Estate and Gift Tax Incentives and Inter Vivos Giving

Abstract - *The estate tax has received a great deal of attention from policy makers and the public in recent years. Yet we know little about its effect on the transfer of wealth. In this paper we explore the effect of the tax on inter vivos giving. In particular, we look at the degree to which wealthy individuals exploit the potential for tax–free transfers as a means of spending–down their estates, and examine the responsiveness of inter vivos transfers over time to changes in the tax law. To address these questions we employ two data sets, each with important strengths and weaknesses. Using panel data from the Health and Retirement Study (HRS) we find that many of the wealthy fail to take advantage of the gift tax annual exemption to make tax–free transfers in any given year. Even those who do make a transfer in one year, often do not repeat the transfer annually and transfer far less than the tax law would allow. We then use data from linked gift and estate tax returns to examine giving over a much longer period. We find in the aggregate that there are sizable shifts in the timing of giving in response to tax changes, but again, the wealthy appear to transfer very little during their lifetimes. Overall, we conclude that while taxes are an important consideration in transfer behavior of the rich, their behavior is not universally consistent with a tax minimization strategy.*

David Joulfaian

U.S. Department of the Treasury, Washington, D.C. 20220

and

George Washington University, Washington, D.C. 20052

Kathleen McGarry

Department of Economics, University of California, Los Angeles, CA 90095

and

NBER, Cambridge, MA 02138

INTRODUCTION

Policy makers and the American public have strongly supported elimination of the estate and gift taxes, or "death taxes" as they have been termed by some. A recent CBS News/ New York Times poll found that 71 percent of Americans favored eliminating the tax[1] and accountants, tax attorneys, and financial planners appear to be successful in marketing their services to individuals desiring to reduce or avoid the tax. However, despite public sentiment and purported schemes for tax avoidance, little is known about the distortionary effects of these taxes on economic behavior.[2] To

---

[1] (http://www.cbsnews.com/stories/2001/03/14/politics/main278884. shtml) Similar polls also show that there is limited understanding of the true burden in of the tax. In one survey conducted by the University of Alabama, Montgomery, respondents were asked what fraction of decedents paid any estate tax. The mean response was 43 percent (Lantz et al., 2003). In reality, in most years only two percent of estates are subject to tax (US Congress, 2001).

[2] See Holtz–Eakin and Marples (2001) and Kopczuk and Slemrod (2001), for instance.

the extent that we prefer taxes which induce minimal distortions, more evidence along this line is needed.

If the objective is to reduce or avoid eventual estate taxes, as the development of a sophisticated estate planning industry would suggest, then one of the simplest and effective methods of reducing the tax burden is to alter the timing of giving. Under current law, individuals are permitted to make gifts of $11,000 per recipient, per year, free from any gift or estate taxes. This allowance permits a substantial sum to be transferred to heirs free of tax. While yearly amounts may be small, consistent use of this annual exemption can lead to the tax–free transfer of large amounts of wealth. There have also been changes in tax rates over time and changes in the relative prices of inter vivos gifts and bequests, both of which provide strong incentives for changes in the timing of *taxable* giving.

In this paper we examine the pattern of inter vivos giving, focusing on the role estate and gift taxes play in influencing behavior over time. Using two complementary data sources we examine the responsiveness of both tax–free and taxable giving to the tax law. We first look at panel data on older individuals to assess the extent to which the wealthy are taking advantage of the possibility of tax–free transfers in both cross–section and over time. We then turn to administrative data from estate and gift tax returns to examine the timing of taxable gifts over a 60 year period. This investigation provides some of the first evidence of the variation in gift giving over time. We find that taxes are indeed an important determinant of the timing of giving. The wealthy seem to take advantage of the annual exemption to spend–down their estates, and alter giving across years in response to expected changes in gift tax rates. However, despite these apparent changes in behavior, individuals fail to exploit fully available avenues of tax avoidance.

The outline of the paper is as follows. In the second section of the paper we briefly describe the basic characteristics of estate and gift taxes and their evolution over time. The third section discusses our findings from survey panel data while the fourth section reports results from our study of tax returns. A final section concludes.

THE ESTATE AND GIFT TAX

Throughout much of their history, estate and gift taxes functioned as two separate tax systems. The features of each system, and the differences between the two, created numerous incentives for donors to alter the timing of transfers. Since 1977, however, the two taxes have operated as a single tax with liability determined as a function of the sum of inter vivos transfers and bequests. However, even with this unified system, the determination of the tax obligation is subject to a variety of deductions, exemptions and credits that can result in large differences in the tax burden depending on when and how an asset is transferred. Individuals seeking to minimize the tax owed have powerful incentives to alter the timing of gifts in response to these aspects of the law. Below we provide an overview of the estate and gift tax as it exists currently followed by a brief discussion of the evolution of the estate and gift tax, with an emphasis on features expected to affect inter vivos giving. For completeness, we note some the most recent changes in the tax law although data do not yet exist to analyze their impact.

Current Law

The current law with taxes based on total lifetime giving would appear to be relatively straightforward. However, there are numerous aspects of the law that make optimal tax planning a complicated matter. The following is a brief overview of the primary features of transfer taxes.

Calculation of Tax

The estate and gift tax is applied to the sum total of all taxable gifts and bequests. Included in the valuation of bequests are items such as life insurance held by the decedent, family businesses, and certain annuities. Although all estates are in principle subject to the tax, in practice only a tiny fraction actually incur any obligation.[3] This exemption from tax is due primarily to the Unified Credit. By virtue of this credit, a decedent may bequeath up to $1 million tax–free.[4] Currently the marginal tax rates for estates above this limit begin at 18 percent and increase to 49 percent. Over the coming years as the estate tax is phased out, the unified credit will increase, eventually exempting estates of less than $3.5 million from tax, before the tax is eliminated altogether in 2010.[5] In 2011 the estate tax reappears with a return to the $1 million exemption.

