Property Taxation and the Intergenerational Transfer of Housing Wealth during the Lifecycle*

Jun Peng
Haas School of Business, UC Berkeley

Holger Sieg
University of Pennsylvania and NBER

Nancy Wallace
Haas School of Business, UC Berkeley

Prepared for Submission to the TPE Conference 2025

February 27, 2025

*Jun Peng and Nancy Wallace would like to thank the Fisher Center for Real Estate and Urban Economics, Haas School of Business, University of California Berkeley for financial support. The authors would like to thank Dennis Epple for comments and suggestions.

Abstract

We study intergenerational transfers of real estate wealth using new data from the housing markets of San Diego. We show that estate planning tools such as gifts and trusts play a large role in facilitating transactions in these markets. Almost half of the transactions that we observe in our sample are driven by gifts and transfers to trusts. The remaining transfers are arms-length transactions and bequests. The estate planning transfers are shaped by the system of property taxation that is in place in California. Proposition 13 created an acquisition value tax system that led to large under-assessment in property values. As a consequence, effective tax rates are much lower than statutory tax rates. Proposition 58 implied that these tax advantages could be passed from parents to children. We show that these tax policies have caused serious inefficiencies in the housing markets by creating a lock-in effect. Our model simulations indicate that arms-length transactions could increase by up to 5 percentage points if Propositions 13 and 58 were reversed and replaced by a revenue-neutral market value property tax system.

Keywords: Property taxation, estate planning, intergenerational transfer of housing wealth, trusts, gifts, bequest.

1 Introduction

Owner-occupied housing is the most important source of wealth for most households in the U.S. Hence, the transfer of housing wealth constitutes one of the most important decisions parents face as they contemplate how to pass on some of their wealth to their children. These transfers are shaped by a variety of different federal, state, and local taxes and fees that households need to take into consideration. At the same time, dynastic households need to balance the interests of both parents and children considering that there is much uncertainty about life expectancy and thus the financial needs of the parents.[1] Surprisingly, there has not been much compelling research on this topic, even though it is inherently important from a tax policy perspective.[2] The purpose of the paper is to study the intergenerational transfer of housing wealth via gifts and trusts during the lifecycle using comprehensive data from housing transactions for a large sample of households in California.

California is of interest for several reasons. First, it is the largest state by population and, on its own, California's economy constitutes the fifth-largest economy in the world (Bohn and Duan, 2025). Second, housing markets have boomed over the past two decades. As a consequence, many households have accumulated significant amounts of housing wealth. Third, California's system of property taxation provides strong financial incentives to transfer houses within the dynastic family. Fourth, California's probate system is notoriously expensive which means that bequest planning is of paramount importance. Hence, California provides a natural laboratory for us to study intergenerational transfers of housing wealth.

Our main focus is on the impact of local property taxation on intergenerational transfers paying special attention to long-term estate planning tools such as gifts and trusts. California's property tax system was fundamentally shaped by Proposition 13, which was a constitutional amendment that passed in 1978.[3] It generated several changes in the property tax system in California. The maximum tax rate was set at one percent, not including preexisting indebtedness. The assessed

[1] There is some important theoretical work on the bequest. Notable papers are Bernheim, Shleifer, and Summers (1985) who model strategic bequest. The basic premise of this model is that parents use the bequests as incentives to influence the behavior of their children. Piketty and Saez (2013) provide an analysis of optimal inheritance taxation.

[2] Some notable exemptions are Poterba (2001), Bernheim, Lemke, and Scholz (2004), and Joulfaian (2005) investigate whether estate and gift taxes affect the timing of intergenerational transfers in the U.S. Kopczuk (2013) provides a survey of this early literature. More recently, Goupille-Lebret and Infante (2018) and Glogowsky (2021) studies behavioral responses in France and Germany, respectively. These two countries have lifetime exemptions that are much smaller than the U.S.

[3] See, California Code, Revenue and Taxation Code, RTC, DIVISION 1, PROPERTY TAXATION, PART 0.5, IMPLEMENTATION OF ARTICLE XIII A OF THE CALIFORNIA CONSTITUTION, CHAPTER 5.5, Property Tax Rates, Section 93, CA Rev & Tax Code (§93).

value of each property was rolled back to its value in 1975-6. For a property that is not sold during a particular year, the assessed value increases with the market value, but by no more than two percent. When a property is sold, it is reassessed at its full market value. State and local governments were prohibited from imposing any other property taxes, sales taxes, or transaction taxes on real property.[4]

From the perspective of intergenerational transfers the key other policy change was Proposition 58, which passed in 1986.[5] It excluded reassessment of the transfers of real property between parents and children.[6] In a nutshell, parents (and grandparents if the parents are deceased) could transfer houses to children in California without any new fair-market reassessment, regardless of how the children choose to use the real property. Effectively, this proposition allowed children to avail themselves of the same property tax basis that their parents enjoyed. This feature of the property tax system, therefore, created strong incentives to keep the house in the family.[7] As such, since 1986, there have been strong financial incentives to transfer housing wealth within the dynastic family from parents to children in California.

Estate planning offers parents four distinctly different tools to transfer the housing wealth to their children. First, and maybe most obviously, parents can bequest the house when they die. This has the advantage for the parents that they retain control over the asset while they are alive. This is especially important given that parents face uncertainty about the time of death and, therefore, their financial needs in retirement. While parents can purchase annuities to insure themselves against "living too long", an astonishing number of households fail to do that.[8] The main disadvantage of transferring wealth via bequests is that the estate must go through the probate process which is time-consuming and very costly in California. For example, probate costs of a house that has a

[4]Some notable empirical studies on Proposition 13 are O'Sullivan, Sexton, and Shefrin (1995), Wasi and White (2005), and Ferreira (2010) who primarily study the impact of Proposition 13 on arm-length transactions and mobility patterns ignoring the importance of estate planning.

[5]See California Code, Revenue and Taxation Code, RTC DIVISION 1, PROPERTY TAXATION PART 0.5, IMPLEMENTATION OF ARTICLE XIII A OF THE CALIFORNIA CONSTITUTION, CHAPTER 2, Change in Ownership and Purchase Section 63.1. CA Rev & Tax Code (§63.1.)

[6]In 1996, Proposition 193 also excluded transfers of property from grandparents to grandchildren from reassessment, providing that all the parents of the grandchildren were deceased as of the date of transfer.

[7]More recently, Proposition 19 which was passed in November 2020 put some restrictions on the ability to pass along these tax benefits, i.e. it limited the tax benefits to primary residences. Baker and Kim (2024) study behavior responses to the taxation of inherited properties. They find large response to Proposition 19, especially in wealthy areas of San Francisco and Los Angeles.

[8]There is a rich literature on the "annuity puzzle" (see among others Friedman and Warshawsky, 1990; Mitchell et al., 1999; Finkelstein and Poterba, 2004; Poterba, Wenti, and Wise, 2011; Benartzi, Previtero, and Thaler, 2018; Laitner, Silverman, and Stolyarov, 2018). Recent empirical work, based on the 1992–2018 waves of the Health and Retirement survey found that only 3.2% of a sample of 245,572 U.S. households held annuities (see, Pearson, Korankey, and Qing (2023)).

value of $1,000,000 or higher are approximately 1 percent of the value of the house in California. For cheaper houses, the costs can be as high as 4 percent. As a consequence, many households prefer alternative estate planning techniques.

Second, parents can sell the house while still alive and transfer financial wealth to the child later. Selling the house allows the parents to downsize housing consumption and to transfer some or all of the financial gains from the sale. Parents can also benefit from the annual tax exemption for gifts to transfer cash.[9] Everything else equal, for liquidity purposes most children are likely to prefer cash over housing wealth. The main disadvantage of selling the house is that it leads to a reassessment of the house for property taxation purposes. This is particularly important in California which adopted an acquisition value property tax system and where houses have appreciated by large amounts in the past decades. Moreover, selling the house may lead to capital gains tax liabilities that can be avoided if the house is bequeathed to a child that benefits from the step-up basis that adjusts the cost basis of an inherited property to its fair market value.

Third, a parent can transfer a house to a child as a gift while still alive. There are several advantages of gifting the house while alive compared to giving the house as a bequest at death. First, there are estate tax advantages of gifts since it removes the asset from future appreciation and thus reduces the size of the taxable estate. Second, and most importantly, gift transfers avoid the probate process and thus save costs. Third, the parent obtains instantaneous altruistic gratification from the bequest. The main disadvantage of a gift is that the parents lose control over the asset and, hence, cannot use the asset for other purposes later in life, i.e. it locks the parent into the bequest early.

Finally, transferring the house to a trust provides an alternative to giving the house away as a gift. There are two main advantages of using a trust. As in the case of gifts, parents can avoid the costly and time-consuming probate process by using a trust to transfer the house. Second, parents typically retain the right to live in the house until they die. Hence, they retain partial or full control over the asset.[10] A disadvantage of the trust is that it is costly to set it up and maintain. However, the costs associated with a real estate family trust, that only includes the house as an asset and is not managed by a professional trustee, are much less than the probate costs.

The main purpose of this paper is then to study these alternative estate planning tools using

[9] Annual gifts of up to $17,000 do not affect the lifetime limit on gifts and bequests in 2023.

