BROOKINGS

DECEMBER 2024

A PRELIMINARY REPORT ON TAXING THE GREAT WEALTH TRANSFER

REVENUE AND DISTRIBUTIONAL EFFECTS OF TAXES ON ESTATES, INHERITANCES, AND UNREALIZED CAPITAL GAINS AT DEATH

William G. Gale, Oliver Hall, and John Sabelhaus

ABSTRACT

Over the next several decades, the U.S. will experience the largest flows of intergenerational transfers of wealth in modern history. Taxing these flows judiciously could raise revenue and improve the tax system, but transfer taxes have been eviscerated in recent years. Using an innovative methodology, we examine the revenue and distributional effects of reforming the estate tax, taxing capital gains at death, and converting the estate tax to an inheritance tax. We conclude that inheritance taxes can raise more revenue and be more progressive than the existing estate tax and have other advantages, such as broadening the income tax base.

AUTHOR NOTES

Gale is the Miller Chair in the Economic Studies Program at Brookings and Co-director of the Urban-Brookings Tax Policy Center (TPC). Hall is a senior research assistant at Brookings and TPC. Sabelhaus is a Visiting Fellow at Brookings and TPC and Adjunct Research Professor at the University of Michigan. The authors thank Isabel Sawhill for initial discussions; Ian Berlin, Swati Joshi, and Chris Pulliam for outstanding research assistance on earlier parts of this project; George Callas, Rob McCelland, David Splinter, Tara Watson, and seminar participants at the National Tax Association and the Federal Reserve Board for comments; and Arnold Ventures, California Community Federation, and the Peter G. Peterson Foundation for generous financial support.

DISCLOSURES

I. Introduction

Private transfers of resources across generations are as old as society itself. Controversies about such transfers are equally ubiquitous, featuring prominently in biblical stories and Shakespearean plots alike. In modern times, transfers of wealth raise issues as intimate as the nature of family relations and as public as the ability of the economy to generate fair outcomes. The size and distribution of intergenerational transfers have raised concerns about creating family dynasties, exacerbating trends in inequality, and limiting economic opportunity and mobility. At the same time, taxing transfers raises concerns about reducing efficiency and capital accumulation and violating horizontal equity considerations.

These issues will likely rise in importance over the next several decades, as the U.S. comes to grips with the largest set of intergenerational wealth transfers in its history. Data from the Surveys of Consumer Finances (SCF), described in more detail below, indicate that the ratio of aggregate bequeathable wealth to GDP has increased from 256% in 1997 to 424% in 2021. Of that increase, 97% has accrued to households in which the head of household or spouse is aged 55 and older and 75% has accrued just to the wealthiest 10% of households aged 55 and older. Households aged 55 and older held 71% of aggregate bequeathable wealth in 2021, compared to just 54% in 1997. These increases have occurred because both the number of households and wealth per household among households aged 55 and older have increased faster than in the rest of the population.

If the experience of earlier generations is a guide, a substantial share of the wealth held by households aged 55 or older will be held until death—especially among the very wealthiest households—and be bequeathed to future generations in a manner that maintains family dynasties and makes the distribution of resources among the recipient generation more unequal.[1]

Under current law, however, the wealth transfer tax system—consisting of the estate, gift, and generation-skipping taxes—has been all but eviscerated over the past 50 years. In 1972, 6.5% of decedents paid estate taxes, generating 0.42% of GDP in revenues (SOI 2019, Joulfaian 1998). By 1997, 2.1% of decedents paid estate taxes equaling 0.19% of GDP (SOI 2019, SOI 1997). By 2021, less than 0.1% of decedents—one out of every 1,300—paid any estate taxes, and the tax raised just $18 billion, 0.08% of GDP, in revenue (SOI 2021, CDC 2021). We estimate that, had the estate tax remained in its 2001 form but been indexed for inflation, it would have raised seven times as much revenue in 2021 as the tax actually did. The reduction in revenues is even more significant, given that the ratio of bequeathable net worth to GDP increased substantially over this period, as noted above.

Reforms to the wealth transfer tax system could reduce wealth inequality and boost federal revenues. Recent years have seen substantial increases in the dispersion of a variety of economic measures including income, wealth, and life expectancy, raising concerns ranging from equality of opportunity to the future of democracy[2] (Bricker et al. 2016; Saez and Zucman 2018; Smith, Zidar, and Zwick 2022; Case and Deaton 2023). Wealth transfers contribute to rising wealth inequality, as transfers in the aggregate are large, are given by the most affluent households, and are received by already-wealthy heirs (Feiveson and Sabelhaus 2019). In addition, standard budget projections imply that federal debt will rise steadily and inexorably over the next 30 years, reducing the rate of economic growth (CBO 2024, Auerbach and Gale 2024). While some adjustments will be needed on the spending side, increases in federal revenues can and should be part of the solution as well. In light of high wealth inequality, raising tax burdens on affluent households merits special consideration, especially because the taxation of capital income has declined in recent decades (Gale et al. 2022).

In this paper, we investigate the revenue and distributional effects of three options for wealth transfer taxes: reforming the estate tax; taxing capital gains at death; and converting the estate tax (paid by

decedents) to an inheritance tax (paid by recipients). Comparisons of the estate tax and an inheritance tax have long been a staple of economic policy analysis. (See Batchelder 2007 for a comprehensive review and proposal.) The U.S. is an outlier in the OECD, where many more countries have inheritance taxes than estate taxes. Given the standard economic result that the economic incidence of the tax does not depend on the legal incidence, in simple models the two taxes will have the same effects on efficiency and equity. As a result, part of the difference between the two taxes is just optics: There appears to be less moral outrage against taxing a large gift that someone receives than taxing the accumulated wealth of a donor.

However, these differences in perception also reflect key equity issues. For example, there is strong opposition to estate taxation when examined from the donors' perspective. Stantcheva (2021) conducts a carefully designed, nationally representative survey and reports that 61% of respondents believe that it is unfair to tax estates of decedents who earned their own wealth while 47% believe such taxation is unfair even if the decedent received the wealth as an inheritance. At the same time, respondents believe that it is unfair to allow unequal inheritances to exacerbate pre-transfer-tax inequality among recipients, with only 32% agreeing that it is fair for children of wealthy parents to have "access to better amenities." Nevertheless, opposition to unfair starting points in life or unequal childhood opportunities is tempered by the desire to preserve the right of donors to give as they please. About 53% say that it is fair for children in wealthy families to inherit more; when asked to take into account the interests of both parents and children, 58% look favorably on the idea that parents should be able to pass along all their wealth to children, even if it means that children will have larger wealth differences.

An inheritance and an estate tax might differ in their incidence due to important behavioral effects. For example, Becker (2005) argues that if the goal of wealth transfer taxation is to reduce inequality, an inheritance tax is better than an estate tax because it targets large individual transfers, rather than large estates which may be divided up among a number of family members. Fahri and Werning (2010) further develop this idea, showing that an optimal wealth transfer tax accounts for the number of children receiving bequests rather than just the size of the gross estate.[3] They argue that it is easier to achieve this condition from an administrative point of view by taxing inheritances rather than estates.

Finally, a key difference between the estate tax and an inheritance tax is that the latter would cover one of the biggest omissions in the income tax: Income received by gift or bequest that is not captured under the unified estate and gift tax rules. Taxing all income, rather than allowing different treatment of various forms of household resources, is a desideratum of good tax policy. This cannot be achieved without taxing inheritances as income.

The comparisons between the taxes are of current policy interest. In recent policy proposals by seven think tanks to address the long-term fiscal imbalance, all seven proposed some reform to the taxation of wealth transfers. These reforms ranged from a complete repeal of the estate and gift tax to the reversion of estate tax parameters to 2009 levels. Four of the proposals would repeal the step-up in basis of capital gains at death, and one proposal would replace the estate tax with an inheritance tax (Peter G. Peterson Foundation 2024).

Our work features both a new methodology and new results. Inheritances are directly observed in the SCF, and we use a method developed in an earlier paper (Feiveson and Sabelhaus, 2019) to include both the inheritances that are reported as well as transfers of real property not captured in the SCF inheritance module.[4] In addition, we construct estimates of bequests based on estimates of household wealth from the SCF, estimates of differential mortality risk (with respect to income) from both the Social Security Administration and from work by Chetty et al. (2016), estimates of estate tax deductions from Statistics of Income data, and estimates of estate tax liability from our own calculators. There is nothing in the model or methodology that requires that (simulated) bequests closely approximate (respondent-reported) inheritances, but the two series are reasonably close in aggregate and have broadly similar size distribution, which we take

as validation of the new methodology. We believe the methodology itself is a significant advance over previous work in that it allows comparisons of bequests with inheritances as a source of validation.

By probabilistically linking bequests and inheritances, we are able to analyze wealth transfer taxes assuming they are borne either by decedents or inheritors, unlike previous work in the literature. Thus, we can calculate the distributional effects assuming that the burden of any of the wealth transfer taxes falls on either decedents or heirs. In this paper, however, we analyze all policy options assuming that heirs bear the burden of the tax (following Batchelder 2007, Entin 2004, and Mankiw 2003). We rank households by Expanded Income (EI), a broad measure of income we have developed elsewhere (Gale and Sabelhaus 2024). EI includes all major forms of cash and non-cash income, including estimates of unrealized capital gains, imputed income from owner-occupied housing, unreported business income, and inheritances received.

With this framework, we examine two inheritance tax options—with a flat rate of 37% (the highest income tax rate in 2024) or 15%—and a third option to tax unrealized gains at death at a rate of 23.8% (the top rate on realized capital gains in 2024). By adjusting the exempt amounts, these alternatives can raise the same amount of revenue as the estate tax under 2021 parameters. The exemptions are $2.81 million and $940,000 for the inheritance tax options and $2.22 million for the tax on unrealized gains. The 37% inheritance tax is the most progressive of the options and is more progressive than the current estate tax, both because of the high rate and because of the large exemption amount that the high rate allows.

In alternative simulations, we return the estate tax to its 2001 parameters, adjusted for inflation. Remarkably, this version of the estate tax would have raised seven times as much revenue in 2021 as the actual estate tax did that year. Both the estate tax and the 37% inheritance tax (with an exemption of $150,000) are quite progressive under this revenue target. The 15% inheritance tax and the unrealized gains taxes are not capable of generating the same amount of revenue. We conclude that inheritance taxes can raise more revenue and be more progressive than the existing estate tax and that they have other advantages, such as broadening the income tax base.

Section II discusses wealth transfer taxes. Section III and the Appendix describe the data and methodology. Section IV reports trends in wealth and transfers. Section V presents the main results. Section VI concludes.

II. Transfer Taxes[5]

A. HISTORICAL FEDERAL WEALTH TRANSFER TAXES

The U.S. imposed its first wealth transfer tax in 1797—a stamp tax on probates for wills—to help finance military operations. The tax was repealed in 1802. A second inheritance tax existed from 1862 to 1870 as part of the effort to finance the Civil War. Both taxes were stand-alone levies. In 1894, inheritances and gifts received were included in the base of a newly-enacted income tax. That tax, however, was declared unconstitutional—for reasons unrelated to the taxation of inheritances.

After the 16th Amendment to the Constitution was ratified, policymakers created a new income tax in 1913. It did not tax inheritances, but the estate tax was created in 1916. Figure 1 reports the exemption and top rate structure from 1916 to the present day. The estate tax originally exempted the first $50,000 of wealth (about $1.48 million in 2024 dollars) and taxed amounts above that at rates ranging from 1% on the first $50,000 to 10% on amounts over $5 million (about $148.3 million in 2024 dollars).

To reduce tax avoidance, a gift tax was introduced in 1924. Although it was repealed in 1926, a new tax on cumulative lifetime gifts was enacted in 1932 at rates equal to three quarters of the estate tax. In 1942, an annual exclusion for gifts was added and the lifetime limit was raised.

In 1976, legislation "unified" the estate and gift taxes with a single rate structure and consistent tax treatment for inter vivos gifts and transfers at death. The legislation raised the effective exemption, which was implemented via a credit. It reduced the top estate rate to 70% from 77%. It introduced a 100% spousal deduction for the first $250,000 (about $1.38 million in 2024 dollars) in transfers and made all gifts in the last three years of life part of a decedent's gross estate. It allowed estates to value closely-held businesses at "use value" under certain conditions and extended the payment period for estate tax on closely-held business to 14 years. The 1976 Act changed the taxation of capital gains at death from "step up in basis" to a carry-over regime that preserved the original basis. Finally, it created a generation-skipping transfer tax. Taken together, these changes were designed to reform the structure of wealth transfers taxes in a coherent and revenue-neutral manner (Graetz 1983).

These changes were short-lived. Carry-over of basis was eliminated in 1980, before it was ever implemented. Cuts to estate and gift taxes occurred in 1981, 1997, 2001, and 2017. The 2001 tax cut is particularly noteworthy in this regard, as it abolished the estate tax for one year, 2010, and replaced it with a carry-over tax regime for assets with capital gains (Gordon, Joulfaian, Poterba 2016). In addition, the Tax Cut and Jobs Act of 2017 more than doubled the estate tax exemption, from $5.49 million to $11.18 million ($22.36 million for a married couple), and indexed it for inflation.

These changes have had the effect of all but eliminating the estate tax, except for the very richest households. At its post-World War II peak in 1972, estate taxation raised 0.42% of GDP in revenue, with 6.5% of decedents paying the tax (Figure 2). By 2021, the estate tax raised a total of just $18.42 billion dollars in revenue, about 0.08% of GDP. Only about 2,600 estates were taxable, accounting for less than 1 out of every 1,300 deaths that occurred that year (SOI 2021, CDC 2021).

B. CURRENT FEDERAL WEALTH TRANSFER TAXES

Today, wealth transfers face an integrated set of estate, gift, and generation-skipping taxes but only for a very small slice of the population. The U.S. does not tax inheritances (although some states do, as described below). Under 2024 law, the estate tax is imposed to the extent that a decedent's taxable estate exceeds $13.61 million per individual. The taxable estate includes real and financial assets as well as the decedent's share of jointly owned assets less debt, and it allows deductions for spousal transfers,

charitable contributions, funeral expenses, attorney's fees, executor's fees, and a broad "other" category. It includes life insurance benefits that are payable to the estate. The unlimited deduction for spousal transfers is of particular note because it can completely eliminate federal taxes for the first spouse to die in a married couple. The marginal tax rate is 18% for the first $10,000 of taxable estate and rises in steps to 40% on taxable transfers above $1 million (IRS 2023).

The tax contains special exceptions for small businesses and family farms. If a farm or small business comprises at least 35% of the net value of the estate, the tax on the small business or farm portion of the estate can be paid in installments over 14 years, with payments determined using a lower-than-market interest rate and with interest only due on the first five years. A closely-held small business may be able to claim additional valuation discounts for a minority share because minority shareholders are limited in their scope of control over the business, which depreciates the market value of their holdings.

As of 2024, the gift tax provided a lifetime exemption of $13.61 million per donor ($27.22 million for a married couple). This exemption is integrated with the estate tax exemption, meaning that a gift will reduce the exemption amount that is available for the estate tax. For gifts above the exemption, donors face the same tax brackets as the estate tax, including a top rate of 40%. There is an additional annual gift tax exclusion ($18,000 in 2024), which is indexed for inflation in $1,000 increments and granted separately for every recipient. Gifts received are not taxable income for the recipient. Also, a spouse may use any remaining unused portion of decedent's exemption in addition to their own exemption. A key difference between the gift and estate taxes is that recipients of wealth transferred at the donor's death receive a step-up in basis for all unrealized gains on assets received (eliminating any income taxes on those gains forever), whereas recipients of assets transferred inter vivos retain the original basis in the asset (and thus pay capital gains tax on the entire capital gain if and when they sell the asset).

The generation-skipping transfer tax (GSTT) is applied in addition to the estate or gift tax and imposed on transfers that are either direct or through a trust (and other similar arrangements) to a beneficiary who is more than one generation below the transferrer. For 2024, the generation-skipping transfer tax had an exemption of $13.61 million (unified with the estate and gift tax exemptions). The GSTT is imposed at the highest marginal estate and gift tax brackets applicable: 40% in 2024.

C. STATE WEALTH TRANSFER TAXES

Although this study focuses on federal wealth transfer taxes, we highlight several interactions between state and federal transfer taxes. In 1954, the Internal Revenue Act created the Credit for State Death Taxes (CSDT), which served to offset the value of state inheritance or estate taxes from federal estate tax up to a limit (Francis 2012). Often referred to as a "soak-up" credit, the CSDT applied to state death tax burdens up to 16% of the estate's value. When states implemented estate taxes that were identical to the CSDT schedule, decedents did not owe an increase in overall tax burden; the estate could use the entire amount of the state payment to offset federal estate tax burden. To take advantage of this revenue stream, all 50 states and the District of Columbia had a wealth transfer tax that was directly linked to the CSDT schedule.

When the 2001 tax cuts phased out the credit and replaced it with a less-valuable deduction, 25 states automatically lost their estate tax and eight repealed them over the following 20 years (Francis 2012, TPC 2023). Of the 17 states with taxes on wealth transfers at death in 2023, 12 (and the District of Columbia) levied estate taxes and six levied inheritance taxes (TPC 2023). Maryland is the only state to levy both an inheritance and an estate tax.[6]

Most states that tax estates have a top marginal rate of 16%, left over from the CSDT credit limit. Two states (Hawaii and Washington) have a top marginal tax rate of 20%, and two others (Maine and Connecticut) have a top marginal rate of 12%. In 2023, exemption levels ranged from $1 million in Oregon to the same as the federal level in Connecticut (Yushkov 2023).

States with inheritance taxes generally vary the exemption level and tax rates with proximity to decedent, size of the inheritance, or both. For example, Pennsylvania taxes inheritances at a flat rate of 4.5% for direct descendants, 12% for siblings, and 15% for other recipients (Pennsylvania Department of Revenue 2024). New Jersey imposes an inheritance tax of up to 16% of inheritances received and varies the exemption and rate by both relationship to the decedent and size of the inheritance (New Jersey Treasury 2020).

Barring the death of a multibillionaire, state estate and inheritance taxes raise relatively little revenue when compared to personal income taxes (Moretti and Wilson 2023). New York state, which raised the most revenue from estate taxation in 2021, collected less than 1% of total revenue from wealth transfer taxation (TPC 2023).

D. WEALTH TRANSFER TAXATION IN OTHER COUNTRIES

Of the 36 OECD countries, only four (Denmark, South Korea, the United States, and the United Kingdom) tax estates. Another 20 tax inheritances, all according to some combination of the relationship to the decedent and the size of inheritance received (OECD 2021). For example, France varies marginal tax rates based on the size of the inheritance and the relationship to the decedent. Italy, Denmark, and others vary the tax rate based only on the relationship to the decedent (with lower rates for close family members). By contrast, the United States estate tax schedule varies by the size of the taxable estate but not the relationship to the decedent (other than the spousal exemption) and the United Kingdom imposes a flat marginal rate of 40% on all estates above an exemption level (Jestl 2021).

There is significant heterogeneity across countries in the wealth level that is exempt from transfer taxation. Figure 3 shows exemption thresholds for selected countries from 1990-2018, which vary from a $17,000 inheritance exemption from 1990-2018 in Spain to a $1.1 million inheritance exemption from 2007-2018 in Italy. The estate tax exemption in the United States in 2018 was $11.18 million—an order of magnitude greater than Italy's inheritance exemption.

Above the exemption level, countries often differentiate between asset types. France, Germany, Spain (in their inheritance taxes), and the U.K. (in its estate tax) tax main residences at preferential rates, and Spain and the U.K. exclude private pensions from the tax base entirely. One of the most common asset classes for preferential treatment is family-owned businesses, which are taxed preferentially in 16 of the 24 OECD countries with taxes on intergenerational wealth. Examples of asset classes excluded from taxation in other countries include buildings of historical value (Germany and Italy), vehicles (Italy), and furniture (Finland, Germany, Portugal, and Slovenia), all of which are excluded from their respective countries' inheritance taxes (OECD 2021 Figure 3.16). Compared to most of the OECD, the estate tax in the U.S. has not only a much higher exemption but also a broader base above the exemption.

Despite the heterogeneity in tax schedules, rates, and preferential treatment across the OECD, wealth transfer taxation makes up a very small proportion of aggregate tax revenues in all countries. As shown in Figure 4, wealth transfer taxes generate less than 2% of aggregate tax revenues in all OECD countries and less than 1% of revenues in all but four countries (Belgium, France, Japan, and South Korea). Of those four, only South Korea uses an estate tax—the other three tax inheritances. The low proportion of revenues derived from wealth transfer taxation reflects the fact that, relative to the personal income tax and consumption tax, the wealth transfer tax base is very small. In recent years, sophisticated estate planning has eroded the wealth transfer tax base further (OECD 2021).

