Chapter 4: Intergenerational Transfers & Charitable Bequests

THE DISTRIBUTION AND DIVISION OF BEQUESTS: EVIDENCE FROM THE COLLATION STUDY

by

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Abstract

This paper describes the pattern of the distribution and division of bequests in the US. Employing a national sample of federal estate tax records for decedents in 1982 with gross estates in excess of $300,000, along with the matched income tax records of the heirs, it provides a snapshot of the composition of terminal wealth, its disposition, and the characteristics of the heirs.

The results show that (1) charitable bequests, estate taxes, and other expenses account for 22 percent of net worth, or 34.6 percent of net worth less spousal transfers, (2) spousal transfers account for one-half the distributable estate (net worth less charitable bequests, taxes, and other expenses), and transfers to children for 24 percent, (3) children receive equal inheritances in 63 percent of the estates, (4) the average inheritance is about 3 times the income of the child heir, and (5) that wealthy parents are more likely to have children with high income. About 35 percent of the children of the wealthiest decedents reported income in excess of $200,000 compared to less than 0.8 percent of those of the least wealthy.

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I. Introduction

The pattern of intergenerational transfers and its motivation have attracted considerable attention in recent years. Much of this is due to the recognition of the potential effects of the flow of bequests on the transmission of inequality in the distribution of income and wealth as well as its impact on wealth accumulation and savings.[1] With over one hundred billion dollars in annual transfers, these flows may have significant implications for public policies related to income and wealth redistribution, national savings, and the role of transfer taxes.

Despite several studies in recent years,[2] little is known about the pattern of bequests in the U.S. The purpose of this paper is to provide estimates on the distribution of terminal wealth and the division of bequests for top wealth holders in the U.S. To accomplish this, the paper uses data prepared by the Statistics of Income Division (SOI) of the Internal Revenue Service for the Collation Study (CS). The data consist of a national sample of estate tax records of decedents in 1982 along with their income tax returns for the years 1980 through 1982. The data also contain income tax records for the heirs for the years 1980 through 1982, as well as for 1985.

The paper is organized as follows. Section II describes the samples of estate and income tax records in the collation study (CS). It provides summary statistics on the asset holdings, estate expenses, age and marital status for some 8,500 decedents. It also notes the number of income tax returns filed for decedents (about 8,000) and non-spouse heirs (16,500) disaggregated by the size of the decedent's gross estate.

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[1] See Gale and Scholz (1992), and Kotlikoff and Summers (1981).

[2] See Menchik (1980, 1988) and Tomes (1988).

Section III describes the population of estate tax decedents. It provides information similar to that reported in Section II but weighted to the decedent population. The results show that death taxes represent about 13 percent of net worth. When measured relative to intergenerational transfers, however, the effective tax rate is about 24 percent, and ranges from 6 percent for the least wealthy to about 57 percent for estates in excess of $10 million. Overall, estate taxes, charitable bequests, and other expenses represent about 22 percent of net worth.

Section IV provides statistics on the size of bequests by type of relationship between the heir and the decedent. The section reports the number of heirs and the amount of inheritance for each of eleven categories of beneficiaries. The results show that spousal bequests account for 38 percent of wealth (net worth), children for 18.7 percent, trusts for 9 percent, siblings for 3 percent, nieces and nephews for 3.2 percent, 2.5 percent for grandchildren, with the remaining 3.6 percent distributed to parents, aunts and uncles, among others.

Section V provides statistics on the relative frequency of unequal division of bequests to children. The number of estates and the amount of bequests, are reported by the size of the coefficient of variation on bequests and by the size of gross estate of the parent. Overall, the results for multi-child families show that about 63 percent of the estates divide bequests equally.[3] The section also reports mixed results on the division of bequests when the number of children vary. About 67 percent of the estates with two-children report equal divisions, 63 percent for three children, 56 percent for four children, and 65 percent for five children.

Section VI provides statistics on the pre-inheritance income of children and inheritance received. The results show that the average inheritance is about three times as large as the income of the child recipient. This multiple of income ranges from 21 for heirs with positive income under $10,000, to 0.75 for those with income of at least

[3] Equal division is defined as having a CV of under 0.001 percent.

$200,000. The results also show that wealthy parents are more likely to have children with high income. About 35 percent of the children of the wealthiest decedents reported income in excess of $200,000 compared to less than 0.8 percent of those of the least wealthy. A concluding comment is provided in section VII.

II. The Collation Data

The data in the collation study (CS) is drawn from the Internal Revenue Service estate tax records for decedents in 1982. Decedents whose estates are required to file estate tax returns represent about 3 percent of all decedents in 1982. Nevertheless, using the estate multiplier technique, the net worth of these decedents is representative of individuals who control about one third of the total U.S. net worth.[4] As such, although the collation data consists of only a small percentage of individuals, it provides information representative of a large percentage of wealth holdings.

The CS data set is based on a 1% random sample of estate tax returns filed during 1982 and 1983 for decedents in 1982. Returns with total assets over $1 million were selected at a sampling rate of 100 percent. Tables 1A and 1B provide a detailed profile of the wealth holdings of individuals in the sample. The tables show the number of individuals and the amounts held in each of 13 asset categories by size of gross estate. The sample consists of some 8,500 estates with assets of $300,000 or more.[5] The mean age of the decedents is 75 years. In total, their estates hold $21.28 billion in assets, have a net worth of $19.87 billion, and are subject to estate taxes of $3.5 billion ($2.97 federal). Charitable bequests account for $1.96 billion and spousal bequests account for $7.76 billion.

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[4] See Schwartz (1988).

[5] The filing threshold was $225,000 in 1982. The $300,000 limit is the sampling threshold used by SOI.

In addition to estate tax records, the CS data also contain income tax records for decedents as well as heirs. Table 1C reports the number of income tax returns successfully matched against the estate tax returns of decedents. The number of matched returns are 7,871, 8,015, and 7,651 for the years 1980 through 1982, respectively. Unsuccessful matches resulted in an average loss of about 8 percent of the original sample. This can be attributable to late filing of income tax returns as well as the ever-present technical difficulties of matching a sample of this size against the records of over 100 million individuals.

As for heirs, the number of matched income tax returns is 16,534, 16,585, and 16,063 for each of the years 1980 through 1982, respectively, and 15,444 for 1985, the post-inheritance year.[6] These matches are far less than the 35,128 heirs reported in the sample of estate tax returns (see Section III). The gap can be attributed to several factors in addition to those noted for the decedents' returns. First, many estates did not provide social security numbers for some or all of the heirs. Some heirs are minors or aliens and did not have social security numbers. Some tax preparers provided partial listing of social security numbers or none at all. Second, beneficiaries reported on estate tax records represent individuals and not family units. A married couple filing a joint tax return, for instance, may show-up as two heirs on the estate tax return.

III. The Population of Estate Tax Decedents:

Tables 2A and 2B provide information similar to that in tables 1A and 1B but weighted to the population of estate tax filers. Table 2A shows that about 32,500 decedents have gross estates between $300,000 and $500,000 and 218 decedents have gross estates over $10 million. Cash is held by over 82 percent, followed by real estate

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[6] Several hundred returns, filed late, are also available for the years 1978, 1979, 1983, and 1984.

(70 percent) and corporate stock (66 percent). Fewer than 60 percent of the decedents held life insurance policies. The average decedent was 74 years old, with the wealthiest group slightly older with a mean age of 76. About half of the decedents (29,822) were married. Twenty percent (9,334) of the returns reported charitable bequests, with about half of the wealthiest compared to 13 percent of the least wealthy giving.

Table 2B shows that estate tax decedents in 1982 had total gross estates of $48.6 billion and net worth of $45.9 billion. The largest asset holding is corporate stock ($11.9 billion) followed closely by real estate ($10.5 billion). Estate expenses, such as those for funeral, attorney, and others, are about $1.5 billion. They account for 3.3 percent of net worth, and range from 3.7 percent for the least wealthy to 2.7 percent for the wealthiest. Total charitable bequests were $2.7 billion, 5.9 percent of net worth, with the wealthiest giving about 21.9 percent of their wealth and the least wealthy 2 percent.

The federal and state estate or inheritance tax liability was $5.9 billion.[7] Taxes represent about 12.9 percent of net worth, and range from 5.7 percent for the least wealthy to a high of 16.4 percent. The tax liability as percent of net worth less estate expenses, charitable and spousal bequests, essentially the effective tax rate on intergenerational transfers, is about 23.6 percent and ranges from a low of 9.4 percent to 56.8 percent for the wealthiest estates.[8] Differences in these effective tax rates

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[7] The federal estate tax liability was $5.1 billion. An additional $0.8 billion in taxes were paid to the states which were fully offset by a federal tax credit.

[8] The marginal tax rates are:

Net Worth ($000)	Tax Rate (return-weighted)
300- 500	29.2
500- 1,000	37.9
1,000- 2,500	42.4
2,500-10,000	56.1
10,000 or over	62.2

reflect the tax treatment of spousal transfers. Such transfers are accorded an unlimited deduction but become fully taxable in the estate of the surviving spouse.

Charitable bequests, taxes, and estate expenses accounted for about 22 percent of net worth. These expenses range from a low of 11.6 percent for those with gross estates between $300,000 and $500,000 to a high of 41 percent for those with gross estates over $10 million. Such expenses account for 34.6 percent of terminal wealth net of spousal transfers, and range from 17.3 percent for the least wealthy to 76 percent for the wealthiest estates.

IV. Division of Bequest by Type of Relationship:

For each heir, the amount of inheritance and the relationship to the decedent is reported on the estate tax return (Form 706, page 3). The CS data classifies heirs along eleven categories of relationships. These are: (1) spouse, (2) son, (3) daughter, (4) grandchild, (5) sibling, (6) niece or nephew, (7) aunt or uncle, (8) parent, (9) other, (10) estate or trust, and (11) not ascertainable. Category 9 includes sons-and daughters-in-law, great grandchildren, cousins, as well as unrelated individuals. Estates or trusts (category 10) includes bequests not immediately distributed to heirs. Spousal trusts are classified under spousal bequests regardless of the relationship of the remainderman to the decedent.