Transfers to a spouse or charity are exempt from tax and, thus, do not count towards this $1 million exemption. By combining the unified credit with the unlimited marital deduction, married couples can currently transfer $2 million to their children tax–free.[6]

In addition to transfers to a spouse or charity, an individual may transfer up to $11,000 per recipient, per year, with no tax obligation.[7] This annual exemption creates a powerful incentive for individuals to make "early bequests." The potential tax–free transfer implied by this exemption can be quite large. A parent with two children, each of whom is married with two children of his own, can transfer $88,000 (8 × $11,000) per year tax–free to his immediate descendents. One would, thus, expect the very wealthy to be consistently transferring such sums to heirs throughout their lives.[8] Previous work has shown that many elderly have the potential to avoid the estate tax entirely through this mechanism (Page, 1997; McGarry, 2001).

The Importance of Timing

Other features of the tax code also affect the optimal timing of transfers. When an individual transfers an asset with unrealized capital gains as an inter vivos gift, the recipient retains the donor's initial cost–basis, and when the asset is sold, owes capital gains taxes on the full amount of appreciation. Conversely, if such an asset is transferred as part of a bequest, the basis value is stepped–up to its value at the date of the transfer and no capital gains taxes are ever paid on the appreciation up until that time. Assets with significant unrealized capital gains might thus be optimally transferred as bequests, despite preferential treatment in other dimensions afforded inter vivos gifts.

Conversely, bequests are disadvantaged relative to gifts in that the gift tax applies on a tax *exclusive* basis, while estates are

---

[3] In most years fewer than two percent of decedents leave behind estates subject to tax (US Congress, 2001).

[4] This $1 million credit has been in effect since 2002. It was reached in a series of step–by–step increases from an amount of $600,000 applicable throughout most of the 1990s, and lower amounts prior to that.

[5] Beginning in 2004 the maximum credit will differ for estates and inter vivos gifts.

[6] One could imagine that wealthy dynasties would transfer much of the same wealth generation after generation. Rather than paying estate taxes each time, they could consider "skipping a generation," transferring directly to grandchildren (or even great–grandchildren) and saving an entire generation's worth of taxes. To recoup some of this lost revenue the government has instituted a supplemental tax on transfers that skip a generation. There is a $2 million exemption before this generation skipping tax kicks in.

[7] The unlimited marital deduction and the annual exclusion were both established in 1982. Prior to that time the limits were lower. In 1982 the annual exclusion was set at $10,000. It was indexed to inflation in 1998.

[8] Life expectancy for a 65 year old is approximately 18 years. The individual in the above example, thus, has an expected spend–down potential from that age onward of nearly $1.6 million, or $3.2 million per married couple. By combining this annual exemption and the unified credit, the parents in this example can transfer over $5 million to their children, grandchildren, and children–in–law, tax–free.

taxed on a tax *inclusive* basis. To illustrate the implications of this provision, consider an individual facing an estate and gift tax rate of 50 percent and a potential transfer of $300. If he transfers $200 to his children while he is alive, he pays 50 percent, or $100 in gift tax. The total transfer costs him $300 implying an effective tax rate of 100/300, or 0.33, well below the statutory rate of 50 percent. In contrast, if the $300 were transferred as a bequest, the tax liability would be 50 percent of $300 or $150, for an effective rate equal to the statutory rate.[9]

Although there are numerous complicated methods to reduce or avoid the estate tax, our analysis will focus on arguably the most straightforward mechanism, the use of the annual exemption. If individuals do not exploit this most simple of estate planning techniques, it is difficult to imagine that the distortions created by the tax are huge.

Historical Record

In addition to responding to the current incentives to give, one would expect to see responses to changes in the tax law over time. We, therefore, also look at the correlation between giving and the estate and gift taxes over a much longer time horizon. As recent history demonstrates, the estate and gift tax are frequently subject to change. Although difficult from a lifetime planning perspective, these repeated changes do allow us to assess the effect of taxes on behavior. We focus here on more recent changes that would have been relevant to persons in the samples we analyze. Joulfaian (forthcoming) provides a much

more detailed discussion of changes since the inception of the estate tax.

The estate tax was first established in 1916 and a separate gift tax followed in 1932; gift tax rates were set equal to 75 percent of the prevailing estate tax rate. These two taxes evolved substantially over the subsequent decade becoming more or less burdensome at various times, but with inter vivos gifts consistently remaining tax advantaged relative to bequests.

The Tax Reform Act of 1976 (TRA76) brought with it a restructuring of the estate and gift tax system. The two taxes were combined into a unified tax with a single rate schedule reaching a maximum marginal tax rate of 70 percent. This change resulted in a significant reduction in the maximum tax rate for bequests from its initial 77 percent, but an increase in the rate for gifts from 57.75 percent. These changes took effect three months after the law was enacted, providing a window of opportunity during which individuals could accelerate inter vivos giving to take advantage of the temporarily lower rates. As we show later, individuals did respond with a dramatic increase in inter vivos gifts in 1976.

The unification of the two systems, however, did not mean an end to changes. In 1981 a four–year gradual reduction in the tax rates was enacted and the unified credit was increased in stages reaching $600,000 in 1987. By increasing the credit, the incentives to make inter vivos gifts below the annual exemption were reduced. In addition, the Tax Reform Act of 1986 (TRA86) introduced a generation skipping transfer tax that provided an additional tax on transfers to individuals more than

---

[9] Other more subtle issues may affect the decision to transfer an asset during one's lifetime or as part of an estate. The transfer of an illiquid asset may incur sufficient tax liability that it must be sold to meet the tax obligation. Once sold, capital gains taxes would also be due. Similarly, large illiquid assets such as a work of art or a business may be difficult to transfer in smaller portions to meet the annual exemption limit. Conversely, by transferring an asset early, capital appreciation will incur to the recipient and will not face a transfer tax as it would if the same gains were incurred by the donor and then transferred. Changes in the value of the asset due to inflation would be similarly affected.

one generation away. The act included a temporary exemption of $2 million per recipient set to expire in 1989. The exemption provided a strong incentive for such gifts to be made in 1989; our empirical work will look for this effect.