The fact that transfer taxes do not raise much money and are perceived as easy to avoid has figured prominently in the rhetoric of movements that seek to abolish such taxation entirely. In Australia, for example, inheritance taxation was introduced in 1914 to offset wartime expenses. Later in the 20th century, the tax became increasingly unpopular because of both a low federal exemption ($40,000) that was not adjusted after the 1940s and the various loopholes that made sophisticated tax planning extremely profitable. A well-organized farming lobby also contributed to the opposition, arguing that inheritance duties could result

in the sale or fragmentation of family farms. Ultimately, this opposition led to the abolition of inheritance taxation in 1978 (Lin, Mangan, and Milosavljevic 2018).

Similar factors contributed to the abolition of the Swedish inheritance tax. In the middle of the 20th century, inheritance taxation in Sweden was one of the most comprehensive of its kind. The top statutory rate reached 60% in 1950, and Henrekson and Waldenström (2016) estimate that effective tax rates exceeded 50% for the very largest estates during this time period. However, the presence of tax loopholes for the very rich combined with low exemption levels contributed to the perception that inheritance taxation was borne disproportionately by the middle class. The resulting delegitimization of inheritance taxation combined with the fact that inheritance tax receipts never made up an appreciable proportion of gross revenue led to the abolition of inheritance taxation in Sweden in 2004. At that time, the basic exemption amount for children of decedents was just $10,000.

E. TAXING UNREALIZED CAPITAL GAINS AT DEATH

The taxation of estates and inheritances is closely related to the idea of taxing previously unrealized capital gains on assets held by the owner at death. This policy is sometimes described as treating death as a constructive realization event.

Bricker et al. (2020) estimate that 27% of all wealth and 41% of the wealth held by the top 1% takes the form of unrealized capital gains. Under current law, no income tax is ever paid on the unrealized gains that occur over the owner's lifetime if the owner holds the asset until death. Dubbed the "Angel of Death loophole," this provision in the tax code not only loses billions of dollars in revenue but also distorts behavior—individuals are incentivized to hold capital assets for their entire lifetime to avoid taxation when that capital might be more efficiently allocated elsewhere (Kinsley 1987).

The Angel of Death loophole can be closed in two different ways (Enda and Gale 2020). First, capital assets could be subject to carryover basis at death, meaning that heirs would receive the asset with the original basis and, when they sold the asset, that they would be taxed on the full capital gain rather than (under current rules) just the appreciation that occurs after they receive the bequest. As noted, this approach was created in 1976 but then repealed in 1980 before it ever went into effect. The tax code currently uses this approach for assets transferred inter vivos but not for bequests. CBO (2022) estimates that implementing carryover basis at death starting in 2023 would raise an additional $2 billion in revenue in the first year and $156.4 billion over 10 years.

The second way to treat unrealized capital gains is to tax them directly at death. The best example of this in practice is Canada, which has no estate or inheritance tax but treats death as a realization event (Canada Revenue Agency 2024a, OECD 2021). To address liquidity issues, Canada exempts capital gains on principal residences and provides a lifetime deduction of 1 million Canadian dollars for qualified farm and fishing property (Canada Revenue Agency 2024b). Relative to carrying over the basis, taxing gains at death simplifies recordkeeping because individuals do not have to keep track of the original purchase price of inherited assets once the tax is paid. This advantage has not been enough to persuade many countries to adopt a tax on unrealized gains at death, however (Table 1).

Poterba and Weisbenner (2001) and Avery, Grodzicki, and Moore (2015) estimate that a tax on unrealized gains at death could raise more than the current estate tax system if there were no exemption level but that the tax burden would fall more on low-wealth households than under the estate tax. Avery, Grodzicki, and Moore (2015) and Gordon, Joulfaian, and Poterba (2016) estimate that if the exemption level were set at the exemption level in 2010, when carry-over basis existed for a year, the revenue effects of taxing gains at death would be far lower than the current estate tax. CBO (2011) comes to the same conclusion, estimating that, relative to a counterfactual where 2010 law was extended, reinstating the estate tax in 2011 raised an additional $550 billion over 10 years.

F. ISSUES

Although transfer taxes affect very few people and raise little revenue, they have long been the focus of heated controversy. This may not be surprising. The taxes represent an extreme form of trade-off between equity and efficiency, and they touch on issues as broad and controversial as what "provision of equal opportunity" means and as personal as one's relationships with other family members. In addition, taxing at death may appear unseemly to some people. Here, we briefly touch on several aspects of these issues. Batchelder (2007), Gale and Slemrod (2001), and Kopczuk (2012) provide further discussion.

Distribution and Progressivity: Under simplifying assumptions, the distribution of tax burdens created by the estate tax or by an inheritance tax should be the same, reflecting the well-known result that, under standard conditions, the economic incidence of a tax is independent of the statutory incidence. There can be differences in the economic incidence of the two taxes, however, under several circumstances. First, if people are not fully rational or foresightful and do not "see through" the taxes to the ultimate effects, the incidence can differ. For example, if people respond to estate taxes that their estate might have to pay but do not respond to inheritance taxes that their heirs might have to pay, the incidence of the taxes could differ. Second, to the extent that an inheritance causes a donor to break up their estate—making smaller bequests to more people than under an estate tax—the incidence would change somewhat.

For purposes of this paper, we assume that heirs bear the burden of the tax (consistent with Batchelder (2007), Entin (2004), and Mankiw (2003)). This could occur, for example, if bequests were accidental (Hurd 1987), in the sense that the donor was not saving to give a bequest. In this case, the estate or inheritance tax would not change the behavior of decedents when they were alive but would reduce the net-of-tax inheritance received by the heir.[7]

It turns out, however, that whether they are ultimately borne by decedents or inheritors, wealth transfer taxes are progressive. Decedents who face estate taxes are obviously among the wealthiest individuals—fewer than one in 1,300 deaths currently result in an estate tax liability. As a result, if the tax is borne by decedents, it is significantly more progressive than the income tax.

If it is borne by heirs, it is essential to note that the flow of inheritances is highly concentrated at the top of the wealth distribution. The top 10% of households by post-inheritance wealth receive 56% of all intergenerational transfers, while the bottom half receives only 8% (Feiveson and Sabelhaus 2018). The concentration of inheritances among affluent households occurs both because wealthy parents to tend to have wealthy children and because the receipt of inheritances further augments that wealth (Feiveson and Sabelhaus 2018). Similar evidence arises from other countries (Boserup, Kopczuk, and Kreiner. (2016) for Denmark; Crawford and Hood (2016) for England; and Elinder, Erixson, and Waldenström (2018) for Sweden). In short, even if they are borne by recipients of bequests, transfer taxes are quite progressive.

The role of private transfers in generating wealth inequality between Black and white households has also generated attention. It is not surprising that white families transfer more wealth than Black families, given that white families have more wealth. Moreover, many transfers in Black families to go to older generations, whereas transfers among white families tend to go to younger generations (Brown 2021). More generally, bequests are transferred earlier in the life cycle among white families, which helps build wealth further (Addo et al. 2024). Some studies (e.g., Sabelhaus and Thompson 2023) find that differences in transfers do not play a substantial role in Black-white wealth differences. Other studies (e.g., Toney, Fenaba, and Hamilton 2024) find that the impact of differences in transfers on racial wealth gaps depends sensitively on the econometric method employed to measure the impact.

Horizontal and Vertical Equity: From the standpoint of horizontal and vertical equity, transfer taxes create two opposing views, which are difficult to reconcile. Among prospective decedents of equal ability or endowment, transfer taxes discriminate against those

who have saved more, violating notions of horizontal equity. Among recipients, however, the opposite result occurs: Recalling that inheritances are received disproportionately by wealthier households, transfer taxes serve to equalize endowments or lifetime income, thus promoting vertical equity.

Saving and Efficiency: Many of the effects of transfer taxes—on saving and wealth accumulation, for example—hinge crucially on why people make bequests. If bequests are "accidental," then transfer taxes are efficient and will raise saving among recipients, while not affecting saving among donors. If transfers are altruistically motivated (Barro 1974; Becker 1974), the implications can be quite different. Transfers in this case create a type of positive externality in that they benefit both the donor and the recipient. To the extent that bequests are payments by parents for services provided by the children, the effect on overall saving will depend on the elasticity of demand for those services. If the elasticity is low, which would occur if there were no good substitutes for the attention of children, then the optimal tax rate on estates may be higher than otherwise and increases in the estate tax could raise saving (Gale and Perozek 2001). Bakija, Gale, and Slemrod (2003) exploit variation in state-level estate taxes to estimate that higher estate tax rates lead to lower gross estates, which is consistent with transfer taxes reducing saving (but also consistent with higher transfer taxes leading to more tax avoidance).

Tax Avoidance: Under the current treatment of capital gains at death, the estate tax also performs the important function of acting as a backstop to the income tax by taxing the capital gains that wealthy decedents have avoided paying while alive. As noted above, a significant portion of aggregate capital gains is never realized for income tax purposes, so the income tax rate on such gains is zero.[8]

Business and Farms: A substantial portion of the public debate about estate taxes concerns the impact on closely-held businesses and family farms. These concerns, however, seem to be generally overblown and fueled by anecdotes. First, as noted above, estates that consists of business or farms receive greatly extended periods over which to pay the estate tax on the farm or business portion of the estate; this helps resolve liquidity issues, and it substantially reduces the present value of estate tax payments due to favorable interest rates that are used to determine the path of payments. Second, only a tiny minority of businesses and farms qualify for estate taxation in the first place. Third, and perhaps most importantly, insuring the life of a business owner or farmer is good practice even without an estate tax. Thus, business owners or farmers who were concerned about the enterprise surviving their death would be expected to be particularly well-insured. But that turns out not to be the case, further underscoring that businesses and farms do not in fact face major liquidity issues as a result of the estate tax (Holtz-Eakin, Phillips, and Rosen 1999).

Charitable Giving: The estate tax incentivizes charitable giving by providing a deduction for charitable gifts. The estate tax may also encourage charitable giving during life, too, because such giving would reduce both income and estate taxes (Bakija, Gale and Slemrod 2003; Joulfaian 2009).[9] Feinstein and Ho (2001) show that an elderly individual's health status (and by extension, the likelihood of dying and facing estate taxes) has important effects on giving behavior. They document a series of patterns among saving, gift giving, and health that suggest that a significant amount of giving is tax-motivated.

III. Data and Methods

We employ data from ten waves (1995-2022) of the Survey of Consumer Finances (SCF), a public-use triennial household survey that contains detailed household-level information on demographics, income, inheritances received, and wealth. Because wealth, capital gains, and transfers given and received are concentrated among the most affluent households, a key advantage of the SCF is its oversample of wealthy households. The SCF is generally considered the "gold standard" for measuring household wealth and wealth transfers in the U.S. and has been used by many previous studies (e.g., Gale and Scholz 1994; Poterba and Weisbenner 2001; Wolff and Gittleman 2014; Avery et al. 2015; Feiveson and Sabelhaus 2018; Gale et al. 2020; and Nolan et al. 2022).

In this section, we define several terms and provide a high-level summary of our methodology. The Appendix provides further details.

- **Bequeathable wealth** for each household equals the SCF measure of net worth, less annuities. (The SCF net worth measure excludes defined benefit plans and social security).
- **Gross estate** equals bequeathable wealth for a single person who dies in the year in question or for a married couple where both members die in the year in question (which is rare). Otherwise, gross estate is zero.
- When a household's gross estate is positive, the **Net Estate** equals gross estate minus exemptions, deductions, and estate taxes. (Estate taxes, in turn, are based on gross estate minus exemptions, deductions, and valuation discounts.) Otherwise, net estate is zero. Net estate is the total intergenerational transfer that the household gives to the next generation.
- A **bequest** is the amount given by a particular decedent (or married couple where both partners die) to a particular heir. The sum of bequests given by a particular individual or couple equals the net estate.
- An **inheritance** is the amount received by a particular heir from a particular decedent (or married couple where both partners die). Note that a bequest and an inheritance represent the same concept, just viewed from the perspective of the decedent or the recipient, respectively. The number, aggregate amount, and size distribution of bequests given and inheritances received should be the same.

A. BEQUEATHABLE WEALTH

We define bequeathable wealth as the sum of a household's financial assets, real estate assets, equity in noncorporate business, and non-financial/consumer durable assets, less all debt. This wealth concept is close to the standard measure of household net worth (Bricker et al. 2016), but it excludes annuities, defined benefit pensions, and social security payments, which generally cannot be passed along to future generations.[10]

There is a timing issue regarding bequeathable wealth, which we illustrate using the 2019 and 2022 SCF. The 2022 survey reports 2022 wealth and 2021 income. To estimate estates and bequests, we would like to measure 2021 wealth to conform with the income data. In practice, transfers occurring during 2021 are based on wealth in 2020. To generate bequeathable wealth measures for 2020, we adjust SCF bequeathable wealth measures by major component in the two SCFs that bracket the tax year of interest. Specifically, we adjust 2019 (2022) wealth by the change in wealth in the Distributional Financial Accounts (DFAs) from 2019 (2022) to 2020 and then divide survey weights in half. This generates a cross-section of household wealth in 2020, consistent with data from both the SCF and the DFAs. We follow similar procedures for earlier years.

B. GROSS ESTATE

Gross estate equals the bequeathable wealth of single individuals who die during the year in question and of couples where both spouses die during the year in question.[11] Otherwise, bequeathable wealth is zero. This definition implies that if only one spouse in a married couple dies during the year in question, that person's wealth is transferred to the surviving spouse, rather than to children.[12]

The Social Security Administration provides average mortality rates by age, sex, and birthyear (SSA 2024). However, mortality and wealth are negatively correlated, a phenomenon known as "differential mortality." We adjust mortality rates using SCF incomes and empirical estimates of the correlation between income and mortality (Chetty et al. 2016).[13]

C. NET ESTATES

To calculate net estates, we start with positive gross estates, subtract estate-tax-deductible expenses—including funeral costs, executor's fees, attorney's fees, and charitable bequests—and then calculate and subtract estate tax payments.

To construct data on deductions and exemptions, we use historical estate tax filings. We pool together several years of published estate tax filings to estimate the relationship between the various deductions and the size of gross estates. Expenses such as funeral costs are nearly ubiquitous, and the average deduction does not vary much across gross estate size classes. The likelihood and amount (relative to gross estate) of charitable contributions rise substantially with the size of gross estates. Although most of our simulated gross estates are below the estate tax filing threshold, we use the same equations (controlling for wealth) to predict expenses and deductions for non-filers.

To calculate estate tax payments, we follow IRS practice and apply valuation adjustments to components of the gross estate. The need for this adjustment arises because respondent-reported asset values in the SCF are generally higher than what is reported for estate tax purposes. This is unsurprising because SCF respondents have no reason to undervalue assets, while executors obviously want to reduce the estate's tax liability. When assets are transferred, the IRS expects a 4.1% decline in real estate value but only a 0.01% decline for financial assets.[14] The different adjustments stem from the difficulty of observing some real estate market prices and the substantial costs associated with real estate transactions compared to the ease with which financial asset prices are observed. The IRS assumes a 22.8% decline in the value of closely-held businesses that are transferred at death because the market price of a non-public business is difficult to determine and the part of the business value that is tied to the human capital of the owner is lost when the owner dies (Smith et al. 2019). These adjustments help bring estimated taxable estates into alignment with historical estate tax filings (Gale et al. 2020).

D. BEQUESTS

A household's net estate represents the total amount of transfers given by the decedent and is divided into bequests, which are gifts to individual heirs. We assume that the net estate is divided equally among heirs (Bernheim and Severinov 2003) and calculate the number of heirs. We take the number of children of the decedent as a lower bound on the number of heirs. Published estate tax filings indicate that large net estates have average counts of heirs that exceed the counts of living children observed in the SCF. This is not surprising: In practice, some transfers probably go to grandchildren and other relatives. We adjust the number of heirs in the model based on the comparison of SCF and estate tax data.

E. UNREALIZED GAINS AT DEATH

To measure capital gains at death, we largely follow previous work using the SCF (Avery, Grodzicki, and Moore 2015). For real estate holdings, the SCF asks about current value and original purchase price. For stocks and mutual funds, the survey asks about current value and any unrealized gains on those holdings. For closely held businesses, the survey asks about current value (what the business would sell for) and the basis for tax purposes.

F. INHERITANCES

In the "Inheritances and Gifts Received" module of the SCF, respondents report any "substantial" inheritances or gifts received, "including" those already reported elsewhere in the survey. The qualifier is important, because an average of about 15% of inheritances are captured in two other survey modules (Feiveson and Sabelhaus 2019). Cash inheritances received in the year prior to the survey are captured in the SCF income module. Transfers in the form of real assets are captured

in the owned housing, business, and other real estate modules, where respondents who report owning the asset are asked how they came into possession, with "inherited" as an option. Our method for reconciling the reporting of inheritances and distinguishing inheritances from other types of gifts received is based on earlier work (Feiveson and Sabelhaus 2018, 2019).

Just as there is a timing issue with respect to bequeathable wealth, there is also an issue related to inheritances received. The SCF inheritance module asks about inheritances ever received and the year in which they were received. For reasons of respondent confidentiality, however, the public-use SCF reports inheritance received years rounded to the nearest "0" or "5" year. In the 2022 SCF, for example, all inheritances received between 2018 and 2022 are reported as being received in 2020. We estimate inheritances received in 2021 (and each year in earlier surveys corresponding to the year in which income is reported) using a probabilistic adjustment, explained in the Appendix.

G. DISTRIBUTIONAL ANALYSIS

In previous studies, consistent distributional analysis of alternative transfer tax regimes would be difficult because bequest information is collected from decedents while inheritance information is collected from heirs, and most data sets do not have information on both. A major innovation of our work is to provide data on simulated bequests and reported inheritances that enables distributional analysis of taxes on either estates or inheritances (or unrealized capital gains), with the burden imposed on either the decedent or the heir. To the best of our knowledge, this is the first paper to propose such a methodology.

As noted above, the concept of inheritances received by an heir exactly matches the derived concept of a bequest given by a decedent. But there is nothing built into our methods that forces alignment. Bequests are constructed from wealth measures, mortality probabilities, regressions on estate tax data, and family information. Inheritances are reported by survey respondents. As a result, comparability between the two measures provides evidence that the model is working.

For example, a key link requires matching the aggregate amount and size distributions of bequests and inheritances. To anchor thoughts, consider a decedent with a $5 million gross estate who would leave five $1 million (untaxed) bequests under current law. If a 10% tax ($500,000) were imposed on the estate, each $1 million bequest would be reduced to $900,000 (assuming, as we do, that bequests are accidental so that pre-transfer-tax wealth accumulation is unaffected by tax changes). Assigning the burden of that tax to the decedent (and ranking decedents by some measure of income or wealth) is straightforward, because we have simulated bequests. Assigning the burden of the estate tax to recipients of inheritances here simply involves applying the 10% tax to each $1 million inheritance reported in the SCF. Reversing the example, if a 10% tax were imposed on inheritances of $1 million, it would be straightforward to assign the burden to recipients of inheritances. Our methodology, however, also allows the tax to be assigned to donors, by imposing a 10% tax on estates that led to bequests of $1 million, such as the $5 million estate split five ways, noted above.

In practice, when aggregate bequests and aggregate inheritances that are within a certain size range differ in magnitude, we adjust bequests to equal the size of inheritances, on the grounds that bequests are simulated whereas inheritances are self-reported. We can calculate the distributional effects assuming that the burden of any of the wealth transfer taxes falls on either decedents or heirs. We rank households by Expanded Income (EI), a broad measure of income we have developed elsewhere (Gale and Sabelhaus 2024). EI includes all major forms of cash and non-cash income, including estimates of unrealized capital gains, imputed income from owner-occupied housing, unreported business income, and inheritances received. We construct EI using the SCF, NBER's TAXSIM calculator, and other data sources. Aggregate EI has been about 90% to 100% larger than aggregate AGI since 2000. The largest proportional differences between EI and AGI occur at the top and the bottom of the EI distribution. The largest single component of the difference between AGI and EI is unrealized capital gains, which have exceeded 30% of AGI in some recent years.

IV. Trends in Wealth and Wealth Transfers

We use the SCF data and methods described in the previous section to document trends in wealth, wealth transfers, and unrealized capital gains at death.