[10] The tax treatment depends on whether parents use a revocable or an irrevocable trust. Setting up an irrevocable trust can also commit the parent to gift the house at death which then has the same tax advantages as a gift.

detailed housing data from California. We use a series of linked administrative data sources to measure intergenerational transfers of properties at the household level. Our analysis primarily uses merged data from two data sources. The first data source is from ATTOM Data Solutions which provides detailed administrative data on tax assessments and ownership recording including transaction records for houses and their property characteristics. We merge the ATTOM data with Data Axle household address records. Data Axle collects information on household address histories from a variety of sources, including real estate transfers, voter registration files, and telephone directories.

Our analysis focuses on the housing markets of San Diego which is the second largest city in California and the seventh largest city in the U.S. It is also a market that has historically experienced significant housing market price appreciation. As a result, there are many properties in our sample whose assessed values are below their market value. We restrict attention to married households that have already purchased a house and have not yet transferred the house to a trust. For this sample, we measure three types of transfers: parent-to-trust transfers, parent-to-child transfers, and arms-length sales. We estimate multinomial logit models that control for a large number of observed socioeconomic characteristics.

For the parent-to-trust transfers, our empirical results find positive and significant coefficients across all income categories, which suggests that higher income levels are strongly associated with a higher likelihood of parent-to-trust transfers. In addition, the coefficients increase steadily with income, implying a stronger relationship for higher-income households. This trend indicates that wealthier parents are more likely to transfer assets into trusts. We also find that age has a nonlinear effect on the likelihood of parent-to-trust transfers. The coefficients by age buckets generally increase with age, peaking in the oldest age group. There is also a positive association between higher-income individuals and the use of arms-length transfers. Properties that are transferred to children as gifts tend to be smaller ("starter") houses. Surprisingly, there is a slight negative relationship between income and gifts, which suggests that very highest-income households prefer to retain control over their assets more than middle- and high-income families.

We also find strong effects of local property taxation. One key regressor is the difference between assessed and market values which captures the tax incentives generated by Proposition 13. We find that large under-assessments encourage parent-to-trust transfers. The coefficients for statutory and effective property taxes are negative, suggesting that higher property taxes discourage parent-to-

trust transfers. Similarly, arms-length transactions are less likely for under-assessed properties, but more likely for properties with high tax rates. All tax coefficients are statistically significant and economically meaningful.

Finally, we simulate the impact of tax reforms on intergenerational transfers over the lifecycle. First, we consider the baseline scenario which reflects the current status quo. We find that for married households trusts are the preferred tools for estate planning. Approximately 40 percent of the houses owned by married couples are transferred to children using trusts. These estimates are broadly consistent with the cross-sectional evidence of ownership statistics. Approximately, 25 percent of houses are sold before the parents die while only 4 percent of all houses are transferred as a gift to children. The remaining houses are transferred via bequest at death.

We consider a second simulation where we reverse Propositions 13 and 58, thus removing all incentives for dynastic transfers of housing. In this simulation, we, replace the acquisition-value tax system with a revenue-neutral, fair-market-value tax system, i.e. we assume that all properties are reassessed when transferred to children. We find that this policy change would significantly increase arms-length transactions over the lifecycle and would reduce the use of parent-trust transfers by approximately 4-5 percentage points. Overall, our results indicate that the current property tax system in California creates a strong lock-in effect. These effects are of similar magnitude to those reported in the literature (Ferreira, Gyourko, and Tracy, 2010). Furthermore, we find that the removal of Proposition 13 and 58 would increase the incidence of gift transfers between parents and their beneficiaries.

The rest of the paper is organized as follows. Section 2 provides additional information about the institutional framework. In particular, we discuss how trusts can be used as tools in estate planning. Section 3 presents our data set. Section 4 provides our empirical findings for how property taxation affects intergenerational transfers of real estate property in San Diego. Section 5 discusses some of the policy implications of our work. Section 6 offers some conclusions.

2 The Role of Trusts and Gifts in Estate Tax Planning

In this section, we briefly discuss the tax and legal implications of different estate planning tools.

2.1 Gifts

Gifts can be categorized as complete or incomplete, a distinction that applies to both individual recipients and trusts. A complete gift occurs when the donor transfers ownership of an asset, removing it from their estate and placing it in the hands of the recipient—whether that's an individual or a trust. Once the asset is transferred, the recipient is responsible for any future investment returns, meaning those returns are no longer taxable to the donor but to the new owner. Additionally, because the asset is no longer part of the donor's estate, any future growth in the asset's value will also be excluded from the donor's estate. This is particularly important if the asset (house) is expected to appreciate in value after the gift has been made.

In contrast, an incomplete gift remains part of the donor's estate, meaning it doesn't reduce the estate size. However, assets transferred as incomplete gifts allow heirs to inherit them with a "step-up in basis." This means that heirs can inherit appreciated assets and sell them immediately without incurring capital gains tax on the appreciation that occurred during the donor's lifetime. While complete gifts are subject to federal gift tax, incomplete gifts are not. The IRS considers a gift to be complete if the grantor has fully relinquished control over the asset and has not retained the power to alter who will benefit from the gift.

Similarly, the IRS distinguishes between current and future gifts. A gift of present interest allows the recipient to immediately use, enjoy, and benefit from the asset, with no conditions attached. These types of gifts are eligible for the annual exclusion from gift taxes. On the other hand, a gift of future interest does not give the recipient immediate access to the asset but only at a future point in time. These gifts are taxable and must be reported to the IRS. In our data, all non-arms-length housing transactions from a parent to a child are treated as complete present-interest gifts.

2.2 Trusts

Trust provide an essential tool in estate planning by offering a flexible framework to manage and transfer wealth efficiently. A trust is a legal arrangement that manages and protects holdings or assets for the benefit of designated individuals. Here, we focus on trusts as estate planning tools to transfer housing wealth between generations. Typically, there are three key parties involved. The settlor or grantor creates the trust and transfers assets to it. In the case of real estate trusts, the settlor is typically a parent who owns a house and wants to pass it on to one or more children.

The trustee acts as guardian of the trust and is responsible for managing and distributing the assets (a house) according to the terms of the trust. Hence, a trust is a fiduciary arrangement that requires the trustee to act solely in the interests of the beneficiary. The trustee can be a professional or, to save costs, a family member. The recipient or beneficiary ultimately receives the benefits of the trust. Trusts provide important advantages over wills, which only become effective posthumously. In contrast, trusts are structured during the settlor's lifetime allowing for a more flexible way of managing the asset. Unlike wills, trusts are confidential. They do not become public upon execution.[11]

One can distinguish between living trusts and testamentary trusts. Living trusts are used to manage and protect assets while the settlor is still alive. In contrast, testamentary trusts are typically formed by a will and are only activated once the settlor passes away. As a consequence, they have to go through the probate process.

From the perspective of control and flexibility, trusts can be revocable or irrevocable. A revocable trust is, by construction, also a living trust and can be altered or terminated by the grantor at any time. This type of trust is often used to avoid probate, ensuring that assets pass directly to beneficiaries without court intervention. Because the settlor retains control over the trust's assets, they remain responsible for any taxes associated with these assets. A revokable living trust requires ongoing management which can be costly. However, if the trust only contains a single house as an asset and if the settlor keeps living in and maintains the house, there are not many actions required by the trustee. In particular, there are few investment or income distribution decisions necessary as long as the settlor is alive.

An irrevocable trust cannot be modified or revoked after it has been created. Once assets are transferred into an irrevocable trust, they are no longer considered part of the settlor's estate for most purposes, i.e. the settler surrenders control of the asset that is placed in the trust. As a consequence, irrevocable trusts provide protection against potential legal claims by the settlor's creditors or family disputes.[12] Irrevocable trusts can also be used as a strategy to reduce estate taxes, especially when the value of the assets appreciates over time, as gains on those assets are not included in the grantor's taxable estate. However, transferring assets to an irrevocable trust may trigger gift taxes. As we show in Appendix C, these tax benefits are only relevant for individuals that

[11] A useful introduction to trusts as estate planning tools is WealthWise Publications (2024). For in-depth treatments of revocable and irrevocable trusts under California statutes (see Stern, 2024; Cohan and Stern, 2024).

[12] Asset protection is particularly useful for individuals in high-risk occupations such as entrepreneurs or physicians.

have accumulated sufficient wealth such that the lifetime estate and gift tax deduction is binding. Most households in our sample do not have estates large enough to be significantly impacted by the lifetime gift and estate tax exemption.

Although our data do not allow us to distinguish between revocable and irrevocable trusts, it is safe to assume that most real estate trusts are living revocable trusts.

2.3 The Probate Process in California

The primary purpose of living trusts is to avoid the probate process, especially in California where probate fees are based on a percentage of the value of your estate (see Dacey, 1965; Nelson, Sass, and Plum, 2021; Howard, 2024). Probate is the court-supervised procedure used to validate a will, administer the estate, and ensure that assets are distributed according to the deceased person's wishes. Unfortunately, probate can be both time-consuming and costly. It involves time-consuming steps such as the validation of the will, the establishment of an estate inventory, the appraisal of assets, and the settlement of debts.[13] Although certain types of wealth, such as assets in retirement plans or life insurance policies, may directly pass to the beneficiary, housing wealth is not exempt and, therefore, is subject to the probate process. By placing a home in a trust, an individual can bypass probate, helping to ensure that beneficiaries receive their inheritance quickly and without delay. Trusts also offer privacy that probate lacks. During probate, wills become public records, revealing an individual's asset details and distribution plans. In contrast, trusts usually remain confidential unless an interested party invokes the court's jurisdiction under California Probate Code §17200.