Major changes were introduced again in 1997 expanding both exemptions and deductions, with the lifetime exemption scheduled to increase in stages reaching $1 million by 2006. The most recent provisions, enacted in 2001, call for the top marginal rates to fall further and the exemption to be expanded. Perhaps the most unusual aspect of the 2001 changes is their temporary nature. The estate tax is completely repealed in 2010 but returns to roughly its 1997 levels in 2011. Changes in gift tax rates called for in this recent legislation mirror those of the estate tax, except that the exemption will remain at one million until 2010.

These changes are tedious to document but provide fertile ground on which to gauge the responsiveness of gift–giving behavior to the estate tax. In the following sections we exploit both current law and this series of changes to understand the potential magnitude of distortions created by estate and gift taxes.

EVIDENCE ON INTER–VIVOS TRANSFERS FROM SURVEY DATA

We begin our analysis with individual level data from the Health and Retirement Study (HRS). The HRS is a panel survey that contains detailed information on asset holdings and inter vivos transfers. These data allow us to examine inter vivos transfers from parents to children, both above and below the annual exemp-

tion. They, thus, permit us to assess the degree to which the wealthy appear to be engaging in at least some tax planning behavior.

The Health and Retirement Study

The HRS consists of population representative samples of several elderly and near–elderly cohorts. The original HRS cohort consists of those born between 1931 and 1941, and a second sample, the asset and health dynamics study (AHEAD), consists of those born in 1923 or earlier. The HRS cohort was first interviewed in 1992 and has been interviewed biennially ever since with the most recent data available for 2000.[10] Interviews for the AHEAD cohort, were begun in 1993 with follow–up surveys in 1995, 1998 and biennially thereafter. Other than the difference in age, the two studies are nearly identical.[11] Our sample, therefore, consists of five waves of data for the original HRS cohort (1992, 1994, 1996, 1998, and 2000) and four waves of data for AHEAD (1992, 1995, 1998, and 2000). We will refer to these data jointly as the HRS as they are now officially termed, as long as there is no confusion.

The HRS provides a unique opportunity to observe patterns of inter vivos giving over time. At each interview respondents are asked to report any transfers to children or grandchildren as well as characteristics of each child such as marital status and number of own children. These demographic data allow us to assess the yearly potential of the respondent and spouse to spend down their estate through transfers to children, children–in–law, and/or grandchildren, as well as the

---

[10] Since the writing of this paper, a preliminary release of the 2002 data has been made available. These are not incorporated here.

[11] In 1998 the HRS and AHEAD samples were combined and interviewed with a single survey instrument. At the same time these two original cohorts were joined by a sample of individuals born between 1924 and 1930 and a sample of those born between the years 1942 and 1947. Because we have only two years of data on these "new" cohorts, we do not include them in our longitudinal analysis.

degree to which they are exploiting such transfers.

The survey also collects detailed asset information. Accurate measurement of assets is crucial if respondents facing potential estate taxes are to be identified. As Smith (1995) shows, the quality of the data on income and assets far exceeds those of most panel surveys such as the Survey of Income and Program Participation (SIPP).

A key factor in our analysis is an indicator of whether a family is likely to have a taxable estate. Because our sample is of living individuals, asset levels at death will undoubtedly differ from current levels. Younger respondents may still be accumulating assets, suggesting that current wealth will be below that held at some later point. Conversely, the life cycle model predicts that wealth will be used to finance consumption in retirement, resulting in declines as retired individuals age. Proper estate planning will lead many respondents to "spend down" their estates further. Rather than forecast a wealth trajectory as has been done elsewhere (Bernheim, Lemke, and Scholz, 2001) we simply set our indicator of a "potentially taxable estate" equal to one if total bequeathable wealth of the respondent (including housing wealth but excluding pension and Social Security wealth) is above the amount that can be bequeathed tax–free.

Because transfer and estate planning decisions are likely made at a family level, we arrange our data so that the respondent and spouse (if present) form a single observation. We keep the household in the sample as long as there is an interview for at least one spouse but scale the potentially tax–free amount for the presence of one or two individuals in the family unit.[12] We also restrict our sample to those families in which the respondent and/or

spouse has at least one living child. Certainly the respondent could have heirs other than children, but we do not have complete information on other kin (e.g., cousins, aunts, uncles, nieces and nephews) who would be potential heirs, nor do we have information on friends whom a respondent might wish to provide for in his will. It is, therefore, impossible to assess all relevant opportunities for giving. With these restrictions we are left with a sample of 13,357 households.

A key element of this study is the pattern of giving over time. Table 1 reports the distribution of number of observations per family. Although we keep all families in our data set, regardless of the number of times they are observed, the vast majority contribute data for several years. A total of 10,554 families, or 79 percent of the sample, are observed four or five times. Another 1341 are observed for three waves. These data can, therefore, provide a good measure of the persistency of transfers and, thus, the effectiveness of such transfers as part of an estate reducing strategy.

Analysis

We begin our analysis of the HRS by focusing on the categorization of eventual estate tax liability. The first row of Table 2 shows the fraction of the sample with potentially taxable estates, denoted

TABLE 1
DISTRIBUTION OF NUMBER OF OBSERVATIONS PER FAMILY

Number of Times Observed	Number of Families	Percent of Sample
1	460	3.4
2	1,002	7.5
3	1,341	10.0
4	5,026	37.6
5	5,528	41.4
total	13,357	100.0

---

[12] We delete those cases in which the respondent and spouse separate or divorce because financial behavior at the time of these separations may be based on other motives.

TABLE 2
WEALTHY FAMILIES BY YEAR

| Year | Cohort | Number of families | Rich in each year | | Prob rich conditional on rich |
			Percent (a)	Number (b)	In wave 1 (d)
1992	HRS	7,244	4.0	246	1.0
1993	AHEAD	6,020	2.6	142	1.0
1994	HRS	6,604	3.9	217	.62
1995	AHEAD	5,150	6.6	306	.60
1996	HRS	6,321	5.3	276	.66
1998	Both	10,557	6.1	552	.61
2000	Both	9,352	6.8	550	.60

Note:
The years 1992, 1994, and 1996 consist of observations for the original HRS cohort only.
Data in 1993 and 1995 are for the AHEAD cohort. Nineteen hundred and ninety–eight and 2000 have data for both cohorts.
Wave 1 refers to 1992 for the HRS cohort and 1993 fo AHEAD.

