, and panel (c) of Figure 6.1 documented that earnings responses do not vary on this dimension. Furthermore, prior work suggests that, while co-employment can significantly influence children's earnings, its effects are concentrated early in a child's career—at ages well below the average in our sample (Staiger, 2025).

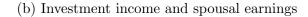
<u>Grief.</u> Given the strong emotional connection between many children and their parents, might grief explain the earnings response? We investigate this question by analyzing own versus spousal responses (which we separate by sex) in Figure 7.1.

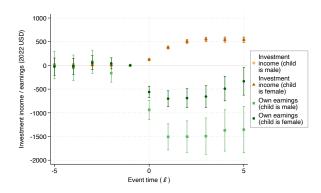
First, note that (as in panel (a) of Figure 6.1), men and women have equal gains in investment income. Supposing for simplicity that all married couples are heterosexual, the dark green circles in Figure 7.1 represent women's earnings responses and the light green squares represent men's. Within panel comparisons reveal that women reduce their earnings by less than men, regardless of whether their own parent or their spouse's parent dies.

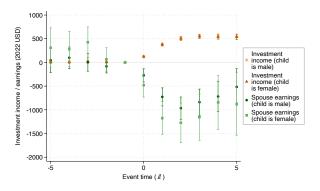
 $<sup>^{32}</sup>$ Exceptions are if the child is the owner of a sole proprietorship or partnership rather than employee, or an independent contractor.

Figure 7.1: Effects by relation to parent and sex









Notes: Panel (a) presents estimates of effects on per-adult investment income and own earnings for male and female children. Panel (b) presents estimates of effects on per-adult investment income and earnings of the same children's spouses. Note that, by construction, the values of per-adult investment income are the same in both panels. To obtain these estimates, we restrict the sample to individuals who are married in the year prior to parent death and use estimating equation 4.1. 95 percent confidence intervals are displayed, clustering on dying parent. We use c - 1 as the omitted event time. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Across panel comparisons illustrate the death of a parent and the death of a parent-in-law have similar effects on earnings. The DiD coefficient for men is -\$1,332 when their own parent dies versus -\$1,162 when their spouse's parent dies. The corresponding coefficients for women are -\$594 and -\$676. The main exception is in the year of parent death: for both men and women, the  $\ell=0$  coefficient is about twice as big when a parent dies as when a spouse's parent dies. However, the difference in point estimates between male and female spouses is not statistically significant.

We interpret these results as evidence that grief is not a major driver of the earnings response, except possibly in the year of death. Instead, they provide support for the unitary household model, which predicts that a household's response to a transfer does not depend on the identity of the recipient (Lundberg and Pollak, 1996). This result is surprising as both Cesarini et al. (2017) and Golosov et al. (2024) find that lottery winners drop their earnings by more than their spouse. However, those studies also find that one third to one half of the overall labor earnings response is attributable to extensive margin adjustments, for which we do not find evidence. Hours-driven earnings effects and a much smaller shock in our setting may explain the lack of major differences by relation to parent.

<u>Eldercare</u>. If adult children provide eldercare to parents prior to death at a level significant enough to reduce their own work hours, we would expect parent death to *increase* earnings. However, because relatively few deaths in the typical parental age range in our sample are

caused by high burden-of-care conditions such as dementia or cancer, such intensive eldercare is likely to be concentrated among a limited set of households. Using data from the NHATS, a nationally representative survey of US adults aged 65 and older and their informal caregivers, Wolff et al. (2025) report that 41% of caregivers in 2011 and 2022 lived with the care recipient and 32% lived within 10 minutes. About half of these caregivers were adult children. Given that geographic proximity to parents strongly predicts eldercare, in Figure 7.2 we investigate heterogeneity by distance to dying parent in the year prior to death.

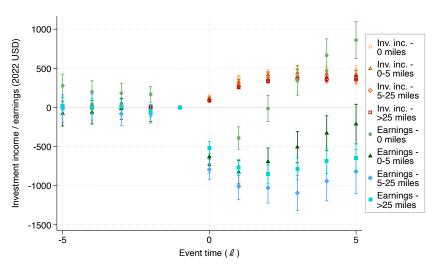


Figure 7.2: Effects by distance to parent

Notes: This figure presents estimates of the effect of losing a parent on two outcomes, based on estimating equation 4.1, for four samples of individuals based on geographical distance to their dying parent in the baseline year. The distance bins are 0 miles (cohabitors); (0,5] miles; (5, 25] miles, and >25 miles. 95 percent confidence intervals are displayed, clustering on dying parent. We use c-1 as the omitted event time. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

We find that children in all distance bins reduce earnings in the year of parent death. Subsequently, individuals who cohabit with parents, who represent about one fifth of the sample, markedly increase their earnings and, by  $\ell=5$  earn \$860 more than in the baseline year. Across all subsamples in our entire analysis, cohabitors are the only group to significantly increase their earnings. What's more, they exhibit a modest negative pre-trend in the years leading up to the baseline year, consistent with reducing hours to provide additional care as a parent's health conditions worsen and care needs increase. Individuals in the 0-5 mile bin, who comprise a similar share of the sample, display a near-complete recovery over six years. We find similar results for male and female children.

We interpret these results as strong evidence that eldercare is an important driver of the earnings response among individuals who reside with or very close to their parents. It is also possible that the patterns we find reflect individuals relying on parents for financial support and in some cases lodging until parent death, at which point they are forced to find work (Rosenzweig and Wolpin, 1993; Kaplan, 2012). While the two possibilites are not mutually exclusive, we view eldercare as a more plausible explanation because we would not expect pre-trends nor steeper recovery patterns among children living with 0-5 miles than geographically distant children in the latter "free-riding" scenario.

In summary, our findings in this section cast doubt on foregone child care, added worker effects, or co-employment as explanations for the earnings response to parental death, while providing strong evidence that eldercare plays a role among cohabitors. Grief appears unlikely to have lasting effects, but may contribute to the earnings decline in the year of parental death. The presence of a statistically significant drop in earnings in the year of death across all subsamples—including cohabitors who subsequently increase their earnings and individuals whose parents lack any baseline wealth (discussed in Section 6.2)—suggests there is a short-lived psychological or logistical element to the earnings response. Although our data cannot unpack this mechanism, the emotional shock of bereavement and the time demands of funeral planning, probate and estate settlement, sorting belongings, shutting down accounts, and selling property are common-sense explanations with anecdotal support.