Tables 3A and 3B provide a breakdown of bequests and number of heirs by type of relationship to and size of the estate of the decedent. The number of beneficiaries reported on the estate tax returns in the sample is 44,230, or 35,128 if spouses and trust beneficiaries are excluded. These include 9,481 children (4,674 sons and 4,807

These tax rates are computed for widowed and single decedents only. The estates of married decedents are excluded as their assets will pass through the estates of their surviving spouses (widows and widowers).

daughters), 5,547 grandchildren, 1,794 siblings, 5,428 nieces and nephews, 137 parents, aunts, and uncles, and 12,741 others. Interestingly, children represent less than 30 percent of the 35,128 beneficiaries in the sample.

When weighed to the estate tax filing population, and as shown in Tables 3C and 3D, the total number of beneficiaries is estimated to be 237,064, with $34.2 billion in total bequests.[9] The results for the estate tax filing population show that, after payment of estate taxes and charitable bequests,[10] about one-half of the distributable estate, or $16.7 billion, is bequeathed to surviving spouses, 24 percent to children, 11.5 percent to trusts, 3.8 percent to siblings, 4.1 percent to nieces and nephews, 3.2 percent to grandchildren, with the remaining 4.6 percent distributed to parents, aunts and uncles, among others.[11]

Table 3E shows that, on average, a child received an average inheritance equal to 22 percent of that received by the surviving spouse, or about $122,000 ($113,910 for sons and $130,242 for daughters). There are 33,010 sons and 34,020 daughters with total inheritances of $3.76 billion and $4.43 billion respectively. Grandchildren, 32,478 of them with $1.08 billion in inheritances, received much smaller inheritances or about 25% of the average child inheritance.

Siblings, with 14,012 heirs, inherited $1.28 billion, with an average inheritance of $91,649 or about 75% of the average child. Nieces and nephews, with 29,576

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[9] Bequests are about $35.7 billion when constructed from estate tax information. The difference is in part due to differences in asset valuation.

[10] Estate taxes, charitable bequests, and other expenses are $5.9 billion ($5.1 federal), $2.7 billion, and $1.5 billion, respectively. Combined, they account for about 22 percent of terminal wealth.

[11] As a share of terminal wealth, spousal bequests account for 38.1 percent of wealth, children 18.7 percent, trusts 9.0 percent, siblings 3.0 percent, nieces and nephews 3.2 percent, grandchildren 2.5 percent, and parents, aunts, among others, account for the remaining 3.6 percent.

beneficiaries, inherited $1.4 billion or an average of $46,982. Bequests to the older generation seldom occurred. Only 42 aunts and uncles were reported with an average inheritance of $62,138. Parents, with 885 beneficiaries, inherited much more. The average inheritance is $127,581 slightly higher than that of the average child.

Other relations include 41,500 individuals with $1.3 billion inheritance or an average of $31,290. These include great grandchildren, in-laws, and friends, among others. Bequests to trusts and estates -- 16,499 of them -- are about $3.49 billion for an average transfer of $239,242. Note that these transfers exclude the surviving spouse's share. As stated earlier, spousal trusts are reported as bequests to spouse.

V. The Bequest division among children:

Evidence on the bequest division is reported on Tables 4A through 10B. As was stated earlier, the estate tax return provides information on the heirs and the size of inheritance. As such, information on disinherited children are not reported on estate tax records. Given that "disinherited" children are not captured in the CS data, one can measure the degree of unequal division of bequests for the heirs only. Consequently, measures of unequal division measured from the CS data should be viewed as providing an upper (lower) bound on the frequency of equal (unequal) division of bequests.[12]

Of the 60,000 estate tax returns filed for the 1982 decedents, some 20,000 reported multi-child heirs. Tables 4A and 4B summarize the extent of equal division among children. The table divides estates into 9 classes of within family coefficients of variation (CVs), ranging from equal division to cases with CV's over 50 percent. These tables shows the number of estates, total and average bequests broken down by size of estate and CV.

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[12] One estate, for instance, reported a single heir to the entire estate. The will, however, showed that the decedent had 6 children with a single heir.

The top panel of Table 4A shows that of a total of 20,178 estates, 12,614, or 63 percent of the total as shown in the top panel of Table 4B, reported equal bequest divisions.[13] In contrast, 21 percent reported CV's in excess of 20 percent. With the exception of estates under $500,000, the relative frequency of equal division declines with the size of the estate.

It is a possible that the above reported results could be misleading to the extent that some children have a portion, if not all, of their inheritances held in trust, rather than received a direct transfers. Since transfers to trusts are reported as such and the relationship to the heir is not reported, the findings on the division of bequests can be misleading. To evaluate the extent of bias that the presence of trusts introduces, Tables 4A-B were re-estimated by excluding all estates reporting any trust transfers and the results reported in Tables 5A and 5B. Comparing the division of bequest in tables 4A-B and 5A-B suggests that the presence of trusts does not necessarily yield biased aggregate estimates for the division of bequests. The results show that less than two-thirds of estates divide equally. Of course, we still remain ignorant of the true division of bequests when trusts are present.

In addition to trusts, a second concern involves estates with spousal transfers. Surviving spouses receive the bulk of the terminal wealth for some estates. Consequently, it is possible that equal division of the estate may have to be postponed until the death of the surviving parent. To test for this potential bias, estates with spousal transfers, in addition to those with trusts, were excluded. Tables 6A and 6B provides information on the bequest division for the estates of widowed decedents with no trust beneficiaries. Again, the results are consistent with those in Tables 4A-B and 5A-B. About 63 percent of the estates provide for equal divisions of bequests.

Tables 4A-B through 6A-B show the probability of unequal division to rise with the size of gross estate. Estates with assets under $500,000 are the exception.

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[13] Note that equal division is defined as having CV's under 0.001 percent.

However, if equal division were to be defined as having a CV of under 1 percent, then the size of the estate would seem to have a lesser effect on the pattern of bequest division. In addition, if one were interested in the distributions of bequests (dollars) than the relative frequency of estates by CV, than a slightly different picture emerges with the disparities becoming much smaller.

Another interesting question is whether the bequest division varies with the number of children. Tables 7A-B replicate Tables 4A-B for two-child parents.[14] Tables 8A-B through 10A-B also provide similar statistics for three to five child estates. The results, reported in tables 8A through 10B, show that 67 percent of the two-child estates divide equally, 63 percent for the three child, 56 for the four-child, and, interestingly, 65 percent for five-child estate.

The above results are subject to several caveats. First, and as noted earlier, they do not account for disinherited children. Second, the estate division may not necessarily reflect the parent's will as much as the heirs' choice. One will, for instance, provided for equal division but deferred to the children on alternative ways of dividing personal property which they did. This is likely to lead to an overstatement of the frequency of unequal division, especially among the less wealthy. Third, the inheritances of the son-and-daughter-in-laws, as well as grandchildren, are not added to the children's inheritances.

VI. Heir's Income and the Size of Inheritance:

Using the matched beneficiary income tax records and parents estate tax returns, this section provides estimates of the distribution of inheritance received by size of the pre-inheritance income of the children. Tables 11A through 11D provide summary

[14] Recall that these do not include disinherited children.

statistics on the adjusted gross income (AGI) in 1981 of the children along with the inheritance received.

Tables 11A and 11B provide sample summary statistics. The top panel of Table 11A shows the number of children by the size of their AGI and the parents gross estate. The number of matched returns in the sample is 7,830 although 8,499 heirs are reported on the estate tax return. The difference, as discussed earlier, can be attributed to the fact that many heirs need not file an income tax return, as well as other factors. The 7,830 individuals have combined AGI of about $672 million, and inheritances of about $1.94 billion.

Tables 11C and 11D provide summary statistics weighted to the estate tax filing population.[15] The results in Table 11C show that 54,000 children received inheritances from estate tax decedents in 1982. Their total AGI in 1981 was about $2.57 billion and the inheritance received is $8.29 billion, or three times their income. The top panel shows that wealthy parents are more likely to have high income children. Less than one percent (0.0077) of the children of the least wealthy, or 220 out of 28483 individuals, have incomes in excess of $200,000. In contrast, 34.9 percent of the children of the wealthiest parents, or 84 out of 241 observations, have incomes in excess of $200,000. The reverse pattern is observed for children with positive income under $10,000. About 12 percent (3,409 out of 28,483) of the children of the least wealthy compared to 5 percent of those of the wealthiest fall in this income group.

The top two panels of Table 11D report mean values for AGI and inheritance received. The average AGI is $47,433, and ranges from a positive AGI mean of $5,376 to a high of $352,427. In addition, the average income of children rises with the wealth of the parent. The average income of children of the least wealthy group is $34,960 compared to $271,254 for the wealthiest group. This pattern is probably

[15] To account for attrition, the matched sample was post-stratified and new weights were computed.

due to greater human capital transfers to children of the wealthiest group, with little should be attributed to inter-vivos gift.[16]

In contrast to AGI, the mean inheritance seems to be invariant to the size of income of the heirs. The average inheritance ranges from about $115,000 in the lowest positive AGI class to $265,000 in the top AGI class, and from $131,000 for the heirs of the least wealthy to about $630,000 for the heirs of the wealthiest. On average, the inheritance received is about three fold the average income. This multiple ranges from a high of 21 in the lowest positive AGI class to a low of 0.75 times the average income in the top bracket, partially reflecting income mobility.[17]

Since the pattern of bequests, as well as the size of terminal wealth, is likely to vary by the marital status of the decedent (married or surviving spouse), Tables 11C-D are replicated in Tables 11E-F for widowed or widowered decedents and Tables 11G-H for married decedents. The top panel of Table 11F for widowed (and widowered) decedents shows that the average child AGI is $48,410, slightly higher than the average of $47,433 for all children reported in Table 11D. In contrast, the average inheritance of $173,985, shown in the middle panel of Table 11F, is considerable higher than the average of $152,909 reported in Table 11D. The average inheritance is about 3.6 times the average income of a child, where the multiple ranges from a high of 29.2 fold for the lowest income heirs to 0.88 for the highest income heirs.

In contrast to the results in Table 11F, the top panel of Table 11H for the children of married decedents shows an average AGI of $46,570, slightly lower than the average of $47,433 for all children reported in Table 11D. In addition, the average inheritance of $133,747 shown in the middle panel of Table 11H, is considerable lower

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[16] Tables 2A and 2B show $294 million in post-1977 cumulative taxable gifts compared to terminal net worth of $45.9 billion in 1982.