"rich," on a year by year basis, as well as a count of the number of rich in each survey year. The 1992, 1994, and 1996 data pertain to the HRS cohort only, while the 1993 and 1995 data are for the AHEAD cohort. In 1998 and 2000 both cohorts are represented. As the table shows, the fraction of families with potentially taxable wealth in each year is small. In 1992 just four percent of the sample had bequeathable wealth, per spouse, above the $600,000 level (column (a)). Among the older AHEAD cohort, first observed in 1993, the fraction is just below three percent. There is a large increase in the number of rich families over time, reflecting the life cycle savings by those in their 50s and differential mortality, as well as the run up in the value of stocks and real estate throughout the 1990s. Note that this increase over time in the fraction classified as rich exists despite the increase in the lifetime exclusion to $650,000. The second set of columns in Table 2 reports the fraction rich in each year conditional on being rich at the first interview (either in 1992 or 1993). There is a surprising amount of mobility in wealth categorization among these individuals; the conditional probability is approximately 60 percent in each subsequent year.[13] In much of our analysis we will restrict our sample to this group of "initially wealthy."

If inter vivos transfers are motivated to a significant extent by a tax minimizing strategy, then one would expect parents with potentially taxable estates to be substantially more likely to make inter vivos transfers than less wealthy parents. We would also expect transfers to increase as the end of life draws near. We begin to test these predictions by stacking the observations for all years into a single cross section. This procedure yields 46,459 family–year observations. We then analyze the probability of making a transfer as a function of wealth and current age (measured as age of the younger spouse for married couples). As shown in the top panel of Table 3, the probability of making an inter vivos transfer is 36 percent among those who do not have a potentially taxable estate but rises sharply as assets increase. However, even among the oldest respondents in the highest wealth category (over $1.5 million *per spouse)* only 70 percent made *any* transfers.

The bottom panel of the table is constructed similarly but presents the cell average of the ratio of the total amount given to the amount that could have been transferred tax free to children, children–in–law, and grandchildren. Again, the amount of giving is far less that what is possible under the tax law, but the ratio does increase substantially with

---

[13] Because the fraction classified as "rich" is lowest in 1992 (HRS) and 1993 (AHEAD) these conditional probabilities are slightly higher than if later years are chosen as the conditioning year.

TABLE 3
GIFT GIVING BY AGE AND WEALTH

Sample	All	Age ≤ 55	55 < Age ≤ 65	65 < Age ≤ 75	75 < Age
Panel A—Probability of Making Any Transfer by Age and Wealth (n = 46,459)					
All	.375(.002)	.483(.005)	.386(.004)	.354(.006)	.289(.004)
Less than $600,000	.360(.002)	.473(.005)	.371(.004)	.334(.006)	.272(.004)
$600,000–$1 million	.600(.014)	.669(.036)	.580(.023)	.669(.033)	.541(.029)
$1 million–$1.5 million	.628(.023)	.717(.052)	.616(.040)	.647(.051)	.573(.047)
$1.5 million+	.727(.021)	.659(.061)	.755(.030)	.746(.049)	.709(.043)
Panel B—Ratio of Amount Given to Potential Tax–Free Amount					
All	.044(.002)	.060(.003)	.048(.003)	.036(.004)	.035(.003)
Less than $600,000	.034(.011)	.054(.002)	.036(.002)	.024(.003)	.025(.002)
$600,000–$1 million	.139(.014)	.166(.029)	.146(.020)	.164(.051)	.101(.016)
$1 million–$1.5 million	.192(.029)	.342(.096)	.172(.033)	.124(.039)	.182(.067)
$1.5 million+	.563(.118)	.190(.058)	.592(.190)	.581(.174)	.671(.309)

Note: Bequeathable wealth is wealth per spouse. Potential tax–free amount is defined as $10,000*(number of children + number of children–in–law + number of grandchildren). This amount is doubled for married couples because they can each give the same amount tax–free and transfers given are measured on a family basis.

wealth. Thus, while wealthy individuals are doing *something*, they are failing to exploit fully the potential to spend down an estate.

Similar cross–sectional results have been derived earlier (Poterba, 2001; McGarry, 2000) but nothing has been shown about the use of these tax–exempt annual gifts over time as a way to reduce/eliminate the estate tax. Are those making transfers in a given year likely to continue to do so in each period, as active estate planning would predict? Or are transfers variable across years, indicating an alternative motivation? Table 4 reports the probability of making a transfer in each wave con-

ditional on making a transfer in a given wave. Panel A is for those with potentially taxable estates and, for comparison, panel B repeats the analysis for those who do not appear to be facing eventual estate taxation. The wealth classification is based on wealth at the first observation. As noted earlier, the fraction with potentially taxable estates is lowest at the first observation so in that sense this is using a relatively strict definition of wealthy. Note also that the original HRS cohort was interviewed in 1992, 1994, 1996, 1998 and 2000 while the AHEAD cohort was interviewed in 1993, 1995, 1998, and 2000. Individuals who made a transfer in, say,

TABLE 4
PROBABILITY OF MAKING A TRANSFER CONDITIONAL ON TRANSFERRING IN GIVEN YEAR

	1992 (HRS)	1993 (AHEAD)	1994 (HRS)	1995 (AHEAD)	1996 (HRS)	1998 (Both)	2000 (Both)
Panel A—Respondents classified as rich in wave 1							
1992	1.0	—	.82	—	.87	.82	.74
1993	—	1.0	—	.70	—	.65	.53
1994	.77	—	1.0	—	.85	.80	.74
1995	—	.81	—	1.0	—	.72	.59
1996	.73	—	.79	—	1.0	.80	.76
1998	.73	.73	.77	.66	.83	1.0	.72
2000	.65	.77	.69	.74	.79	.76	1.0
Panel B—Respondents classified as not rich in wave 1							
1992	1.0	—	.63	—	.61	.54	.50
1993	—	1.0	—	.56	—	.51	.51
1994	.57	—	1.0	—	.66	.58	.53
1995	—	.50	—	1.0	—	.55	.51
1996	.54	—	.64	—	1.0	.62	.56
1998	.51	.50	.61	.57	.67	1.0	.61
2000	.49	.50	.58	.53	.61	.64	1.0

1992, would not have been observed in 1993 or 1995 and those cells in the table are, thus, empty.