To gain some insight into the advantages of revocable trusts, it is useful to understand the probate process in California. The executor of a will is the person named in the will to manage and settle the deceased's estate. If no executor is named, the court will appoint one. An attorney is often necessary to navigate the legal process, ensure compliance with state law, and resolve any disputes that may arise. In California, both the executor and the attorney involved in the probate process are entitled to statutory fees, which are set by the Probate Code (§ 10810). These fees are based on the value of the estate, which is typically determined by the executor's inventory, sometimes with the help of court-appointed appraisers. Importantly, the court bases these fees on the gross estate value, not accounting for debts. The statutory fees are as follows:

[13]Howard (2024) notes that probate proceedings in many California counties can take nine months or more.

- 4 % of the first $100,000 of the estate
- 3 % of the next $100,000
- 2 % of the next $800,000
- 1 % of the next $9,000,000
- 0.5 % of the next $15,000,000
- Over $25,000,000, a reasonable amount to be determined by the court.[14]

Note that these fees are typically calculated twice, once for the attorney's fee and once for the executor's fee. For example, if an estate is valued at $1,000,000, the total fees would be $46,000 (2 x $23,000). Given these significant costs, even estates worth much less than the current lifetime estate tax exclusion limit of $13.92 million can benefit from creating a trust to avoid probate. This is one reason why so many homes in California are held in trust, as reflected in our data.

2.4 Inheriting a House in a Trust in California

Inheriting a house through a trust in California can be a complex process, though it is often more cost-effective than going through probate.[15] Ownership of the property remains with the trust until it is distributed to the beneficiaries, even in cases where family members contest the trust. If the settlor was also the trustee, a successor trustee steps in after their death by formally accepting the role with an "acceptance of trusteeship" document. Unlike probate, California does not set a fixed formula for trustee compensation, but it does require that fees be "reasonable."[16] Trustee fees are typically negotiated. In simple cases where only a house is involved, family members often charge minimal or no fees. If fees are charged, they generally range from $2,000 to $5,000. These fees may be lower if the house is simply transferred to the beneficiary, but if the house needs to be sold, the fees can be higher. For professional trust setup, fees usually range from $1,000 to $3,500 for basic trusts involving one property. Do-it-yourself options are considerably cheaper, but more complicated

[14] CA Probate Code §10800 (2024)

[15] Horton (2015) finds in a small sample of 668 individuals who died in Alameda County, California in 2007 that the total legal and fiduciary probate fees were $13,410, or 3% of the median estate value of $451,000. However, the sample was very unlikely to be representative given that the decendent-to-probate ratio was only 7% of 7,931 recorded deaths in Alameda County in 2007.

[16] CA Probate Code §10800 (2024)

trusts that include financial assets typically incur trustee fees of around 1% of the trust's gross value for family members, or 1-2% per year for professionals.

Once the settlor passes, the trustee has 60 days to notify the beneficiaries. The beneficiaries then have 120 days to request a full copy of the trust, review its contents, and express any concerns or contest it if necessary. The trustee is responsible for property tax assessments, filing federal taxes within the required time-frames, and determining the property's value within 9 months of the settlor's death. They also manage any outstanding debts and liens. Finally, in accordance with the trust's instructions, the trustee distributes the remaining assets and the house to the beneficiaries. On average, trusts are closed within a year of the settlor's death, allowing beneficiaries to claim their inherited property.

There are no estate taxes in California, but capital gains taxes may apply to the inherited property. California allows for a "stepped-up basis," meaning the house is valued at its market price at the time of the settlor's death.[17] This reduces the capital gains taxes, which are only based on the appreciation of the house that occurs after the death of the grantor. In California, capital gains taxes range from 1% to 13.3%. Additionally, California follows federal guidelines that allow a $250,000 exclusion for single individuals and a $500,000 exclusion for married couples on the sale of an inherited home. As noted, federal estate taxes are only applicable if the estate's value exceeds $13.92 million in 2024.

2.5 Tax Implications of Selling a House in a Trust

The tax implications of selling a house largely depend on how the trust is structured and whether the proceeds are considered recognized income for the beneficiaries. A primary concern in home sales is capital gains tax. For revocable trusts, the grantor is responsible for taxes, since the property remains under their control until it is transferred to the beneficiary. In contrast, many irrevocable trusts must distribute all income generated annually, making that income taxable for the beneficiaries. However, capital gains from an irrevocable trust are often treated as additions to the principal rather than income. In such cases, the trust itself is responsible for paying capital gains taxes.

When selling a home through a trust, the situation differs because a trust is a legal entity, not an

[17] The death of an owner of real property is a change in ownership on the date of death, California Code Regs §462.260(c)....On the settlor's death, either (1) the trust terminates, and the property is transferred to the remainder beneficiary, or (2) the trust continues, but becomes irrevocable.(see Bruton et al., 2024).

individual. However, there is a significant capital gains tax break if the property sold is a primary residence. Individuals can exclude up to $250,000 of capital gains from taxation when selling their primary home. This exemption also applies if a trust sells a property that was used as the primary residence by either the grantor or the beneficiary.[18]

3 Data

3.1 Data Sources, Sample Restrictions, and Descriptive Statistics

We use a series of linked administrative data sources to measure intergenerational transfers of properties at the household level. This section describes our data sources and procedures for identifying intergenerational transfer variables. Our empirical analysis uses merged data from two data sources. The first source is the ATTOM transaction records and property characteristics. We use an ATTOM panel of residential properties containing records from local governments' assessor and recorder offices. The ATTOM assessor's data includes the annual taxable value of properties and the recorder's data includes both real estate sales and loans secured by the real estate. The data also contain property characteristics such as year built, lot size, floor size, number of bedrooms, and bathrooms. In addition, the recorder data also reports property sales-transaction prices and their dates.

We merge the ATTOM data with Data Axle household address records. Data Axle collects information on household address histories from a variety of sources, including real estate transfers, voter registration files, and telephone directories. These data are typically used for business marketing purposes and are comprised of an annual panel of households from 2006 to 2020. Each record provides a household's property address, names of household members, age of head of household, and household income.

Our analysis focuses on owners of single-family residential properties in San Diego County. We use a number of filters to construct the sample. First, we filter for single-family residential properties. Second, we create the indicator for holding entities based on owner names in the ATTOM assessor data, and filter for properties held by trust and individuals. After merging the ATTOM and Data Axle data, we focus only on households whose property was held outside a trust in the first period of our sample, which is 2007. Third, we restrict the sample to owner-occupied properties. Fourth,

[18] https://opelon.com/california-revocable-living-trust/#:~:text=A%20California%20revocable%20living%20trust,residents%20because%20of%20its%20flexibility

residents of owner-occupied properties are in most cases homeowners, but there are also cases where multiple households reside in a property. We filter for homeowners by comparing the names of residents and owner names. Fifth, we filter for properties that only have one transaction for a given year. Finally, we focus on households who have ever been married or live in co-tenancy.[19] Ideally, we would restrict attention to parents with children (i.e. dynastic families), however, data limitation do not allow us to do so.[20] We use the CPI to convert all nominal variables into constant dollar values. Our baseline year is 2006. Table 1 provides descriptive statistics of our sample.

Table 1: Summary Statistics of Sample of Married Home Owners

	mean	std dev
year	2013.648	4.008
income ($ thousands)	103.382	75.668
age bucket	50.146	12.644
assessor value ($)	34,2541	238,138
price index (real)	0.975	0.333
housing services ($)	505,661	134,411
fair market value (FMV) ($)	484,411	249,120
Δ= FMV - assessor value ($)	141,870	174,945
relative delta (Δ/FMV)	0.288	0.294
property taxes ($)	4,052	2,814
statutory tax rate	0.012	0.002
effective tax rate	0.008	0.004

Our sample size ($N \times T$) is 2,361,321. The fair market value is imputed using a hedonic regression based on a sample of housing transactions, i.e. we impute fair market values for houses that have not transacted in a while. We observe the statutory tax rate and the assessed value. Δ measures the difference between the fair market value (FMV) and the assessed value, and thus captures in absolute terms how much the house is under-assessed. The relative Δ normalizes this difference by the FMV.

To conduct the empirical analysis we also need to measure housing prices for the San Diego metropolitan area. Here we adopt the technique proposed in Sieg et al. (2002) which decomposes the value of a house into a price index and a housing services variable.[21] Table 1 also reports some descriptive statistics for our housing price estimates.[22]

[19] According to a Pew Research Report in 2015, only about 15% of women ages 40-44 are childless. Census data show that about 60% of husband-wife households have their own children under 18 years in California in 2018.

[20] The child indicator in Data Axle only identifies children under the age of 18.

[21] Details for the construction of the house prices and housing services means are discussed in Appendix A.