[17] Note these statistics do not account for age differences nor do they control for between/within group (siblings) variations.

than the average of $152,909 reported in Table 11D. The average inheritance is 2.87 times the average income is 2.87, and this multiple ranges from a high of 13.9 to 0.63.

VII. Conclusion:

Using the 1982 Collation Study data, this paper provided detailed evidence on the pattern of distribution and division of bequests for top wealth holders in the U.S. The CS data is unique in that it contains information from estate tax returns for decedents, along with their income tax returns and the returns of the heirs.

The paper described the composition of terminal wealth and its disposition. The data show that estate taxes, charitable bequests, and other death expenses represent about 22 percent of net worth. Second, it provided information on the relative size of inheritance for eleven categories of beneficiaries. After payment of estate taxes, charitable bequests, and other death expenses, about one-half of the distributable estate, or $16.7 billion, is bequeathed to surviving spouses, 24 percent to children, 11.5 percent to trusts, 3.8 percent to siblings, 4.1 percent to nieces and nephews, 3.2 percent to grandchildren, with the remaining 4.6 percent distributed to parents, aunts and uncles, among others.

Third, it provided evidence on the relative frequency of equal division of bequest for multi-child estates. The evidence shows that 63 percent of the estates divide bequests equally. Fourth, it compared inheritance received to the pre-inheritance income of the children. The results show that the average inheritance is about three times the size of the average AGI. The results also show that wealthy parents are more likely to have children with high income. About 35 percent of the children of the wealthiest decedents reported income in excess of $200,000 compared to less than 0.8 percent of those of the least wealthy.

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TABLE 1A

NUMBER OF ESTATES BY SIZE OF ESTATE -- SAMPLE

GROSS ESTATE	REAL---- ESTATE-- --------	STATE--- LOCAL--- BONDS---	FEDERAL- SAVINGS- BONDS---	OTHER--- FEDERAL- BONDS---	CORPORAT BONDS--- --------	CORPORAT STOCKS-- --------	CASH---- -------- --------	NOTES--- MORTGAGE --------	LIFE---- INSURANC --------	POLICY-- LOANS--- --------
300000. -$ 500000.	170.	40.	40.	39.	35.	153.	211.	73.	166.	14.
500000. -$1000000.	129.	51.	36.	31.	31.	129.	147.	57.	93.	13.
1000000. -$2500000.	5151.	2644.	940.	1642.	1731.	5291.	6064.	2822.	3493.	697.
2500000. -$10000000	1436.	866.	202.	496.	487.	1469.	1646.	871.	943.	241.
10000000 -$********	164.	114.	24.	65.	62.	176.	187.	116.	100.	17.
TOTAL	7050.	3715.	1242.	2273.	2346.	7218.	8255.	3939.	4795.	982.

GROSS ESTATE	NONCORPO ASSETS-- --------	ANNUITIE PENSIONS --------	OTHER--- ASSETS-- --------	LIFETIME GIFTS--- --------	GROSS--- ESTATE-- --------	FUNERAL- EXPENSES --------	EXECUTOR COMMISSI --------	ATTORNEY FEES---- --------	OTHER--- EXPENSES --------	DEBTS--- -------- --------
300000. -$ 500000.	51.	19.	188.	25.	298.	271.	73.	156.	175.	238.
500000. -$1000000.	39.	21.	143.	23.	155.	144.	54.	99.	110.	137.
1000000. -$2500000.	2161.	903.	5810.	1468.	6194.	5890.	2587.	3918.	4583.	5661.
2500000. -$10000000	700.	234.	1607.	538.	1671.	1598.	818.	1125.	1289.	1570.
10000000 -$********	99.	26.	184.	81.	191.	181.	107.	134.	154.	181.
TOTAL	3050.	1203.	7932.	2135.	8509.	8084.	3639.	5432.	6311.	7787.

GROSS ESTATE	CHARITAB BEQUESTS --------	SPOUSAL- BEQUEST- --------	ESTATE-- TAX----- FEDERAL	OTHER--- TAXES--- --------	NOT INC- INSURANC --------	JOINTLY- HELD---- ASSETS--	COMMUNIT PROPERTY --------	NET----- WORTH--- --------	TAXABLE- GIFTS--- --------	-------- -------- --------
300000. -$ 500000.	36.	145.	157.	156.	11.	168.	23.	298.	8.	0.
500000. -$1000000.	25.	76.	105.	108.	12.	74.	22.	155.	13.	0.
1000000. -$2500000.	1519.	3395.	4230.	4490.	1011.	3244.	678.	6194.	676.	0.
2500000. -$10000000	570.	956.	1263.	1315.	362.	799.	213.	1671.	364.	0.
10000000 -$********	96.	114.	168.	169.	51.	86.	26.	191.	76.	0.
TOTAL	2246.	4686.	5923.	6238.	1447.	4371.	962.	8509.	1137.	0.

TABLE 1B

SAMPLE MEANS FOR WEALTH VARIABLES BY SIZE OF ESTATE

GROSS ESTATE	REAL---- ESTATE-- --------	STATE--- LOCAL--- BONDS---	FEDERAL- SAVINGS- BONDS---	OTHER--- FEDERAL- BONDS---	CORPORAT BONDS--- --------	CORPORAT STOCKS-- --------	CASH---- -------- --------	NOTES--- MORTGAGE --------	LIFE---- INSURANC --------	POLICY-- LOANS--- --------
300000. -$ 500000.	155716.	35249.	29094.	70806.	22318.	84729.	85723.	61253.	30383.	12473.
500000. -$1000000.	211507.	97356.	37734.	119671.	21505.	176302.	123637.	69668.	55502.	19339.
1000000. -$2500000.	415154.	187482.	49919.	190761.	48302.	491424.	150878.	133911.	93823.	27593.
2500000. -$10000000	895341.	569676.	94226.	483604.	97955.	1564324.	270926.	285954.	136723.	48282.
10000000 -$********	3046377.	3232344.	169048.	2648385.	439124.	11458691.	1168214.	1037907.	233750.	85415.
TOTAL	564189.	367134.	58403.	321916.	68196.	962947.	195710.	191877.	102239.	33347.

GROSS ESTATE	NONCORPO ASSETS-- --------	ANNUITIE PENSIONS --------	OTHER--- ASSETS-- --------	LIFETIME GIFTS--- --------	GROSS--- ESTATE-- --------	FUNERAL- EXPENSES --------	EXECUTOR COMMISSI --------	ATTORNEY FEES---- --------	OTHER--- EXPENSES --------	DEBTS--- -------- --------
300000. -$ 500000.	43095.	51353.	12740.	210582.	380399.	5979.	9043.	7663.	3321.	22281.
500000. -$1000000.	92535.	61198.	26873.	397507.	681697.	4010.	17084.	13006.	4272.	36401.
1000000. -$2500000.	159970.	93974.	65153.	710729.	1474295.	4664.	33432.	26257.	12051.	104143.
2500000. -$10000000	483188.	159902.	223216.	1870791.	4151279.	5794.	89709.	65333.	41899.	348999.
10000000 -$********	3010794.	91928.	2943847.	8627056.	26125366.	8103.	482635.	270481.	261951.	1414864.
TOTAL	323870.	105508.	162021.	1294161.	2500592.	4997.	58559.	39599.	23868.	180283.

GROSS ESTATE	CHARITAB BEQUESTS --------	SPOUSAL- BEQUEST- --------	ESTATE-- TAX----- FEDERAL-	OTHER--- TAXES--- --------	NOT INC- INSURANC --------	JOINTLY- HELD---- ASSETS--	COMMUNIT PROPERTY --------	NET----- WORTH--- --------	TAXABLE- GIFTS--- --------	DECEDENT AGE----- --------
300000. -$ 500000.	64744.	245724.	34644.	4936.	84463.	123931.	632427.	362603.	48586.	74.
500000. -$1000000.	85190.	447516.	94017.	11677.	128831.	143086.	1049387.	649523.	72600.	74.
1000000. -$2500000.	264737.	905999.	278584.	38058.	169217.	180644.	2108027.	1379181.	77526.	75.
2500000. -$10000000	908227.	2521954.	909738.	153877.	337970.	230191.	5118727.	3823373.	136532.	75.
10000000 -$********	10805171.	19299988.	3743062.	868710.	686538.	642013.	18996178.	24784586.	288982.	76.
TOTAL	873367.	1655292.	501698.	83692.	228689.	195963.	3171584.	2335655.	110290.	75.

TABLE 1C

NUMBER OF INCOME TAX RETURNS BY SIZE OF ESTATE -- SAMPLE

GROSS ESTATE	DECEDENT 1980----	DECEDENT 1981----	DECEDENT 1982----
300000. -$ 500000.	276.	274.	245.
500000. -$1000000.	146.	145.	136.
1000000. -$2500000.	5716.	5831.	5566.
2500000. -$10000000	1552.	1582.	1526.
10000000 -$********	181.	183.	178.
TOTAL	7871.	8015.	7651.

GROSS ESTATE	BENEFIC- 1980----	BENEFIC- 1981----	BENEFIC- 1982----	BENEFIC- 1985----
300000. -$ 500000.	442.	443.	442.	429.
500000. -$1000000.	223.	225.	215.	214.
1000000. -$2500000.	11542.	11561.	11219.	10724.
2500000. -$10000000	3713.	3740.	3596.	3537.
10000000 -$********	614.	616.	591.	540.
TOTAL	16534.	16585.	16063.	15444.

TABLE 2A

NUMBER OF ESTATES BY SIZE OF ESTATE -- WEIGHTED

GROSS ESTATE	REAL---- ESTATE-- --------	STATE--- LOCAL--- BONDS---	FEDERAL- SAVINGS- BONDS---	OTHER--- FEDERAL- BONDS---	CORPORAT BONDS--- --------	CORPORAT STOCKS-- --------	CASH--- -------- --------	NOTES &- MORTGAGE --------	LIFE---- INSURANC --------	POLICY-- LOANS--- --------
300000. -$ 500000	18562.	4368.	4368.	4258.	3822.	16706.	23039.	7971.	18125.	1529.
500000. -$1000000	15318.	6056.	4275.	3681.	3681.	15318.	17455.	6768.	11043.	1544.
1000000. -$2500000	5686.	2918.	1038.	1812.	1911.	5840.	6694.	3115.	3856.	769.
2500000. -$10000000	1634.	985.	230.	564.	554.	1671.	1873.	991.	1073.	274.
10000000 -$********	187.	130.	27.	74.	71.	201.	213.	132.	114.	19.
TOTAL	41386.	14457.	9937.	10390.	10038.	39736.	49273.	18977.	34211.	4135.