Among the subset of individuals who made a transfer in 1992 and who had a potentially taxable estate in that year, 82 percent also made a transfer in 1994, 87 percent in 1996, 82 percent in 1998 and 74 percent in 2000, suggesting a high degree of persistency in giving. The same pattern exists across waves; conditional probabilities are typically in the 65 to 80 percent range. These numbers are indeed higher than the 63.5 percent unconditional probability, but show once again that even individuals who in the past have made transfers are not uniformly taking advantage of the potential to make tax–free transfers.[14]

Transfers are also relatively persistent for those with less wealth, although substantially less so than for the wealthy group. As shown in panel B, the conditional probabilities vary from 55 to 65 percent, far greater than the 35 percent unconditional probability, but below the conditional probabilities for the wealthy group.

One can imagine numerous explanations for why the wealthy do not take full advantage of the opportunity to spend–down their estates. Those who have wealth levels only "slightly" above the exempt amount, may be hesitant to give early for fear that they may exhaust their funds before they die. Similarly, because the marginal tax rate rises with the magnitude of the estate, the cost of not spending–down an estate is less for those with smaller taxable estates. Thus, the amount of giving, both in terms of the number of years for which the annual exemption is employed and the extent to which full advantage is taken of the potential tax–free giving, will be positively correlated with income and assets even for those whose estates will be subject to tax. Along these same lines, individuals in

poor health may be concerned about large medical expenses and may, therefore, wish to retain wealth to buffer against these shocks. Conversely, individuals in poor health likely have shorter life expectancies and need to spend–down at a greater rate than those in better health. In either event, health status and age ought to enter into the decision to transfer resources.

The type of asset holding may also affect the likelihood of early bequests. Assets held in relatively liquid forms such as a bank account or mutual funds may be more readily transferred than less liquid assets such as business or real estate equity. Assets with substantial unrealized capital gains may also be worth more to the beneficiary if they are transferred at death due to the step–up in basis value afforded bequests (see Poterba (2001) and Joulfaian (2000) for a discussion of the pros and cons of this delay).

Because of the small sample, detailed regression analyses of these data are unlikely to be particularly informative. In regression results not reported here, however, we found little evidence that factors such as life expectancy or health played an important role. Perhaps unsurprisingly, the greater the potential for tax–free gifts (i.e. the greater the number of children, grandchildren, and children–in–law) the farther away from meeting this potential a respondent falls.

Thus, although the HRS data show increased giving among the wealthy as predicted by an estate tax minimization strategy, the degree of the effect appears to be modest.

EVIDENCE ON INTER–VIVOS TRANSFERS FROM SURVEY DATA

Estate Tax Returns

Because the HRS surveys a random sample of the population, it contains

---

[14] We repeated this exercise for the smaller subset of individuals who are classified as rich in all waves (not shown). The conditional probabilities for this sample are only marginally higher.

few individuals who are likely to face an estate tax. Also, even for the relatively small number of respondents who die in the panel, we know nothing about their lifetime tax liability. We, therefore, supplement these data with administrative data taken from estate and gift tax returns. These returns are filed only by those who made inter vivos gifts and/or left bequests above the taxable limits and, thus, provide us with a set of individuals whose behavior ought to have been most affected by the estate tax. The drawback of these data is that because they provide records of taxable gifts only, they do not contain information on gifts below the annual exemption. Similarly, they do not provide us with any sense of who in the population was able to avoid any transfer–tax liability by exploiting the annual exemption or other mechanism. Thus, they provide a complement, rather than substitute, to the HRS data.

Our data from estate tax returns filed with the Internal Revenue Service (IRS) consist of a sample of returns for decedents in 1992 along with matched gift tax records dating back to the 1930s. As noted earlier, the applicable estate tax filing threshold in 1992 was $600,000, including both bequests and lifetime gifts in excess of the annual exemption. The tax filing requirement for inter vivos gifts varied over the period for which we have gift tax returns.[15] The estate and gift tax affects only a small fraction of the population and, thus, our sample of tax returns pertains to just 0.2 percent of all 1992 decedents.

The estate tax returns provide information and the size and composition of terminal wealth,[16] while gift tax records capture annual inter vivos transfers that are above the relevent exemption. Previous studies employing administrative data have used cross sectional information from estate tax returns (Joulfaian, 2000) or aggregate time series data on federal gift tax receipts (Joulfaian, forthcoming) but until now, these data have not been linked. To provide some consistency with the HRS, we restrict this administrative sample to those decedents who were either 70 years old or older (to correspond with the AHEAD cohort), or between the ages of 51 and 61 (to correspond with the original HRS cohort). With this restriction in place we have a total of 2,830 observations. Although we have extremely accurate information on taxable transfers, we have little in the way of other descriptive measures. Table 5 provides a summary of the information we do have: Mean wealth for the sample is approximately $8 million and the mean age (age at death) is 77.[17] Fifty–two percent of the sample was married at the time of death and 37 percent was widowed. The sample was predominately male, at 62 percent. We calculate total lifetime gifts to be $335,000 in nominal dollars. Because these gifts are made over a span of many years, the real value of the transfer varies. To correct for economic growth over their lifetimes, we inflate the value of gifts to 1992 dollars using the Standard and Poors (S&P) index. With this correction, the average amount transferred rises to $763,000.