## 8 Comparison to estimates of marginal propensity to earn

Having established that income effects are the dominant driver of earnings reductions, additional assumptions allow us to perform a back-of-the-envelope calculation to estimate a marginal propensity to earn (MPE). These assumptions are strong but nonetheless enable a useful benchmark to prior literature. Assuming that our estimate for the earnings reduction approximates the average lifetime earnings response and that our estimate for investment income captures a constant share of inheritances, the slope from our visual IV in Section 6.2 represents the dollar-for-dollar reduction in earnings in response to investment income over the post-period.

The MPE is usually considered to be a parameter representing lifetime behavior. To estimate annual unearned income in settings where the shock to unearned income is lottery prize, it is common to annuitize the prize and treat the annuity payout as the annual shock to unearned income. The assumption is that an individual smoothes consumption such that assets—which undergo both growth and drawdown—are depleted by the end of one's life. In our setting, it is unlikely that returns on investments would remain as stable as the path of investment income documented in panel (a) of Figure 5.1 in perpetuity, as individuals should drawn down their assets as they age. Therefore, to approximate annual unearned income, we annuitize our capitalized per-adult DiD estimate using the standard formula for

an annuity and the 2.5 percent interest rate used by Golosov et al. (2024). This interest rate is very close to the rate of return of 2.2 percent implied by our capitalization factor:

$$P = \frac{r}{1+r} \left( 1 - \left( \frac{1}{1+r} \right)^{T-k+1} \right)^{-1} L \tag{8.1}$$

where L is the stock of inherited wealth, P is the constant annuity payout, r is the discount rate, k is age, and T - k is remaining years of life. We set k = 39, the average at parent death in our sample and T = 80 (matching Golosov et al. (2024)).

Appendix Figure B.6 shows that the implied annual unearned income is fairly similar to the path of our estimates from the event study for investment income over the six year postperiod, lending credibility to our assumptions.<sup>33</sup> To translate the above path of unearned income into an MPE, where the denominator is \$1 of unearned income, we instead annuitize the stock of wealth associated with \$1 of inheritance, which is simply our asset class-averaged capitalization factor. We then scale the slope from our visual IV by the share of total inheritance that we believe investment income captures. This scaled parameter represents the dollar reduction in earnings associated with a \$1 increase in unearned income from the total inheritance. Dividing by the annuity payout yields an estimate of the MPE. The bounds on the investment income share of inheritance from Section 5.2 imply a range of MPEs from -0.11 to -0.40.

These bounds are largely within the range of other household-level, pre-tax estimates from recent studies based on lotteries (Golosov et al., 2024) and randomized cash transfers (Vivalt et al., 2025) in the U.S. and inheritances in Sweden (Nekoei and Seim, 2023). These comparisons are summarized in Table A.15. While the U.S. setting is more comparable to ours, the shock is more comparable in the case of (Nekoei and Seim, 2023). Since our calculation treats the full inheritance amount as exogenous unearned income, our estimate understates the true MPE to the extent that inheritances are unanticipated. In this sense, our estimate is more comparable to that of (Nekoei and Seim, 2023). Conversely, our shared labor market setting with the U.S. papers may make them a better benchmark.

We also note that our calculation—like other approaches in the MPE literature—does not account for certain complications in translating our observed reduction in earnings to a measure of the change in annual earned income. First, it does not account for the fact that, if individuals are as rational as annuitization implies, their forecast of foregone wage growth may attenuate their initial earnings reduction. If so, the observed earnings reduction would overestimate the MPE. Second, individuals close to retirement have limited scope to adjust

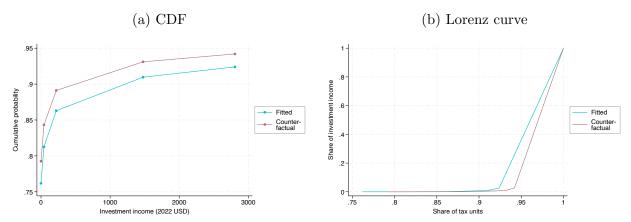
 $<sup>^{33}</sup>$ Some amount of deviation is inevitable given that we defined L based on our DiD estimate and our event study displays strong dynamics.

earnings. As such, unless they delay retirement, their initial earnings drop overstates the true annual lifetime reduction and thus the MPE.<sup>34</sup>

### 9 Distributional effects of inheritances

Next, we assess the impact of inheritances on investment income inequality. We obtain DiD estimates for the probability of recording investment income less than or equal to specific cut points. We define these points to be the 80th, 85th, 90th, 94th, and 95th percentiles of the  $\ell=-1$  distribution of investment income among 2010-2016 treatment cohorts (the cohorts for which we estimate treatment effects). For each cut point, we use our DiD estimates to compute fitted and counterfactual values of the outcome among treated individuals within each stack, then average these values across stacks using the number of treated individuals in each stack as weights. The resulting estimates trace out approximations of the CDF of investment income. From these CDFS, we back out associated Lorenz curves, assuming the investment income held by each cut point interval is the midpoint of that interval.

Figure 9.1: Impact of inheritances on CDF and Lorenz curve for investment income



Notes: Panel (a) of this figure presents averages of fitted and counterfactual values for investment income among treated individuals, tracing out a cumulative distribution function. These values are obtained by estimating impacts on investment income within different percentile ranges of the outcome's  $\ell-1$  distribution, as described in Section 9. Panel (b) presents the corresponding Lorenz curves, with investment income held by each bin defined by midpoints. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

The series labeled "Fitted" corresponds to the actual fitted values for investment income observed among treated individuals, whereas the series labeled "Counterfactual" corresponds to the investment income values that treated individuals would have recorded had they lost

 $<sup>^{34}</sup>$ To our knowledge, no prior study that estimates the MPE has addressed these considerations, adjusting for which would require further assumptions and modeling.

a parent at a later date rather than today. This thought experiment is of interest since all children eventually lose a parent, and therefore the shift represents the impact of inheritances reflected in investment income on the distribution of child investment income at a given point in time. The results indicate that, on average over the six years following parent death, inheritances have a slight equalizing effect on the distribution of investment income among children. The CDF shifts to the right and the Lorenz curve shifts inward, with the Gini coefficient falling from 0.940 to 0.921. Appendix Figure B.7 shows the corresponding probability mass functions.