GROSS ESTATE	NONCORPO ASSETS-- --------	ANNUITIE PENSIONS --------	OTHER--- ASSETS-- --------	LIFETIME TRANSFER --------	GROSS--- ESTATE-- --------	FUNERAL- EXPENSES --------	EXECUTOR COMMISSI --------	ATTORNEY FEES---- --------	OTHER--- EXPENSES --------	DEBTS--- -------- --------
300000. - $500000.	5569.	2075.	20527.	2730.	32538.	29590.	7971.	17033.	19108.	25987.
500000. -$1000000.	4631.	2494.	16980.	2731.	18405.	17099.	6412.	11755.	13062.	16268.
1000000. -$2500000.	2385.	997.	6413.	1620.	6837.	6501.	2856.	4325.	5059.	6249.
2500000. -$10000000	796.	266.	1828.	612.	1901.	1818.	931.	1280.	1466.	1786.
10000000 -$********	113.	30.	210.	92.	218.	207.	122.	153.	176.	207.
TOTAL	13494.	5861.	45959.	7786.	59899.	55215.	18291.	34546.	38870.	50496.

GROSS ESTATE	CHARITAB BEQUESTS --------	SPOUSAL- BEQUEST- --------	ESTATE-- TAX----- FEDERAL-	OTHER--- TAXES--- --------	NOT INC- INSURANC --------	JOINTLY- HELD---- ASSETS--	COMMUNIT PROPERTY --------	NET----- WORTH--- --------	TAXABLE- GIFTS--- --------	-------- --------
300000. - $500000.	3931.	15832.	17143.	17033.	1201.	18344.	2511.	32538.	874.	0.
500000. -$1000000.	2969.	9024.	12468.	12824.	1425.	8787.	2612.	18405.	1544.	0.
1000000. -$2500000.	1677.	3747.	4669.	4957.	1116.	3581.	748.	6837.	746.	0.
2500000. -$10000000	648.	1088.	1437.	1496.	412.	909.	242.	1901.	414.	0.
10000000 -$********	110.	130.	192.	193.	58.	98.	30.	218.	87.	0.
TOTAL	9334	29822.	35908.	36504.	4212.	31718.	6144.	59899.	3664.	0.

TABLE 2B

TOTALS FOR WEALTH VARIABLES BY SIZE ESTATE (in $millions except for age) -- WEIGHTED

GROSS ESTATE	REAL-ESTATE	STATE-LOCAL-BONDS	FEDERAL-SAVINGS-BONDS	OTHER-FEDERAL-BONDS	CORPORAT BONDS	CORPORAT STOCKS	CASH	NOTES & MORTGAGE	LIFE-INSURANC	POLICY-LOANS
300000. - $500000.	2890.	154.	127.	302.	85.	1415.	1975.	488.	551.	19.
500000. -$1000000.	3240.	590.	161.	441.	79.	2701.	2158.	472.	613.	30.
1000000. -$2500000.	2360.	547.	52.	346.	92.	2870.	1010.	417.	362.	21.
2500000. -$10000000	1463.	561.	22.	273.	54.	2614.	507.	283.	147.	13.
10000000 -$********	570.	421.	5.	196.	31.	2302.	249.	137.	27.	2.
TOTAL	10524.	2273.	366.	1557.	342.	11902.	5900.	1798.	1699.	85.

GROSS ESTATE	NONCORPO ASSETS	ANNUITIE PENSIONS	OTHER-ASSETS	LIFETIME TRANSFER	GROSS-ESTATE	FUNERAL EXPENSES	EXECUTOR COMMISSI	ATTORNEY FEES	OTHER-EXPENSES	DEBTS
300000. - $500000.	240.	107.	262.	575.	12377.	177.	72.	131.	63.	579.
500000. -$1000000.	429.	153.	456.	1086.	12547.	69.	110.	153.	56.	592.
1000000. -$2500000.	382.	94.	418.	1152.	10080.	30.	95.	114.	61.	651.
2500000. -$10000000	385.	43.	408.	1145.	7892.	11.	83.	84.	61.	623.
10000000 -$********	340.	3.	618.	798.	5695.	2.	59.	41.	46.	292.
TOTAL	1775.	398.	2162.	4755.	48591.	288.	420.	522.	288.	2738.

GROSS ESTATE	CHARITAB BEQUESTS	SPOUSAL-BEQUEST	ESTATE-TAX FEDERAL	OTHER-TAXES	NOT INC-INSURANC	JOINTLY-HELD-ASSETS	COMMUNIT PROPERTY	NET-WORTH	TAXABLE-GIFTS	DECEDENT AGE
300000. - $500000.	254.	3890.	594.	84.	101.	2273.	1588.	11798.	42.	74.
500000. -$1000000.	253.	4039.	1172.	150.	184.	1257.	2741.	11954.	112.	74.
1000000. -$2500000.	444.	3395.	1301.	189.	189.	647.	1578.	9429.	58.	75.
2500000. -$10000000	589.	2743.	1307.	230.	139.	209.	1240.	7268.	57.	75.
10000000 -$********	1184.	2511.	718.	168.	40.	63.	564.	5403.	25.	76.
TOTAL	2724.	16578.	5092.	820.	653.	4450.	7711.	45854.	294.	74.

TABLE 3A

NUMBER OF HEIRS BY TYPE OF RELATION AND SIZE OF ESTATE -- SAMPLE

GROSS ESTATE	BEQUEST SPOUSE- COUNT--	BEQUEST SON---- COUNT--	BEQUEST DAUGHTE COUNT--	BEQUEST GRANDCH COUNT--	BEQUEST SIBLING COUNT--	BEQUEST NIECE&N COUNT--	BEQUEST AUNT&UN COUNT--	BEQUEST PARENT- COUNT--	BEQUEST OTHER-- COUNT--	BEQUEST TRUST&E COUNT--
300000. -$ 500000.	146.	167.	163.	116.	72.	171.	0.	5.	154.	43.
500000. -$1000000.	77.	83.	94.	117.	36.	43.	0.	2.	99.	59.
1000000. -$2500000.	3405.	3346.	3423.	3750.	1257.	3934.	29.	79.	7775.	2858.
2500000. -$10000000	956.	952.	1009.	1347.	400.	1145.	8.	10.	3117.	1235.
10000000 -$********	114.	126.	118.	217.	29.	135.	1.	3.	702.	209.
TOTAL	4698.	4674.	4807.	5547.	1794.	5428.	38.	99.	11847.	4404.

GROSS ESTATE	BEQUEST NA----- COUNT--	BEQUEST TOTAL-- COUNT--
300000. -$ 500000.	26.	1063.
500000. -$1000000.	10.	620.
1000000. -$2500000.	650.	30506.
2500000. -$10000000	155.	10334.
10000000 -$********	53.	1707.
TOTAL	894.	44230.

TABLE 3B

AVERAGE INHERITANCE BY TYPE OF RELATION AND SIZE OF ESTATE -- SAMPLE

GROSS ESTATE	BEQUEST SPOUSE- AMOUNT-	BEQUEST SON--- AMOUNT-	BEQUEST DAUGHTE AMOUNT-	BEQUEST GRANDCH AMOUNT-	BEQUEST SIBLING AMOUNT-	BEQUEST NIECE&N AMOUNT-	BEQUEST AUNT&UN AMOUNT-	BEQUEST PARENT- AMOUNT-	BEQUEST OTHER-- AMOUNT-	BEQUEST TRUST&E AMOUNT-
300000. -$ 500000.	246281.	83861.	97487.	25523.	74964.	31751.	0.	58006.	21437.	165667.
500000. -$1000000.	450623.	101003.	130943.	25497.	109528.	69158.	0.	324521.	35571.	184618.
1000000. -$2500000.	906096.	200951.	202023.	48551.	113688.	67395.	74738.	146331.	35523.	302735.
2500000. -$10000000	2524250.	363965.	334979.	101588.	139675.	108377.	19342.	368505.	43300.	488242.
10000000 -$********	19299988.	690073.	641803.	204910.	161279.	63436.	50000.	552699.	76757.	985343.
TOTAL	1653745.	241380.	235791.	66579.	118614.	74832.	62425.	180226.	39830.	384230.

GROSS ESTATE	BEQUEST NA----- AMOUNT-	BEQUEST TOTAL-- AMOUNT-
300000. -$ 500000.	32468.	85794.
500000. -$1000000.	18334.	129897.
1000000. -$2500000.	41556.	203940.
2500000. -$10000000	49803.	402939.
10000000 -$********	30385.	1572188.
TOTAL	41799.	299363.

TABLE 3C

NUMBER OF HEIRS BY TYPE OF RELATION AND SIZE OF ESTATE -- WEIGHTED

GROSS ESTATE	BEQUEST SPOUSE- COUNT--	BEQUEST SON---- COUNT--	BEQUEST DAUGHTE COUNT--	BEQUEST GRANDCH COUNT--	BEQUEST SIBLING COUNT--	BEQUEST NIECE&N COUNT--	BEQUEST AUNT&UN COUNT--	BEQUEST PARENT- COUNT--	BEQUEST OTHER-- COUNT--	BEQUEST TRUST&E COUNT--
300000. -$ 500000.	15941.	18234.	17798.	12666.	7862.	18671.	0.	546.	16815.	4695.
500000. -$1000000.	9143.	9856.	11162.	13893.	4275.	5106.	0.	237.	11755.	7006.
1000000. -$2500000.	3758.	3693.	3778.	4139.	1387.	4342.	32.	87.	8582.	3155.
2500000. -$10000000	1088.	1083.	1148.	1532.	455.	1303.	9.	11.	3546.	1405.
10000000 -$********	130.	144.	135.	248.	33.	154.	1.	3.	801.	239.
TOTAL	30061.	33010.	34020.	32478.	14012.	29576.	42.	885.	41500.	16499.