The total tax bill for the transfer of estate and gifts can be reduced substantially by altering the timing of gifts. As several recent papers have shown, a tax

---

[15] At the start of the sample period it was $4,000–$5,000, falling to just $3000 for the years 1943–1981, and increasing to $10,000 in 1982. Note that not all transfers that resulted in the filing of a gift tax return (i.e., those that were above the annual exemption) would have incurred a tax liability. These potentially taxable transfers are summed, along with the eventual estate, and amounts about the unified credit (e.g., $600,000) are subject to tax. For ease of exposition we will refer to these reported amounts as "taxable" inter vivos transfers.

[16] These include the sum of taxable gifts made as of 1977 as well.

[17] We define wealth for this sample to be the sum of the total value of the bequest and all reported inter vivos gifts.

TABLE 5
DESCRIPTIVE STATISTICS FOR SELECT VARIABLES FOR DECEDENTS IN 1992

Variables	All		Donors Only		Non–donors	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Age	77.01	12.94	81.42	9.65	75.07	13.72
Married	0.52	0.50	0.50	0.50	0.53	0.50
Widowed	0.37	0.48	0.45	0.50	0.33	0.47
Male	0.62	0.49	0.56	0.50	0.64	0.48
Spousal Bequests	2,702,854	26,430,833	4,871,662	47,223,907	1,746,546	4,592,643
Charitable Bequests	1,169,218	9,896,840	2,378,688	17,087,098	635,918	3,401,686
Wealth	7,971,486	32,878,019	15,304,165	57,633,573	4,738,237	7,744,781
Wealth, S&P Adj	8,399,658	33,287,600	16,703,389	58,209,590	4,738,237	7,744,781
Lifetime Gifts	335,197	1,185,964	1,095,391	1,940,708	—	—
Lifetime Gifts, S&P Adj	763,370	3,551,776	2,494,615	6,077,352	—	—
Number of Observations	2,830		866		1,964	

minimizing strategy would typical argue for making taxable transfers as early as possible, particularly as inter vivos gifts rather than bequests (Poterba, 2001; Joulfaian, 2000). However, even though all individuals in this sample made transfers requiring the submission of a tax schedule at some point, not all did so while they were alive. In fact, despite the expected tax advantages, only 866 out of a sample of 2,830, or 31 percent of decedents, made a taxable inter vivos gift.[18] Table 5 compares the characteristics of those who made inter vivos gifts for which they filed a tax return (donors) and those who did not (non–donors). Donors are about 6.5 years older than non–donors on average, suggesting it may be that such strategic tax planning comes only at older ages. They are also more likely to be widowed—44 percent of donors are widowed compared to just 33 percent for non–donors—and, therefore, less likely to be able to rely on the spousal exemption to avoid the tax. Consistent with the greater fraction of widows than married decedents, donors are also less likely to be male. Unsurprisingly, donors had substantially greater wealth, again

consistent with an argument that they had more to gain from aggressive estate planning; the average wealth of donors was approximately $17 million, compared "just" $4.7 million for the non–donors.

The relatively small fraction of those with taxable estates who made taxable inter vivos gifts is surprising given the tax advantages of doing so.[19] This result is echoed in the fraction of total transfers transferred as gifts rather than bequests. Gifts represent only about seven percent of the total amount transferred, or 14 percent when adjusted for changes in the S&P index. Although tax planning would suggest that transfers below the annual exemption should be made in each year, we found in the HRS that many donors did not do so. By comparison, transfers that are taxable typically ought to be made as soon as possible, but there is no obvious tax motivation to spread taxable transfers over multiple years (other than the existence of liquidity constraints or uncertainty about future needs and resources). It is not clear, therefore, how often we should observe a parent making taxable inter vivos gifts. Figure 1 shows

[18] Many of these 2,830 did not in fact owe an estate or gift tax. When we drop returns with 1992 zero federal tax (e.g., because of the marital deduction), the sample size falls to 1,932 with a slightly higher fraction (682 or 40 percent) reporting gifts.

[19] Some of these individuals may have had asset levels close to the estate tax limits and, therefore, may not have "prepared" for the potential tax obligation by making inter vivos gifts. To investigate this possibility we restrict the sample to those with estates of $5 million or more and replicate the results in the remainder of the paper. Our conclusions are unchanged.

Figure 1. Relative Frequency of Lifetime Gifts
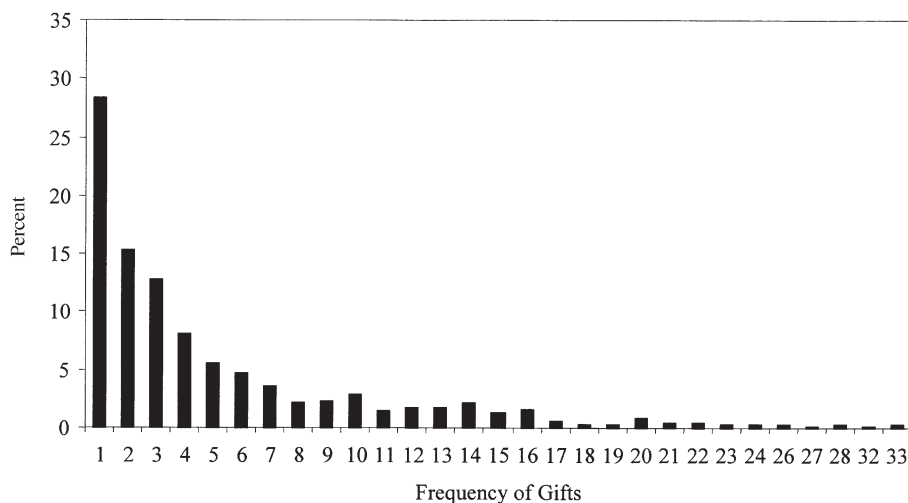
the distribution of the frequency with which taxable gifts are made. The vast majority of those who made a taxable inter vivos gift did so in only one year: 28 percent of the 31 percent who made a taxable gift did so in just one year, 15 percent in two years, and just 13 percent in three years.