Although investment income is only one component of wealth, this finding accords with prior evidence from the U.S. and Sweden that inheritances exert an equalizing short-run effect on wealth inequality. The main intuition for this result is that, although inheritances increase absolute wealth inequality, inheritance inequality (the share of inheritances bequeathed by wealthy parents) is less pronounced than wealth inequality. That is, while wealthier individuals receive larger inheritances in absolute terms, inheritances received by the wealthy represent a smaller share of their existing wealth. Wolff (2002) and Wolff and Gittleman (2011) document these trends in the U.S. using the SCF.

Formally, Nekoei and Seim (2023) show that the effect of inheritances on wealth inequality is increasing in inheritance inequality and decreasing in intergenerational wealth mobility (the share of wealthy heirs with wealthy parents). In other words, inheritances can reduce wealth inequality even under severe inheritance inequality if wealthy parents are unlikely to have wealthy children. Using Swedish panel data on wealth, the authors construct counterfactuals to isolate each force and find that the former drives the equalizing effect of inheritances. Whether the same holds in the U.S. is difficult to assess given limited comparable estimates of intergenerational wealth mobility in the two countries, but our finding that inheritances increase with own earnings casts doubt on the intergenerational mobility channel (Black et al., 2020).

#### 10 Conclusion

This paper examined the impact of parental death on labor supply, the extent to which inheritances rationalize observed earnings reductions, and the overall prevalence of inheritances in the U.S. Our analysis is the first to study these questions using comprehensive administrative data. We used linked Census and administrative records to link children to dying parents and implement event studies around parental death. We first documented that the loss of a parent causes, in proportional terms, a sizable increase in investment income and a modest corresponding decrease in earnings. These effects are heterogeneous across

the parental income distribution, with children of richer parents increasing their investment income and reducing their earnings by a larger amount. On average, these labor supply responses are large, with \$1 of unearned income from inheritances reducing earnings by 18 to 65 cents. We further established that inheritances, although uncommon in our sample, can explain most of the observed labor supply response. Finally, we showed that inheritances have a slight equalizing effect on the distribution of investment income.

Despite the robust evidence we find that inheritances reduce labor supply, our ability to precisely estimate the magnitude, composition, and depletion rate of inheritances is limited. Future work should further examine the share of housing and retirement wealth in inheritances. These questions could feasibly be answered using proprietary property tax data along with long histories of mortage interest payments and parent retirement contributions and withdrawals. Such an analysis would offer clearer insight into the relative contribution of housing and retirement to overall inheritance amounts, as well as the share of liquidated inheritances that are spent on consumption versus used to deleverage. Another ambitious but valuable contribution would be to link tax data to loan-level credit bureau or mortgage servicing data to better understand the impact of inheritances on financial distress.

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# A Appendix Tables

Table A.1: Social Security Administration cohort life table

Expected	share of 1940 birth	h cohort surviving to age $x$
<u>x</u>	$\underline{\mathrm{Male}}$	<u>Female</u>
60	0.776	0.855
65	0.720	0.815
70	0.644	0.756
75	0.545	0.674
80	0.424	0.564
85	0.281	0.421
90	0.139	0.252

*Notes:* This table reproduces the SSA's cohort life tables by sex for the closest available birth year to the average parent birth cohort in our sample and for older ages. Source: U.S. Social Security Administration (2005).

Table A.2: Additional summary statistics for children

	Main sample (last parent dies) (1)	$\begin{array}{c} \textbf{Unconditional on} \\ \textbf{parent linkage} \\ \textbf{(10\% sample)} \\ \textbf{(2)} \end{array}$
Age	38.26	37.87
Birth year	1979	1979
Female	0.49	0.50
Married	0.37	0.43
White	0.57	0.59
Black	0.21	0.14
Hispanic	0.15	0.18
Has positive wage earnings	0.74	0.73
Wage earnings	\$42,300	\$46,360
Wage earnings (median)	\$27,890	\$31,560
Wage earnings (cond. on positive)	\$57,510	\$63,340
Tax unit investment income	\$1,583	\$2,103
Tax unit investment income (median)	\$0	\$0
Number of unique individuals	1,939,000	7,198,000

Notes: This table reproduces, in column 1, descriptive statistics from Table 3.1 for our main estimation sample of individuals who lose an elderly, last parent. All monetary values are reported in 2022 U.S. dollars, using the Consumer Price Index to adjust for inflation. All values in column 1 are measured one year prior to parental death (the baseline year) and reported as cohort size-weighted averages. Column 2 reports the same set of descriptive statistics for all individuals in the same birth cohorts as our main estimation sample (1971-1987). All values are reported as averages across calendar years that correspond to the baseline year in the main sample, using treatment cohort shares in the main sample as weights. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.3: Inheritance components captured by our IRS data

Category	Captured by information return flag	Captured by investment income
Most financial assets, if retained	1099-INT + 1099-DIV	✓
Housing that is individually owned & rented	X	✓
Retirement accounts	1099-R	If reinvested in financial assets (unlikely)
Housing that is sold	1099-S (partial coverage)	If reinvested in financial assets
Financial assets that are liquidated	X	x
Financial assets that bear < \$10 income	X	x
Housing that is neither sold nor rented	X	X
Business income	X	X
Non-housing durables	X	X

*Notes:* This table summarizes the fields in our tax data that indicate underlying wealth, and which we use as proxies for inheritances. Details are described in Section 3.4.