GROSS ESTATE	BEQUEST NA----- COUNT--	BEQUEST TOTAL-- COUNT--
300000. -$ 500000.	2839.	116067.
500000. -$1000000.	1187.	73620.
1000000. -$2500000.	717.	33673.
2500000. -$10000000	176.	11756.
10000000 -$********	60.	1948.
TOTAL	4981.	237064.

TABLE 3D

AMOUNT OF INHERITANCE BY TYPE OF RELATION AND SIZE OF ESTATE -- WEIGHTED

GROSS ESTATE	BEQUEST SPOUSE- ($000)-	BEQUEST SON--- ($000)-	BEQUEST DAUGHTE ($000)-	BEQUEST GRANDCH ($000)-	BEQUEST SIBLING ($000)-	BEQUEST NIECE&N ($000)-	BEQUEST AUNT&UN ($000)-	BEQUEST PARENT- ($000)-	BEQUEST OTHER-- ($000)-	BEQUEST TRUST&E ($000)-
300000. -$ 500000.	3926071.	1529153.	1735046.	323263.	589332.	592828.	0.	31668.	360467.	777818.
500000. -$1000000.	4120104.	995438.	1461548.	354223.	468199.	353115.	0.	77069.	418150.	1293393.
1000000. -$2500000.	3405539.	742180.	763310.	200969.	157741.	292655.	2392.	12760.	304867.	955033.
2500000. -$10000000	2745338.	394187.	384516.	155674.	63560.	141172.	176.	4192.	153543.	685974.
10000000 -$********	2511222.	99240.	86438.	50751.	5338.	9774.	57.	1892.	61501.	235048.
TOTAL	16708274.	3760200.	4430857.	1084880.	1284169.	1389544.	2625.	127581.	1298527.	3947266.

GROSS ESTATE	BEQUEST NA----- ($000)-	BEQUEST TOTAL-- ($000)-
300000. -$ 500000.	92173.	9957835.
500000. -$1000000.	21770.	9563011.
1000000. -$2500000.	29815.	6867253.
2500000. -$10000000	8782.	4737113.
10000000 -$********	1838.	3063100.
TOTAL	154379.	34188313.

TABLE 3E

AVERAGE INHERITANCE BY TYPE OF RELATION AND SIZE OF ESTATE - WEIGHTED

GROSS ESTATE	BEQUEST SPOUSE- AMOUNT-	BEQUEST SON--- AMOUNT-	BEQUEST DAUGHTE AMOUNT-	BEQUEST GRANDCH AMOUNT-	BEQUEST SIBLING AMOUNT-	BEQUEST NIECE&N AMOUNT-	BEQUEST AUNT&UN AMOUNT-	BEQUEST PARENT- AMOUNT-	BEQUEST OTHER-- AMOUNT-	BEQUEST TRUST&E AMOUNT-
300000. -$ 500000.	246281.	83861.	97487.	25523.	74964.	31751.	0.	58006.	21437.	165667.
500000. -$1000000.	450623.	101003.	130943.	25497.	109528.	69158.	0.	324521.	35571.	184618.
1000000. -$2500000.	906096.	200951.	202022.	48551.	113688.	67395.	74738.	146331.	35523.	302734.
2500000. -$10000000	2524249.	363965.	334979.	101588.	139675.	108377.	19342.	368505.	43300.	488242.
10000000 -$********	19299988.	690073.	641803.	204910.	161279.	63436.	50000.	552699.	76757.	985342.
TOTAL	555817.	113910.	130242.	33404.	91649.	46982.	62138.	144090.	31290.	239242.

GROSS ESTATE	BEQUEST NA----- AMOUNT-	BEQUEST TOTAL-- AMOUNT-
300000. -$ 500000.	32468.	85794.
500000. -$1000000.	18334.	129897.
1000000. -$2500000.	41556.	203940.
2500000. -$10000000	49803.	402939.
10000000 -$********	30385.	1572188.
TOTAL	30996.	144215.

TABLE 4A

NUMBER OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED

GROSS ESTATE	- ZERO- COUNT--	- 0-1%- COUNT--	- 1-2%- COUNT--	- 2-3%- COUNT--	- 3-5%- COUNT--	- 5-10% COUNT--	-10-20% COUNT--	-20-50% COUNT--	- 50%-- COUNT--	- ALL-- COUNT
300000. -$ 500000.	6333.	437.	218.	109.	218.	218.	437.	1310.	1529.	10810.
500000. -$1000000.	4275.	712.	0.	119.	119.	237.	0.	475.	356.	6293.
1000000. -$2500000.	1535.	211.	30.	18.	35.	62.	78.	148.	184.	2301.
2500000. -$10000000	431.	59.	13.	7.	13.	17.	36.	44.	73.	693.
10000000 -$********	40.	16.	1.	0.	0.	1.	7.	8.	8.	81.
TOTAL	12614.	1435.	262.	252.	385.	536.	558.	1985.	2150.	20178.

AMOUNT OF BEQUEST BY C.V. AND SIZE OF ESTATE -- WEIGHTED

GROSS ESTATE	- ZERO- ($000)-	- 0-1%- ($000)-	- 1-2%- ($000)-	- 2-3%- ($000)-	- 3-5%- ($000)-	- 5-10% ($000)-	-10-20% ($000)-	-20-50% ($000)-	- 50%-- ($000)-	- ALL-- ($000)-
300000. -$ 500000.	1489534.	118088.	32456.	30947.	67582.	78327.	85197.	255043.	248676.	2405849.
500000. -$1000000.	1201863.	212516.	0.	22460.	34130.	75174.	0.	195469.	136852.	1878464.
1000000. -$2500000.	746177.	108787.	18036.	9153.	14809.	32622.	43608.	69390.	74298.	1116881.
2500000. -$10000000	359829.	53080.	11087.	8287.	15979.	17694.	33262.	34118.	63416.	596754.
10000000 -$********	80994.	28728.	348.	0.	0.	318.	15044.	12480.	8303.	146215.
TOTAL	3878397.	521199.	61927.	70847.	132500.	204135.	177112.	566500.	531546.	6144163.

TABLE 4B

PERCENT OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	59.	4.	2.	1.	2.	2.	4.	12.	14.	100.
500000. -$1000000.	68.	11.	0.	2.	2.	4.	0.	8.	6.	100.
1000000. -$2500000.	67.	9.	1.	1.	2.	3.	3.	6.	8.	100.
2500000. -$10000000	62.	9.	2.	1.	2.	2.	5.	6.	11.	100.
10000000 -$********	49.	20.	1.	0.	0.	1.	8.	10.	10.	100.
TOTAL	63.	7.	1.	1.	2.	3.	3.	10.	11.	100.

PERCENT OF BEQUESTS BY C.V. AND SIZE OF ESTATE -- WEIGHTED

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	62.	5.	1.	1.	3.	3.	4.	11.	10.	100.
500000. -$1000000.	64.	11.	0.	1.	2.	4.	0.	10.	7.	100.
1000000. -$2500000.	67.	10.	2.	1.	1.	3.	4.	6.	7.	100.
2500000. -$10000000	60.	9.	2.	1.	3.	3.	6.	6.	11.	100.
10000000 -$********	55.	20.	0.	0.	0.	0.	10.	9.	6.	100.
TOTAL	63.	8.	1.	1.	2.	3.	3.	9.	9.	100.

TABLE 5A

NUMBER OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Excludes Estates with Trust beneficiaries)

GROSS ESTATE	- ZERO- COUNT--	- 0-1%- COUNT--	- 1-2%- COUNT--	- 2-3%- COUNT--	- 3-5%- COUNT--	- 5-10% COUNT--	-10-20% COUNT--	-20-50% COUNT--	- 50%-- COUNT--	- ALL-- COUNT
300000. -$ 500000.	6005.	437.	109.	109.	218.	218.	328.	1092.	1419.	9936.
500000. -$1000000.	3562.	712.	0.	119.	119.	237.	0.	356.	237.	5343.
1000000. -$2500000.	1231.	180.	23.	13.	31.	52.	63.	118.	116.	1827.
2500000. -$10000000	306.	42.	10.	6.	11.	11.	24.	25.	43.	479.
10000000 -$********	27.	13.	0.	0.	0.	0.	5.	3.	2.	50.
TOTAL	11132.	1384.	143.	247.	379.	519.	419.	1595.	1818.	17635.

AMOUNT OF BEQUEST BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Excludes Estates with Trust beneficiaries)

GROSS ESTATE	- ZERO- ($000)-	- 0-1%- ($000)-	- 1-2%- ($000)-	- 2-3%- ($000)-	- 3-5%- ($000)-	- 5-10% ($000)-	-10-20% ($000)-	-20-50% ($000)-	- 50%-- ($000)-	- ALL-- ($000)-
300000. -$ 500000.	1428855.	118088.	26887.	30947.	67582.	78327.	83450.	225342.	223728.	2283205.
500000. -$1000000.	995134.	212516.	0.	22460.	34130.	75174.	0.	168771.	105148.	1613333.
1000000. -$2500000.	672120.	103144.	15671.	7902.	13277.	31900.	39007.	60854.	56482.	1000357.
2500000. -$10000000	288447.	40325.	7552.	8160.	14558.	16798.	26742.	24615.	48093.	475291.
10000000 -$********	72922.	26693.	0.	0.	0.	0.	13339.	10349.	1072.	124376.
TOTAL	3457479.	500766.	50110.	69469.	129547.	202199.	162538.	489932.	434523.	5496562.

TABLE 5B

PERCENT OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Excludes Estates with Trust beneficiaries)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	60.	4.	1.	1.	2.	2.	3.	11.	14.	100.
500000. -$1000000.	67.	13.	0.	2.	2.	4.	0.	7.	4.	100.
1000000. -$2500000.	67.	10.	1.	1.	2.	3.	3.	6.	6.	100.
2500000. -$10000000	64.	9.	2.	1.	2.	2.	5.	5.	9.	100.
10000000 -$********	55.	25.	0.	0.	0.	0.	9.	7.	5.	100.
TOTAL	63.	8.	1.	1.	2.	3.	2.	9.	10.	100.