[22] Note that the mean and standard deviation of the price index differ slightly from those reported in the Appendix, where the average is 1.07 and the standard deviation is 0.46. This discrepancy arises because the price index in the

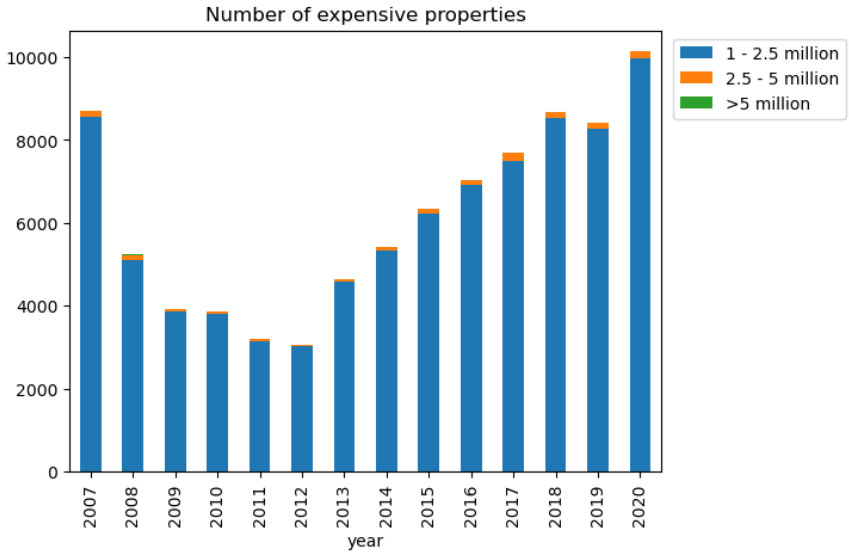


Figure 1: Number of Properties with Values over 1, 2.5, and 5 million

Figure 1 provides information about the number of million-dollar properties we have in the sample. In particular, we report the number of properties with values over $1 million, $2.5 million, $5 million at each point of time in our sample. We find that there are only a small number of properties in our sample with values over $5 million. Hence, strategic estate planning due to the lifetime estate tax limits is only relevant for a small number of observations.

3.2 Measuring Intergenerational Transfers

Next, we construct three types of transfers, (1) parent-to-child transfers (gifts), (2) parent-to-trust transfers, (3) arms-length-transactions.[23] Finally, transfers also occur at death. Appendix B explains in detail how our main outcome variables are constructed.

Figure 2 illustrates the evolution of the stock of properties held by trusts and individuals in the data over time. Note that we find that any point in the sample, more than 50 percent of the houses are held by married households, Approximately 10-15 percent of the houses are owned by single individuals. About 0.05 percent of properties are held by limited liability companies (LLC). The

Appendix is calculated using the entire universe of properties from 2003 to 2020, whereas the sample here is primarily focused on married homeowners and covers the period from 2007 to 2020.

[23] In addition, we also observe a fourth type of transfer which is primarily driven by spousal transfers. In many of these cases, the buyer and seller names often include or reference each other.

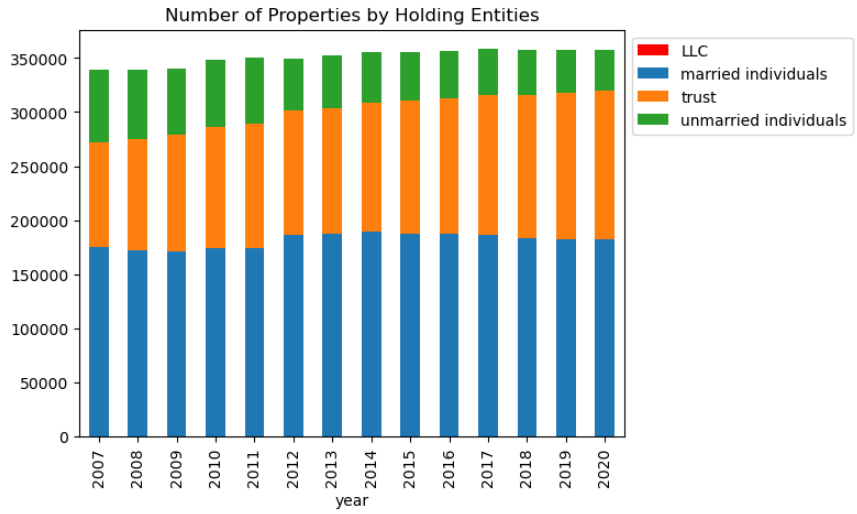


Figure 2: Stock of Properties held by Trusts and Individuals

remaining houses are held in trust. Overall, the fraction of houses held in trust has slightly increased during the sample period. This figure thus illustrates the importance of trusts as estate planning tools.

Restricting attention to the properties held by married households, Figure 3 illustrates the number of transfers as well as arms-length transactions.

Overall, we find that parent-trust transfers are the majority of transfers with arms-length transactions accounting for most of the remaining transactions. Parent-child transfers or gifts account for a small fraction of the transfers. While the data set contains indicators that should capture transfers at death, we find that these transactions are hard to distinguish from non-arms-length transactions. As a consequence, we combine staying, non-arm-length-transactions and transactions at death as the outside option in the models we estimate below.

3.3 Property Taxation

One focus of the analysis is to capture the impact of local property taxation on intergenerational transfers. As we discussed above, we can measure a variety of different tax variables in our data. First, we focus on statutory and effective tax rates. Figure 4 plots the average statutory property tax rate by zip code in San Diego in the upper panel.

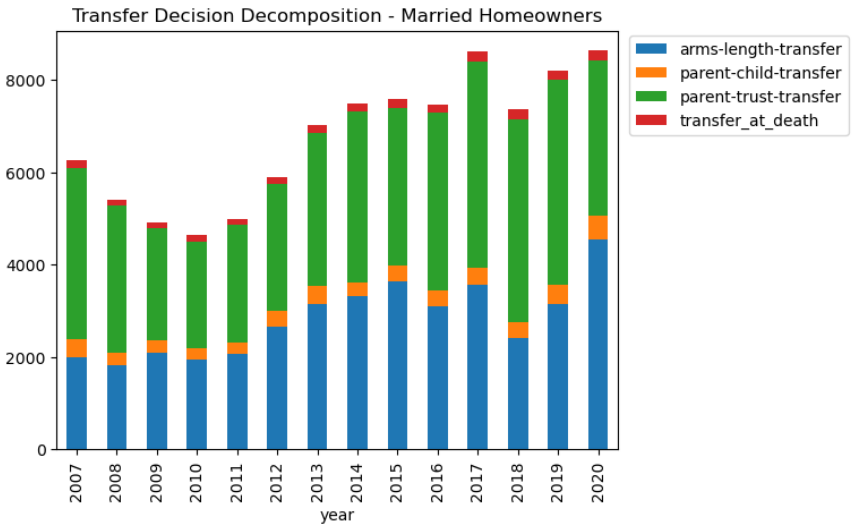


Figure 3: Transfers by Type

Statutory tax rates range between 1 and 1.6 percent. Note that all tax rates are larger than one percent, which is the tax rate mandated by Proposition 13. However, many zip codes have average taxes that exceed the limit set in Proposition 13. This is largely due to the Mello-Roos Community Facilities Act of 1982 which authorized localities to raise additional funds for special purposes. This law, which was named after its sponsors, is a means to allow local governments to bypass the state's 1978 cap on property tax increases. A Mello-Roos is an ad hoc California tax district created to finance a local infrastructure project. Such a district may be created with the approval of two-thirds of voters, and it permits a special tax to be assessed on its residents. As a consequence, there is a surprising amount of cross-sectional heterogeneity in tax rates in San Diego. Zip codes with the highest average tax rates pay 0.5% more than those with the lowest average tax rates. Interestingly, tax rates in the high-residential-value coastal zip codes are relatively moderate. Figure 4 also plots the average effective property tax rate by zip code in San Diego in the lower panel. Overall, we find that effective tax rates are significantly lower and range between 0.7 and 1.3 percent.

To obtain some additional insights into the spatial distribution of differences between fair market and assessed values, we plot the the absolute and relative average differences between the market and the assessed value by zip code in San Diego in Figure 5. The upper panel illustrates the absolute differences while the lower panel focuses on relative differences. As shown in Figure 5, the assessment gap is widest in the coastal areas, where high-value properties are concentrated, and