Table A.4: Share of individuals who receive an inheritance from a last parent based on union across change in wealth outcomes

	Control	Treated	Difference	N individuals
	(1)	(2)	(3)	
Main sample	0.3963	0.5001	0.1038	1,939,000
-	(0.0003)	(0.0007)	(0.0008)	, ,
Male	[0.3859]	0.4874	0.1015	992,000
	(0.0005)	(0.0010)	(0.0010)	
Female	[0.4071]	[0.5134]	[0.1062]	947,000
	(0.0005)	(0.0010)	(0.0010)	
No college	[0.3601]	0.4749	0.1148	237,000
	(0.0009)	(0.0019)	(0.0020)	
College	[0.5339]	0.6950	0.1612	199,000
	(0.0010)	(0.0019)	(0.0021)	
White	0.4381	0.5829	0.1448	1,112,000
	(0.0005)	(0.0010)	(0.0010)	
Black	0.3055	0.3473	0.0418	288,000
	(0.0009)	(0.0018)	(0.0019)	
Hispanic	0.3338	0.3970	0.0633	412,000
	(0.0007)	(0.0014)	(0.0015)	
Parent 1994 AGI Q1	0.3139	0.3573	0.0433	446,000
	(0.0007)	(0.0013)	(0.0014)	
Parent 1994 AGI Q2	0.3609	0.4458	0.0849	444,000
	(0.0007)	(0.0014)	(0.0015)	
Parent 1994 AGI Q3	0.4165	0.5636	0.1471	443,000
	(0.0007)	(0.0015)	(0.0016)	
Parent 1994 AGI Q4	[0.5132]	0.7124	0.1991	442,000
	(0.0007)	(0.0015)	(0.0015)	

Notes: This table reports means and difference in means for treated and control individuals across different subsamples, based on equation 5.1 and using an indicator for undergoing a change in wealth from retirement distributions, housing sales, or new investment income, as described in Section 5.3. When computing standard errors (reported in parenthesis), we cluster on dying parent. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

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Table A.5: Effect of losing a parent on investment income and labor supply

Event year	Per-adult	Tax unit	Tax unit has	Per-adult	Own	Has positive	Tax unit	Share of tax
	investment	investment	positive	earnings	earnings	earnings	earnings	unit with
	income	income	investment					positive
			income					earnings
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
-5	7.823	14.2	0000242	24.31	-67.06	00348	162.1	002443
	(5.247)	(7.985)	(.0005165)	(37.15)	(39.05)	(.0005388)	(61.06)	(.0005173)
-4	6.383	12.42	0003545	11.98	-74.38	00325	108.4	002454
	(4.958)	(7.475)	(.0004914)	(34.94)	(36.53)	(.0005219)	(56.94)	(.0004999)
-3	[4.786]	10.41	0002135	8.757	-49.99	003084	82.18	002654
	(4.436)	(6.611)	(.0004546)	(31.34)	(32.64)	(.0004943)	(50.55)	(.0004727)
-2	[5.875]	[8.979]	0001585	-28.42	-44.12	002357	-22.06	001948
	(3.525)	(5.24)	(.0003939)	(24.89)	(25.49)	(.0004287)	(40.46)	(.0004092)
-1	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
0	100.1	144.1	.03465	-622.3	-695.9	002574	-829.4	002524
	(4.169)	(6.137)	(.0004438)	(26.4)	(27.3)	(.0004256)	(43.16)	(.0004059)
1	289.6	423.9	.04	-770.3	-813	002112	-1087	001863
	(6.355)	(9.426)	(.0004933)	(35.3)	(37.29)	(.0005029)	(57.76)	(.0004779)
2	367.4	545.2	.03294	-740.2	-743.8	001049	-1103	0009807
	(7.666)	(11.6)	(.0005147)	(41.63)	(44.96)	(.0005447)	(68.51)	(.0005165)
3	396.3	593.3	.02831	-631.4	-670.5	.0003353	-985.7	.0003946
	(8.675)	(13.29)	(.0005596)	(47.58)	(51.55)	(.0005751)	(78.83)	(.000546)
4	388.6	583.7	.02412	-482.5	-541.5	.001321	-842.3	.001487
	(9.493)	(14.72)	(.0005849)	(53.58)	(58.3)	(.0006039)	(89.24)	(.0005728)
5	394.3	587.7	.02027	-395.7	-454.4	.002852	-754.9	.003129
	(10.55)	(16.47)	(.0006219)	(60.27)	(65.83)	(.0006384)	(100.9)	(.0006052)
DiD estimate	311.7	461.2	.03077	-621.6	-616.8	.002054	-1008	.001659
	(6.749)	(10.49)	(.0003847)	(37.69)	(42.06)	(.0004308)	(63.67)	(.0004011)
Baseline mean	695	1151	.1974	35230	35000	.7189	53560	.7175
N individuals	1.939M	1.939M	1.939M	1.939M	1.939M	1.939M	1.939M	1.939M

Notes: This figure presents estimates of the effect of losing a parent on various outcomes, based on estimating equation 4.1. When computing standard errors (reported in parenthesis), we cluster on dying parent. We use c - 1 as the omitted event time. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.6: DiD estimates for components of investment income and capitalization factors

	DiD point estimates for each	Saez and Zucman (2016) average
	investment income asset class	capitalization factors
Taxable interest	\$33.13	77.9
Tax-exempt interest	\$14.72	36.4
Taxable dividend	\$117.5	42.5
Gross rental	\$146.4	39.3

Notes: This table presents, in the left column, our DiD point estimates for the components of investment income. The right column contains the average of Saez and Zucman (2016)'s annual capitalization factors from 2010-2016 (the years corresponding to treatment cohorts in our sample), using the number of individuals in each treatment cohort as weights. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.7: DiD estimates of additional behavioral outcomes

	New marriage	New divorce	Changed
			Census tract
	(1)	(2)	(3)
DiD estimate	0.0010	0.0021	0.0046
	(0.0005)	(0.0008)	(0.0005)
Baseline mean	0.0000	0.0000	0.2037
N individuals	1,365,000	800,000	1,127,000

Notes: This table reports DiD estimates for marriage, divorce, and geographic mobility. To study the effect on marriage (divorce), we restrict the sample to individuals who were unmarried (married) individuals who are tax filers in the baseline year, and define our outcome of interest to be a time-varying indicator equal to one if the winner is married (unmarried). Restricting to tax filers makes the two subsamples more comparable since, as described in Section 3.2, married individuals in our sample are tax filers by definition. To study geographic mobility, we define indicators for the probability of moving to a different Census tract. We restrict the sample to individuals who have a populated Census tract in all 18 years of the data. Results shown in this table are own outcomes for the child of the deceased parent, rather than per-adult outcomes. When computing standard errors (reported in parenthesis), we cluster on dying parent. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.8: Baseline shares of children and children with parents receiving information returns