PERCENT OF BEQUESTS BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Excludes Estates with Trust beneficiaries)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	63.	5.	1.	1.	3.	3.	4.	10.	10.	100.
500000. -$1000000.	62.	13.	0.	1.	2.	5.	0.	10.	7.	100.
1000000. -$2500000.	67.	10.	2.	1.	1.	3.	4.	6.	6.	100.
2500000. -$10000000	61.	8.	2.	2.	3.	4.	6.	5.	10.	100.
10000000 -$********	59.	21.	0.	0.	0.	0.	11.	8.	1.	100.
TOTAL	63.	9.	1.	1.	2.	4.	3.	9.	8.	100.

TABLE 6A

NUMBER OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Excludes Estates with Trust or Spouse Beneficiaries)

GROSS ESTATE	- ZERO- COUNT--	- 0-1%- COUNT--	- 1-2%- COUNT--	- 2-3%- COUNT--	- 3-5%- COUNT--	- 5-10% COUNT--	-10-20% COUNT--	-20-50% COUNT--	- 50%-- COUNT--	- ALL-- COUNT
300000. -$ 500000.	3494.	218.	109.	109.	109.	218.	109.	655.	546.	5569.
500000. -$1000000.	1662.	119.	0.	0.	0.	119.	0.	356.	237.	2494.
1000000. -$2500000.	527.	75.	12.	8.	11.	29.	36.	66.	61.	825.
2500000. -$10000000	101.	13.	3.	1.	5.	7.	8.	16.	23.	176.
10000000 -$********	8.	2.	0.	0.	0.	0.	2.	2.	1.	16.
TOTAL	5792.	427.	125.	118.	125.	373.	156.	1096.	868.	9079.

AMOUNT OF BEQUEST BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Excludes Estates with Trust or Spouse Beneficiaries)

GROSS ESTATE	- ZERO- ($000)-	- 0-1%- ($000)-	- 1-2%- ($000)-	- 2-3%- ($000)-	- 3-5%- ($000)-	- 5-10% ($000)-	-10-20% ($000)-	-20-50% ($000)-	- 50%-- ($000)-	- ALL-- ($000)-
300000. -$ 500000.	1039776.	64086.	26887.	30947.	40499.	78327.	36437.	168350.	117134.	1602442.
500000. -$1000000.	636336.	54930.	0.	0.	0.	42615.	0.	168771.	105148.	1007800.
1000000. -$2500000.	416138.	60071.	10223.	5727.	6721.	22252.	28394.	46390.	37427.	633344.
2500000. -$10000000	157669.	21103.	4788.	1794.	7052.	11111.	12834.	20769.	30537.	267657.
10000000 -$********	39950.	6154.	0.	0.	0.	0.	9723.	7391.	63.	63281.
TOTAL	2289869.	206344.	41898.	38468.	54271.	154306.	87388.	411672.	290308.	3574524.

TABLE 6B

PERCENT OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Excludes Estates with Trust or Spouse Beneficiaries)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	63.	4.	2.	2.	2.	4.	2.	12.	10.	100.
500000. -$1000000.	67.	5.	0.	0.	0.	5.	0.	14.	10.	100.
1000000. -$2500000.	64.	9.	1.	1.	1.	3.	4.	8.	7.	100.
2500000. -$10000000	57.	7.	2.	1.	3.	4.	5.	9.	13.	100.
10000000 -$********	50.	14.	0.	0.	0.	0.	14.	14.	7.	100.
TOTAL	64.	5.	1.	1.	1.	4.	2.	12.	10.	100.

PERCENT OF BEQUESTS BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Excludes Estates with Trust or Spouse Beneficiaries)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	65.	4.	2.	2.	3.	5.	2.	11.	7.	100.
500000. -$1000000.	63.	5.	0.	0.	0.	4.	0.	17.	10.	100.
1000000. -$2500000.	66.	9.	2.	1.	1.	4.	4.	7.	6.	100.
2500000. -$10000000	59.	8.	2.	1.	3.	4.	5.	8.	11.	100.
10000000 -$********	63.	10.	0.	0.	0.	0.	15.	12.	0.	100.
TOTAL	64.	6.	1.	1.	2.	4.	2.	12.	8.	100.

Table 7A

NUMBER OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Two-Child Estates only)

GROSS ESTATE	- ZERO- COUNT--	- 0-1%- COUNT--	- 1-2%- COUNT--	- 2-3%- COUNT--	- 3-5%- COUNT--	- 5-10% COUNT--	-10-20% COUNT--	-20-50% COUNT--	- 50%-- COUNT--	- ALL-- COUNT
300000. -$ 500000.	3822.	0.	218.	109.	109.	218.	0.	983.	764.	6224.
500000. -$1000000.	2375.	237.	0.	0.	0.	237.	0.	119.	237.	3206.
1000000. -$2500000.	894.	45.	20.	9.	20.	34.	39.	76.	94.	1231.
2500000. -$10000000	253.	10.	5.	1.	5.	10.	14.	23.	30.	349.
10000000 -$********	17.	5.	0.	0.	0.	1.	3.	2.	5.	33.
TOTAL	7360.	298.	243.	119.	134.	501.	56.	1203.	1130.	11043.

AMOUNT OF BEQUEST BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Two-Child Estates only)

GROSS ESTATE	- ZERO- ($000)-	- 0-1%- ($000)-	- 1-2%- ($000)-	- 2-3%- ($000)-	- 3-5%- ($000)-	- 5-10% ($000)-	-10-20% ($000)-	-20-50% ($000)-	- 50%-- ($000)-	- ALL-- ($000)-
300000. -$ 500000.	906638.	0.	32456.	30947.	40499.	78327.	0.	178457.	149673.	1416996.
500000. -$1000000.	711960.	68989.	0.	0.	0.	75174.	0.	26698.	80894.	963716.
1000000. -$2500000.	438778.	24011.	9659.	3264.	9234.	17818.	22561.	32410.	32216.	589951.
2500000. -$10000000	205485.	10039.	2189.	256.	5598.	9746.	10219.	14304.	24098.	281934.
10000000 -$********	22538.	7469.	0.	0.	0.	318.	8752.	6647.	4808.	50532.
TOTAL	2285399.	110508.	44304.	34467.	55331.	181383.	41532.	258516.	291688.	3303128.

Table 7B

PERCENT OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Two-Child Estates only)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	61.	0.	4.	2.	2.	4.	0.	16.	12.	100.
500000. -$1000000.	74.	7.	0.	0.	0.	7.	0.	4.	7.	100.
1000000. -$2500000.	73.	4.	2.	1.	2.	3.	3.	6.	8.	100.
2500000. -$10000000	72.	3.	1.	0.	1.	3.	4.	7.	8.	100.
10000000 -$********	52.	14.	0.	0.	0.	3.	10.	7.	14.	100.
TOTAL	67.	3.	2.	1.	1.	5.	1.	11.	10.	100.

PERCENT OF BEQUESTS BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Two-Child Estates only)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	64.	0.	2.	2.	3.	6.	0.	13.	11.	100.
500000. -$1000000.	74.	7.	0.	0.	0.	8.	0.	3.	8.	100.
1000000. -$2500000.	74.	4.	2.	1.	2.	3.	4.	5.	5.	100.
2500000. -$10000000	73.	4.	1.	0.	2.	3.	4.	5.	9.	100.
10000000 -$********	45.	15.	0.	0.	0.	1.	17.	13.	10.	100.
TOTAL	69.	3.	1.	1.	2.	5.	1.	8.	9.	100.

Table 8A

NUMBER OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Three-Child Estates only)

GROSS ESTATE	- ZERO- COUNT--	- 0-1%- COUNT--	- 1-2%- COUNT--	- 2-3%- COUNT--	- 3-5%- COUNT--	- 5-10% COUNT--	-10-20% COUNT--	-20-50% COUNT--	- 50%-- COUNT--	- ALL-- COUNT
300000. -$ 500000.	1310.	218.	0.	0.	0.	0.	109.	109.	328.	2075.
500000. -$1000000.	1069.	356.	0.	0.	0.	0.	0.	119.	119.	1662.
1000000. -$2500000.	385.	103.	6.	6.	8.	13.	25.	34.	47.	627.
2500000. -$10000000	107.	30.	5.	6.	5.	3.	8.	7.	22.	191.
10000000 -$********	14.	7.	1.	0.	0.	0.	1.	1.	2.	26.
TOTAL	2885.	714.	11.	11.	12.	17.	144.	270.	518.	4581.

AMOUNT OF BEQUEST BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Three-Child Estates only)

GROSS ESTATE	- ZERO- ($000)-	- 0-1%- ($000)-	- 1-2%- ($000)-	- 2-3%- ($000)-	- 3-5%- ($000)-	- 5-10% ($000)-	-10-20% ($000)-	-20-50% ($000)-	- 50%-- ($000)-	- ALL-- ($000)-
300000. -$ 500000.	303664.	64174.	0.	0.	0.	0.	13730.	18059.	55939.	455567.
500000. -$1000000.	286163.	88597.	0.	0.	0.	0.	0.	53258.	55958.	483976.
1000000. -$2500000.	185291.	52072.	3778.	3061.	2497.	7743.	12209.	18066.	20558.	305275.
2500000. -$10000000	96852.	28003.	5574.	8031.	4521.	1691.	7182.	5096.	17370.	174319.
10000000 -$********	38173.	11896.	348.	0.	0.	0.	4587.	2354.	1864.	59222.
TOTAL	910142.	244743.	9699.	11092.	7018.	9435.	37709.	96833.	151688.	1478359.

Table 8B

PERCENT OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Three-Child Estates only)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	63.	11.	0.	0.	0.	0.	5.	5.	16.	100.
500000. -$1000000.	64.	21.	0.	0.	0.	0.	0.	7.	7.	100.
1000000. -$2500000.	61.	16.	1.	1.	1.	2.	4.	5.	8.	100.
2500000. -$10000000	56.	15.	2.	3.	2.	2.	4.	4.	11.	100.
10000000 -$********	52.	26.	4.	0.	0.	0.	4.	4.	9.	100.
TOTAL	63.	16.	0.	0.	0.	0.	3.	6.	11.	100.