A. BEQUEATHABLE WEALTH

We begin by highlighting two key age-related trends in population growth and wealth accumulation. First, between 1997 and 2021, the number of older households increased substantially faster than the number of younger households. The number almost doubled among households with heads aged 55-64 or 65-74 and rose by 50% for households with heads aged 75 or older. In sharp contrast, the size of the population in younger age groups remained roughly constant (Table 2 and Figure 5). These patterns largely reflect the aging of the large Baby Boom generation, the members of which were between the ages of 33 and 51 in 1997 between the ages of 57 and 75 in 2021.[15]

Second, real mean bequeathable wealth grew faster for successive cohorts of older households than for younger households. Real mean bequeathable wealth in 2021 was 176%, 212%, and 252% its 1997 value for households with heads aged 55-64, 65-74, and 75+, respectively, while mean bequeathable wealth for younger households in 2021 was 152% and 162% of its 1997 value for the two younger cohorts (Table 2 and Figure 6).[16]

Together, these two trends imply that bequeathable wealth has increased dramatically and that much of that increase has gone to older households. Aggregate bequeathable wealth rose from 256% of GDP in 1997 to 425% of GDP in 2021 (Table 3 Panel A and Figure 7). Almost all the increase accrued to successive cohorts of older households: Of the 168-percentage- point increase in bequeathable wealth as a share of GDP, 163 percentage points (97%) went to households where the head is 55 and older (Table 3 Panel A and Figure 8).[17]

Moreover, within the group aged 55 and above, the vast majority of aggregate wealth growth relative to GDP accrued to the top 10% of households (Table 4 Panel A and Figure 9). From 1997 to 2021, the bequeathable wealth controlled by that group rose from the equivalent of 88% of GDP to 209% of GDP. Thus, this group alone accounted for about 72% of all aggregate wealth accumulation relative to the economy.

B. UNREALIZED CAPITAL GAINS

Of all bequeathable wealth in 2021, more than one third (154% of GDP) was accounted for by unrealized capital gains (Table 3 Panel B). Compared to total bequeathable wealth, unrealized gains wealth is distributed similarly by age but skewed towards those with more bequeathable wealth within older age groups. In 2021, 70% of all unrealized capital gains were held by households where the head is 55 and older (Figure 10, Table 3 Panel B), and 83% of the growth within that age group from 1997 to 2021 accrued to the top 10% of the bequeathable wealth distribution (Figure 11, Table 4 Panel B). Notably, the top 1% of households with heads aged 55 and older controlled unrealized gains wealth equal to 47% of GDP in 2021 and accounted for almost half of all unrealized gains wealth growth since 1997 as a share of the economy (Table 4 Panel B).

C. NET ESTATES AND TRANSFERRED CAPITAL GAINS

To move from the stock of bequeathable wealth to the flow of intergenerational transfers, we first multiply bequeathable wealth for each SCF household by differential mortality probabilities and then subtract estimated expenses, deductions, and estimated estate taxes. The resulting net estates simulate the portion of bequeathable wealth transferred intergenerationally in each year. Like bequeathable wealth, net estates are unequally distributed among decedents—in 2021, the top 10% of the bequeathable wealth distribution controlled 59% of net estates, equivalent to 1.5% of GDP (Figure 12, Table 5 Panel A). Transferred unrealized gains were similarly skewed towards the top, with 64% (0.7% of GDP) controlled by the top 10% of decedents (Figure 13, Table 5 Panel B).

Both measures have become more skewed towards the top of the wealth distribution over time. Between 1997 and 2021, almost 80% of the increase in both net estates and transferred unrealized gains relative to GDP occurred at the top 10% of the bequeathable wealth distribution.

D. INHERITANCES RECEIVED

Despite the marked increase in bequeathable wealth and simulated net estates, reported inheritances in the SCF have not experienced the same growth relative to GDP (Table 6, Figure 14). In 2021, SCF-reported inheritances were equivalent to 2.54% of GDP, just 0.24 percentage points greater than 1997. Over that 24-year time period, aggregate inheritances shifted from younger to older age groups—households with heads aged 54 or under saw a 0.64 percentage point decrease in the ratio of inheritances to GDP while households with heads aged 55 and older saw a 0.88 percentage point increase in inheritances to GDP (Table 6, Figure 14). Most inheritances in 2021 were reported by respondents in the 55-64 and 65-74 age groups, consistent with older children receiving bequests from their parents.

Table 7 and Figure 15 show the distribution of inheritances received by pre-inheritance Expanded Income (EI) percentile. While inheritances are not quite as unequally distributed across EI as net estates are across bequeathable wealth, most inheritances (55% or 1.39% of GDP) in 2021 were received by households in the top 10% of the EI distribution. A large portion of these inheritances, equivalent to over 1% of GDP, flowed to individuals in the 90-99th percentile of the EI distribution. This is consistent with a picture of intergenerational transfers benefiting already well-off individuals, rather than acting in a broadly redistributive way.

V. Reforms and Effects

We model the effects of (a) reforming the estate tax, (b) two new stand-alone inheritance taxes that would replace the estate tax (one with a flat rate of 37%, the current top income tax rate, and one with a 15% flat rate), and (c) a tax at death on unrealized capital gains at a flat rate of 23.8% (the top long-term capital gains rate). Each tax also has an exempt amount, as discussed below.

A. REVENUE EFFECTS

Figure 16 shows the potential revenues associated with different exempt amounts for the alternative wealth transfer tax regimes. The dashed line at $19 billion shows the simulated revenue raised by the estate tax in 2021. The Figure shows that the following combinations also would have raised $19 billion in 2021:

- A 37% inheritance tax with an exempt amount of $2.81 million;
- A 15% inheritance tax with an exempt amount of $940,000; or
- A 23.8% unrealized gains tax with an exempt amount of $2.22 million.

The dashed line at $145 billion in Figure 16 shows the revenue that would have been raised under 2001 estate tax law,[18] with parameters adjusted for inflation through 2021.[19] The tax would have raised more than seven times as much revenue as the actual estate tax in that year or a total equal to 8.8% of income tax revenues. To generate an equal amount of revenue using a 37% inheritance tax, the exempt amount would need to be reduced to $150,000. Given their rates and tax bases, neither a 15% inheritance tax nor a 23.8% tax on unrealized capital gains at death could raise this much revenue, topping out at $93 billion and $59 billion, respectively, even with the elimination of any exempt amount.

B. DISTRIBUTIONAL EFFECTS

Even holding revenue constant and holding incidence assumptions constant (in this case, that the inheritor bears the burden of all wealth transfer taxes), distributional effects will vary across wealth transfer taxes because of differences in the tax base, the exempt amount, and the rate structure. We report average tax rates—the ratio of transfer taxes to income—and the share of tax payments by Expanded Income (EI) class, using both an inheritance-inclusive measure of EI and an inheritance-exclusive measure. The inheritance-inclusive measure better captures ability to pay, while the inheritance-exclusive measure reports the economic status of inheritance recipients independent of their inheritance.

Table 8 and Figure 17 Panel A, show the ratio of transfer taxes to an inheritance-inclusive measure of EI. By construction, the wealth transfer taxes raise $19 billion under 2021 parameters. The 37% inheritance tax is the most progressive option, raising funds exclusively from households in the top 1%. Aggregate wealth transfer taxes are 0.33% of aggregate EI for that group. The tax on unrealized gains at death is the least progressive, but it still falls only on the top 5%. These extreme progressivity results are inherent in the design of a wealth transfer tax with (a) a high exemption level and (b) our use of an income measure that includes inheritances. To be eligible to bear the burden of the tax with the lowest exempt amount, the household must inherit at least $940,000 (which alone is enough to put the household in the 98th percentile of the inheritance-inclusive EI distribution).

Table 9 and Figure 17 Panel B, however, show that the progressivity results still hold when looking at an inheritance-exclusive measure of EI. The 37% inheritance tax remains the most progressive option, raising funds exclusively from households in the top 10% of the inheritance-exclusive EI distribution. The tax on unrealized gains at death is the least progressive, but it still has a very muted effect on the bottom 80% of the inheritance-exclusive EI distribution. For the bottom four quintiles of the inheritance-exclusive EI distribution, aggregate unrealized gains taxes top out at 0.01% of aggregate EI.

Tables 10 and 11 and Figure 17 Panels C and D repeat the exercise, instead setting the revenue target to $145 billion. This corresponds to the revenue level that would occur if the estate tax had remained under 2001 law but with the tax parameters indexed for inflation.

Table 10 and Figure 17 Panel C show that, with respect to inheritance-inclusive EI, both the 2001-era estate tax and the 37% inheritance tax are quite progressive but less progressive than in the $19 billion revenue scenario. The higher revenue target under 2001-estate-tax-law necessitates a lower threshold for the inheritance tax than when matching 2021 revenues. Likewise, the 2001 estate tax features a much lower exemption amount that the 2021 estate tax. Both regimes are remarkably focused on the highest-income individuals—neither imposes any tax burden on the bottom 60% of the inheritance-inclusive EI distribution.

On the other hand, the estate tax and 37% inheritance tax both impact tax units across the entire inheritance-exclusive EI distribution (Table 11 and Figure 17 Panel D). That said, effective tax rates for the bottom 90% are minimal—aggregate taxes only exceed 0.5% of aggregate inheritance-exclusive EI at the top 10% of the distribution. In this case, the highest tax burden is borne by the 95-99th percentile of the inheritance-exclusive EI distribution—aggregate estate and inheritance taxes are 1.23% and 1.01% of aggregate EI, respectively, for that group.

When different taxes yield the same revenue, another way to measure progressivity is by looking at the distribution of total tax revenue across EI percentiles. Figure 18 plots this distribution for each wealth transfer tax regime, with the income tax for comparison. Panel A shows that under a $19 billion revenue scenario, all wealth transfer tax regimes that we model draw more than 75% of their revenues from the top 1% of the inheritance-inclusive EI distribution. This is much more progressive than the income tax.

Relative to inheritance-exclusive EI (Panel B), the 15% inheritance tax and tax on gains at death more closely resemble the income tax, while the estate tax and 37% inheritance tax are still more progressive than the income tax.

Panels C and D show that when the taxes raise $145 billion in revenue by lowering exempt amounts, the burden of wealth transfer taxation becomes less sharply focused on the highest earners. For example, Panel C shows that, relative to inheritance-inclusive EI, the 37% inheritance tax and estate tax are both more progressive than the income tax. However, relative to inheritance-exclusive EI, our wealth transfer tax regimes look less progressive than the income tax (Panel D). Both the 37% inheritance tax and the estate tax raise only 20-25% of their revenue from the top 1%, whereas the income tax raises almost 50% of its revenue from that group.

VI. Conclusion

Over the next several decades, the U.S. will experience the largest flows of intergenerational transfers of wealth—in absolute terms and relative to GDP—in modern history. Taxing these flows appropriately and judiciously represents an opportunity to raise revenue, improve the vertical and horizontal equity of the tax system, bring about more equal opportunity, and reduce the role of family dynasties in the economy. The current transfer tax system, however, has been eviscerated in recent years and is ill-equipped to help society reach these goals. Despite repeated claims to the contrary, rebuilding a functional wealth transfer tax system would not necessarily reduce capital accumulation or efficiency, and it certainly could be structured in a way that takes account of the special considerations raised by small businesses or family farms. These issues are of current interest as Congress looks for ways to close the fiscal gap.

Against that backdrop, we examine the revenue and distributional effects of three options for wealth transfer taxes: reforming the estate tax; taxing capital gains at death; and converting the estate tax to an inheritance tax. Although some of the differences between estate and inheritance taxes are illusory—because in simple models, economic and legal incidence are separated—other differences are real, involving, for example, variance in the number of people who receive inheritances and in the resulting distributional effects of the taxes.

Our work features both a new methodology and new results. Using 10 waves of the SCF, we construct estimates of bequests given and compare them to respondents' self-reports of inheritances received. Although the estimates are developed independently and we impose no linkage between the two estimates, we show that the aggregate amount and size distributions of the two variables line up well.

We analyze three alternative policies—taxing unrealized gains at death at a rate of 23.8%, along with two inheritance tax options levying a flat tax at 37% and 15%, respectively—each of which can raise the same amount of revenue as the estate tax under 2021 parameters by adjusting exempt amounts. The exemptions are $2.81 million and $940,000 for the inheritance tax options and $2.22 million for the tax on unrealized gains. Due to both the high rate and the large exemption amount that a high rate allows, the 37% inheritance tax is more progressive than both current law and the other two options.

Alternatively, when we return the estate tax to its (inflation-adjusted) 2001 parameters, we find that it would have raised seven times as much revenue in 2021 as the actual estate tax did. When raising that amount of revenue, both the estate tax and the 37% inheritance tax are quite progressive. We conclude, therefore, that switching from the current estate tax to an inheritance tax could raise more revenue, increase overall progressivity, and broaden the income tax base.

These estimates show that thoughtful reforms to the wealth transfer tax system can raise revenue and increase progressivity, thereby achieving several of the goals laid out above. Policymakers should take these estimates into account as they evaluate wealth transfer tax options, as well as fiscal consolidation more generally.

TABLE 1

Treatment of Unrealized Gains at Death in the OECD

	Levies inheritance or estate taxes	Does not levy inheritance or estate taxes
Unrealized gains are taxed at death	Denmark, Hungary	Canada
Unrealized gains pass to heirs on a carry-over basis	Denmark, Finland, Germany, Ireland, Italy, Japan, Luxembourg, Switzerland,	Australia, Austria, Estonia, Israel, México, Norway, Sweden
Unrealized gains are exempt at death and transferred with a step-up in basis	Chile, Denmark, Finland, France, Hungary, Korea, Lithuania, Portugal, Slovenia, Spain, United Kingdom, United States	Latvia

SOURCE: OECD (2021). Note: Some countries appear more than once, reflecting the fact that different asset types are taxed differently.

TABLE 2

Bequeathable Wealth and Population by Age

	Under 40		40-54		55-64	
Year	Mean Beq. Wealth	Number of Households	Mean Beq. Wealth	Number of Households	Mean Beq. Wealth	Number of Households
1997	116,720	35,785	427,451	30,407	666,597	12,777
2000	155,560	35,282	552,815	33,371	934,608	13,639
2003	150,290	35,327	558,072	35,259	958,898	15,596
2006	179,005	35,682	664,832	35,952	1,104,334	18,325
2009	140,809	35,141	600,768	36,290	1,020,197	20,082
2012	112,079	35,067	492,495	35,697	842,828	21,778
2015	140,764	35,602	564,233	34,655	1,000,856	23,587
2018	136,221	36,958	654,296	33,116	1,129,398	24,202
2021	177,487	37,575	694,099	32,640	1,172,747	24,203

TABLE 2 CONTINUED

	65-74		75 and older		All Households	
Year	Mean Beq. Wealth	Number of Households	Mean Beq. Wealth	Number of Households	Mean Beq. Wealth	Number of Households
1997	600,835	11,716	432,401	10,094	368,090	100,780
2000	843,424	11,474	592,700	10,757	504,543	104,522
2003	835,472	11,592	619,784	11,529	519,397	109,302
2006	1,033,816	11,982	725,999	12,168	628,760	114,108
2009	1,026,810	12,869	736,703	12,476	595,961	116,858
2012	938,897	14,655	642,514	12,873	515,504	120,070
2015	1,088,667	16,799	860,816	13,612	629,178	124,256
2018	1,095,228	18,747	990,938	14,288	696,928	127,312
2021	1,271,084	20,428	1,089,562	15,129	770,595	129,974

NOTES: Bequeathable Wealth is defined as the sum of financial assets, real estate assets, equity in noncorporate business, and non-financial/consumer durable assets, less all debt. To measure bequeathable wealth in any given year t, we age the wealth of year t+1 SCF respondents backwards 2 years and age the wealth of year t-2 SCF respondents forward 1 year, and then divide the survey weights by 2. This generates a measure of wealth in year t-1, which we use to predict bequests in year t. Mean bequeathable wealth is represented in 2021 dollars, and number of households is represented in thousands. Age refers to age of the head of household.

TABLE 3

Aggregate Bequeathable Wealth by Age Group as a Percent of GDP

Panel A. All Bequeathable Wealth

Year	Under 40	40-54	55-64	65-74	75 and older	Total, 55 and older	Total	GDP ($billions)
1997	28.8	89.8	58.8	48.6	30.1	137.6	256.2	8,578
2000	34.0	114.4	79.0	60.0	39.5	178.5	326.9	10,251
2003	31.5	116.6	88.6	57.4	42.3	188.4	336.4	11,457
2006	34.4	128.7	109.0	66.7	47.6	223.2	386.4	13,816
2009	27.1	119.2	112.0	72.3	50.3	234.6	380.8	14,478
2012	20.5	91.6	95.7	71.7	43.1	210.5	322.7	16,254
2015	24.0	93.5	112.9	87.4	56.0	256.3	373.8	18,295
2018	22.6	97.2	122.6	92.1	63.5	278.3	398.1	20,657
2021	28.3	96.0	120.3	110.1	69.9	300.2	424.5	23,594
Increase, 1997-2021	**-0.6**	**6.3**	**61.5**	**61.4**	**39.7**	**162.6**	**168.3**	
% of total increase	**0%**	**4%**	**37%**	**37%**	**24%**	**97%**	**100%**	

Panel B. Unrealized Gains Wealth

Year	Under 40	40-54	55-64	65-74	75 and older	Total, 55 and older	Total	GDP ($billions)
1997	8.9	34.8	24.1	19.2	11.1	54.5	98.2	8,578
2000	11.4	41.5	29.5	22.7	14.0	66.2	119.1	10,251
2003	12.9	48.2	35.4	23.7	16.3	75.3	136.4	11,457
2006	16.0	58.7	47.5	29.7	22.0	99.2	173.9	13,816
2009	12.1	50.0	45.1	30.3	22.7	98.1	160.2	14,478
2012	7.0	31.8	31.4	23.3	16.6	71.2	110.0	16,254
2015	7.5	32.7	36.3	26.5	21.0	83.8	124.1	18,295
2018	7.8	36.4	41.4	30.1	23.6	95.1	139.2	20,657
2021	10.7	35.2	42.2	39.6	26.7	108.5	154.4	23,594
Increase, 1997-2021	**1.8**	**0.4**	**18.1**	**20.4**	**15.6**	**54.0**	**56.2**	
% of total increase	**3%**	**1%**	**32%**	**36%**	**28%**	**96%**	**100%**	

NOTES: Bequeathable Wealth is defined as the sum of financial assets, real estate assets, equity in noncorporate business, and non-financial/consumer durable assets, less all debt. To measure bequeathable wealth in any given year t, we age the wealth of year t+1 SCF respondents backwards 2 years and age the wealth of year t-2 SCF respondents forward 1 year, and then divide the survey weights by 2. Unrealized Gains Wealth is the portion of Bequeathable Wealth accounted for by changes in asset valuation.

TABLE 4

Aggregate Bequeathable Wealth by Bequeathable Wealth Percentile as a Percent of GDP, Ages 55+

Panel A. All Bequeathable Wealth

Year	Bottom Quintile	Second Quintile	Middle Quintile	Fourth Quintile	p80-p90	p90-p99	Top 1%	Top 10%	GDP ($billions)
1997	0.5	4.2	9.5	18.5	17.4	46.8	40.7	87.6	8,578
2000	0.5	4.4	10.4	22.0	22.6	66.7	51.9	118.6	10,251
2003	0.5	4.8	11.8	26.5	25.8	68.7	50.2	118.9	11,457
2006	0.6	5.8	13.8	30.2	29.2	83.4	60.2	143.6	13,816
2009	0.5	5.5	13.5	29.4	30.6	91.5	63.5	155.0	14,478
2012	0.3	4.0	11.0	25.2	28.6	83.7	57.8	141.4	16,254
2015	0.3	4.2	11.9	28.3	33.2	103.0	75.4	178.4	18,295
2018	0.3	4.5	12.5	30.2	35.4	111.3	84.0	195.3	20,657
2021	0.4	4.9	13.8	33.2	38.5	119.9	89.4	209.3	23,594
Increase, 1997-2021	**-0.1**	**0.7**	**4.3**	**14.8**	**21.1**	**73.1**	**48.7**	**121.8**	
% of total increase	**0%**	**0%**	**3%**	**9%**	**13%**	**45%**	**30%**	**75%**	

Panel B. Unrealized Gains Wealth

Year	Bottom Quintile	Second Quintile	Middle Quintile	Fourth Quintile	p80-p90	p90-p99	Top 1%	Top 10%	GDP ($billions)
1997	0.1	1.7	3.6	6.7	5.7	15.6	21.1	36.7	8,578
2000	0.3	1.8	3.9	7.3	6.7	21.8	24.5	46.2	10,251
2003	0.3	2.0	4.7	9.6	8.8	25.3	24.6	49.9	11,457
2006	0.3	2.7	6.0	11.9	11.4	34.1	32.9	67.0	13,816
2009	0.4	2.5	5.5	11.2	10.5	34.0	34.0	68.0	14,478
2012	0.3	1.7	4.0	8.1	7.8	24.2	25.1	49.2	16,254
2015	0.3	1.6	4.1	8.1	8.4	28.0	33.3	61.4	18,295
2018	0.2	1.7	4.4	8.3	8.6	31.7	40.1	71.8	20,657
2021	0.2	2.0	5.3	9.7	9.7	35.0	46.6	81.6	23,594
Increase, 1997-2021	**0.1**	**0.3**	**1.6**	**3.0**	**4.1**	**19.4**	**25.5**	**44.9**	
% of total increase	**0%**	**1%**	**3%**	**6%**	**8%**	**36%**	**47%**	**83%**	

NOTES: Bequeathable Wealth is defined as the sum of financial assets, real estate assets, equity in noncorporate business, and non-financial/consumer durable assets, less all debt. To measure bequeathable wealth in any given year t, we age the wealth of year t+1 SCF respondents backwards 2 years and age the wealth of year t-2 SCF respondents forward 1 year, and then divide the survey weights by 2. Unrealized Gains Wealth is the portion of Bequeathable Wealth accounted for by changes in asset valuation.