	Chil	dren	Par	ents	
	Mean	$\underline{\mathrm{SD}}$	Mean	$\underline{\mathrm{SD}}$	N individuals
1099-R (retirement)	.0931	.2906	.5317	.4990	1,609,000
1099-INT (interest income)	.1957	.3968	.2726	.4453	1,609,000
1099-DIV (dividend income)	.1179	.3225	.1635	.3698	1,609,000
1099-S (sale of house)	.0101	.1002	.0150	.1220	1,609,000
1098 (mortgage)	.3005	.4585	.2575	.4372	992,000

Notes: This table presents baseline shares of children receiving various information returns for tax-reportable changes in wealth, and corresponding shares of children with a dying parent who receives these forms. 1099 indicators are available in our data beginning in 2010 and the 1098 indicator is available beginning in 2013. For consistency with our event studies for these outcomes (see Figure 6.3), we estimate means for the 2015 and 2016 treatment cohorts only. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.9: DiD estimates across outcomes by own and parental income

Sample	Owi	n earnings	Per-ad	Per-adult earnings		nvestment income	N individuals
		(1)		(2)		(3)	
	Estimate	Baseline mean	Estimate	Baseline mean	Estimate	Baseline mean	
Own earnings							
Tercile 1	16.48	190.7	-191.7	8074	217.2	575.3	809,000
	(42.15)		(51.4)		(10.81)		
Tercile 2	-426.1	21060	-477.3	24060	178.6	300	$945,\!000$
	(45.11)		(45.05)		(7.611)		
Tercile 2	-1429	83610	-1188	73440	536.9	1208	822,000
	(107.6)		(87.51)		(14.52)		
Parent 1994 AGI							
Quartile 1	-247.9	24820	-258.4	25060	78.02	371.9	434,000
•	(62.13)		(56.91)		(8.601)		
Quartile 2	-42.59	29280	-119.6	29640	$112.3^{'}$	431.1	439,000
•	(69.16)		(63.44)		(9.793)		
Quartile 3	-482.3	36380	-439	36600	267.1	650	447,000
	(85.32)		(77.03)		(12.81)		
Quartile 4	-1332	52080	-1230	52140	899.9	1370	454,000
	(128.6)		(112.6)		(22.52)		
Parent 1994 inv. inc.	,		,		,		
Bin 1	-238.4	26250	-286.6	26530	66.71	322.2	1,047,000
	(44.27)		(40.61)		(5.798)		, ,
Bin 2	-580.1	39880	-641.2	40180	$169.5^{'}$	673.6	448,000
	(89.77)		(80.68)		(11.85)		
Bin 3	-1568	50640	-1438	50680	995.1	1591	445,000
	(119.4)		(104.9)		(22.42)		
Parent $\ell = -1$ inv. inc.	,		,		,		
Bin 1	-127.8	29360	-155.3	29660	79.36	414.9	1,506,000
	(40.04)		(36.6)		(5.066)		, ,
Bin 2	-919.9	48200	-832.4	48370	278.8	900.2	473,000
	(138.1)		(121.6)		(17.75)		,
Bin 3	-2163	56990	-1973	56870	1944	2238	353,000
	(187.8)		(163)		(40.44)		,

Notes: This table, which corresponds to panel (a) of Figure 6.1, presents DiD estimates for own and peradult earnings and per-adult investment income in different subsamples defined by own earnings and different measures of parental income. Note that, in our data, earnings are measured at the individual level and investment income is measured at the tax unit level. When computing standard errors (reported in parenthesis), we cluster on dying parent. Outcomes and baseline means are reported in 2022 U.S. dollars. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.10: DiD estimates across outcomes by own demographic characteristics

Sample	Own	n earnings	Per-ad	Per-adult earnings		Per-adult investment income		
	(1)			(2)				
	Estimate	Baseline mean	Estimate	Baseline mean	Estimate	Baseline mean		
Male	-799	40090	-687.4	34720	315.7	699.1	992,000	
	(67.17)		(53.38)		(9.467)			
Female	-436.1	29690	-547.7	35760	307.8	690.7	947,000	
	(48.95)		(52.65)		(9.084)			
White	-844.8	41280	-852.2	41710	477.4	944.4	1,112,000	
	(64.51)		(56.82)		(10.74)			
Black	-157	24140	-194.7	24110	36.84	216.2	412,000	
	(56.7)		(54.04)		(6.235)			
Hispanic	-376.6	26450	-426.8	26430	94.88	351.8	288,000	
	(81.89)		(77.56)		(11.8)			
Under 40	-563.6	31180	-585.7	31490	259.6	531.8	1,709,000	
	(43.36)		(39.04)		(6.761)			
40 or above	-837	50430	-770.5	50340	527.3	1354	557,000	
	(118)		(103.9)		(19.62)			
No college	-1219	58520	-1101	58150	731.9	1576	199,000	
	(187)		(161.7)		(29.55)			
College	-246.4	28010	-237.9	28740	178	371	237,000	
	(83.33)		(77.07)		(13.22)			
Lives with parent	-79.82	28160	-89.77	28220	401	512.2	489,000	
	(81.87)		(76.28)		(16.47)			
0-5m from parent	-477.2	35300	-505.4	35520	352.6	633.2	464,000	
	(90.97)		(80.28)		(16.51)			
5-25m from parent	-923.8	40790	-915.7	41280	275.5	719.7	469,000	
	(101.3)		(89.79)		(15.43)			
>25m from parent	-701.7	35300	-709.7	35490	283.4	763.8	1,201,000	
	(63.25)		(56.48)		(9.252)			

Notes: This table, which corresponds to panel (b) of Figure 6.1, presents DiD estimates for own and per-adult earnings and per-adult investment income in different subsamples defined by own demographic characteristics. We define distance bins, the last four rows of the table, based on miles. Note that, in our data, earnings are measured at the individual level and investment income is measured at the tax unit level. When computing standard errors (reported in parenthesis), we cluster on dying parent. Outcomes and baseline means are reported in 2022 U.S. dollars. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.11: DiD estimates across outcomes by parent demographic characteristics