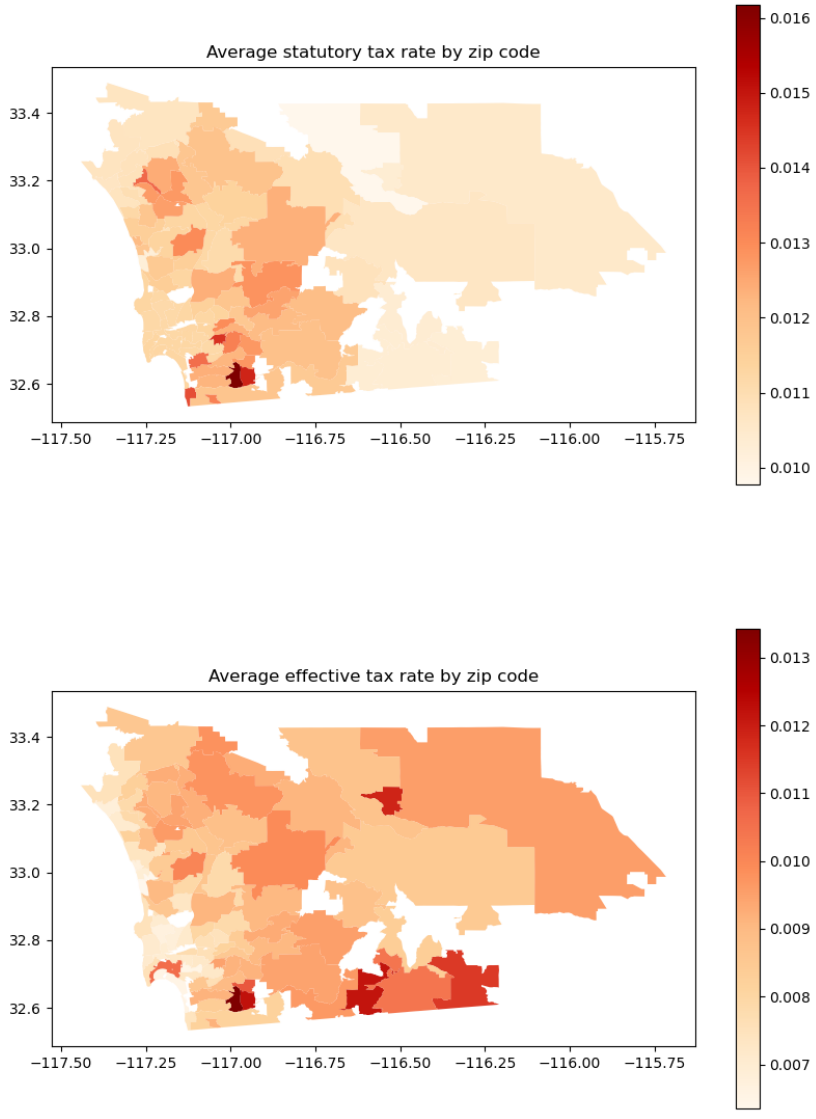


Figure 4: Average statutory and effective tax rates by zip code

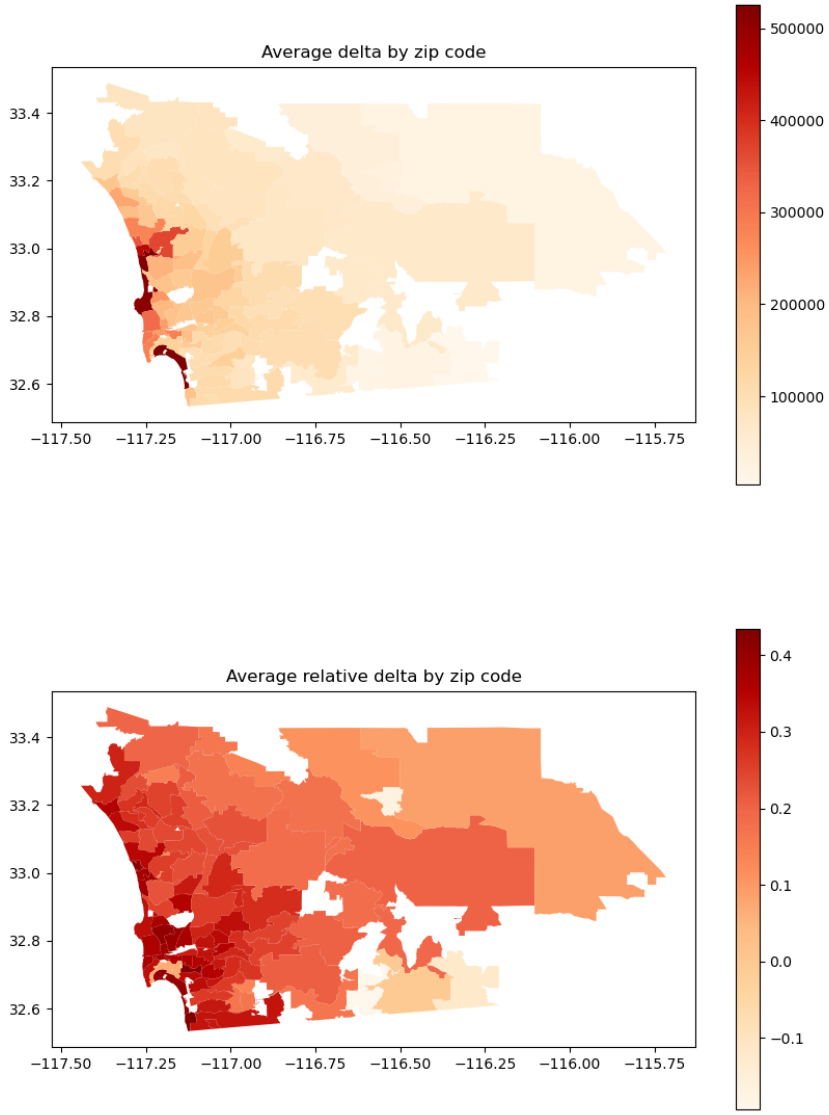


Figure 5: Under-Assessments: average and relative difference between market value and assessment values by zip code

gradually narrows inland, where real estate tends to be more affordable.

4 Empirical Evidence on Intergenerational Transfers

This section analyzes the three types of transfers that we observe in the data: parent-to-trust transfers, parent-to-child transfers, and arms-length transactions. We combine staying, non-arm-length transactions and transactions at death and treat them as the outside option in the models we estimate below.

We estimate multinomial logit models that control for a variety of different socioeconomic characteristics that we observe in the data. These include income (omitting less than $100,000 bucket) and age (omitting 25-30 bucket). We also control for the housing price index and housing services, and thus the fair market value of the house. We also control for a full set of time and zip code level fixed effects.

The most important regressors are the tax variables included as regressors. We experimented with different specifications. There are strong correlations between market values, assessed values and tax payments. Hence, we prefer to estimate models that control for fair market values and relative measures of the tax burden. Here we consider three specifications that capture the essence of the analysis. The first specification in column (1) of the tables below only accounts for the relative difference between the fair market and the assessed value, which is our main variable of interest. This is a relative measure of the under-assessment. We then add the statutory tax rate in column (2) and the effective tax rate in column (3). We report the results separately for each transfer type.

4.1 Parent-to-Trust Transfers

First, we start with parent-to-trust transfers. Table 2 reports the parameter estimates and estimated standard errors.

Table 2: Parent-to-Trust Transfers

	(1)	(2)	(3)
30.age_bucket	0.241***	0.241***	0.242***
	(0.0552)	(0.0552)	(0.0552)
35.age_bucket	0.472***	0.473***	0.473***
	(0.0512)	(0.0512)	(0.0512)
40.age_bucket	0.492***	0.493***	0.493***
	(0.0501)	(0.0501)	(0.0501)
45.age_bucket	0.578***	0.578***	0.578***
	(0.0494)	(0.0494)	(0.0494)
50.age_bucket	0.792***	0.792***	0.792***
	(0.0489)	(0.0489)	(0.0489)
55.age_bucket	1.073***	1.073***	1.073***
	(0.0487)	(0.0487)	(0.0487)
60.age_bucket	1.263***	1.262***	1.262***
	(0.0488)	(0.0488)	(0.0488)
65.age_bucket	1.468***	1.467***	1.467***
	(0.0491)	(0.0491)	(0.0491)
70.age_bucket	1.487***	1.486***	1.486***
	(0.0505)	(0.0505)	(0.0505)
75.age_bucket	1.603***	1.602***	1.601***
	(0.0500)	(0.0500)	(0.0500)
income_200	0.237***	0.238***	0.238***
	(0.0120)	(0.0120)	(0.0120)
income_300	0.312***	0.313***	0.313***
	(0.0217)	(0.0217)	(0.0217)
income_400	0.381***	0.382***	0.381***
	(0.0277)	(0.0277)	(0.0277)
income_500	0.430***	0.431***	0.430***
	(0.0369)	(0.0369)	(0.0369)
ln_housing_services	0.618***	0.621***	0.623***
	(0.0220)	(0.0220)	(0.0221)
ln_price	0.290***	0.288***	0.285***
	(0.0941)	(0.0941)	(0.0941)
relative_delta	0.231***	0.236***	0.122***
	(0.0196)	(0.0198)	(0.0448)
effective_tax_rate			-9.853***
			(3.690)
tax_rate		-6.010***	
		(2.330)	
N	2,361,321	2,361,321	2,361,321
Robust standard errors in parentheses			
Zip code fixed effects and year fixed effects are included			
*** p<0.01, ** p<0.05, * p<0.1			

The results in Table 2 highlight that parent-to-trust transfers are strongly influenced by income

levels, age, property characteristics, and tax savings. We observe positive and significant coefficients across all income categories, which suggests that higher income levels are strongly associated with a higher likelihood of parent-to-trust transfers. In addition, the coefficients increase steadily with income, implying a stronger relationship for higher-income households. This trend indicates that wealthier parents are more likely to transfer assets into trusts. Interestingly, as shown in Table 2, age has a nonlinear effect on the likelihood of parent-to-trust transfers. The coefficients for age buckets generally increase with age, peaking in the 75+ age group. This pattern suggests that older parents are more likely to engage in trust transfers, likely due to estate planning considerations as they approach the end of their life-cycle. For younger age groups (30–40), the coefficients are smaller and only marginally significant. Log price and log housing services are strongly positively associated with parent-to-trust transfers. This suggests that higher-value homes in pricey neighborhoods are more likely to be transferred into trusts.

Recall that Proposition 13 created an acquisition value property tax system. We have seen in the previous section that many properties in our sample are severely under-assessed. Table 2 reports that the estimated coefficients of our relative measure of under-assessment are positive and significant. This confirms our initial hypothesis that large relative differences between assessed and market values, which capture the tax saving benefits of retaining the house in the family, incentivize parent-to-trust transfers. The coefficients for statutory and effective property taxes are negative indicating that higher property taxes discourage parent-to-trust transfers. All tax coefficients are statistically significant. We document below in our simulations that they are economically meaningful.

4.2 Parent-to-Child Transfers and Gifts

Second, we consider the results for parent-to-child transfers or gifts. Table 3 reports the parameter estimates and estimated standard errors.