TABLE 5

Net Estates by Bequeathable Wealth Percentile as a Percent of GDP

Panel A. Net Estates

Year	Bottom Quintile	Second Quintile	Middle Quintile	Fourth Quintile	p80-p90	p90-p99	Top 1%	Top 10%	Total	GDP ($billions)
1997	0.000	0.033	0.118	0.348	0.251	0.380	0.213	0.59	1.34	8,578
2000	0.000	0.029	0.160	0.387	0.252	0.443	0.152	0.59	1.42	10,251
2003	0.001	0.029	0.180	0.413	0.283	0.646	0.174	0.82	1.73	11,457
2006	0.001	0.036	0.194	0.506	0.443	0.804	0.191	1.00	2.18	13,816
2009	0.001	0.025	0.141	0.487	0.443	0.869	0.143	1.01	2.11	14,478
2012	0.000	0.013	0.113	0.384	0.326	0.738	0.170	0.91	1.74	16,254
2015	0.000	0.015	0.117	0.426	0.366	0.743	0.262	1.00	1.93	18,295
2018	0.001	0.020	0.125	0.428	0.412	0.931	0.316	1.25	2.23	20,657
2021	0.001	0.034	0.172	0.437	0.399	0.906	0.592	1.50	2.54	23,594
Increase, 1997-2021	**0.001**	**0.000**	**0.054**	**0.090**	**0.148**	**0.527**	**0.379**	**0.91**	**1.20**	
% of total increase	**0%**	**0%**	**5%**	**7%**	**12%**	**44%**	**32%**	**76%**	**100%**	

Panel B. Transferred Unrealized Gains Wealth

Year	Bottom Quintile	Second Quintile	Middle Quintile	Fourth Quintile	p80-p90	p90-p99	Top 1%	Top 10%	Total	GDP ($billions)
1997	0.000	0.007	0.045	0.140	0.090	0.131	0.151	0.28	0.56	8,578
2000	0.001	0.008	0.063	0.149	0.086	0.161	0.115	0.28	0.58	10,251
2003	0.001	0.010	0.089	0.152	0.119	0.230	0.136	0.37	0.74	11,457
2006	0.001	0.015	0.094	0.216	0.189	0.332	0.169	0.50	1.02	13,816
2009	0.001	0.008	0.062	0.208	0.171	0.348	0.098	0.45	0.90	14,478
2012	0.002	0.002	0.042	0.157	0.108	0.225	0.100	0.33	0.64	16,254
2015	0.003	0.004	0.042	0.161	0.125	0.237	0.155	0.39	0.73	18,295
2018	0.001	0.007	0.052	0.144	0.147	0.319	0.154	0.47	0.82	20,657
2021	0.001	0.012	0.078	0.160	0.132	0.330	0.340	0.67	1.05	23,594
Increase, 1997-2021	**0.001**	**0.005**	**0.033**	**0.020**	**0.042**	**0.199**	**0.189**	**0.39**	**0.49**	
% of total increase	**0%**	**1%**	**7%**	**4%**	**9%**	**41%**	**39%**	**79%**	**100%**	

NOTES: Estates are calculated using Bequeathable Wealth multiplied by differential mortality probabilities by age, sex, and income from Chetty et al. (2016). The resulting Gross Estate is then subjected to the current law federal estate tax to generate Net Estates, our simulation of wealth transferred at death in any given year. Transferred Unrealized Gains Wealth is calculated using the same approach on Unrealized Gains Wealth. Bequeathable Wealth Percentiles are calculated using the bequeathable wealth of the decedent.

TABLE 6

Net Estates by Bequeathable Wealth Percentile as a Percent of GDP

Year	Under 40	40-54	55-64	65-74	75 and older	Total	GDP ($billions)
1997	0.45	0.99	0.37	0.37	0.14	2.30	8,578
2000	0.30	1.16	0.76	0.28	0.10	2.60	10,251
2003	0.37	1.22	0.39	0.19	0.07	2.25	11,457
2006	0.40	1.28	0.46	0.34	0.05	2.53	13,816
2009	0.31	0.87	0.69	0.37	0.02	2.27	14,478
2012	0.36	0.77	0.96	0.46	0.15	2.69	16,254
2015	0.66	0.50	0.65	0.42	0.09	2.32	18,295
2018	0.27	0.40	0.74	1.06	0.25	2.72	20,657
2021	0.30	0.50	0.77	0.68	0.29	2.54	23,594
Increase, 1997-2021	**-0.15**	**-0.49**	**0.40**	**0.32**	**0.16**	**0.24**	

NOTES: Inheritances are primarily measured in the "Inheritances and Gifts Received" module of the SCF, with supplementation from different owned assets modules. Due to the rounding of inheritance receipt years in the public-use SCF, we assign inheritances to a year using a probabilistic adjustment. Our measure of inheritances is conceptually identical to the measure of bequests that we simulate using bequeathable wealth and mortality probability.

TABLE 7

Aggregate Inheritances Received by Inheritance-Exclusive EI Percentile as a Percent of GDP

Year	Bottom Quintile	Second Quintile	Middle Quintile	Fourth Quintile	p80-p90	p90-p99	Top 1%	Top 10%	GDP ($billions)
1997	0.10	0.10	0.15	0.25	0.28	1.03	0.38	1.42	8,578
2000	0.02	0.07	0.26	0.54	0.27	0.94	0.49	1.43	10,251
2003	0.09	0.06	0.09	0.28	0.21	0.63	0.88	1.51	11,457
2006	0.04	0.09	0.10	0.21	0.77	0.98	0.34	1.31	13,816
2009	0.06	0.10	0.14	0.26	0.43	1.14	0.15	1.29	14,478
2012	0.07	0.14	0.11	0.49	0.38	1.08	0.42	1.50	16,254
2015	0.06	0.12	0.15	0.25	0.48	0.71	0.56	1.26	18,295
2018	0.01	0.15	0.33	0.31	0.16	1.42	0.33	1.75	20,657
2021	0.07	0.13	0.28	0.38	0.29	1.09	0.30	1.39	23,594
Increase, 1997-2021	**-0.03**	**0.03**	**0.13**	**0.14**	**0.00**	**0.06**	**-0.08**	**-0.02**	

NOTES: Inheritances are primarily measured in the "Inheritances and Gifts Received" module of the SCF, with supplementation from different owned assets modules. Due to the rounding of inheritance receipt years in the public-use SCF, we assign inheritances to a year using a probabilistic adjustment. Our measure of inheritances is conceptually identical to the measure of bequests that we simulate using bequeathable wealth and mortality probability.

TABLE 8

Wealth Transfer Taxes Under Current Law Distributed by Inheritance-inclusive EI, 2021

	Income Tax	Current Law Estate Tax	Inheritance Tax (37%)	Inheritance Tax (15%)	Gains at Death Tax
Exempt Amount ($millions)	**N/A**	**N/A**	**2.81**	**0.94**	**2.22**
Revenue ($billions)	**1,643**	**19**	**19**	**19**	**19**
Taxes/EI by EI Percentile					
Bottom Quintile	-7.4%	0.00%	0.00%	0.00%	0.00%
Second Quintile	-2.9%	0.00%	0.00%	0.00%	0.00%
Middle Quintile	-1.0%	0.00%	0.00%	0.00%	0.00%
Fourth Quintile	2.3%	0.00%	0.00%	0.00%	0.00%
p80-p90	5.9%	0.00%	0.00%	0.00%	0.00%
p90-p95	8.2%	0.00%	0.00%	0.00%	0.00%
p95-p99	10.9%	0.03%	0.00%	0.02%	0.07%
Top 1	13.8%	0.32%	0.33%	0.31%	0.27%
All	**5.8%**	**0.07%**	**0.07%**	**0.07%**	**0.07%**

NOTES: The table reports exempt amounts, tax revenue, and aggregate taxes as a share of aggregate inheritance-inclusive Expanded Income (EI) for 5 different tax regimes in tax year 2021. Federal income tax burdens are modeled using NBER's TAXSIM tax calculator, and each of the other 4 regimes are modeled independently of the others using a wealth transfers dataset constructed according to Section 3 of this paper. Distributional breaks are calculated using population weights.

TABLE 9

Wealth Transfer Taxes Under Current Law Distributed by Inheritance-exclusive EI, 2021

	Income Tax	Current Law Estate Tax	Inheritance Tax (37%)	Inheritance Tax (15%)	Gains at Death Tax
Exempt Amount ($millions)	**N/A**	**N/A**	**2.81**	**0.94**	**2.22**
Revenue ($billions)	**1,643**	**19**	**19**	**19**	**19**
Taxes/EI by EI Percentile					
Bottom Quintile	-7.4%	0.00%	0.00%	0.00%	0.00%
Second Quintile	-2.9%	0.00%	0.00%	0.00%	0.01%
Middle Quintile	-1.0%	0.00%	0.00%	0.00%	0.01%
Fourth Quintile	2.2%	0.00%	0.00%	0.00%	0.00%
p80-p90	6.0%	0.01%	0.00%	0.01%	0.03%
p90-p95	8.6%	0.04%	0.06%	0.11%	0.10%
p95-p99	11.2%	0.10%	0.05%	0.15%	0.16%
Top 1	14.3%	0.24%	0.27%	0.15%	0.13%
All	**5.9%**	**0.07%**	**0.07%**	**0.07%**	**0.07%**

NOTES: The table reports exempt amounts, tax revenue, and aggregate taxes as a share of aggregate inheritance-exclusive Expanded Income (EI) for 5 different tax regimes in tax year 2021. Federal income tax burdens are modeled using NBER's TAXSIM tax calculator, and each of the other 4 regimes are modeled independently of the others using a wealth transfers dataset constructed according to Section 3 of this paper. Distributional breaks are calculated using population weights.

TABLE 10

Wealth Transfer Taxes Under Alternative Policy Distributed by Inheritance-inclusive EI, 2021

	Income Tax	Alternative Estate Tax	Inheritance Tax (37%)	Inheritance Tax (15%)	Gains at Death Tax
Exempt Amount ($millions)	**N/A**	**N/A**	**0.15**	**N/A**	**N/A**
Revenue ($billions)	**1,643**	**145**	**143**	**N/A**	**N/A**
Taxes/EI by EI Percentile					
Bottom Quintile	-7.4%	0.00%	0.00%		
Second Quintile	-2.9%	0.00%	0.00%		
Middle Quintile	-1.0%	0.00%	0.00%		
Fourth Quintile	2.3%	0.00%	0.01%		
p80-p90	5.9%	0.04%	0.20%		
p90-p95	8.2%	0.27%	0.66%		
p95-p99	10.9%	0.87%	0.90%		
Top 1	13.8%	1.66%	1.31%		
All	**5.8%**	**0.51%**	**0.50%**		

NOTES: The table reports exempt amounts, tax revenue, and aggregate taxes as a share of aggregate inheritance-inclusive Expanded Income (EI) for 5 different tax regimes in tax year 2021. Federal income tax burdens are modeled using NBER's TAXSIM tax calculator, and each of the other 4 regimes are modeled independently of the others using a wealth transfers dataset constructed according to Section 3 of this paper. Distributional breaks are calculated using population weights.

TABLE 11

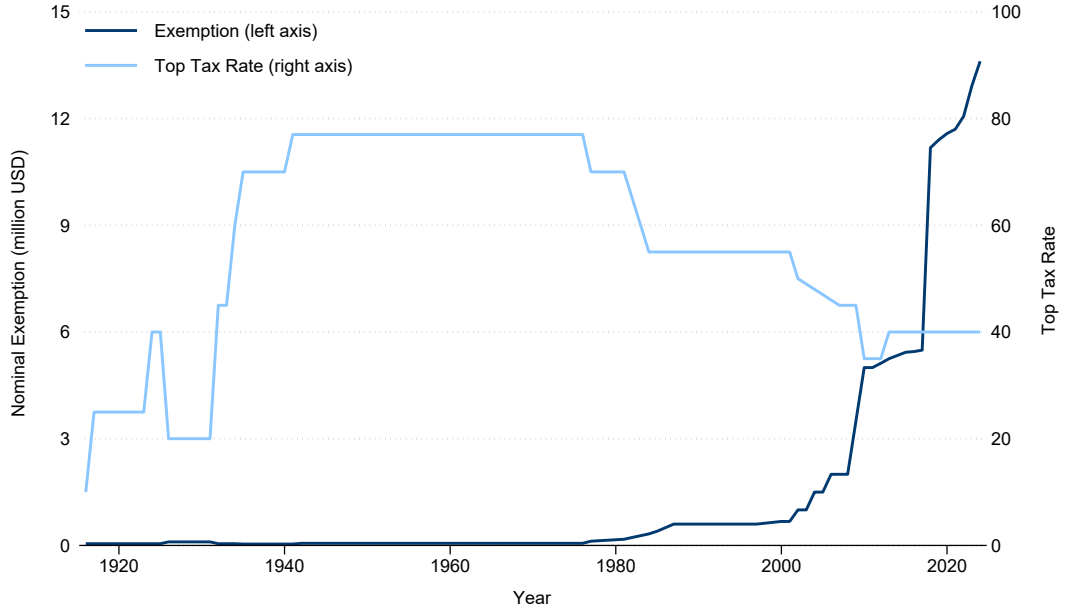
Wealth Transfer Taxes Under Alternative Policy Distributed by Inheritance-exclusive EI, 2021

	Income Tax	Alternative Estate Tax	Inheritance Tax (37%)	Inheritance Tax (15%)	Gains at Death Tax
Exempt Amount ($millions)	**N/A**	**N/A**	**0.15**	**N/A**	**N/A**
Revenue ($billions)	**1,643**	**145**	**143**	**N/A**	**N/A**
Taxes/EI by EI Percentile					
Bottom Quintile	-7.4%	0.03%	0.16%		
Second Quintile	-2.9%	0.23%	0.44%		
Middle Quintile	-1.0%	0.21%	0.31%		
Fourth Quintile	2.2%	0.12%	0.27%		
p80-p90	6.0%	0.28%	0.30%		
p90-p95	8.6%	0.87%	0.84%		
p95-p99	11.2%	1.23%	1.01%		
Top 1	14.3%	0.66%	0.51%		
All	**5.9%**	**0.52%**	**0.51%**		

NOTES: The table reports exempt amounts, tax revenue, and aggregate taxes as a share of aggregate inheritance-exclusive Expanded Income (EI) for 5 different tax regimes in tax year 2021. Federal income tax burdens are modeled using NBER's TAXSIM tax calculator, and each of the other 4 regimes are modeled independently of the others using a wealth transfers dataset constructed according to Section 3 of this paper. Distributional breaks are calculated using population weights.

FIGURE 1

Nominal Exemptions and Top Rates



SOURCE: Jacobson et al. (2007), SOI (2024), and Luscombe (2022)

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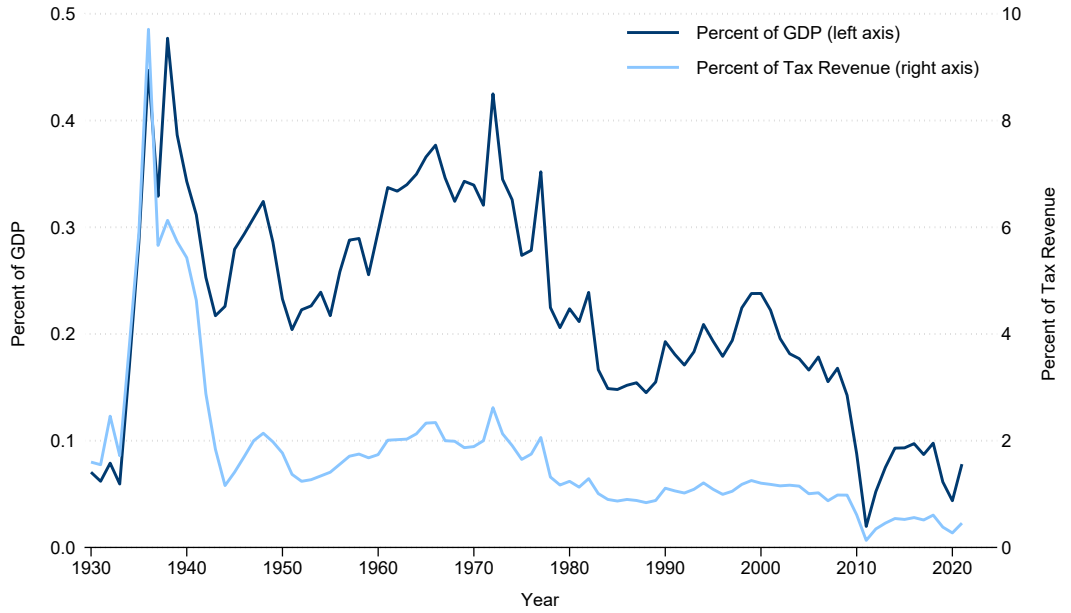
FIGURE 2

Estate Tax Revenues



SOURCE: Joulfaian (1998), SOI (2024), CBO (2024), and BEA (2024)

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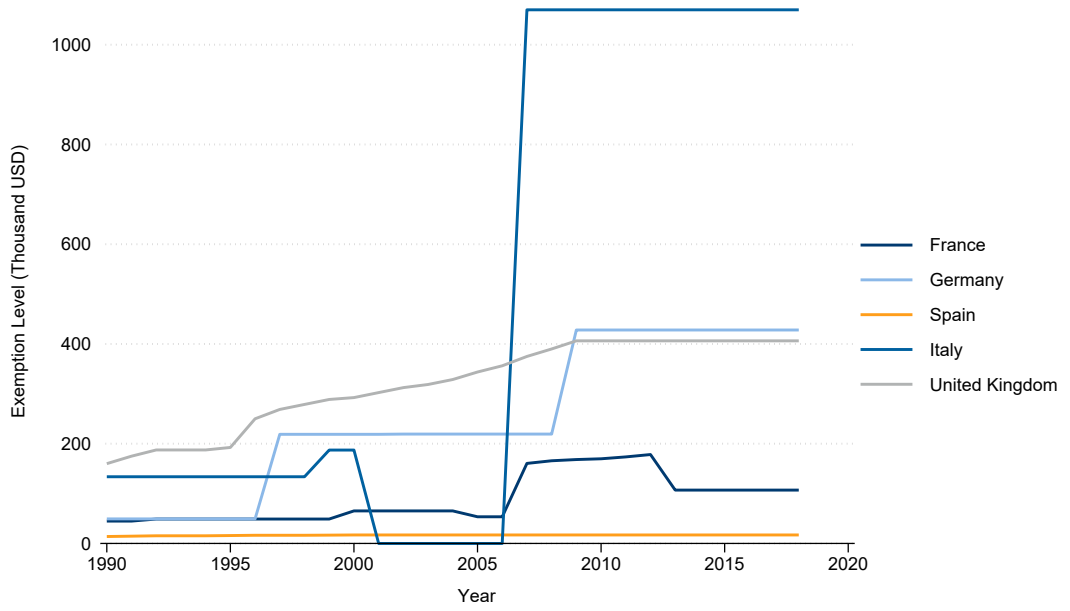
FIGURE 3

International Exemptions 1990-2018

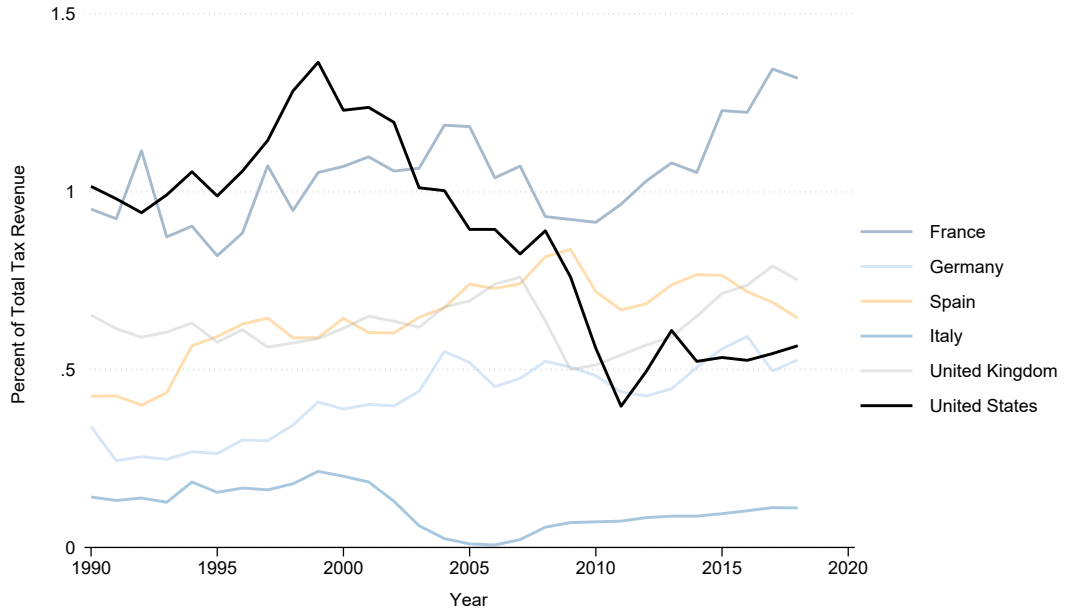


SOURCE: OECD (2021), Figure 3.4
NOTE: Values in Euros (Pounds Sterling) are converted to USD using the exchange rate at the time of writing, which was 1.07 (1.25).