PERCENT OF BEQUESTS BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Three-Child Estates only)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	67.	14.	0.	0.	0.	0.	3.	4.	12.	100.
500000. -$1000000.	59.	18.	0.	0.	0.	0.	0.	11.	12.	100.
1000000. -$2500000.	61.	17.	1.	1.	1.	3.	4.	6.	7.	100.
2500000. -$10000000	56.	16.	3.	5.	3.	1.	4.	3.	10.	100.
10000000 -$********	64.	20.	1.	0.	0.	0.	8.	4.	3.	100.
TOTAL	62.	17.	1.	1.	0.	1.	3.	7.	10.	100.

Table 9A

NUMBER OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Four-Child Estates only)

GROSS ESTATE	- ZERO- COUNT--	- 0-1%- COUNT--	- 1-2%- COUNT--	- 2-3%- COUNT--	- 3-5%- COUNT--	- 5-10% COUNT--	-10-20% COUNT--	-20-50% COUNT--	- 50%-- COUNT--	- ALL-- COUNT
300000. -$ 500000.	764.	0.	0.	0.	0.	0.	218.	218.	218.	1419.
500000. -$1000000.	356.	0.	0.	0.	119.	0.	0.	119.	0.	594.
1000000. -$2500000.	171.	24.	3.	2.	6.	8.	9.	18.	30.	270.
2500000. -$10000000	56.	15.	3.	0.	2.	2.	10.	9.	11.	109.
10000000 -$********	5.	0.	0.	0.	0.	0.	2.	3.	1.	11.
TOTAL	1352.	39.	7.	2.	127.	10.	240.	367.	261.	2404.

AMOUNT OF BEQUEST BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Four-Child Estates only)

GROSS ESTATE	- ZERO- ($000)-	- 0-1%- ($000)-	- 1-2%- ($000)-	- 2-3%- ($000)-	- 3-5%- ($000)-	- 5-10% ($000)-	-10-20% ($000)-	-20-50% ($000)-	- 50%-- ($000)-	- ALL-- ($000)-
300000. -$ 500000.	188798.	0.	0.	0.	0.	0.	69719.	58526.	19044.	336087.
500000. -$1000000.	83471.	0.	0.	0.	34130.	0.	0.	60684.	0.	178285.
1000000. -$2500000.	78245.	12633.	3519.	2249.	1642.	4211.	5023.	7249.	14521.	129293.
2500000. -$10000000	44590.	12696.	3324.	0.	3597.	4096.	11058.	8328.	10026.	97715.
10000000 -$********	9844.	0.	0.	0.	0.	0.	1705.	3369.	1631.	16549.
TOTAL	404947.	25329.	6843.	2249.	39369.	8307.	87506.	138156.	45222.	757929.

Table 9B

PERCENT OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Four-Child Estates only)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	54.	0.	0.	0.	0.	0.	15.	15.	15.	100.
500000. -$1000000.	60.	0.	0.	0.	20.	0.	0.	20.	0.	100.
1000000. -$2500000.	63.	9.	1.	1.	2.	3.	3.	7.	11.	100.
2500000. -$10000000	51.	14.	3.	0.	2.	2.	9.	8.	10.	100.
10000000 -$********	40.	0.	0.	0.	0.	0.	20.	30.	10.	100.
TOTAL	56.	2.	0.	0.	5.	0.	10.	15.	11.	100.

PERCENT OF BEQUESTS BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Four-Child Estates only)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	56.	0.	0.	0.	0.	0.	21.	17.	6.	100.
500000. -$1000000.	47.	0.	0.	0.	19.	0.	0.	34.	0.	100.
1000000. -$2500000.	61.	10.	3.	2.	1.	3.	4.	6.	11.	100.
2500000. -$10000000	46.	13.	3.	0.	4.	4.	11.	9.	10.	100.
10000000 -$********	59.	0.	0.	0.	0.	0.	10.	20.	10.	100.
TOTAL	53.	3.	1.	0.	5.	1.	12.	18.	6.	100.

Table 10A

NUMBER OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Five-Child Estates only)

GROSS ESTATE	- ZERO- COUNT--	- 0-1%- COUNT--	- 1-2%- COUNT--	- 2-3%- COUNT--	- 3-5%- COUNT--	- 5-10% COUNT--	-10-20% COUNT--	-20-50% COUNT--	- 50%-- COUNT--	- ALL-- COUNT
300000. -$ 500000.	218.	0.	0.	0.	0.	0.	109.	0.	0.	328.
500000. -$1000000.	237.	119.	0.	0.	0.	0.	0.	0.	0.	356.
1000000. -$2500000.	54.	21.	1.	1.	1.	2.	3.	6.	6.	95.
2500000. -$10000000	13.	3.	0.	0.	0.	0.	2.	1.	6.	25.
10000000 -$********	2.	3.	0.	0.	0.	0.	0.	1.	0.	7.
TOTAL	525.	147.	1.	1.	1.	2.	115.	8.	11.	811.

AMOUNT OF BEQUEST BY C.V. SIZE OF ESTATE -- WEIGHTED
(Five-Child Estates only)

GROSS ESTATE	- ZERO- ($000)-	- 0-1%- ($000)-	- 1-2%- ($000)-	- 2-3%- ($000)-	- 3-5%- ($000)-	- 5-10% ($000)-	-10-20% ($000)-	-20-50% ($000)-	- 50%-- ($000)-	- ALL-- ($000)-
300000. -$ 500000.	22247.	0.	0.	0.	0.	0.	1747.	0.	0.	23994.
500000. -$1000000.	63184.	54930.	0.	0.	0.	0.	0.	0.	0.	118114.
1000000. -$2500000.	29384.	11350.	1080.	579.	723.	1271.	2119.	3937.	2620.	53064.
2500000. -$10000000	11325.	956.	0.	0.	0.	0.	3156.	998.	5526.	21961.
10000000 -$********	7763.	6025.	0.	0.	0.	0.	0.	109.	0.	13898.
TOTAL	133904.	73262.	1080.	579.	723.	1271.	7022.	5044.	8145.	231030.

Table 10B

PERCENT OF ESTATES BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Five-Child Estates only)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	67.	0.	0.	0.	0.	0.	33.	0.	0.	100.
500000. -$1000000.	67.	33.	0.	0.	0.	0.	0.	0.	0.	100.
1000000. -$2500000.	57.	22.	1.	1.	1.	2.	3.	6.	6.	100.
2500000. -$10000000	50.	14.	0.	0.	0.	0.	9.	5.	23.	100.
10000000 -$********	33.	50.	0.	0.	0.	0.	0.	17.	0.	100.
TOTAL	65.	18.	0.	0.	0.	0.	14.	1.	1.	100.

PERCENT OF BEQUESTS BY C.V. AND SIZE OF ESTATE -- WEIGHTED
(Five-Child Estates only)

GROSS ESTATE	- ZERO- PERCENT	- 0-1%- PERCENT	- 1-2%- PERCENT	- 2-3%- PERCENT	- 3-5%- PERCENT	- 5-10% PERCENT	-10-20% PERCENT	-20-50% PERCENT	- 50%-- PERCENT	- ALL-- PERCENT
300000. -$ 500000.	93.	0.	0.	0.	0.	0.	7.	0.	0.	100.
500000. -$1000000.	53.	47.	0.	0.	0.	0.	0.	0.	0.	100.
1000000. -$2500000.	55.	21.	2.	1.	1.	2.	4.	7.	5.	100.
2500000. -$10000000	52.	4.	0.	0.	0.	0.	14.	5.	25.	100.
10000000 -$********	56.	43.	0.	0.	0.	0.	0.	1.	0.	100.
TOTAL	58.	32.	0.	0.	0.	1.	3.	2.	4.	100.

Table 11A

NUMBER OF CHILDREN BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- SAMPLE

GROSS ESTATE	--NO--- --AGI-- ------- COUNT--	--$1--- UNDER-- $10000- COUNT--	$10000- UNDER-- $20000- COUNT--	$20000- UNDER-- $30000- COUNT--	$30000- UNDER-- $50000- COUNT--	$50000- UNDER-- $75000- COUNT--	$75000- UNDER-- $100000 COUNT--	$100000 UNDER-- $200000 COUNT--	$200000 UNDER-- ******* COUNT--	TOTAL-- ------- COUNT--
300000. -$ 500000.	10.	31.	43.	61.	54.	34.	10.	14.	2.	259.
500000. -$1000000.	2.	12.	17.	25.	41.	13.	9.	14.	2.	135.
1000000. -$2500000.	161.	519.	617.	689.	1067.	788.	511.	866.	364.	5582.
2500000. -$10000000	52.	108.	140.	154.	256.	196.	166.	307.	283.	1662.
10000000 -$********	6.	10.	11.	9.	18.	15.	21.	35.	67.	192.
TOTAL	231.	680.	828.	938.	1436.	1046.	717.	1236.	718.	7830.

CHILDREN'S 1981 AGI BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- SAMPLE

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	-456.	175.	664.	1493.	2060.	2073.	850.	1762.	435.	9055.
500000. -$1000000.	-57.	57.	241.	624.	1543.	791.	789.	1832.	528.	6348.
1000000. -$2500000.	-11271.	2807.	9273.	17415.	41736.	48226.	44268.	118480.	128505.	399440.
2500000. -$10000000	-4560.	587.	2080.	3826.	10140.	12062.	14583.	44302.	122160.	205180.
10000000 -$********	-391.	60.	158.	222.	691.	886.	1823.	4985.	43646.	52081.
TOTAL	-16735.	3687.	12416.	23580.	56169.	64037.	62313.	171361.	295275.	672103.

INHERITANCE BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- SAMPLE

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	1117.	3342.	3832.	6723.	10818.	4610.	939.	2361.	118.	33862.
500000. -$1000000.	530.	1154.	1502.	3587.	5253.	3013.	1085.	2097.	380.	18601.
1000000. -$2500000.	32517.	83983.	116215.	120471.	219841.	193132.	119770.	214256.	91454.	1191642.
2500000. -$10000000	13013.	27881.	41988.	42024.	85121.	72012.	64751.	116709.	106812.	570311.
10000000 -$********	1917.	3910.	6561.	3746.	8954.	9859.	14116.	28157.	43688.	120909.
TOTAL	49094.	120270.	170098.	176551.	329988.	282625.	200661.	363581.	242452.	1935324.