Table 3: Parent-to-Child Transfers - Gifts

	(1)	(2)	(3)
30.age_bucket	0.487***	0.487***	0.488***
	(0.111)	(0.111)	(0.111)
35.age_bucket	0.442***	0.443***	0.443***
	(0.107)	(0.107)	(0.107)
40.age_bucket	0.456***	0.456***	0.456***
	(0.106)	(0.106)	(0.106)
45.age_bucket	0.446***	0.446***	0.446***
	(0.105)	(0.105)	(0.105)
50.age_bucket	0.344***	0.344***	0.344***
	(0.105)	(0.105)	(0.105)
55.age_bucket	0.310***	0.309***	0.309***
	(0.107)	(0.107)	(0.107)
60.age_bucket	0.280**	0.279**	0.279**
	(0.109)	(0.109)	(0.109)
65.age_bucket	0.369***	0.368***	0.367***
	(0.112)	(0.112)	(0.112)
70.age_bucket	0.275**	0.273**	0.272**
	(0.123)	(0.123)	(0.123)
75.age_bucket	0.455***	0.453***	0.452***
	(0.118)	(0.118)	(0.118)
income_200	-0.302***	-0.301***	-0.301***
	(0.0391)	(0.0391)	(0.0391)
income_300	-0.443***	-0.441***	-0.442***
	(0.0855)	(0.0855)	(0.0855)
income_400	-0.376***	-0.375***	-0.375***
	(0.120)	(0.120)	(0.120)
income_500	-0.381**	-0.379**	-0.381**
	(0.166)	(0.166)	(0.166)
ln_housing_services	-0.192**	-0.184**	-0.182**
	(0.0804)	(0.0807)	(0.0809)
ln_price	1.277***	1.276***	1.274***
	(0.264)	(0.264)	(0.264)
relative_delta	-0.277***	-0.269***	-0.420***
	(0.0592)	(0.0596)	(0.124)
effective_tax_rate			-13.08
			(9.964)
tax_rate		-9.120	
		(6.749)	
N	2,361,321	2,361,321	2,361,321

Robust standard errors in parentheses

Zip code fixed effects and year fixed effects are included

*** p<0.01, ** p<0.05, * p<0.1

The results in Table 3 suggest that lower-income households and those owning higher-valued properties are more likely to engage in parent-to-child gift transfers. The coefficients for younger age groups (e.g., 30 and 35) are consistently positive and significant, indicating that transfers are more likely when parents are relatively young. While the coefficients for older age groups (50 and above) remain positive and significant in models (1) and (2), their magnitudes decrease and lose significance in model (3). This suggests that although older parents still engage in parent-to-child transfers or gifts, the effect weakens when additional controls are introduced. The price index coefficients are significantly positive, while those for housing services are significantly negative, implying that starter homes in desirable neighborhoods are more likely to be transferred to children.

The estimated coefficients of the under-assessment variable are negative and significant. Tax incentives generated by Proposition 13 appear to discourage parent-child transfers, which is somewhat counterintuitive. We would have expected a positive relationship. However, most of the houses that are transferred as gifts tend to be smaller houses that have not been held by the parents for a long time, i.e the transfer occurs when parents are still fairly young. As a consequence, these properties have not been held in the dynastic family long enough for there to be large differences between the assessed and the fair market value. The coefficients of tax rates tend to be insignificant.

4.3 Arms-length Transactions

Finally, we consider the results for arms-length transfers or gifts. Table 4 reports the parameter estimates and estimated standard errors.

As shown in Table 4, income and age significantly influence the likelihood of arms-length transfers through sales. Higher-income households are more likely to engage in these transactions, with the effect being strongest for those earning over $500,000. Age also plays a critical role—households with younger parents (ages 30 and 35) are significantly more likely to transfer properties, while the likelihood decreases for older age groups, becoming insignificant beyond age 50. Property characteristics also matter.

Higher prices are positively associated with arms-length transfers, while greater housing services are negatively associated, suggesting that smaller starter homes in desirable neighborhoods are more likely to be sold.

Table 4: Arms-length Transfers – Sales

	(1)	(2)	(3)
30.age_bucket	0.245***	0.244***	0.244***
	(0.0338)	(0.0338)	(0.0338)
35.age_bucket	0.241***	0.239***	0.238***
	(0.0322)	(0.0322)	(0.0322)
40.age_bucket	0.0993***	0.0971***	0.0966***
	(0.0320)	(0.0320)	(0.0320)
45.age_bucket	-0.0445	-0.0456	-0.0450
	(0.0320)	(0.0320)	(0.0320)
50.age_bucket	-0.0726**	-0.0717**	-0.0693**
	(0.0321)	(0.0321)	(0.0321)
55.age_bucket	-0.0352	-0.0327	-0.0286
	(0.0325)	(0.0325)	(0.0325)
60.age_bucket	0.0167	0.0204	0.0263
	(0.0335)	(0.0335)	(0.0335)
65.age_bucket	0.0451	0.0497	0.0575*
	(0.0349)	(0.0348)	(0.0349)
70.age_bucket	-0.0246	-0.0204	-0.00928
	(0.0399)	(0.0399)	(0.0399)
75.age_bucket	0.0107	0.0150	0.0285
	(0.0390)	(0.0390)	(0.0390)
income_200	0.0679***	0.0635***	0.0626***
	(0.0131)	(0.0131)	(0.0131)
income_300	0.177***	0.170***	0.170***
	(0.0250)	(0.0250)	(0.0250)
income_400	0.131***	0.124***	0.124***
	(0.0341)	(0.0341)	(0.0341)
income_500	0.173***	0.164***	0.172***
	(0.0463)	(0.0463)	(0.0462)
ln_housing_services	-0.0925***	-0.125***	-0.148***
	(0.0262)	(0.0262)	(0.0264)
ln_price	0.842***	0.855***	0.878***
	(0.110)	(0.110)	(0.110)
relative_delta	-0.930***	-0.971***	-0.176***
	(0.0188)	(0.0190)	(0.0366)
effective_tax_rate			69.32***
			(2.828)
tax_rate		37.31***	
		(1.861)	
N	2,361,321	2,361,321	2,361,321
Robust standard errors in parentheses			
Zip code fixed effects and year fixed effects are included			
*** p<0.01, ** p<0.05, * p<0.1			

Tax incentives are important. Our measure of the relative under-assessment is as expected negative. High under-assessments discourage arms-length transactions and thus generate a lock-in effect. However, high statutory and effective tax rates tend to encourage arms-length transactions.

5 Intergenerational Transfers over the Lifecycle

We have seen in the previous section that tax incentives play important roles in intergenerational transfers of housing wealth. In particular, under-assessments of properties together with the ability to transfer these tax advantages to the next generation decrease liquidity in the market and encourage the use of trusts as estate planning tools. In this section of the paper, we study intergenerational transfers over a household's lifecycle. To conduct forward simulations of our model, we take the records for the first-year a household enters our data and perform a forward simulation with the following assumptions:

- We observe the initial conditions of a household in the beginning of the sample in 2007.
- The household's maximum life expectancy is 90 years.
- We apply a mortality schedule calibrated to the mortality data published by National Center for Health Statistics (NCHS) in 2019.[24]
- There is no housing service growth over time, i.e. we assumed that houses are maintained to retain their value and off-set depreciations. We do not account for significant renovations or additions.
- The real price index grows at a constant rate 1.5% per year.
- The real assessor value grows at a constant rate of 1.5% per year.
- The real income growth profile over age is estimated using the Data Axle data.

We then forward simulate our model using the specification reported in Column (3) of Tables 2, 3, and 4 controlling for effective tax rates and relative differences between fair-market and assessed values. We, therefore, treat the models estimated in the previous section as linear approximations of optimal decisions rules that were generated by a dynamic optimal estate planning model.[25]

[24] https://www.cdc.gov/nchs/data/databriefs/db395-H.pdf

[25] A detailed description of such a model is available upon request from the authors.