BROOKINGS

FIGURE 4

International Inheritance/Estate Tax Revenues 1990- 2018



SOURCE: OECD (2021), Figure 3.4

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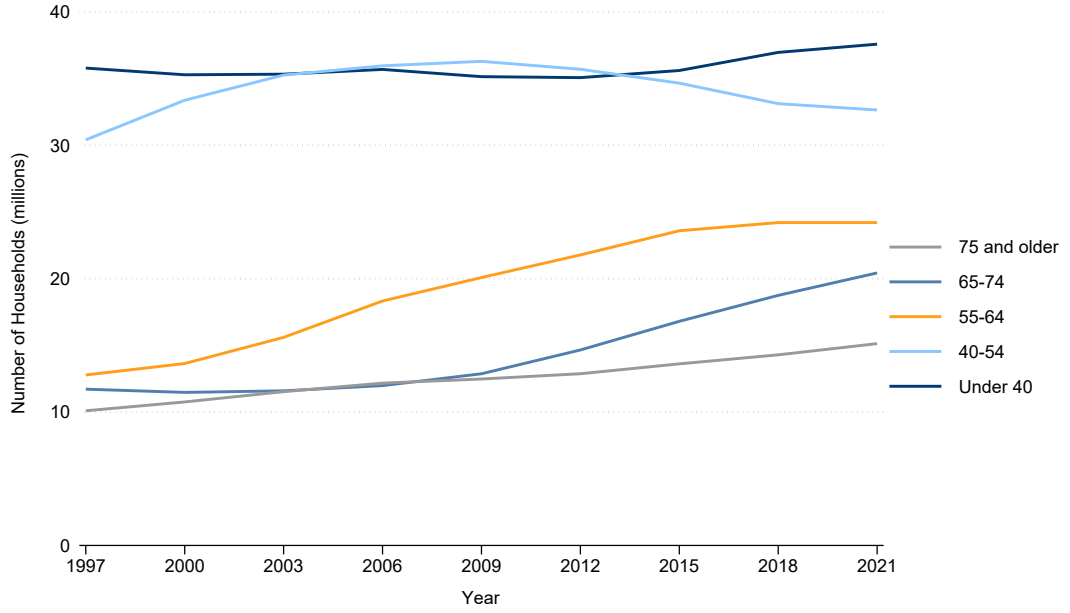
FIGURE 5

Population By Age Group



SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: Age groups are assigned using the age of the head of household.

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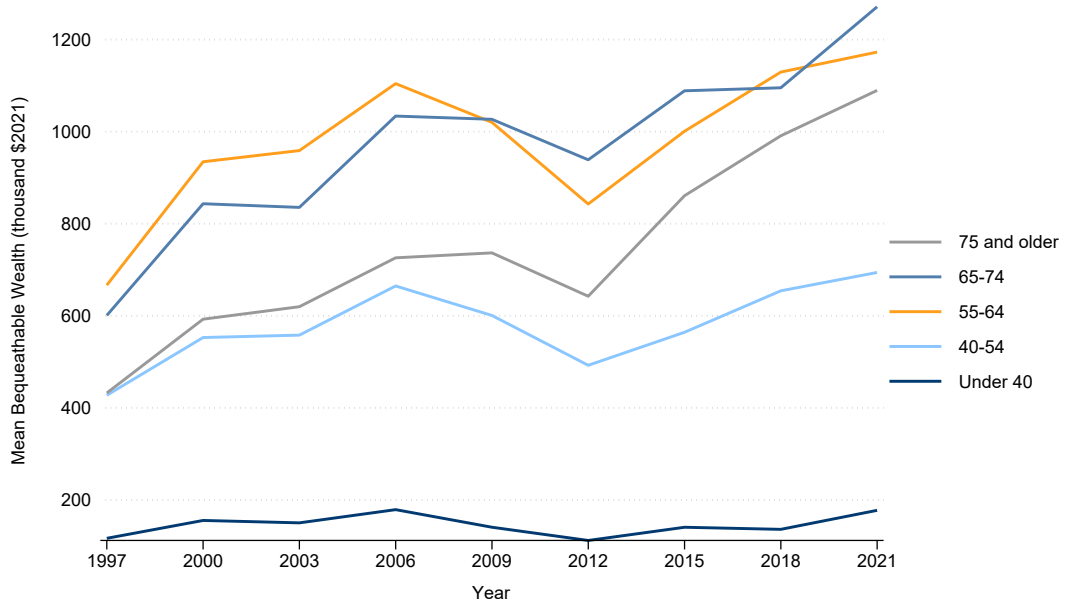
FIGURE 6

Real Mean Bequeathable Wealth by Age Group



SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: Bequeathable Wealth is defined as the sum of financial assets, real estate assets, equity in noncorporate business, and non-financial/consumer durable assets, less all debt. To measure bequeathable wealth in any given year t, we age the wealth of year t+1 SCF respondents backwards 2 years and age the wealth of year t-2 SCF respondents forward 1 year, and then divide the survey weights by 2. This generates a measure of wealth in year t-1, which we use to predict bequests in year t (see Appendix Section A for more detail). Age groups are assigned using the age of the head of household.

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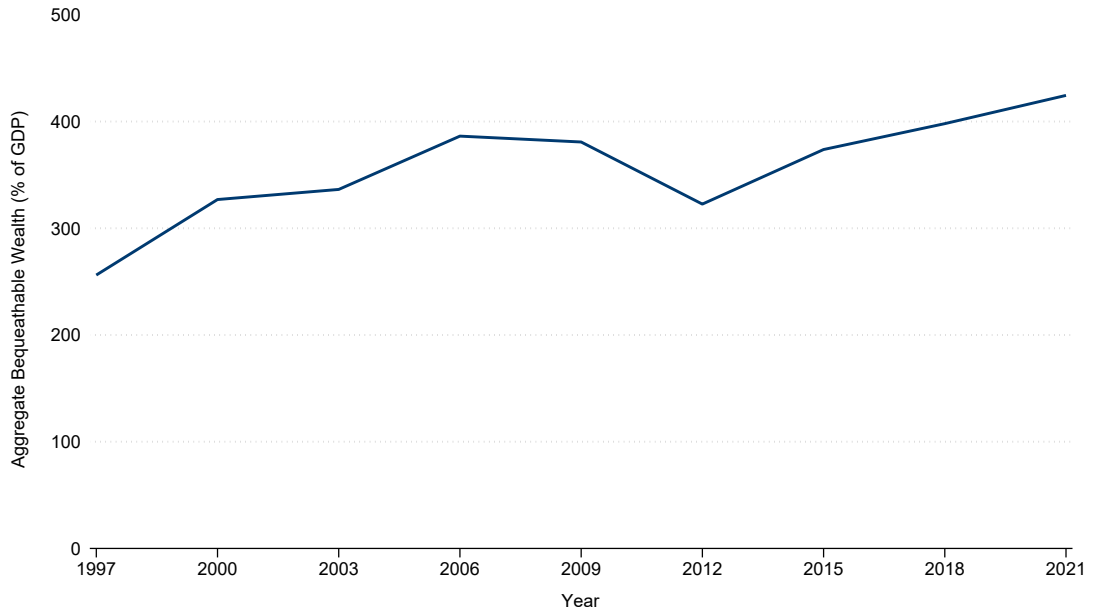
FIGURE 7

Aggregate Bequeathable Wealth

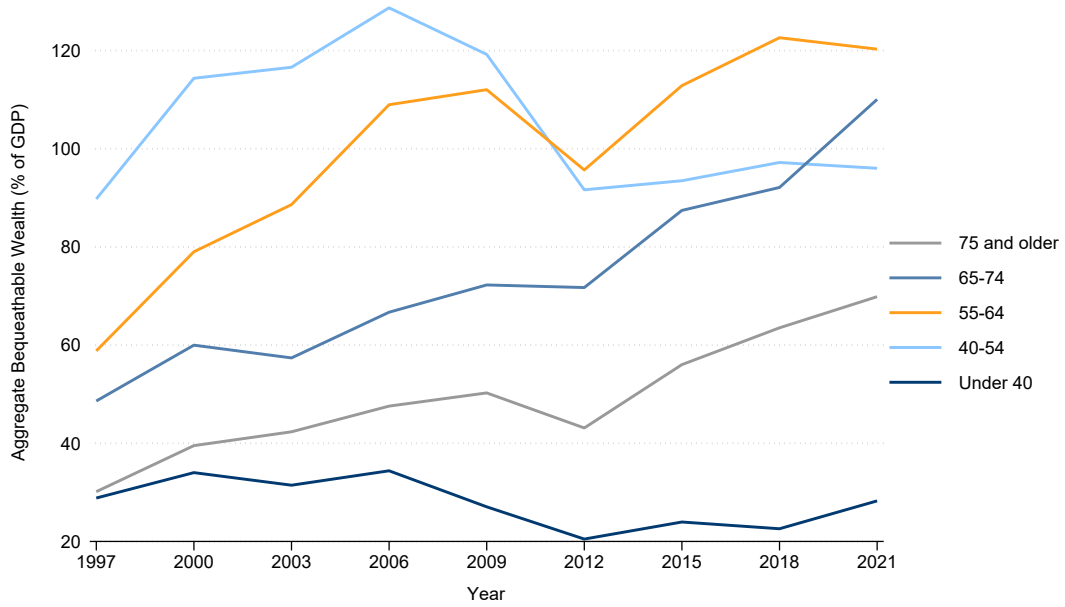


SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: See figure 6 note for definition of bequeathable wealth.

BROOKINGS

FIGURE 8

Aggregate Bequeathable Wealth by Age Group

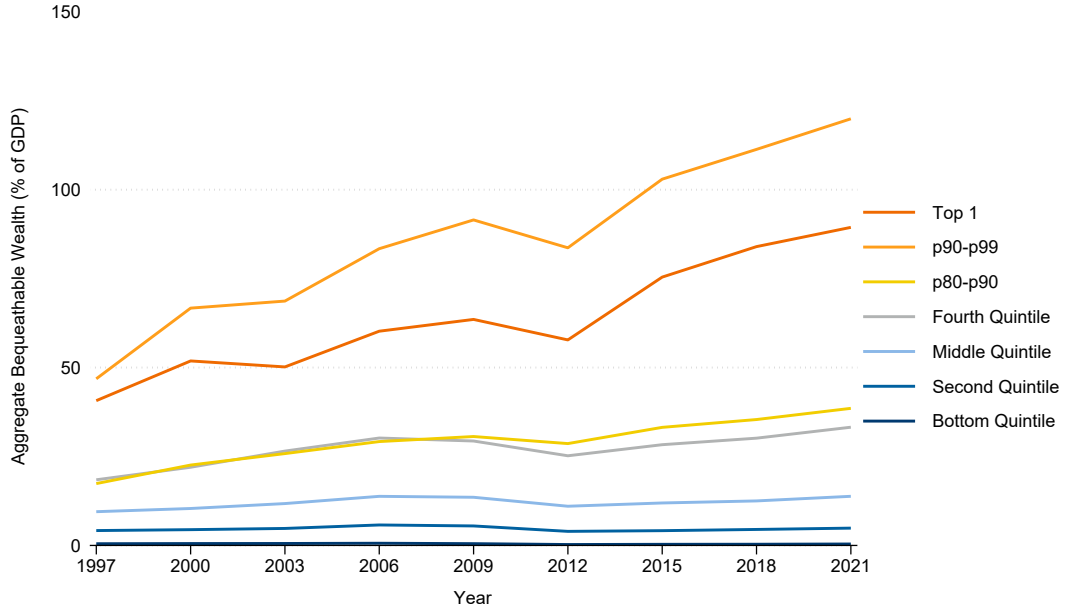


SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: See figure 6 note for definition of bequeathable wealth. Age groups are assigned using the age of the head of household.

BROOKINGS

FIGURE 9

Aggregate Bequeathable Wealth by Bequeathable Wealth Percentile, Ages 55+



SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: See figure 6 note for definition of bequeathable wealth. Bequeathable Wealth Percentiles are calculated using the bequeathable wealth of the decedent.

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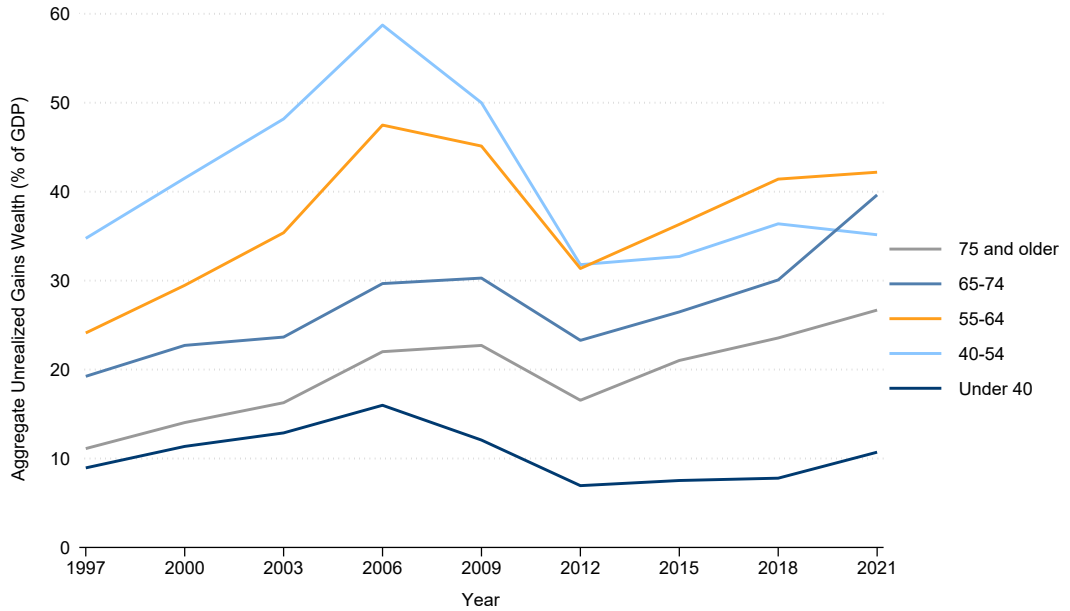
FIGURE 10

Aggregate Unrealized Gains Wealth by Age Group

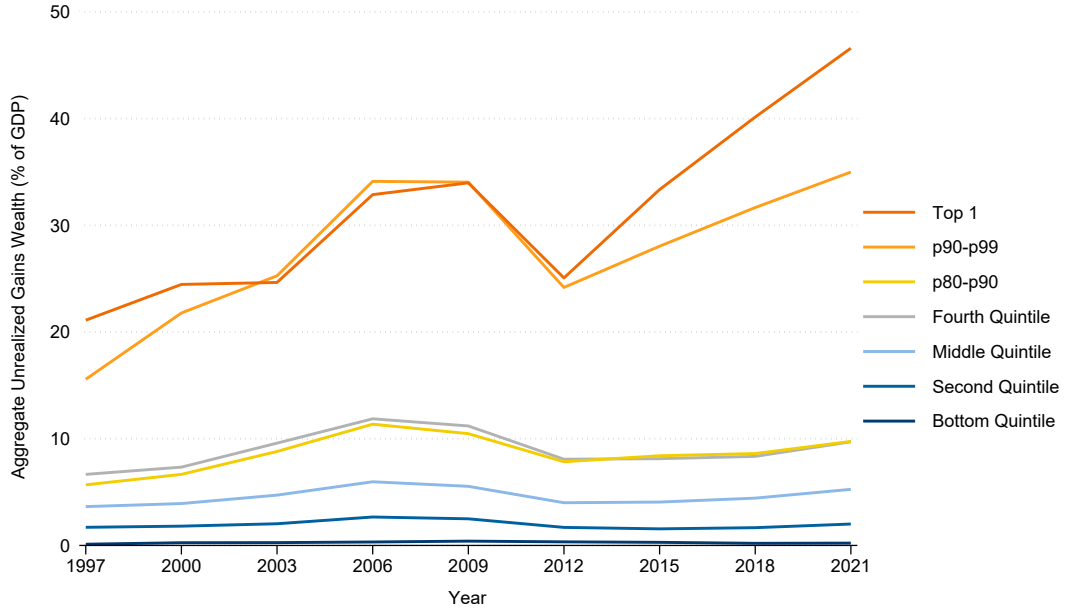


SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: Unrealized Gains Wealth is defined as the portion of Bequeathable Wealth that can be accounted for by changes in asset valuation (See Appendix Section D for more detail). Age groups are assigned using the age of the head of household.

BROOKINGS

FIGURE 11

Aggregate Unrealized Gains Wealth by Bequeathable Wealth Percentile, Ages 55+

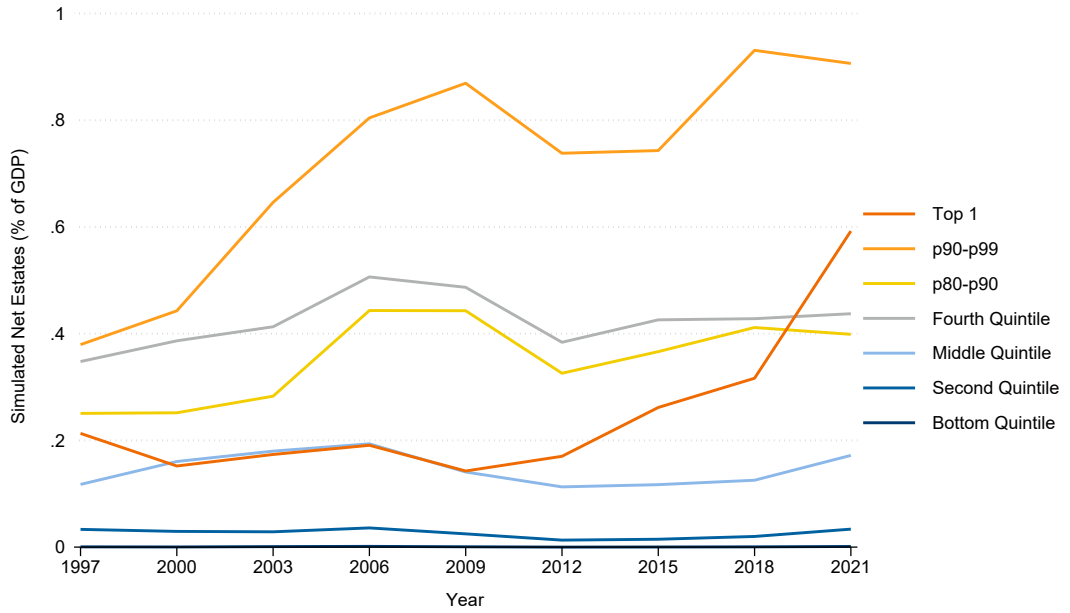


SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: See figure 10 note for definition of Unrealized Gains Wealth. Bequeathable Wealth Percentiles are calculated using the bequeathable wealth of the decedent.