Sample	Own earnings		Per-ad	Per-adult earnings		Per-adult investment income		
		(1)		(2)		(3)		
	Estimate	Baseline mean	Estimate	Baseline mean	Estimate	Baseline mean		
Male	-575	34690	-580.3	34760	302.2	717.3	873,000	
	(62.27)		(55.47)		(9.827)			
Male	-575	34690	-580.3	34760	302.2	717.3	873,000	
	(62.27)		(55.47)		(9.827)			
Female	-665.1	35290	-662	35650	317.7	674.9	1,066,000	
	(57)		(51.38)		(9.286)			
Under 75	-631.9	35250	-611.7	35470	345.7	664.9	1,175,000	
	(51.8)		(46.45)		(8.121)			
75 or above	-477.9	34470	-543.9	34730	267.1	758.2	764,000	
	(71.68)		(64.24)		(11.93)			
No wage earnings	-507.8	34010	-489.8	34270	287.4	671.8	1,555,000	
	(45.12)		(40.61)		(7.299)			
Has positive wage earnings	-445.4	39970	-493.9	40030	442.6	811.2	657,000	
	(113.8)		(99.92)		(17.95)			

Notes: This table, which corresponds to panel (c) of Figure 6.1, presents DiD estimates for own and peradult earnings and per-adult investment income in different subsamples defined by characteristics of the dying parent. Note that, in our data, earnings are measured at the individual level and investment income is measured at the tax unit level. When computing standard errors (reported in parenthesis), we cluster on dying parent. Outcomes and baseline means are reported in 2022 U.S. dollars. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.12: DiD estimates across outcomes by current household characteristics

Sample	Own earnings		Per-ad	Per-adult earnings		Per-adult investment income		
		(1)		(2)	(3)			
	Estimate	Baseline mean	Estimate	Baseline mean	Estimate	Baseline mean		
Unmarried	-421.8	25520	-413.8	25520	258	361.3	1,365,000	
	(40.99)		(40.55)		(7.478)			
Unmarried filer	-698.1	37130	-692.2	37130	365.9	600.3	992,000	
	(59.71)		(58.92)		(11.29)			
Married (filer)	-943.9	53600	-922.1	54270	426.7	1349	800,000	
, ,	(93.27)		(76.41)		(12.9)			
Filer with dependent(s)	-699.2	44780	-701.5	45330	312.1	959.7	951,000	
	(72.65)		(60.63)		(10.37)			
Filer with no dependent(s)	-844.6	44560	-819.4	44500	[551.1]	920.9	883,000	
	(79.23)		(74.42)		(14.86)			

Notes: This table, which corresponds to panel (a) of Appendix Figure B.4, presents DiD estimates for own and per-adult earnings and per-adult investment income in different subsamples defined by characteristics of the child's current household. Note that, in our data, earnings are measured at the individual level and investment income is measured at the tax unit level. When computing standard errors (reported in parenthesis), we cluster on dying parent. Outcomes and baseline means are reported in 2022 U.S. dollars. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.13: DiD estimates across outcomes by childhood household characteristics

Sample	Own earnings (1)		Per-adult earnings (2)		Per-adult investment income (3)		N individuals
	Estimate	Baseline mean	Estimate	Baseline mean	Estimate	Baseline mean	
Only child	-607.5	37600	-595.4	37850	411.4	771.9	817,000
	(62.5)		(56)		(10.21)		
1 sibling	-679.5	35630	-679.7	35810	302.5	718.3	$635,\!000$
	(77.91)		(69.97)		(12.95)		
2 siblings	-403	30620	-486	30980	143.8	554.1	301,000
J	(109.3)		(97.32)		(15.69)		
1st of 2 kids	-791.5	35390	-761.3	35510	249.4	704.6	$365,\!000$
	(99.07)		(88.57)		(14.78)		
2nd of 2 kids	-557.6	35960	-595.2	36230	370.8	737.2	270,000
	(121.5)		(109.2)		(18.7)		
Boy in boy+girl HH	-700.4	36890	-625.8	32060	233.4	619.6	336,000
_	(118.1)		(94.7)		(15.54)		
Girl in boy+girl HH	-327.3	26770	-453.4	31980	206.7	583.2	362,000
_	(79.73)		(85.03)		(13.48)		

Notes: This table, which corresponds to panel (b) of Appendix Figure B.4, presents DiD estimates for own and per-adult earnings and per-adult investment income in different subsamples defined by characteristics of the child's household of origin. The last two rows of the table correspond to subsamples of adult children whose dying parent has at least one male and at least one female child. Note that, in our data, earnings are measured at the individual level and investment income is measured at the tax unit level. When computing standard errors (reported in parenthesis), we cluster on dying parent. Outcomes and baseline means are reported in 2022 U.S. dollars. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Table A.14: IV estimates of the effect of investment income on earnings

Main sample
-1.399
(.1157)
146.2
30.06
.0117
1.939M

Notes: This table reports 2SLS estimates and test statistics for an overidentifed model where the outcome is per-adult earnings, the endogenous variable is per-adult investment income, and instrument sets are constructed by interacting 1(treated for stack) x 1(post-treatment for stack) and group dummies. Groups are defined by the interaction of sex, 1994 parent AGI quartile, and racial group. We include stack fixed effects as in 4.1. When computing standard errors (reported in parenthesis), we cluster on dying parent. The small discrepancy between our main estimate and the slope in Figure 6.2 reflects slight differences in the number of observations contributing to each stack when estimating the model using the full microdata versus subsamples. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

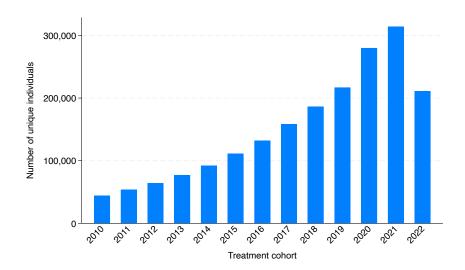
Table A.15: Comparison of MPE estimates across studies