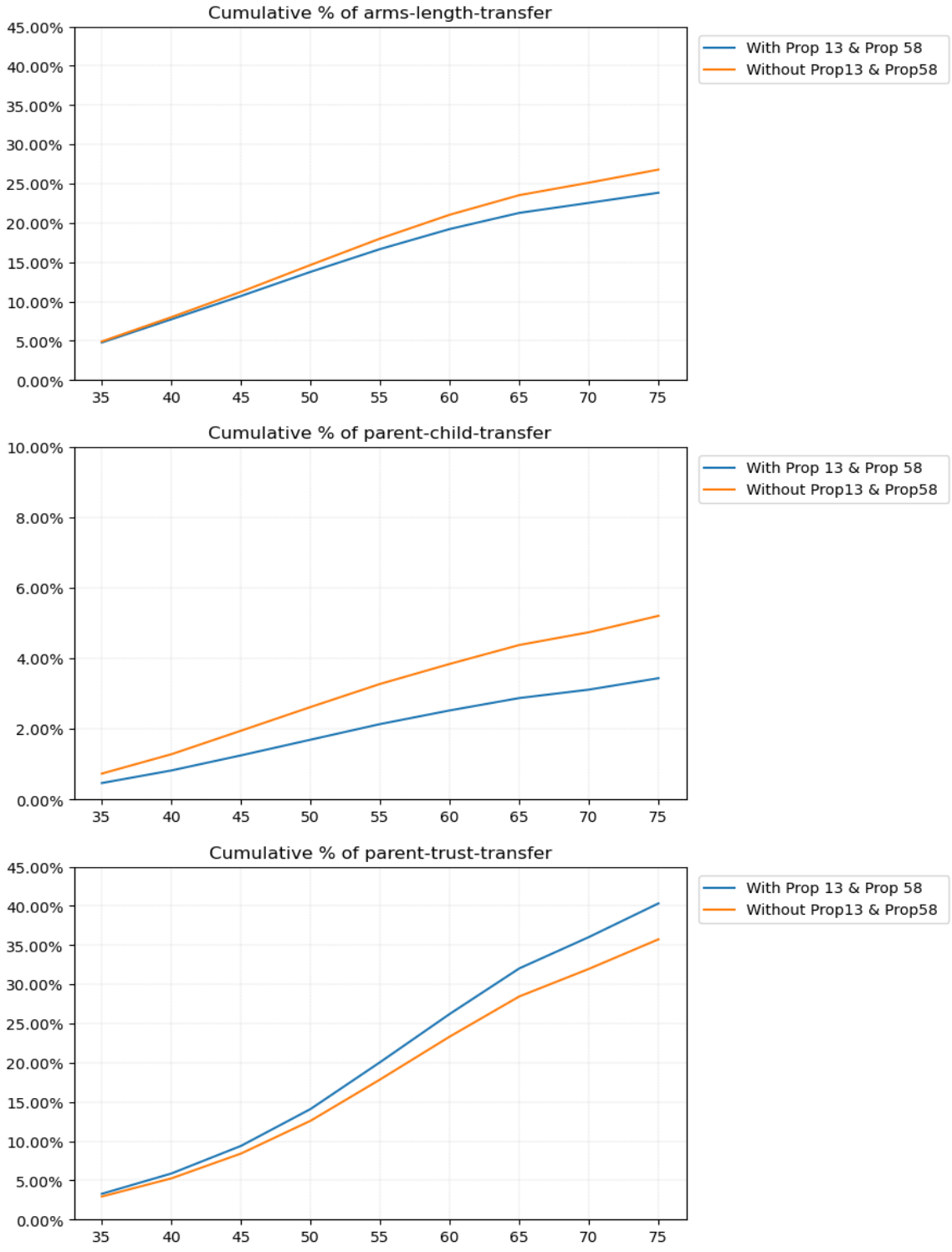


Figure 6: Cumulative Lifetime Transfers with and without Propositions 13 & 58

Since we examine the impact of replacing the acquisition-value tax system with a revenue-neutral fair-market-value tax system, we use specification (3) for clarity and to ensure that tax payments and the difference between fair market and assessed value are consistently standardized relative to fair market value. Given that the new system is based on the fair market value, this specification also improves the economic interpretation of the key findings.

The resulting distribution of transfers over the life cycle in our baseline case that captures the incentives from Propositions 13 and 58 are illustrated by the blue lines in Figure 6. The upper panel illustrates the evolution of arms-length transfers. The middle panel shows lifetime parent-to-child transfers or gifts, while the lower panel focuses on parent-to-trust transfers.

We find that married households use trusts as the preferred tool for transferring housing wealth to their children. Approximately 40 percent of the houses owned by married couples are transferred to children using trusts. These estimates are broadly consistent with the cross-sectional evidence of ownership statistics. Approximately, 25 percent of houses are sold before the parents die while only 4 percent of all houses are transferred as a gift to children. The remaining houses are transferred via bequest at death.

We then consider the case of removing Propositions 13 and 58. This policy change replaces the current acquisition-value tax system with a revenue-neutral, fair-market-value tax system, thus eliminating all incentives for dynastic transfers of housing. For this forward simulation, we assume that all properties are reassessed to the fair market value when transferred from parents to children.[26] Specifically, we set delta to zero, and derive the new tax rates for each year as:

$$\text{new tax rate} \quad = \quad \text{old tax rate} \ * \ \frac{\frac{1}{N}\sum_{i=1}^{N} \text{assessed value}}{\frac{1}{N}\sum_{i=1}^{N} \text{FMV}}$$

The resulting distribution of transactions over the lifecycle are illustrated by the orange lines in Figure 6.

We find that such a policy change would significantly increase arms-length transactions over the life-cycle in San Diego. This increases would be primarily offset by a reduction in parent-trust transfers by approximately four to five percentage points. These results strongly suggest that the current tax system under Propositions 13 and 58 is inefficient and creates a significant lock-in effect.

[26] A simplifying assumption here is that the decision rules do significantly change after Propositions 13 and 58 have been abolished. We would need to specify a full dynamic model and recompute the optimal decision rules after the policy change to relax this assumption.

Overall, our estimates are of similar magnitude than those reported in the literature summarized by Ferreira, Gyourko, and Tracy (2010). In addition, the simulation results suggest significant positive effects of removing Propositions 13 and 58 on the incidence of gift transfers from parents to beneficiaries.

6 Conclusions

We have studied intergenerational transfers of housing wealth using new data from the housing markets of San Diego. We have shown that estate planning tools such as gifts and trusts plays a large role in these markets. Almost half of the transactions that we observe in our sample are driven by estate planning concerns. The remaining transfers are arms-length transactions and bequests. We have discussed how estate planning is shaped by a variety of local, state, and federal taxes and fees.

The main hypothesis that we have tested in this paper is that Propositions 13 and 58 provided strong incentives to transfer housing wealth in the family. Proposition 13 created an acquisition-value tax system that led to large under-assessments in property values. As a consequence, effective tax rates were much lower than statutory tax rates. Proposition 58 implied that these tax advantages could be passed from parents to children. Since housing markets in San Diego have boomed since the end of the Great Recession, there are many under-assessed properties in our sample.

We have shown that these property tax rules significantly impact arms-length transactions and parent-to-trust transfers. In particular, arms-length transactions are less likely and patent-to-trust transfers are more likely to occur as the relative under-assessment of properties increases. These findings confirm our initial hypothesis that Propositions 13 and 58 provided strong incentives to transfer housing wealth within the family in California.

Our forward simulations of the model show that these tax rules have likely caused serious inefficiencies in the housing markets by creating a significant lock-in effect. Our simulations indicate that arms-length transactions would increase by up to 5 percentage points if Propositions 13 and 58 were removed and replaced by a revenue-neutral market-value property tax system.

Voters in California have recently taken some steps to address this problem by passing Proposition 19 in November 2020. This tax policy change tax policy required children to use an inherited property

as primary residence. Otherwise they lost the property tax benefits associated with Proposition 58. Moreover, Proposition 19 provided a mechanism to increase the assessed value for severely under-assessed properties even if they were used as primary residences by the children. Despite these changes, much of the incentives to retain the property within the dynastic family were retained for primary residences. However, the incentives were severely weakened for secondary residence or rental properties.[27] Our research suggests that exploiting these and other policy changes may help us understand how tax policies affect the estate planning of parents and the intergenerational transfer of wealth.

[27]Note that these updated rules did not apply to rental properties held in LLCs.

References

Baker, Scott and Kyungmin Kim. 2024. "Behavioral Responses to Taxation of Inherited Property." Tech. rep., Working Paper.

Benartzi, S., A. Previtero, and R. H. Thaler. 2018. "Annuitization puzzles." *Journal of Economic Perspectives* (4):143–164.

Bernheim, B. Douglas, Russell J. Lemke, and John Karl Scholz. 2004. "Do Estate and Gift Taxes Affect the Timing of Private Transfers?" *Journal of Public Economics* 88 (12):2617–2634.

Bernheim, B. Douglas, Andrei Shleifer, and Lawrence H. Summers. 1985. "The Strategic Bequest Motive." *Journal of Political Economy* 93 (6):1045–1076.

Bohn, Sarah and Jenny Duan. 2025. "California's Economy." Tech. rep., Public Policy Institute of California.

Bruton, Frayda L., Theodore E. Calleton, Monica Dell'Osso, Beth L. Kramer, Kim Marois, and Lisa K. Y. Nakahara. 2024. "Tax Considerations." In *Drafting California revocable trusts*, Marc M. Stern, series editor. Oakland, California: Continuiing Education of the Bar - California, 4.1–4.248.

Cohan, John R. and Marc M. Stern. 2024. *Drafting California Irrevocable Trusts*. Oakland, California: Continuing Education of the Bar - California, fourth ed.

Dacey, Norman F. 1965. *How to avoid probate*, vol. 1. New York: Crown.

Ferreira, Fernando. 2010. "You can take it with you: Proposition 13 tax benefits, residential mobility, and willingness to pay for housing amenities." *Journal of Public Economics* :661–673.

Ferreira, Fernando, Joseph Gyourko, and Joseph Tracy. 2010. "Housing busts and household mobility." *Journal of Urban Economics* :34–45.

Finkelstein, A. and J. Poterba. 2004. "Adverse selection in insurance markets: policy holder evidence frm the U.K. Annuity Market." *Journal of Political Economy* (1):183–208.

Friedman, Benjamin M. and Mark J. Warshawsky. 1990. "The cost of annuities: implications for saving behavior and bequests." *Quarterly Journal of Economics* (1):135–154.

Glogowsky, Ulrich. 2021. "Behavioral Responses to Inheritance and Gift Taxation: Evidence from Germany." *Journal of Public Economics* 193.

Goupille-Lebret, Jonathan and Jorge Infante. 2018. "Behavioral Responses to Inheritance Tax: Evidence from Notches in France." *Journal of Public Economics* 168:21–34.

Horton, David. 2015. "In Partial Defense of Probate: Evidence from Alameda County, California." *Georgetown Law Journal* 103 (3):605–664.

Howard, Nancy. 2024. "Role of revocable trusts in California estate planning." In *Drafting California revocable trusts*, Marc M. Stern, series editor. Oakland, California: Continuiing Education of the Bar - California, 1.1–1.42.

Joulfaian, David. 2005. "Choosing Between Gifts and Bequests: How Taxes Affect the Timing of Wealth Transfers." *Journal of Public Economics* 89 (11-12):2069–2091.