BROOKINGS

FIGURE 12

Net Estates by Bequeathable Wealth Percentile



SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: Estates are calculated using Bequeathable Wealth multiplied by differential mortality probabilities by age, sex, and income from Chetty et al. (2016). The resulting Gross Estate is then subjected to the current law federal estate tax to generate Net Estates, our simulation of wealth transferred at death in any given year (see Appendix Section C for more detail). Transferred Unrealized Gains Wealth is calculated using the same approach on Unrealized Gains Wealth. Bequeathable Wealth Percentiles are calculated using the bequeathable wealth of the decedent.

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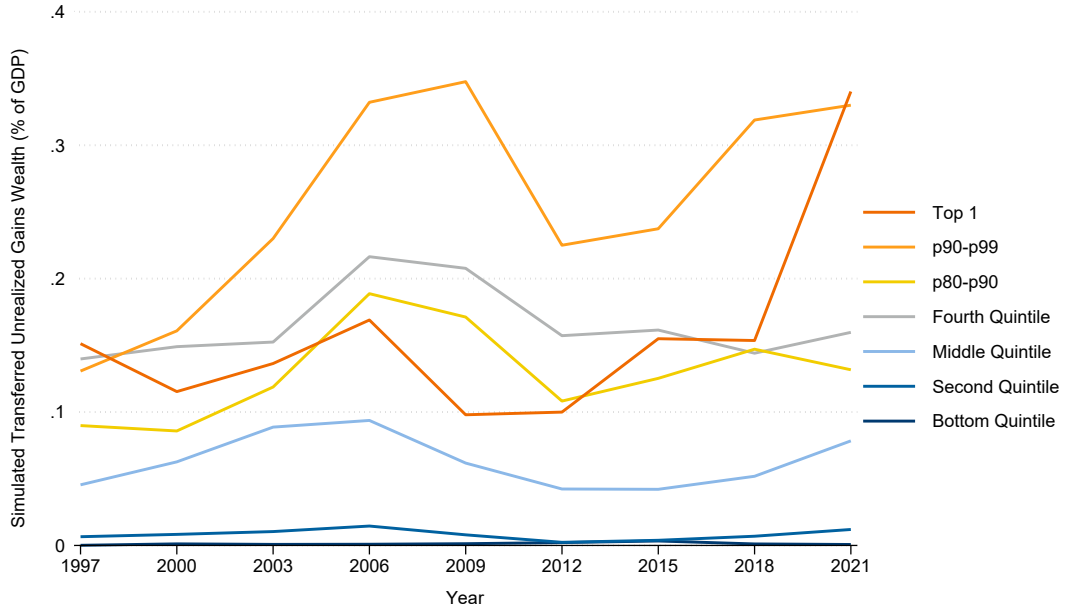
FIGURE 13

Transferred Unrealized Gains Wealth by Bequeathable Wealth Percentile

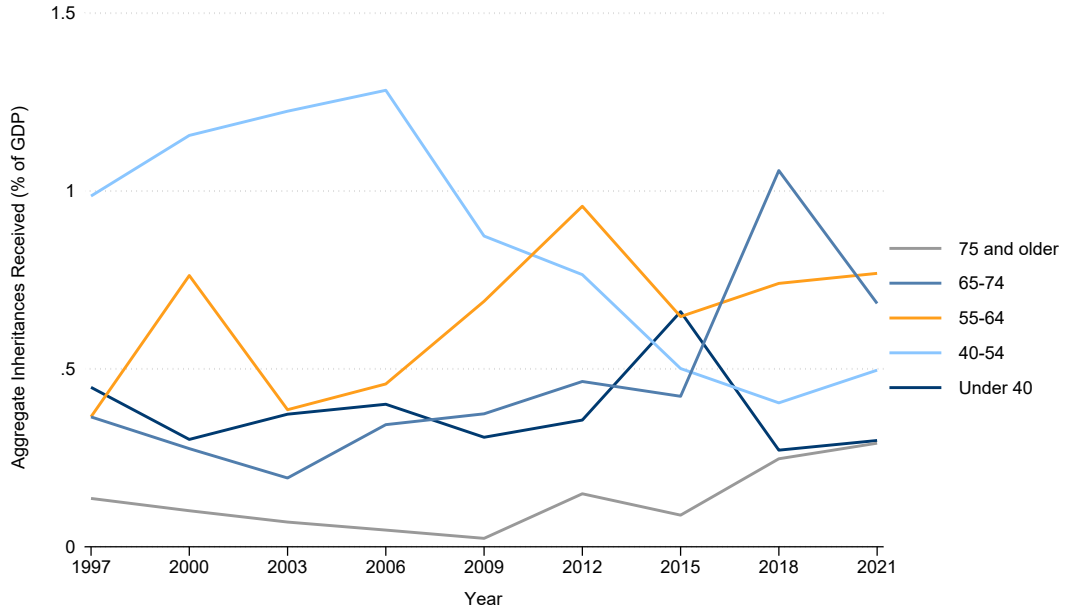


SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: See figure 12 note for definition of Estates and Transferred Unrealized Gains. Bequeathable Wealth Percentiles are calculated using the bequeathable wealth of the decedent.

BROOKINGS

FIGURE 14

Inheritances Received by Age Group

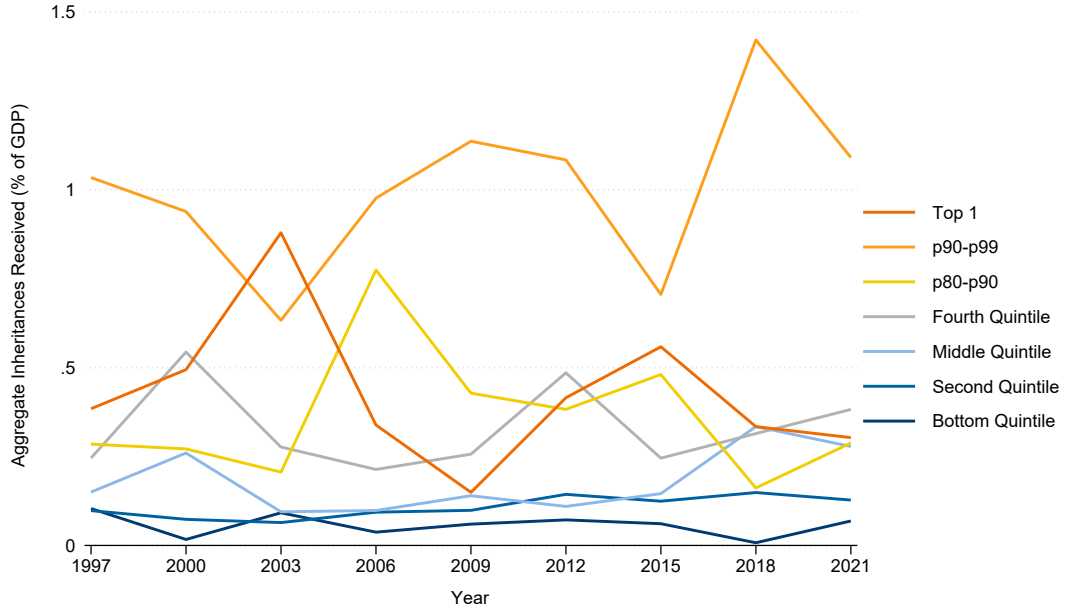


SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: Inheritances are primarily measured in the "Inheritances and Gifts Received" module of the SCF, with supplementation from different owned assets modules. Due to the rounding of inheritance receipt years in the public-use SCF, we assign inheritances to a year using a probabilistic adjustment. Our measure of inheritances is conceptually identical to the measure of bequests that we simulate using bequeathable wealth and mortality probability. Age groups are assigned using the age of the head of household.

BROOKINGS

FIGURE 15

Inheritances Received by Inheritance-Exclusive Expanded Income Percentile

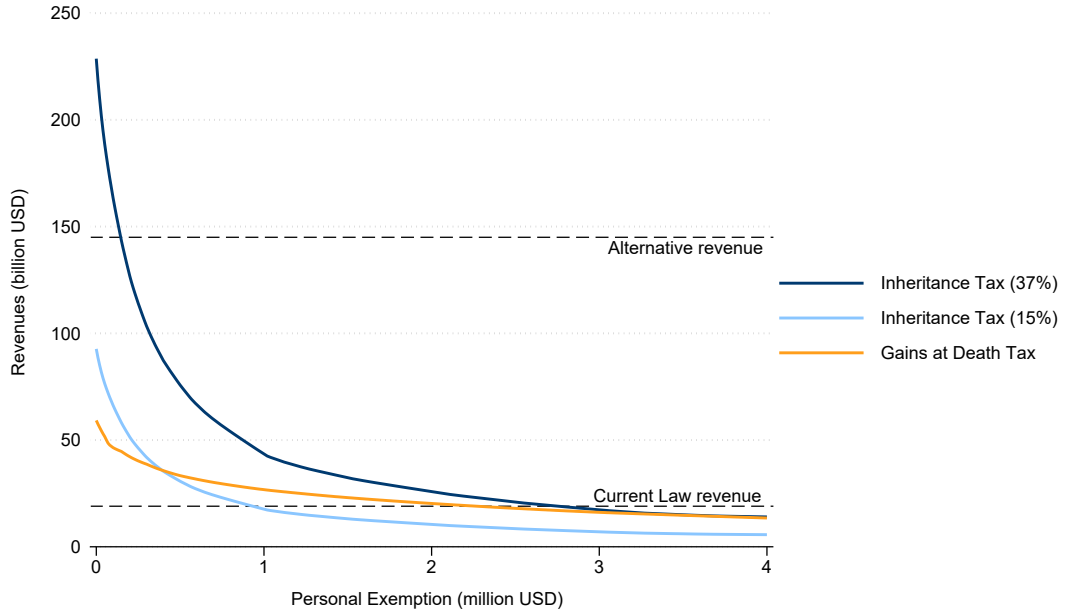


SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: See figure 14 note for definition of Inheritances. Inheritance-exclusive Expanded Income is equal to Expanded Income less measured inheritances, and we calculate distributional breaks using population weights.

BROOKINGS

FIGURE 16

Potential Wealth Transfer Tax Revenues, 2021

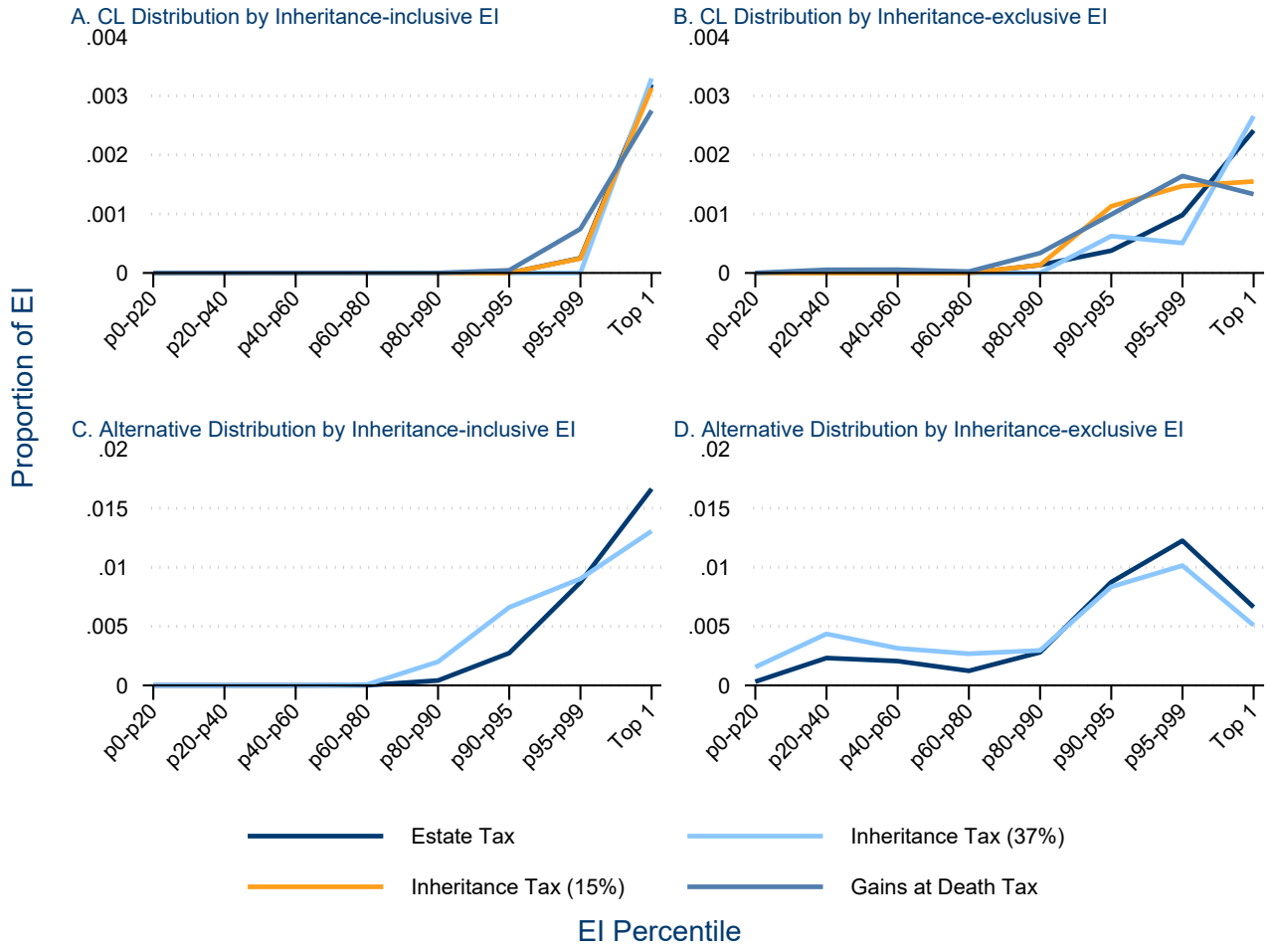


SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: The figure presents potential revenues generated by applying a flat inheritance tax of 37 or 15% (or an unrealized gains tax of 23.8%) to all inheritances (unrealized gains) above a given personal exemption level. Each tax regime is modeled independently of the others using a wealth transfers dataset constructed according to Section 3 of the paper.

BROOKINGS

FIGURE 17

Wealth Transfer Taxes as a share of EI, 2021



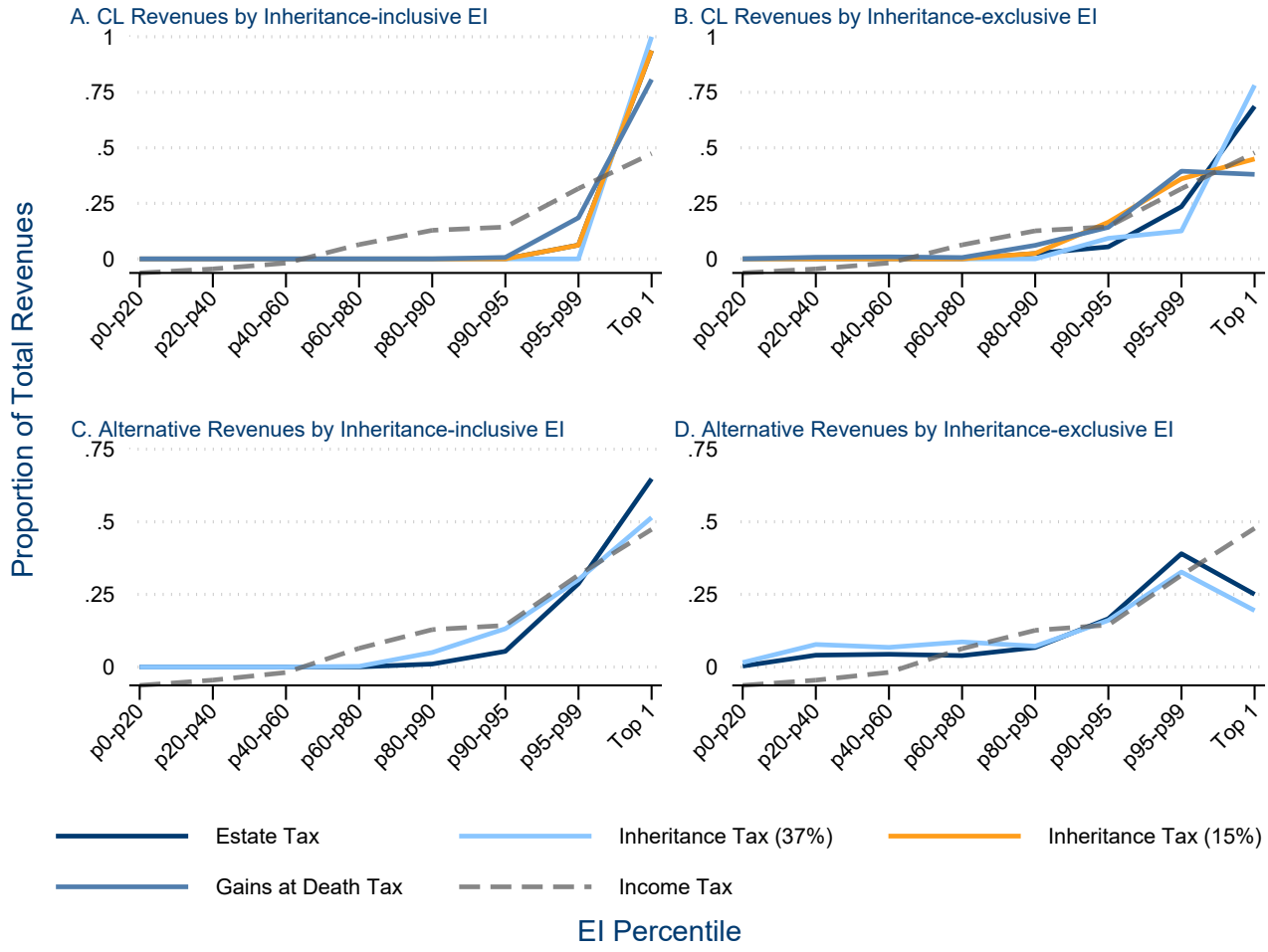
SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)

BROOKINGS

NOTE: The figure presents aggregate taxes as a share of aggregate inheritance-inclusive (inheritance-exclusive) Expanded Income (EI) for 4 different tax regimes in tax year 2021. Each tax regime is modeled independently of the others using a wealth transfers dataset constructed according to Section 3 of the paper. Panels A and B compare the distributional effects of regimes that raise $19 billion in revenue, and panels C and D compare the distributional effects of regimes that raise $145 billion in revenue. The 15% inheritance tax and the tax on gains at death are omitted from panels C and D due to their inability to raise $145 billion in revenue. Distributional breaks are calculated using population weights.

FIGURE 18

Distribution of Wealth Transfer and Income Tax Revenues, 2021



BROOKINGS

SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: The figure presents the distribution of aggregate tax revenues across inheritance-inclusive (inheritance-exclusive) Expanded Income (EI) percentiles for 5 different tax regimes in tax year 2021. Federal income tax burdens are modeled using NBER's TAXSIM tax calculator, and each of the other 4 regimes are modeled independently of the others using a wealth transfers dataset constructed according to Section 3 of this paper. Panels A and B compare the distributional effects of regimes that raise $19 billion in revenue, and panels C and D compare the distributional effects of regimes that raise $145 billion in revenue. The 15% inheritance tax and the tax on gains at death are omitted from panels C and D due to their inability to raise $145 billion in revenue. Distributional breaks are calculated using population weights.

Appendix

This Appendix provides details about the methods summarized in Section III and compares simulated bequests given and inheritances received across SCF survey waves and by transfer size class. Our measures of simulated bequests and inheritances are both based on SCF data, but there is no direct connection between the two sets of estimates that imposes conformity. We construct estimates of bequests based on a sequence that includes survey measures of bequeathable wealth, estimated mortality rates, estimated subtractions from gross estates to determine taxable estate, subtraction of estimated estate tax to determine net estates, and division of estates across heirs. In sharp contrast, inheritances are reported directly by the respondent.