	Setting	Mean effect of an extra dollar of unearned income (MPE)
This paper	Inheritances (U.S.)	-0.40 (0.10)
Nekoei & Seim (2023)	Inheritances (Sweden)	-0.28 (Not reported)
Golosov et al. (2024)	Lottery winnings (U.S.)	-0.332 (Not reported)
Vivalt et al. (2025)	Cash transfers (Texas & Illinois)	-0.35 to -0.44 (Not reported)

Notes: This table reports pre-tax, household- or tax unit-level MPE estimates from this study and other papers. The standard error reported for our study is equal to the standard error for the slope of the line of best from our visual IV, scaled by the annuity payout associated with a \$1 stock of wealth. Our approach closely matches that of Golosov et al. (2024). Neither Golosov et al. (2024) nor Vivalt et al. (2025), who do not report standard errors for these estimates. Nekoei and Seim (2023) report annual MPEs as the ratio of event time estimates for earnings to unearned income; the estimate shown above is a simple average of annual MPEs across their post-period. Since estimates across event times are not independent and identically distributed, we cannot report a standard error for their mean.

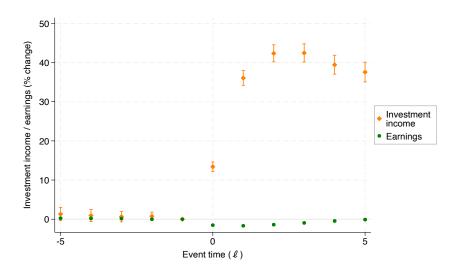
# **B** Appendix Figures

Figure B.1: Unique individuals per treatment cohort



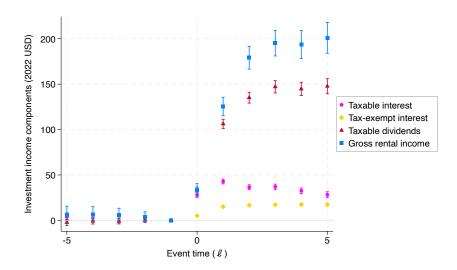
Notes: This figure displays the number of unique individuals belonging to each treatment cohort in our main estimation sample. We estimate treatment effects for cohorts 2010-2016, while cohorts 2017-2022 serve as controls for certain treatment cohorts, as described in Section 4. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Figure B.2: Effect of parental death across outcomes: Poisson model



Notes: This figure presents estimates of the effect of losing a parent on two outcomes, based on estimating a Poisson version of equation 4.1. 95 percent confidence intervals are displayed, clustering on dying parent. We use c - 1 as the omitted event time. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Figure B.3: Effect of parental death on components of investment income

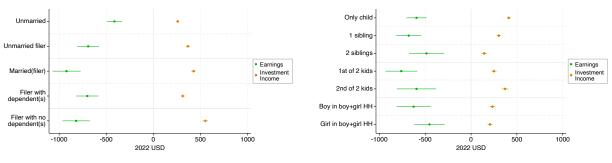


Notes: This figure presents estimates of the effect of losing a parent on the four income variables whose sum we defined to be investment income, based on estimating equation 4.1. 95 percent confidence intervals are displayed, clustering on dying parent. We use c - 1 as the omitted event time. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Figure B.4: DiD estimates across outcomes and household characteristics

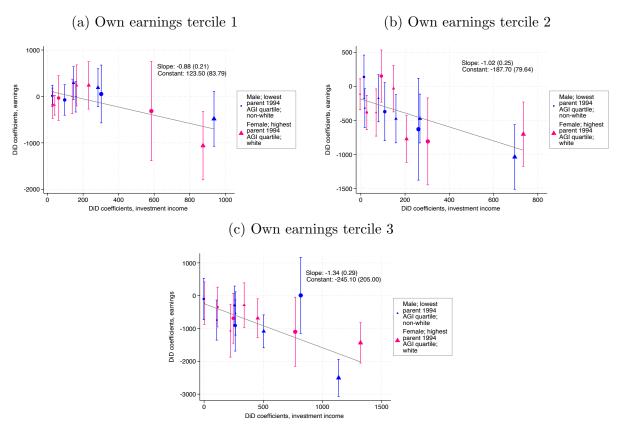
#### (a) Current household characteristics

## (b) Childhood household characteristics



Notes: This figure presents DiD estimates for investment income and earnings across groups defined by different socioeconomic and demographic characteristics. 95 percent confidence intervals are displayed, clustering on dying parent. All time-varying characteristics pertain to the year prior to the parent's death (with the exception of parent age, which is age at death). Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

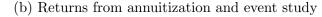
Figure B.5: Visual IV estimates of the effect of investment income on earnings, by earnings tercile

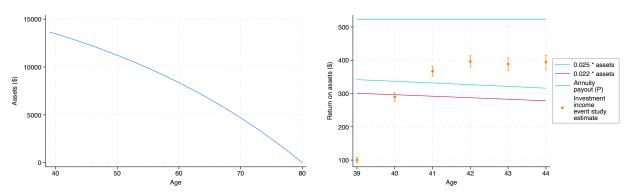


Notes: Each panel plots effects on earnings against effects on investment income in the year following parental death for sixteen different subsamples, as detailed in Section 6.2, within a given tercile of baseline own earnings. Whiskers mark 95 percent confidence intervals for the earnings estimates. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

Figure B.6: Asset and return paths from annuitizing investment income gains

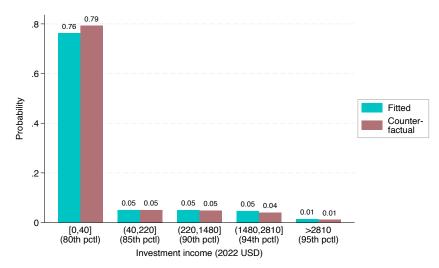






Notes: Panel (a) plots the path of assets over the remainder of life implied by the annuitization formula (equation 8.1), when using treating our capitalized DiD estimate as the stock of wealth and other parameters defined in Section 8. Restricting to the first six remaining years of life after parent death (i.e., our event study post-period), panel (b) plots the payout from this annuity; returns from the asset balance in panel (a) using both the interest rate applied in our annuitization (0.025) and the rate equal to the inverse of our capitalization factor (0.022); and our event study estimates for investment income.