If taxable inter vivos gifts are made, just when are they transferred? The persons in our sample all died in 1992. We, therefore, examine transfers relative to the date of death by showing the fraction of the sample that made a taxable inter vivos transfer in each year from 1936 through 1992. Figure 2 presents the results. Again we see that relatively few individuals made taxable transfers in any given year, but the probability of making such a transfer increased substantially towards the very end of life. This probability rises steadily over time and peaks at approximately 12 percent in 1990–91, just one to two years before death. Because we are limited to transfers that result in the filing of a gift tax return, this fraction is significantly below the 50–70 percent of 75+ year olds found to be transferring some positive amount that we saw in the HRS.

By examining transfers by calendar year, we are also able to observe the pattern of giving relative to changes in the tax law. In addition to the general upswing in transfers as death nears, Figure 2 shows a striking jump in gifts in 1976. In that year the fraction of the sample making inter vivos gifts is nearly twice that of the fractions in 1975 and 1977, rising from about four to eight percent and then falling to four percent. Nineteen hundred and seventy–six is the year in which the estate and gift taxes were unified. Because gift tax rates had been set equal to just 75 percent of estate tax rates, the equalization resulted in a sharp increase in gift tax rates in 1977 and beyond. In response, individuals seem to have accelerated their giving to avoid the price increase.

In Table 6 we examine more directly the effect of the gift tax rates. The regressions in the table are estimated using one observation per year. The regression in column (1) reports the results for an equation in which the left hand side variable is equal to the height of the bars in Figure 2. Both the time trend and the tax effect are strong predictors of behavior. We also include
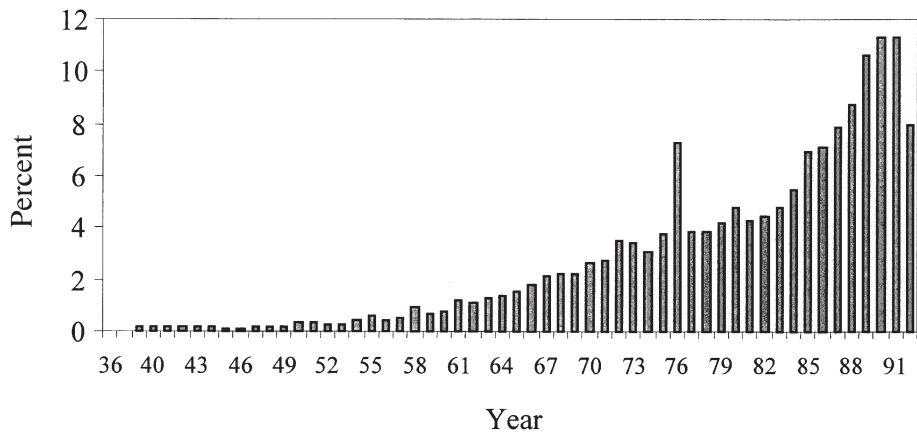
Figure 2. Relative Frequency of Giving by Year

TABLE 6
OLS ESTIMATES OF GIFT GIVING BEHAVIOR

Variable	Probability of Making Gifts	*ln* Gifts	Gifts$_t$/Lifetime Gifts
Intercept	10.89	10.29	6.27
	(1.42)	(1.70)	(2.69)
ln (1+ tax rate$_t$)	−23.31	−8.38	−27.70
	(3.62)	(4.32)	(6.21)
ln (1 + t ax rate$_{t+1}$)	17.78	8.45	30.17
	(3.26)	(3.89)	(6.47)
Time	−0.38	0.01	−0.27
	(0.07)	(0.08)	(0.09)
Time^2 /100	0.46	0.05	0.28
	(0.04)	(0.05)	(0.07)
Year 1989	1.77	0.66	5.88
	(0.62)	(0.74)	(1.24)
ln S&P	−0.39	0.49	—
	(0.35)	(0.41)	—
Adjusted R^2	0.96	0.82	0.75
Observations	56	56	56

a dummy variable for the year 1989. As noted in the second section of this paper, this was when the temporary exemption under the generation skipping tax (GST) was scheduled to expire. Because the implementation of the GST is not captured by the tax rate itself, we include a dummy variable for the year.

Figure 3 reports results similar to those in Figure 2, but for the dollar value of transfers, rather than their prevalence. Again we see a large spike in 1976 as individuals appear to make anticipatory transfers. There is also an additional spike in 1989 corresponding to the change in the GST. This effect was obscured in Figure 2 by the strong trend towards increasing the probability of a gift with the proximity of the end of life (see Joulfaian (forthcoming) for a more detailed analysis).
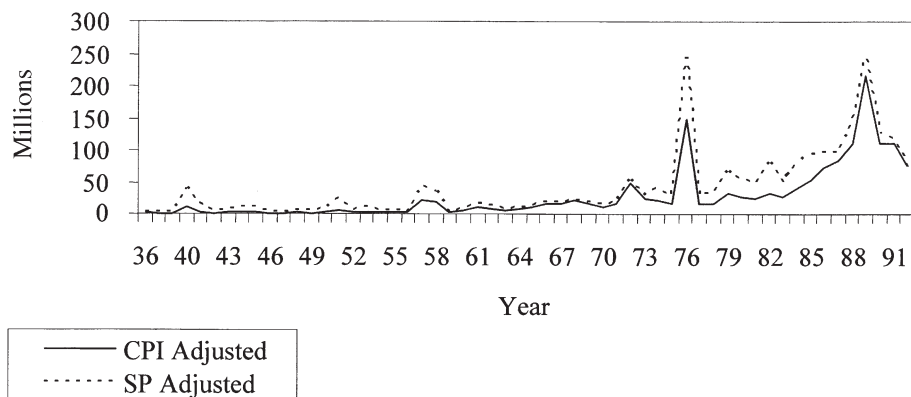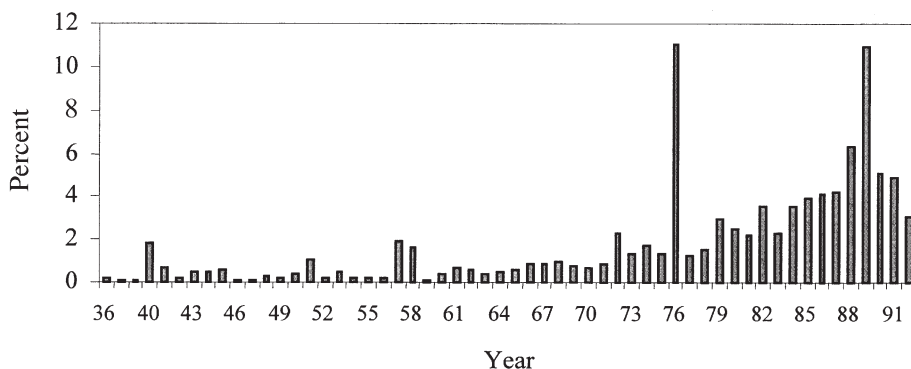
Figure 3. Inter–Vivos Gifts ($1992)