A. BEQUEATHABLE WEALTH

As noted in the text, because the SCF in year t+3 collects income data for year t+2, we would like transfer data for year t+2 as well. Typically, bequests and inheritances given in year t+2 will be based on wealth in year t+1. Thus, we impute wealth data in year t+1 by using SCF wealth data in year t and in year t+3. We lag the wealth measures in the t+ 3 survey by two years and lead the wealth measures in the year t survey by one year. For example, for bequeathable wealth in 2020, we lag the 2022 two years (to 2020) and lead the 2019 survey data one year (also to 2020). Survey weights are divided in half.

The lag and lead adjustments are based on the Distributional Financial Accounts (DFA) produced by the Federal Reserve Board (2024). We use DFA aggregates for real estate, closely held businesses, stocks and mutual funds, and DC pensions to create separate lagged and forward adjustment factors (Table A1). The DFA values are taken from the third quarter of each year, consistent with the timing of the median SCF survey in survey years.[20] As expected, the lagged adjustment values are generally below one, while the forward adjustment factors are generally greater than one. The exceptions underscore the importance of the adjustments. For example, the lagged adjustment factor for real estate in 2010 (moving from 2010 values to 2008 values) is 112%, because real estate values fell substantially between 2008 and 2010 (Table A1).

B. DIFFERENTIAL MORTALITY

After determining bequeathable wealth, we apply mortality rates to estimate gross estate. We start by constructing mortality rates using Social Security Administration (SSA 2024) average life tables by age, sex, and birth year. It is well known, however, that mortality rates vary inversely with economic status. Thus, we adjust the SSA rates with an income-based mortality correction from Chetty et al. (2016).[21] The impact of the adjustment is very large, because failure to correct for differential mortality biases predicted wealth transfers up by more than a third.

We denote age-gender-year specific average mortality rates from the Social Security Administration using (Π_{agt}), where a is age, g is gender, and t is (birth) year. The differential mortality adjustment here is not time dependent (or race dependent, see Chetty et al. 2024), so we pool years to smooth over year-to-year variability. We compute relative mortality (λ_{agk}) for income percentiles k=1, …, 100 by age and gender, by normalizing each age-gender-income mortality rate by the overall mortality rate for that age and gender group. We then fit cubic functions for relative mortality across income percentiles within each age and gender group (Figure A1). The fitted values are the values for λagk used to construct differential mortality rates. Thus, the mortality rate for an individual is πagtk = (Π_{agt})*(λ_{agk}). These values are used directly for individuals ages 40 to 76. Beyond age 76, we follow Chetty et al. (2016) and interpolate relative mortality differentials (the λ_{agk} terms) to asymptote to 1 by age 100 (Figure A2).[22] Setting the λ_{agk} terms equal to 1 for 100-year-olds is consistent with the convergent patterns in the observed part of the age distribution and explainable in large part because as the lower-income population dies off as a cohort ages, the remaining differentials shrink and, asymptotically, vanish.

C. GROSS, TAXABLE, AND NET ESTATES

Gross estate equals bequeathable wealth for a single person who dies in the year in question or a married couple where both members die in the year in question. Otherwise, gross estate is zero. When a household's gross estate is positive, two types of subtractions are required to move from gross estate to taxable estate: first, allowable exemptions and deductible costs associated with death itself, including funeral costs, executor fees, and legal fees; second, charitable contributions made from the estate. To calculate net estate, we subtract estate taxes (which are based on taxable estate less valuation discounts) from taxable estate. Net estate is the total intergenerational transfer that the household gives to the next generation.

To predict allowable exemptions and deductions, we rely on historical estate tax filings. The IRS publishes aggregated filings by gross estate size, with varying gross estate size classifications by year. Thus, the aggregated data for all returns in a given gross estate class and a given year is the unit of observation in the analysis below. There are 98 such observations for the period 2001 through 2016 that we use to estimate the expense and charitable deduction equations.[23] All dollar values are inflated to 2016 using the personal consumption expenditure deflator.

For each of the gross estate size class/year observations, we observe the number of returns, gross estate amount, and the number of returns with, and total amounts for, funeral expenses, executor fees, attorney expenses, other expenses, and charitable deductions. For each of the four expenses and the charitable deductions the goal is to identify a relationship between that deduction and gross estate size.

We first model the probability that a given gross estate will have that expense or deduction and then model the (conditional) size of the expense or deduction, both as a function of gross estate size. The empirical specifications are all simple linear splines in gross estate size, with breaks at 1, 5, 10, 25, 50, 75, and 100 million. Constant terms are suppressed.[24]

In general, most returns claim funeral, executor, attorney, and other expenses, with the probability of such claims ranging from an average of just over 50% for attorney's fees up to 90% to 100% for funeral, executor, and other expenses. Also, in general, if there is a relationship between the fraction of estates with a given expense and gross estate size, that relationship is slightly negative.

Conditional on having funeral, executor, attorney, or other expenses, the average expense rises with gross estate size, but the slope of the relationship varies by expense category, and the slopes are generally non-linear. Even average funeral expenses increase with gross estate size. Most gross estate size classes have average funeral expenses around $10,000, but this rises to over $30,000 for gross estates between $50 and $100 million, and close to $60,000 for gross estates over $150,000.

Similar upward sloping average expenses relative to gross estates are observed for the other expenses, and the non-linearities are even more important. An ocular regression on attorney's fees, for example, suggests that a simple fitted line would greatly overpredict expenses for very small and very large estates, and underpredict in the middle range. The linear-spline specification addresses that potential problem, and suppressing the constant prevents predictions of negative conditional expenses. The non-linearity is most pronounced for charitable contributions, which are more frequent and larger (relative to gross estate) for estates in the largest estate size classes.

Most gross estates are not subject to estate tax filing because they are below the filing threshold. The non-linear relationships in our exemption and deduction imputation model makes it possible to estimate costs associated with death and charitable contributions for non-filers. The different correlations with gross estate size play a key role here: funeral expenses are ubiquitous, but smaller for non-filers. Charitable contributions at death are less frequent and much smaller (in dollars and as a share of gross estates) for decedents with wealth below the filing threshold.

Although the estate tax system has changed dramatically in the period covered by our SCF samples, the imputation model does a good job capturing the subtractions needed to move from gross to taxable estates. Published nominal estate tax revenues in 1997 were $16.6 billion and grew only slightly to $18.4 billion in 2021. The lack of growth in estate tax revenues is of course due to changes in law, because nominal gross estates rose nearly 500%. The model captures the (lack of) trend well, with simulated estate taxes increasing from $17.3 billion in 1997 to $19.2 billion in 2021.

D. UNREALIZED CAPITAL GAINS

We estimate the unrealized capital gains component of wealth holdings following the methods in Avery, Grodzicki, and Moore (2015). The SCF questionnaire makes it possible to estimate unrealized capital gains for real estate, directly held stocks and mutual funds, and closely held businesses.[25] For real estate, respondents are asked to provide the current value and the original purchase price (or value when received as a gift) for their primary residence, vacation properties, and other properties not owned by a business. In the case of primary residences, respondents are also asked about large improvements. Thus, the estimated unrealized gains component is the current price less the original price and the cost of improvements. The estimated unrealized gains component of real estate has varied between 30% and 50% of the total asset value over time (Table A2). The lowest values occur in the wake of the Financial Crisis. In the 2022 SCF, the unrealized gains share of real estate is about 43%, roughly the same as the share in the mid to late 1990s.

Unrealized gains on directly held stocks and mutual funds are reported directly in the SCF. After asking respondents about current holdings, the survey asks about any gains or losses since acquiring the assets. As with real estate, the share of unrealized gains in the value of directly held stocks and mutual funds varies over time, from lows of 9% or 10% at the end of bear markets to highs approaching 30% at the end of bull markets (Table A2). On average, unrealized gains are a smaller share of current asset value for stocks and mutual funds than for real estate, which makes sense because real estate is typically held for longer periods.

For closely held businesses, the SCF asks respondents to report the current value of the business and the "cost basis for tax purposes." The cost basis question has clarifying interviewer instructions that cost basis means "original investment plus additional investments less depreciation." The estimated share of unrealized capital gains on closely held businesses is much higher than it is for real estate and stocks plus mutual funds. Also, the unrealized share varies less, ranging narrowly between 60% and 70% (Table A2). This is not because the value of closely held businesses does not change—see the dramatic drop between 2007 and 2010, for example. The stability in the unrealized gains component for closely held businesses is mostly attributable to many owners reporting zero basis for tax purposes, meaning the entire value is taxable for capital gains purposes if the business were to be sold.

Some rough calculations suggest that estimated unrealized gains in the SCF are plausible. Unfortunately, there is no other data set that allows a direct comparison. The Financial Accounts (FA) reports total holding gains for each of the three asset classes in any given year. Cumulating those gains over time can give a rough estimate of the stock of capital gains. In addition, some capital gains are realized for tax purposes, and we can cumulate the gains reported in IRS Statistics of Income (SOI) data to generate the amount to subtract from total gains. Indeed, we use the combination of FA total and SOI taxable gains to estimate annual flows of unrealized capital gains in our measure of Expanded Income (EI). However, estimating the stock of unrealized gains is complicated by the fact that some assets are transferred (and thus the basis changes) without being reported for tax purposes. For example, if a parent gifts a house to their child below the estate tax filing threshold, the child will report the asset basis at the transfer value when answering the survey.

Despite the data challenge, a back-of-the-envelope calculation provides evidence that the SCF estimates are in the ballpark of the macro data. In 2022, our approach using the SCF generates an estimate of $48.2 trillion in unrealized gains. In the FA, cumulated from the beginning of the data in 1946, there are nearly $90 trillion in capital gains. Clearly, many of those gains

were realized before 2022, with some gains taxable and some gains not taxable because they enjoyed step-up in basis at death. If we use a more reasonable look-back time horizon of 25 years (1998 through 2022), we get cumulated total capital gains of about $68.0 trillion in 2022. Over that same period, nearly $20.0 trillion in realized capital gains were reported on income tax forms, so the net unrealized capital gain ($68.0 minus $20.0) matches the SCF estimate. Although this macro benchmarking exercise is admittedly very crude, it is reassuring that the totals are close.

E. INHERITANCES RECEIVED: AMOUNT

Inheritances are captured in several SCF survey modules. First, in the income module, respondents report inheritances in the year before the survey under the "other income" category. Second, respondents who own a residence, a business, or other real estate are asked how they obtained the asset, with "inherited" as one of the options. Finally, the inheritance module captures details on up to three inheritances received over the respondent's lifetime, with any additional inheritances captured under the "any remaining" category.

In principle, inheritances captured in the asset or income modules should also be captured (again) in the inheritance module. Unlike most question instructions which explicitly direct respondents to avoid double counting, the SCF inheritance questions clearly ask respondents to report inheritances they received including those they have already reported. The inheritance question instructions (and follow up post-processing by SCF staff) do a good job of capturing asset and income module inheritances in both places, but roughly 15% of total inheritances are not captured in the inheritance section (Table A3).

F. INHERITANCES RECEIVED: TIMING

As noted in Section III, respondents are asked the year in which they received each of the three largest wealth transfers. But the public-use data rounds the year to the nearest "5" or "0" year (1995, 2000, 2005, etc.). Thus, the inheritance happened in one of the two-to-five years associated with the most recent rounding year, and that rounding year also includes the survey year itself. For example, in the 2022 SCF, the inheritances of interest are for the year 2021 (year "t-1," the same year as the income reported in the 2022 SCF). But 2021 inheritances are combined with inheritances received in 2018, 2019, 2020, and 2022 and all reported as having been received in 2020 (the rounding year). The modal SCF survey is conducted halfway through 2022, so there are 4.5 statistical years covered by rounded year 2020. Thus, the probability that an inheritance with rounded year 2020 occurred in 2021 is (1/4.5).

In practice, a probability of (1.25/4.5) for 2021 brings the reported inheritances into closer alignment with known aggregates by date from the internal SCF data, likely because the respondent's time frame is focused on the previous year for reporting income and other outcomes. We use similar adjustments for the other SCF waves, though the proximity to the most recent rounding year changes the denominator. For example, in 2019, the most recent rounding year is 2015, which includes 2013 to 2017. Thus, inheritances with reported year 2019 include those received in 2018 and 2019 itself. Thus, the 2019 denominator is 1.5 statistical years.

Knowing the probability that a given rounded year inheritance belongs in t-1 is the first step. We then generate two implicates (one in which they receive the transfer, the other in which they do not) for each respondent reporting an inheritance in the rounded year which includes t-1. The probability the inheritance occurred in t-1 is used to create a reweighted observation with the reported inheritance occurring in year t-1 and one minus the probability to create a reweighted observation with no inheritance in t-1. This preserves all other SCF data moments without worsening the (already substantial) sampling variability associated with rare events such as inheritance receipt.[26]

G. COMPARING (SIMULATED) BEQUESTS WITH (REPORTED) INHERITANCES

The fact that we have measures of transfers at death from the perspective of both decedents and heirs is a key feature of our approach. SCF-reported inheritances have been used in many studies of intergenerational

wealth transfers,[27] but there is no other source of data on (say) total inheritances that can be used to validate SCF data quality. Likewise, SCF-based estimates of bequeathable wealth and estate tax reform options have been undertaken by groups like the Tax Policy Center (2022) and Congressional Budget Office (2021), using methods like ours. However, other than checking predictions about very large estates against published SOI estate tax filings, there is no attempt to validate predicted transfers more generally against an external benchmark.

Comparing simulated bequests to reported inheritances allows us to validate the models for simulating bequests against reported inheritances. There is nothing built into the processing and modeling that forces simulated bequests to match reported inheritances, so observing a close correspondence between the two is reassuring. Indeed, given the assumptions required to simulate bequests and the potential for sampling variability in inheritances, a fair amount of divergence might be expected.

Figure A3 shows simulated aggregate bequests and reported aggregate inheritances over time. Nominal inheritances have roughly tripled in size over this period, from roughly $200 billion in 1997 to $600 billion in 2021. Simulated bequests have grown faster, but that is mostly because inheritances substantially exceeded bequests in the early part of the sample. In recent years, the aggregate values are closer, and the values are nearly identical in 2021.

Figure A4, Panel B reports the size distributions of simulated bequests and inheritances in 2021, across 13 size classes ranging from <$5,000 to $5 million or more. The distributions of simulated bequests and reported inheritances by size are remarkably similar. The aggregate amount of simulated bequests is about 5% higher than aggregate inheritances. Again, there is nothing in the methods that forces these distributions to align perfectly, and plenty of assumptions that go into simulating net estates and dividing by the number of heirs that could introduce divergence.

However, the same size distribution comparison for 2018 reminds us that we need to be careful about model assumptions and sampling variability (Figure A4, Panel A). The first indication of divergence is that aggregate simulated bequests are nearly 15% below reported inheritances in 2018 (Figure A3). The size distribution shows us that most of the divergence occurs for transfers in the $1 million to $5 million range. The reported inheritances in that range decrease predictably and modestly between 2018 and 2021, while the simulated bequests increase sharply.

Simulated bequests are sensitive to the many assumptions used to move from bequeathable wealth to transfers by size. That sensitivity, of course, motivates continued research on our modeling approach. The divergence between simulated bequests and inheritances in some years also underlies the distributional approach used in this paper, which is focused on inheritances received (Sections IV and V). As discussed in the text, policy effects are measured in terms of changes in net inheritances received by individuals. In the base year for our policy experiments (2021), the choice does not matter because there is a close correspondence between the bequest and inheritance distributions.

TABLE A1

Bequeathable Wealth Timing Adjustment Factors

	1995	1998	2001	2004	2007	2010	2013	2016	2019	2022
Lagged Adjustments (Contemporaneous Survey)										
Real Estate	94%	88%	77%	80%	96%	112%	92%	87%	89%	74%
Closely Held Businesses	89%	85%	87%	82%	88%	118%	82%	88%	89%	77%
Stocks and Mutual Funds	83%	72%	119%	68%	74%	90%	68%	92%	87%	94%
DC pensions	89%	89%	89%	89%	90%	92%	88%	95%	94%	99%
Forward Adjustments (Previous Survey)										
Real Estate	105%	110%	110%	114%	91%	96%	107%	108%	108%	104%
Closely Held Businesses	104%	105%	103%	114%	88%	105%	108%	106%	106%	97%
Stocks and Mutual Funds	116%	121%	84%	118%	73%	98%	115%	114%	109%	113%
DC pensions	106%	106%	105%	106%	104%	104%	105%	103%	102%	100%

TABLE A2

Unrealized Capital Gains in the SCF

	1995	1998	2001	2004	2007	2010	2013	2016	2019	2022
Total Assets (Trillions)										
Total	$22.1	$30.1	$42.2	$52.3	$66.9	$59.6	$63.8	$83.9	$93.3	$131.9
Real Estate	$8.6	$11.2	$15.3	$23.0	$29.7	$25.5	$26.1	$30.5	$35.6	$49.7
Directly Held Stocks and Mutual Funds	$2.6	$4.8	$6.8	$6.8	$8.7	$7.6	$9.3	$15.5	$16.6	$25.5
Closely-Held Businesses	$4.3	$5.7	$8.0	$9.8	$14.8	$12.2	$13.5	$19.3	$21.4	$30.8
Other Assets	$6.6	$8.3	$12.1	$12.8	$13.7	$14.3	$14.9	$18.6	$19.7	$26.0
Estimated Unrealized Gains (Trillions)										
Total	$6.7	$10.1	$13.9	$18.5	$27.4	$17.1	$18.3	$26.0	$30.6	$48.2
Real Estate	$3.7	$4.8	$7.4	$11.5	$14.7	$9.0	$8.2	$11.5	$12.7	$21.4
Directly Held Stocks and Mutual Funds	$0.4	$1.4	$1.1	$0.6	$2.0	$0.7	$1.9	$3.0	$4.8	$6.4
Closely-Held Businesses	$2.6	$3.9	$5.4	$6.4	$10.7	$7.4	$8.1	$11.4	$13.1	$20.4
Other Assets	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Estimated Unrealized Gains as a Share of Assets										
Total	30%	34%	33%	35%	41%	29%	29%	31%	33%	37%
Real Estate	42%	43%	48%	50%	49%	35%	31%	38%	36%	43%
Directly Held Stocks and Mutual Funds	17%	29%	16%	9%	23%	10%	21%	19%	29%	25%
Closely-Held Businesses	61%	68%	68%	65%	72%	61%	60%	59%	61%	66%

NOTES: Total assets excludes amounts in quasi-liquid retirement accounts. Real estate includes owner occupied housing and other real estate not owned by a closely-held business.