Figure B.7: Effect of inheritances on the PMF of investment income



Notes: This figure presents the probability mass function associated with the cumulative distribution function in Figure 9.1. To build this plot, we follow the procedure described in Section 9. Source: Census Environmental Impacts Frame, Master Address File, Decennial Census (2000, 2010), American Community Survey (2000-2022); IRS 1040s, W-2s (2005-2022); SSA Numident (1994-2022).

## C Variable definitions

Here we define variables not already described in Sections 3.1 and 3.2.

**1099-R:** An indicator for receipt of a 1099-R information return (this return is issued to an individual plan-holder).

**1099-INT:** An indicator for receipt of a 1099-INT information return, either by an individual or their spouse (this return is often issued to only one member of a married tax unit).

**1099-DIV:** An indicator for receipt of a 1099-DIV information return, either by an individual or their spouse (this return is often issued to only one member of a married tax unit).

1099-S: An indicator for receipt of a 1099-S information return, either by an individual or their spouse (this return is often issued to only one member of a married tax unit).

**1098:** An indicator for receipt of a 1098 information return, either by an individual or their spouse (this return is often issued to only one member of a married tax unit).

**2010** homeownership: An indicator for being a head of household or spouse or partner of a head of household in the 2010 Decennial in a household where the householder is a homeowner (either owning free and clear or with a mortgage).

Census tract: The Census tract (Census-defined geographic aggregation) corresponding to an individual's home address in a given year.

**EIN:** For individuals linked to a single firm through Form W-2, this is the identity of their employer. For individuals linked to multiple firms through Form W-2, this is the identity of the highest-paying employer.

College: An indicator for having a bachelor's degree or higher in the 2000 Decennial or 2001-2020 ACS surveys (the 2010 Decennial does not include data on college attendance).

**Distance to parent:** Distance of child's home address to home address of the dying parent, in miles, as calculated by Stata's geodist package.

**Having dependents:** An indicator for claiming a child at home or child away exemption on Form 1040.

Number of siblings: The number of other children claimed by one's parent from 1951-2007, a 20 year range surrounding the minimum and maximum birth year of children in our sample.

**Birth order:** The relative birth year order among children claimed by one's parent from 1951-2007, a 20 year range surrounding the minimum and maximum birth year of children

in our sample.

Having no wealth (dying parents): An indicator for not recording receipt of a 1099-R, having 0 investment income, and not being a homeowner in 2010.

Wealth change due to retirement: A binary indicator for recording receipt of a 1099-R in  $\ell \in \{0, 1, 2\}$ .

Wealth change due to housing: A binary indicator for recording receipt of a 1099-S in  $\ell \in \{0, 1, 2\}$ .

Wealth change due to investment income: A binary indicator equal to the union of the following binary indicators:

- A binary indicator for recording receipt of a 1099-DIV or 1099-INT in  $\ell \in \{0, 1, 2\}$  having not received one in  $\ell \in \{-3, -2, -1\}$
- A binary indicator for recording investment income in  $\ell \in \{0, 1, 2\}$  in a category (taxable and tax-exempt interest income, taxable dividend income, or gross rental income) that was not recorded in  $\ell \in \{-3, -2, -1\}$ .
- A binary indicator for recording at least 50 percent higher investment income in  $\ell \in \{0, 1, 2\}$  in a given category than was recorded in the same category in  $\ell \in \{-3, -2, -1\}$ .
- A binary indicator for recording at least 50 percent higher total investment income in  $\ell \in \{0, 1, 2\}$  than total investment income recorded in  $\ell \in \{-3, -2, -1\}$ .

Wealth change due any source: A binary indicator equal to the union of wealth change due to retirement, wealth change due to housing, and wealth change due to investment income.

## D Comparison of inheritance results with the Survey of Consumer Finances

The SCF contains a section called "Inheritances and Charitable Contributions" which asks respondents: "Including any gifts or inheritances you may have already told me about, have you (or your husband/wife/partner/ spouse) ever received an inheritance, or been given substantial assets in a trust or in some other form?" For up to three such "inheritances, gifts, or transfers," the survey subsequently asks respondents to provide information on the type of transfer (whether an inheritance, trust, or transfer/gift); the approximate value at the time the transfer was received, the year of receipt, and from whom the transfer was received.

The same section also asks "How much altogether were any others you have received?" but there are no questions on transfer type, year of receipt, or source associated with this question. This section of the SCF is intended to encompass all inheritances, but other sections contain a few more questions about whether specific assets were received as inheritances. However, these sections do not distinguish between gifts and inheritances and lack information on the source of the inheritance (i.e. whether from parents or another entity). Wolff and Gittleman (2011) show that nearly all respondents who report having received specific assets also report these assets in the general section on inheritances. For these reasons, we restrict attention to the general questions.

We pool 2010-2016 SCF waves and restrict to households where at least one member (respondent or spouse) has no living parent and was born in the same birth cohort range as children in our main estimation sample (1971-1987). These choices reflect a compromise between approximating our sample selection, given that the SCF lacks information on parental death year, and maintaining sample size, which would be sharply reduced by fine-grained re-weighting. We inflation adjust values so that all inheritances amounts are measured in USD 2022. The resulting sample has similar per-adult wage earnings as our main estimation sample in the baseline year (see Appendix Table A.5). The survey permits dollar-valued responses of up to one billion, such that top-coding does not constrain the upper tail of reported values.

Table D.16: Inheritance statistics from Survey of Consumer Finances - 2010, 2013, 2016

	Statistic	$\operatorname{SD}$
Mean inheritance	\$39,374	\$7,724
Median inheritance	\$0	N/A
Inheritance share	.1639	.0145
Cond. mean inheritance	\$240,232	\$43,892
Cond. median inheritance	\$85,634	\$28,234
Mean per-adult wage earnings	\$43,934	\$5,082
Median per-adult wage earnings	\$29,438	\$1,140
N respondents	2,367	

*Notes:* This table presents descriptive statistics from the 2010, 2013, and 2016 SCF surveys, as described above. Dollar amounts are reported in 2022 USD (thousands).