Kopczuk, Wojciech. 2013. "Taxation of Intergenerational Transfers and Wealth." In *Handbook of Public Economics*, vol. 5. Elsevier, 329–390.

Laitner, J., D. Silverman, and D. Stolyarov. 2018. "The role of annuitized wealth in post-retirement behavior." *American Economic Journal: Macroeconomics* (3):71–117.

Mitchell, Olivia S., James M Poterba, Mark J. Warshawsky, and Jeffrey R. Brown. 1999. "New evidence on the money's worth of individual annuities." *American Economic Review* (5):1299–1318.

Nelson, Brent W., Rachel M. Sass, and Deborah Plum. 2021. "Revocable Ttusts for changing times." *Probabe and Property* 35 (1):40–45.

O'Sullivan, Arthur, Terri Sexton, and Steven Shefrin. 1995. "Property Taxes, Mobility, and Home Ownership." *Journal of Urban Economics* 37:107–129.

Pearson, B., T. Korankey, and D. Qing. 2023. "Subjective health status and annuity participation." *Consumer Interests Annual* :1–7.

Piketty, Thomas and Emmanuel Saez. 2013. "A Theory of Optimal Inheritance Taxation." *Econometrica* 81 (5):1851–1886.

Poterba, J., S. F. Wenti, and D. A. Wise. 2011. "The composition and drawdown of wealth in retirement taxes and property." *American Economic Review* (5):95–118.

Poterba, James. 2001. "Estate and Gift Taxes and Incentives for Inter Vivos Giving in the US." *Journal of Public Economics* 79 (1):237–264.

Sieg, Holger, V. Kerry Smith, H. Spencer Banzhaf, and Randy Walsh. 2002. "Interjurisdictional Housing Prices in Locational Equilibrium." *Journal of Urban Economics* 52 (1):131–153.

Stern, Marc M. 2024. *Drafting California Revocable Trusts*. Oakland, California: Continuing Education of the Bar - California, fourth ed.

Wasi, Nada and Michelle J. White. 2005. "Property Taxation and Mobility: The Lock-in Effect of California's Proposition 13." Working Paper 11108, National Bureau of Economic Research. URL `https://www.nber.org/papers/w11108`.

A The Construction of Housing Price Indices

Consider an economy that consists of J local housing markets that we observe for T periods. Following Sieg et al. (2002), we adopt the following hedonic specification to decompose the value of a house, denoted by v_{jntj} into a neighborhood price index, denoted p_{jt} and an index of housing services. In particular assume the following specification:

$$\ln(v_{ntj}) \quad = \quad \sum_{j=1}^{J} \ln(p_{jt})\, d_{ntj} \; + \beta_1 \; z_{1ntj} + \; ... \; + \beta_K \; z_{Kntj} \; + \; u_{ntj} \tag{1}$$

where d_{ntj} is a binary variable which takes value of 1 if n the house is located in market j at time t and zero otherwise; z_{kntj} are observable housing characteristics. the local price index p_{jt} is thus identified as a location-time-specific dummy variable in the hedonic regression. Note that the above specification assumes the following production for housing services:

$$h_{ntj} = exp(\beta_0 + \beta_1 z_{1ntj} + ...\beta_K z_{Kntj} + u_{ntj}) \tag{2}$$

Under the log-normal assumption, we have the expected housing services of a unit are given by:

$$E[h_{ntj}|z_{nt}] = exp(\beta_0 + \beta_1 z_{1ntj} + ...\beta_K z_{Kntj} + \frac{1}{2}\sigma_u^2) \tag{3}$$

In our application we treat the zip code as the local housing market. We, therefore, regress the logarithm of the value of the house on the full set of zip code - year dummies and housing characteristics, which include the size of the house measured in square feet, the number of bedrooms, the number of bathrooms, and the property age. The model is estimated using transaction data for sales of single family residential homes from 2003 to 2020. We construct the data by merging the ATTOM transaction records with ATTOM assessor panel data to obtain housing characteristics and then add the following filters:

- arms length transactions
- owner occupied properties
- transaction price is greater than 10,000.

After cleaning the data and removing outliers, we obtained a sample of 183,472 transaction records

from 2003 to 2020 that we use for the price index regressions. Note that our sample covers a slightly longer period and thus allows to test whether our model provides reasonable estimates for the period before the Great Recession. Descriptive statistics for our sample are reported in Table 5

Table 5: Summary Statistics of house price index regressions

	mean	std
house square footage	1,909	829
number of bedrooms	3.38	0.84
number of bathrooms	2.31	0.78
property age	36.35	19.88
house value (real) ($)	539,766	361,614

Table 6 reports the estimates from a log-log hedonic regression.

Table 6: Regression Coefficients

	ln-ln
log_sqft	-1.5170***
log_bed	-0.0545***
log_bath	0.0646***
log_age	0.1379***
log_age_squared	0.0009
log_sqft_squared	0.1455***
log_age_sqft	-0.0212***
R-squared	0.8440
No. observations	183,472

Overall, we find that the fit of the model measured by the R^2 is remarkably good. The coefficients associated with the characteristics have the expected signs and are statistically significant. The mean estimated housing price is 1.07 with a standard deviation of 0.46.

B Measurement of Intergenerational Transfers

We are interested in the following types of transfers in this study:

- **parent-child transfer**: a transfer from a parent to a child when both the parent and the child are still alive, i.e. a gift from a parent to a child; We apply the following criteria:
  - arms-length transaction flag is off

- deed type is not "AD", i.e. affidavit of death
- both buyer and seller are individuals
- buyer and seller are not the same person. We aim to exclude the following cases with this restriction:
  - buyer and seller are the same; for example, both buyer and seller names are "John Doe"
  - buyer and seller names contain each other; for example, buyer names are "John Doe & Jane Doe"; seller names are "Jane Doe" or vice versa.
  - buyer and seller names are sufficiently similar; for example, buyer name is "Christopher Doe", and seller name is "Chris Doe". Essentially, we computed the text distance between buyer and seller names, and exclude transactions where the text distance score is higher than 0.95.
- if the first name of buyer predicts male, then we need the buyer and seller to share the same last name. In cases where there are multiple buyers and sellers, as long as the buyer (seller) share the same last name as one of the seller (buyer), we count it as the buyer and seller share the same last name. This includes the following scenarios:
  - buyers are Jane Wayne and John Doe; and the sellers are John Wayne and Janice Hamilton
  - buyers are Jane Wayne and John Doe; and the sellers are John Wayne and Jane Doe
- if the first name of the buyer predicts female, then we don't need the buyer and seller to share the same last name.
- Note that we exclude some of the spousal transfers with the restriction that buyer and seller names do not contain each other. For example, if Jane and John co-own a property during their marriage, Jane gets the property when they are divorced, then seller should say "Jane Doe & John Doe", and the buyer should say "Jane Doe". However, if John is giving Jane a property that he owns by himself, then the seller would say "John Doe", and buyer would say "Jane Doe", our algorithm won't be able to exclude such transfers.

- **parent-trust transfer**: a transfer from a parent to a trust when both the parent and the child are still alive, i.e. setting up a trust when both the parent and child are alive;
  - arms-length transaction flag is off

- deed type is not "AD", i.e. affidavit of death
- sellers are individuals; buyers are trust
- the seller last names are contained in the trust names. In cases where sellers are multiple people, if any of them have last names contained in the trust, we think they meet our criteria.

- **arms-length transfer**: a transaction between two independent parties who are acting in their own self-interest, and where the transaction matches the fair market value. We use the flag for arms-length transfer in the ATTOM recorder data to achieve this goal.

C Lifetime Estate Tax and Gift Tax Exclusions

The vast majority of households in our sample are not likely to face face estate or gift taxes. However, a unified lifetime estate and gift tax exclusion is applicable to very wealthy households. As of 2024, the lifetime exclusion limit for an individual is $13.92 million. Any gifts or estates exceeding this limit are subject to a 40% estate tax. Additionally, there is an annual gift tax exemption, set at $17,000 per recipient in 2024. Gifts exceeding this annual threshold reduce the lifetime exclusion limit for estate and gift taxes. Once the lifetime limit is fully utilized, any subsequent gifts exceeding the annual exemption amount will incur gift taxes.

Table 7 illustrates the changes in the lifetime exclusion limits and marginal tax rates since 2006. It is important to note that the exemption applies to individuals, while married couples benefit from a combined exemption amount that is double the individual limit.

Note that our sample starts in 2006 when the lifetime limit was only $2,000,000. By 2010, it had increased to $5,000,000. Historically lifetime exemptions were much lower than they are now. The Tax Cuts and Jobs Act of 2017 doubled the basic exclusion amount and adjusted for inflation.

Table 7: Estate Tax Rates and Exemptions

2006	46 % of excess over $2,000,000
2007	45 % of excess over $2,000,000
2008	45 % of excess over $2,000,000
2009	45 % of excess over $3.500,000
2010	35 % of excess over $5,000,000
2011	35 % of excess over $5,000,000
2012	35 % of excess over $5,120,000
2013	40 % of excess over $5,250,000
2014	40 % of excess over $5,340,000
2015	40 % of excess over $5,430,000
2016	40 % of excess over $5,450,000
2017	40 % of excess over $5,490,000
2018	40 % of excess over $11,180,000
2019	40 % of excess over $11,400,000
2020	40 % of excess over $11,580,000
2021	40 % of excess over $11,700,000
2021	40 % of excess over $12,060,000
2022	40 % of excess over $12,900,000
2023	40 % of excess over $13,600,000
2024	40 % of excess over $13,920,000

Source: Tax Policy Center, Wolters Kluwer