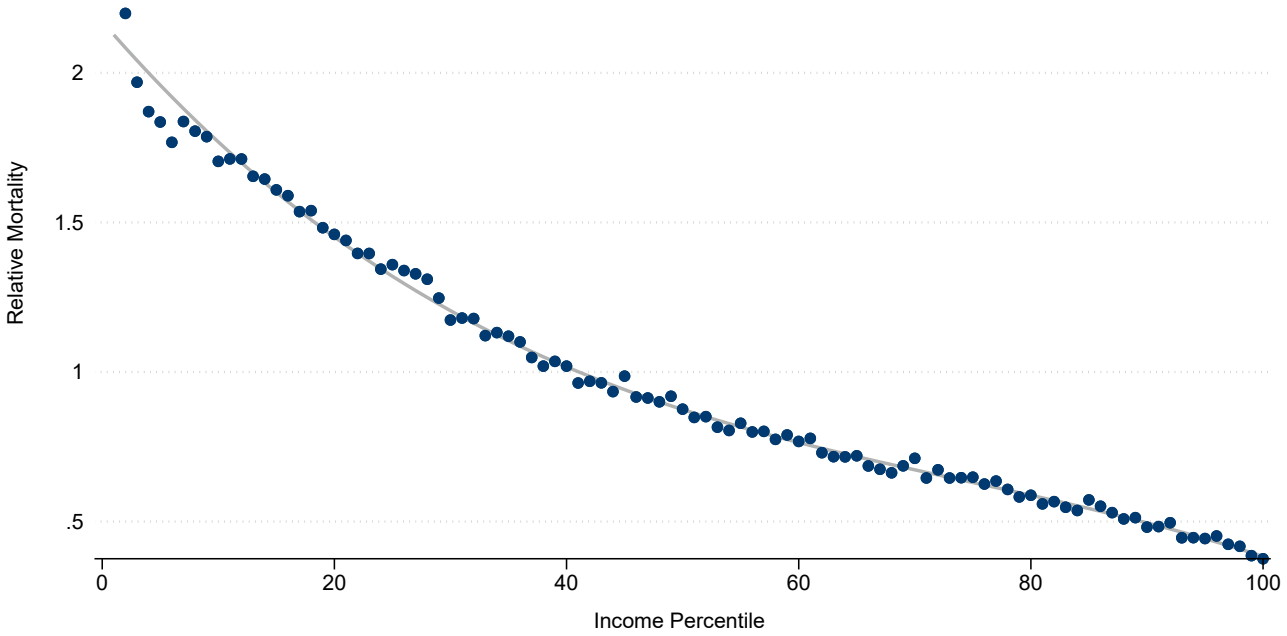
TABLE A3

Inheritances Captured by SCF Module Source

	Income Module		Real Asset Modules		Inheritance Module		Total	
Year	Counts	Billions	Counts	Billions	Counts	Billions	Counts	Billions
1998	197,992	$3.6	185,600	$27.7	1,775,916	$166.1	2,119,528	$197.4
2001	116,862	$1.7	134,520	$60.2	1,978,266	$203.9	2,191,600	$265.9
2004	69,456	$0.4	77,760	$6.3	2,446,351	$245.0	2,593,491	$251.7
2007	92,352	$1.7	140,531	$78.0	2,110,084	$270.1	2,336,210	$349.8
2010	179,140	$3.2	100,631	$10.2	2,062,543	$314.7	2,308,077	$328.0
2013	249,201	$5.8	321,499	$60.5	2,131,075	$371.4	2,599,010	$437.6
2016	196,449	$7.3	212,967	$24.0	2,030,640	$393.4	2,375,878	$424.7
2019	260,719	$17.5	156,773	$18.3	2,830,063	$526.2	2,980,084	$562.0
2022	439,571	$26.4	199,121	$39.3	2,443,526	$533.4	3,001,376	$599.1

FIGURE A1

Relative Mortality by Income Percentile, 62-Year-Old Males



SOURCE: Chetty et al. (2016)

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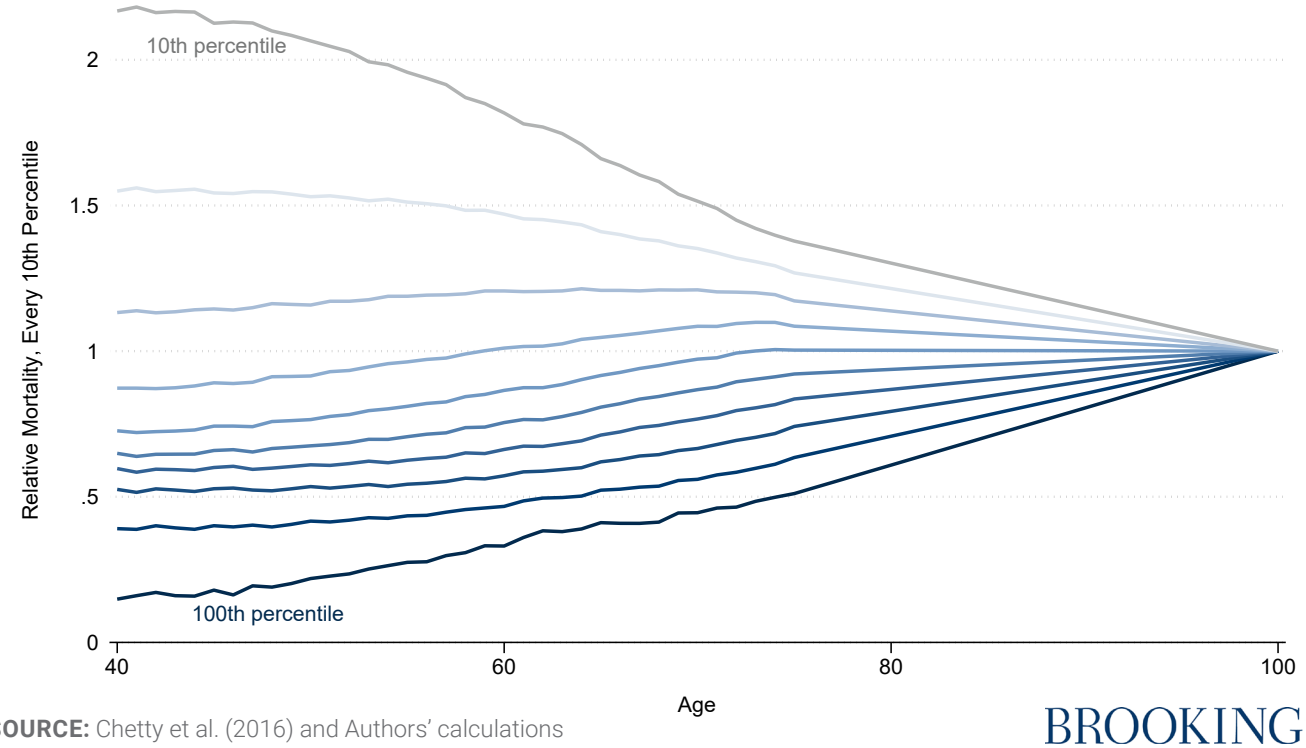
FIGURE A2

Convergence of Relative Mortality by Age and Income Percentile, Males

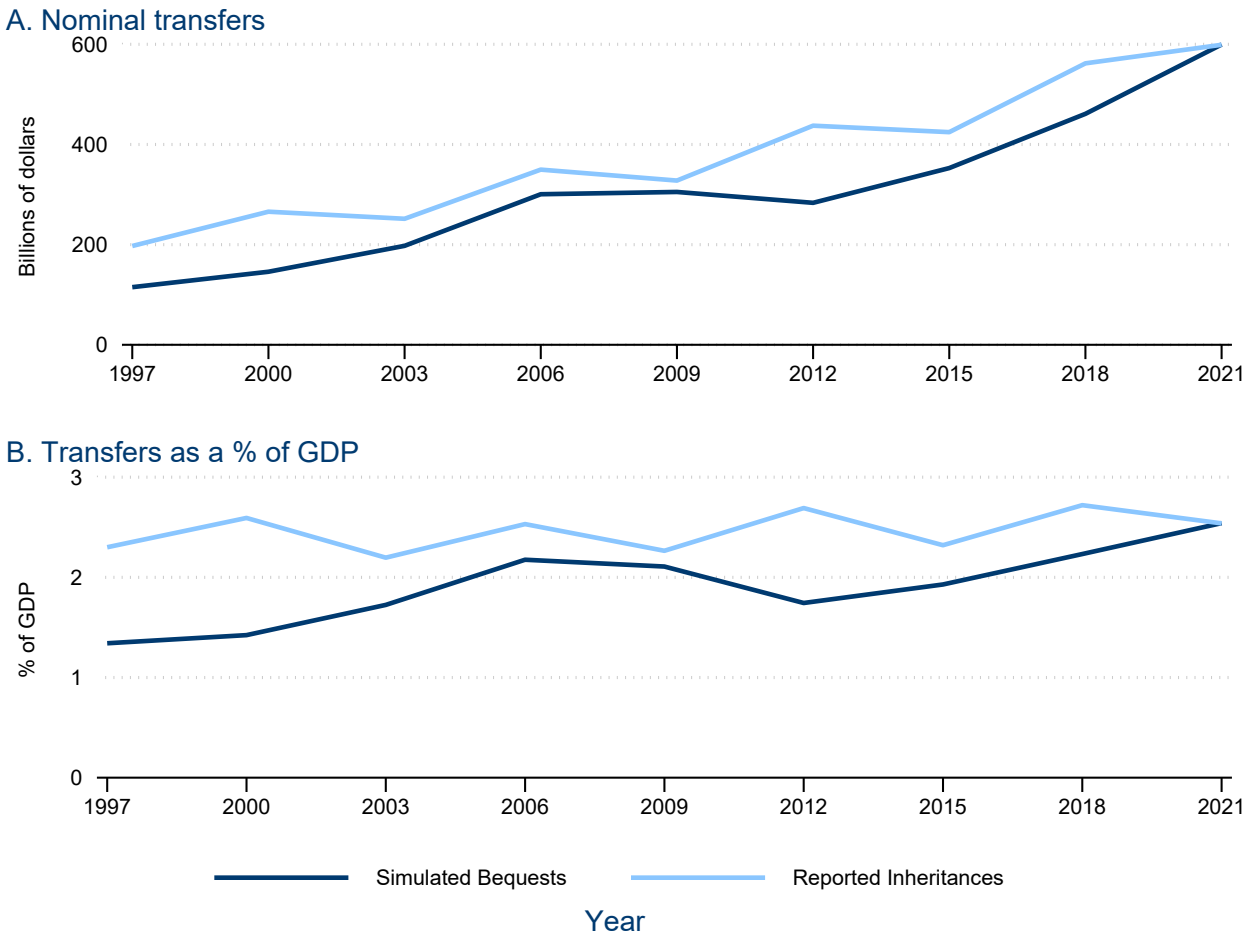


SOURCE: Chetty et al. (2016) and Authors' calculations

BROOKINGS

FIGURE A3

Aggregate Inheritances and Simulated Bequests, 1997-2021



SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)

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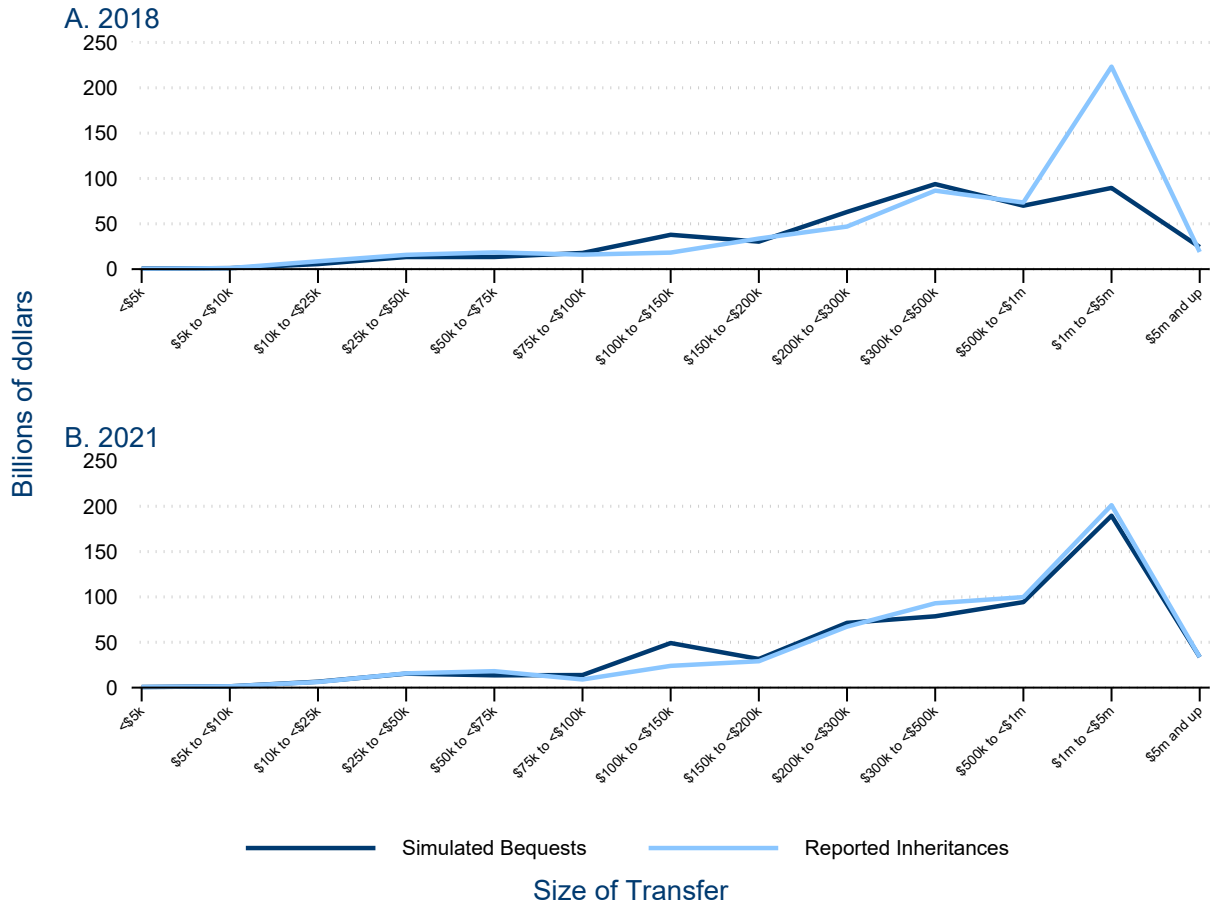
NOTE: Estates are calculated using Bequeathable Wealth multiplied by differential mortality probabilities by age, sex, and income from Chetty et al. (2016). The resulting Gross Estate is then subjected to the current law federal estate tax to generate Net Estates (equivalent to Simulated Bequests), our simulation of wealth transferred at death in any given year (see Appendix Section C for more detail). Inheritances are primarily measured in the "Inheritances and Gifts Received" module of the SCF, with supplementation from different owned assets modules. Due to the rounding of inheritance receipt years in the public-use SCF, we assign inheritances to a year using a probabilistic adjustment.

FIGURE A4

Size Distribution of Inheritances and Simulated Bequests, 2018 and 2021



SOURCE: Authors' Calculations using the Survey of Consumer Finances (SCF)
NOTE: Estates are calculated using Bequeathable Wealth multiplied by differential mortality probabilities by age, sex, and income from Chetty et al. (2016). The resulting Gross Estate is then subjected to the current law federal estate tax to generate Net Estates (equivalent to Simulated Bequests), our simulation of wealth transferred at death in any given year (see Appendix Section C for more detail). Inheritances are primarily measured in the "Inheritances and Gifts Received" module of the SCF, with supplementation from different owned assets modules. Due to the rounding of inheritance receipt years in the public-use SCF, we assign inheritances to a year using a probabilistic adjustment.

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Endnotes

1 The “Great Wealth Transfer” has already entered the public discussion. See, for example, Agyemang (2024), Ensign and Wolfe (2024), and Smith (2023).

2 Gilens and Page (2014) show that the wealthy heavily influence whether or not federal legislation becomes law, while the preferences of average Americans barely move the needle. At the same time, higher inequality is associated with higher support for authoritarianism (Solt 2012), lower social trust (Gustavsson and Jordahl 2008) and even increased belief in conspiracy theories (Jetten, Peters, and Casara. 2022). See Hacker and Pierson (2010) for further examination of how the ultra-wealthy influence the U.S. political system.

3 See also Piketty and Saez (2013) for further analysis of optimal taxation of transfers.

4 The SCF excludes the Forbes 400 by design. Future work will include modeling Forbes bequests and inheritances.

5 For a comprehensive review of the history of transfer taxation, see Joint Committee on Taxation (2015).

6 States with estate taxes are Connecticut, Hawaii, Illinois, Maine, Maryland, Massachusetts, Minnesota, New York, Oregon, Rhode Island, Vermont, Washington, and the District of Columbia. States with inheritance taxes are Iowa, Kentucky, Maryland, Nebraska, New Jersey, and Pennsylvania.

7 If the decedent, while alive, cared about the after-tax value of the wealth transfer, then an inheritance tax or an estate tax would be borne to some extent by the decedent. In that scenario, the donor would adjust the size of the estate in response to changes in wealth transfer taxes (and perhaps would adjust the estate size by enough to fully offset the change in taxes).

8 Avery, Grodzicki, and Moore (2015) show extensive overlap between the tax base under a well-functioning wealth transfer tax and accumulated untaxed capital gains. Robbins (2019) shows that capital gains have amounted to about eight percent of national income in the period since 1980, which is greater than aggregate household saving. Taxable capital income from interest and dividends of the very wealthy in years prior to their death—based on matching income tax records with estate tax filings—has been shown by Bourne et al. (2018) to suggest unrealistically low rates of return, consistent with extensive tax avoidance strategies.

9 Joulfaian (2009) finds that the share of giving during versus at death changes markedly with wealth, with the extremely wealthy giving a much greater share of their contributions at death, which could in part be due to the desire of business owners to retain control over the business while living.

10 Some annuities have provisions to provide payments to survivors after the death of the owner. We do not adjust net worth for this possibility.

11 Note that SCF wealth is defined at the household level, while decedent’s wealth is defined at the individual level. This is not a problem for our analysis, however, as we only trigger transfers if a single person dies or if both members of a married couple pass away in the same year.

12 In practice, some intergenerational transfers also occur when only one member of a couple dies and the surviving spouse does not receive the entire estate, but those transfers are a relatively small component and are not captured in the gross estates measure developed here. This is consistent with the SCF inheritance questions (discussed below) which clearly indicate the respondent should not report transfers to a surviving spouse.

13 Research on mortality differentials has also found correlations with socioeconomic factors like education, marital status, and race, but those correlations are second order after controlling for income.

14 Private correspondence from IRS Statistics of Income.

15 As described in the previous section, we interpolate wealth between SCF survey years. In this section, we use data from the interpolated years. Using data from the actual SCF survey years would not change any of the trends.

16 Relative changes in median wealth across successive cohorts moved in the same direction as relative chang-

es in mean wealth, but the differences were quantitatively more muted.

17 Numbers in the text do not sum exactly due to rounding. To be more precise, bequeathable wealth was 256.2% of GDP in 1997 and 424.5% of GDP in 2021, which implies a 168.3 percentage-point increase.

18 In 2001, the exempt amount was $675,000. For estates that exceeded that amount, the following rates were applied to the following ranges of taxable estate above the exemption: 18% from $0 to $10,000; 20% from $10,000 to $20,000; 22% from $20,000 to $40,000; 24% from $40,000 to $60,000; 26% from $60,000 to $80,000; 28% from $80,000 to $100,000; 30% from $100,000 to $150,000; 32% from $150,000 to $250,000; 34% from $250,000 to $500,000; 37% from $500,000 to $750,000; 39% from $750,000 to $1 million; 41% from $1 million to $1.25 million; 43% from $1.25 million to $1.5 million; 45% from $1.5 million to $2 million; 49% from $2 million to $2.5 million; 53% from $2.5 million to $3 million; and 55% in excess of $3 million above the filing threshold.

19 In 2001, the exempt amount was $675,000. For estates that exceeded that amount, the following rates were applied to the following ranges of taxable estate above the exemption: 18% from $0 to $10,000; 20% from $10,000 to $20,000; 22% from $20,000 to $40,000; 24% from $40,000 to $60,000; 26% from $60,000 to $80,000; 28% from $80,000 to $100,000; 30% from $100,000 to $150,000; 32% from $150,000 to $250,000; 34% from $250,000 to $500,000; 37% from $500,000 to $750,000; 39% from $750,000 to $1 million; 41% from $1 million to $1.25 million; 43% from $1.25 million to $1.5 million; 45% from $1.5 million to $2 million; 49% from $2 million to $2.5 million; 53% from $2.5 million to $3 million; and 55% in excess of $3 million above the filing threshold.

20 DFA aggregates capture changes over time due to net acquisitions (saving) and asset revaluations. Over short intervals the changes are dominated by revaluations, which is exactly what we are trying to capture.

21 The study was based on income and death records for males and females separately at ages 40 to 76 for the years 2001 through 2014. The study computed and reported mortality across 100 income percentiles for each age, gender, and year.

22 For simplicity, differentials are ignored before age 40—meaning the λ_{agk} terms are all 1—because transferable wealth and average mortality are negligible at younger ages.

23 We currently use only 2001 through 2016 because changes in the filing threshold over the past decade has severely limited the share of gross estates for whom the published estate tax data are relevant.

24 Estimation results and processed estate tax data files available from authors upon request.

25 Note that we do not estimate the capital gains component of holdings in tax preferred retirement accounts because distributions from those accounts are already taxed at normal rates.

26 An alternative approach would be to compare the known probability the inheritance occurred in year t-1 against a random number and assign the inheritance value to t-1 (or not) based on the probabilistic comparison. That approach exacerbates sampling variability, however, because it throws away many reported inheritances, those in the same rounded year but deemed to have occurred in a year other than t-1.

27 See, for example, Modigliani (1988); Wolff and Gittelman (2012); Alvaredo, Garbini, and Piketty (2017); Feiveson and Sabelhaus (2019); and Nolan et al. (2022).

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