Figure 4. Allocation of Gifts (S&P Adjusted)

The second column of Table 6 reinforces these tendencies in a regression context. The elasticity of gifts with respect to the future gift tax price is 8.4 (se=3.9). This suggests that gifts will be accelerated in the face of impending rate increases. The elasticity with respect to the current gift tax price is –8.4 (se=4.3), and points to a depressing effect of taxes on transfers. In contrast to this transitory elasticity, the permanent elasticity is close to zero.

A final way of comparing gifts over time is by examining the fraction of total taxable transfers made in each particular year. These figures are plotted in Figure 4. A general upward trend is observed,

similar to that of Figure 2. And as with Figures 2 and 3, sharp spikes are apparent in 1976 and 1989. Corresponding regression results are presented in the final column of Table 6. The estimated coefficients on the tax prices suggest that individuals allocate their lifetime gifts to periods of relatively low tax rates.

CONCLUSION

The estate and gift taxes are relevant for only the very wealthiest Americans. However, it is this group who, through level of education and access to tax planners, ought to be best able to understand

and exploit the incentives imbedded in the tax code. Both features of the current tax system and changes in tax laws over time provide significant incentives for the timing of giving. Some of these incentives, such as the annual exemption, taxation of gifts on a tax exclusive basis, and temporary delays in tax hikes, provide incentives for individuals to accelerate their gift giving, while other features, such as expected declines in rates, may lead to its postponements.

In this paper we employ both survey data and administrative records to examine how individuals react to these incentives as inferred from their giving behavior. The results from survey data suggest that individuals do not take full advantage of the opportunities provided by the tax code for tax–free inter vivos gifts, but they do appear to respond in a more limited way. Similarly, longitudinal data from gift tax records indicate that the wealthy are influenced by changes in gift rates in that they appear to concentrate inter vivos transfers to years in which tax rates are lower. Overall, however, the importance of these responses with respect to lifetime transfers is limited as they total less than 10 percent of terminal wealth.[20]

This leaves us with a fundamental question. If individuals are aware of the incentives embodied in the tax law, and respond to them to some extent, why do we observe so few inter vivos gifts? The scarcity of such gifts suggests that individuals have objectives other than tax minimization that influence the timing of transfers.

The coming changes in the estate and gift tax, particularly its elimination in 2010 and reappearance in 2011 will provide fruitful ground for economists seeking to measure the responsiveness of individuals to these taxes. Given the importance this issue is likely to play in future tax legislation, additional analysis is sorely needed.

REFERENCES

Bernheim, Douglas B., Robert J. Lemke, and John Karl Scholz.
  "Do Estate and Gift Taxes Affect the Timing of Private Transfers?" NBER Working Paper No. 8333. Cambridge, MA: National Bureau of Economic Research, 2001.
Holtz–Eakin, Douglas, and Donald Marples.
  "Distortion Costs of Taxing Wealth Accumulation: Income Versus Estate Taxes." NBER Working Paper No. 8261. Cambridge, MA: National Bureau of Economic Research, 2001.
Joulfaian, David.
  "Gift Taxes and Lifetime Transfers: Time Series Evidence." *Journal of Public Economics* (forthcoming).
Joulfaian, David.
  "Choosing Between Gifts and Bequests: How Taxes Affect the Timing of Wealth Transfers." OTA Paper 86. Washington, D.C.: U.S. Department of the Treasury, 2000.
Kopczuk, Wojciech, and Joel Slemrod.
  "Estate Tax on Wealth Accumulation and Avoidance Behavior of Donors." In *Rethinking Estate and Gift Taxation*, edited by William G. Gale, James R. Hines, Jr., and Joel Slemrod, 299–349. Washington, D.C.: The Brookings Institution, 2001.
Lantz, Keith, A. Lee Gurley III, and Kenneth Linna.
  "Popular Support for the Elimination of Estate Taxes in the United States?" *Tax Notes* 99 No. 8 (May 26, 2003): 1263–74.

---

[20] This may represent some of the distortionary effects of the tax measured in Holtz–Eakin and Marples (2001), and the overall effects on wealth accumulation.

McGarry, Kathleen.
"Inter vivos Transfers or Bequests? Estate Taxes and the Timing of Parental Giving." *Tax Policy and the Economy* 14 (2000): 93–121.

McGarry, Kathleen.
"The Cost of Equality: Unequal Bequests and Tax Avoidance." *Journal of Public Economics* 79 No. 1 (January, 2001): 179–204.

Page, Benjamin.
"Bequest Taxes, Inter vivos Gifts, and the Bequest Motive." Congressional Budget Office. Mimeo, 1997.

Poterba, James.
"Estate and Gift Taxes and Incentive for Inter Vivos Giving in the US." *Journal of Public Finance* 79 No. 1 (January, 2001): 237–64.

Smith, James.
"Racial and Ethnic Differences in Wealth in the Health and Retirement Study." *Journal of Human Resources* 30 (Supplement, 1995): 5158–83.

U.S. Congress. Joint Committee on Taxation.
Description and Analysis of Present Law and Proposals Relating to Federal Estate and Gift Taxation. JCX–14–01, Washington, D.C., March 14, 2001.