TABLE 11B

AVERAGE CHILD AGI IN 1981 BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- SAMPLE

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	-45637.	5650.	15436.	24470.	38146.	60956.	85015.	125825.	217729.	34960.
500000. -$1000000.	-28689.	4731.	14203.	24948.	37623.	60849.	87677.	130890.	263966.	47019.
1000000. -$2500000.	-70005.	5409.	15029.	25276.	39115.	61200.	86630.	136813.	353037.	71559.
2500000. -$10000000	-87686.	5438.	14856.	24847.	39608.	61539.	87848.	144306.	431661.	123454.
10000000 -$********	-65111.	6042.	14347.	24657.	38374.	59088.	86827.	142431.	651429.	271254.
TOTAL	-72445.	5422.	14995.	25139.	39115.	61221.	86908.	138641.	411246.	85837.

AVERAGE INHERITANCE BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- SAMPLE

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	111699.	107809.	89126.	110213.	200340.	135600.	93892.	168651.	59161.	130740.
500000. -$1000000.	265069.	96157.	88381.	143471.	128132.	231743.	120558.	149785.	189965.	137787.
1000000. -$2500000.	201971.	161817.	188355.	174849.	206037.	245091.	234384.	247409.	251247.	213479.
2500000. -$10000000	250241.	258156.	299913.	272883.	332505.	367407.	390066.	380160.	377427.	343147.
10000000 -$********	319576.	391045.	596416.	416220.	497441.	657237.	672188.	804496.	652065.	629732.
TOTAL	212530.	176868.	205433.	188221.	229797.	270196.	279862.	294159.	337677.	247168.

AVERAGE INHERITANCE AS PERCENT OF AVERAGE AGI BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	-245.	1908.	577.	450.	525.	222.	110.	134.	27.	374.
500000. -$1000000.	-924.	2033.	622.	575.	341.	381.	138.	114.	72.	293.
1000000. -$2500000.	-289.	2992.	1253.	692.	527.	400.	271.	181.	71.	298.
2500000. -$10000000	-285.	4747.	2019.	1098.	839.	597.	444.	263.	87.	278.
10000000 -$********	-491.	6472.	4157.	1688.	1296.	1112.	774.	565.	100.	232.
TOTAL	-293.	3262.	1370.	749.	587.	441.	322.	212.	82.	288.

TABLE 11C

NUMBER OF CHILDREN BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

GROSS ESTATE	--NO--- --AGI-- ------- COUNT--	--$1--- UNDER-- $10000- COUNT--	$10000- UNDER-- $20000- COUNT--	$20000- UNDER-- $30000- COUNT--	$30000- UNDER-- $50000- COUNT--	$50000- UNDER-- $75000- COUNT--	$75000- UNDER-- $100000 COUNT--	$100000 UNDER-- $200000 COUNT--	$200000 UNDER-- ******* COUNT--	TOTAL-- ------- COUNT--
300000. -$ 500000.	1100.	3409.	4729.	6708.	5938.	3739.	1100.	1540.	220.	28483.
500000. -$1000000.	251.	1506.	2134.	3138.	5147.	1632.	1130.	1757.	251.	16946.
1000000. -$2500000.	191.	614.	731.	816.	1263.	933.	605.	1025.	431.	6609.
2500000. -$10000000	61.	127.	165.	181.	302.	231.	196.	362.	333.	1958.
10000000 -$********	8.	13.	14.	11.	23.	19.	26.	44.	84.	241.
TOTAL	1610.	5670.	7772.	10855.	12673.	6554.	3056.	4728.	1320.	54237.

CHILDREN'S 1981 AGI BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	-50187.	19260.	72992.	164152.	226528.	227916.	93492.	193720.	47888.	995760.
500000. -$1000000.	-7203.	7126.	30310.	78292.	193633.	99298.	99054.	230026.	66270.	796806.
1000000. -$2500000.	-13345.	3324.	10979.	20620.	49415.	57099.	52413.	140279.	152150.	472933.
2500000. -$10000000	-5372.	692.	2450.	4508.	11946.	14211.	17181.	52196.	143926.	241739.
10000000 -$********	-491.	76.	198.	279.	867.	1113.	2289.	6259.	54800.	65390.
TOTAL	-76597.	30478.	116929.	267850.	482389.	399636.	264430.	622479.	465034.	2572628.

INHERITANCE BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	122837.	367531.	421454.	739337.	1189707.	507011.	103254.	259654.	13012.	3723794.
500000. -$1000000.	66547.	144845.	188604.	450243.	659454.	378175.	136201.	263232.	47692.	2334993.
1000000. -$2500000.	38500.	99436.	137598.	142637.	260291.	228667.	141807.	253678.	108281.	1410889.
2500000. -$10000000	15331.	32849.	49469.	49512.	100288.	84843.	76288.	137504.	125844.	671929.
10000000 -$********	2407.	4910.	8237.	4703.	11242.	12378.	17723.	35353.	54853.	151807.
TOTAL	245623.	649571.	805362.	1386432.	2220983.	1211074.	475274.	949421.	349682.	8293413.

TABLE 11D

AVERAGE CHILD AGI IN 1981 BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	0.	5650.	15436.	24470.	38146.	60956.	85015.	125825.	217729.	34960.
500000. -$1000000.	0.	4731.	14203.	24948.	37623.	60849.	87677.	130890.	263966.	47019.
1000000. -$2500000.	0.	5409.	15029.	25276.	39115.	61199.	86629.	136811.	353038.	71555.
2500000. -$10000000	0.	5438.	14856.	24847.	39608.	61539.	87848.	144305.	431660.	123452.
10000000 -$********	0.	6042.	14347.	24657.	38374.	59088.	86827.	142431.	651429.	271254.
TOTAL	0.	5376.	15045.	24675.	38065.	60979.	86516.	131658.	352427.	47433.

AVERAGE INHERITANCE BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	0.	107809.	89126.	110213.	200340.	135600.	93892.	168651.	59161.	130740.
500000. -$1000000.	0.	96157.	88381.	143471.	128132.	231743.	120558.	149785.	189965.	137787.
1000000. -$2500000.	0.	161817.	188354.	174848.	206037.	245089.	234384.	247406.	251247.	213468.
2500000. -$10000000	0.	258155.	299913.	272883.	332504.	367407.	390066.	380159.	377426.	343142.
10000000 -$********	0.	391045.	596416.	416221.	497441.	657237.	672188.	804497.	652065.	629733.
TOTAL	0.	114568.	103623.	127723.	175258.	184794.	155499.	200809.	265007.	152909.

AVERAGE INHERITANCE AS PERCENT OF AVERAGE AGI BY PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

GROSS ESTATE	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	0.	1908.	577.	450.	525.	222.	110.	134.	27.	374.
500000. -$1000000.	0.	2033.	622.	575.	341.	381.	138.	114.	72.	293.
1000000. -$2500000.	0.	2992.	1253.	692.	527.	400.	271.	181.	71.	298.
2500000. -$10000000	0.	4747.	2019.	1098.	839.	597.	444.	263.	87.	278.
10000000 -$********	0.	6472.	4157.	1688.	1296.	1112.	774.	565.	100.	232.
TOTAL	0.	2131.	689.	518.	460.	303.	180.	153.	75.	322.

TABLE 11E

NUMBER OF CHILDREN BY (WIDOWED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

	--NO--- --AGI-- ------- COUNT--	--$1--- UNDER-- $10000- COUNT--	$10000- UNDER-- $20000- COUNT--	$20000- UNDER-- $30000- COUNT--	$30000- UNDER-- $50000- COUNT--	$50000- UNDER-- $75000- COUNT--	$75000- UNDER-- $100000 COUNT--	$100000 UNDER-- $200000 COUNT--	$200000 UNDER-- ******* COUNT--	TOTAL-- ------- COUNT--
300000. -$ 500000.	330.	1320.	2199.	3849.	3079.	1540.	440.	1100.	110.	13966.
500000. -$1000000.	251.	879.	1130.	1632.	2385.	502.	377.	879.	251.	8285.
1000000. -$2500000.	76.	231.	311.	322.	571.	442.	243.	407.	167.	2769.
2500000. -$10000000	14.	28.	49.	55.	111.	100.	94.	156.	125.	733.
10000000 -$********	3.	4.	0.	1.	4.	8.	5.	14.	38.	75.
TOTAL	673.	2461.	3690.	5860.	6149.	2591.	1158.	2555.	691.	25829.

CHILDREN'S 1981 AGI BY (WIDOWED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	-11459.	8251.	32902.	92986.	118084.	97214.	37723.	139400.	22123.	537224.
500000. -$1000000.	-7203.	5148.	16091.	38879.	89049.	27624.	31375.	125389.	66270.	392623.
1000000. -$2500000.	-3622.	1219.	4690.	8157.	22242.	27100.	20936.	55237.	58405.	194363.
2500000. -$10000000	-2219.	143.	734.	1371.	4367.	6215.	8312.	22201.	52557.	93680.
10000000 -$********	-214.	30.	0.	26.	149.	445.	426.	1972.	29663.	32495.
TOTAL	-24717.	14792.	54417.	141419.	233890.	158597.	98771.	344198.	229018.	1250386.

INHERITANCE BY (WIDOWED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	19707.	233784.	201598.	503288.	438889.	225455.	51337.	197758.	9590.	1881405.
500000. -$1000000.	66547.	125767.	124664.	323565.	335157.	92074.	84738.	170426.	47692.	1370630.
1000000. -$2500000.	23311.	57000.	87350.	78802.	158886.	135286.	76656.	126349.	49420.	793058.
2500000. -$10000000	6685.	13917.	26023.	25507.	60455.	56122.	50102.	80323.	62363.	381497.
10000000 -$********	578.	1026.	0.	63.	4427.	9997.	4523.	14810.	31818.	67242.
TOTAL	116829.	431495.	439634.	931225.	997814.	518935.	267354.	589665.	200882.	4493832.

TABLE 11F

AVERAGE CHILD AGI IN 1981 BY (WIDOWED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

--AGI-- AMOUNT-	--NO--- --$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	0.	6253.	14959.	24159.	38349.	63142.	85756.	126760.	201170.	38466.
500000. -$1000000.	0.	5859.	14243.	23825.	37336.	55016.	83314.	142698.	263966.	47390.
1000000. -$2500000.	0.	5280.	15062.	25328.	38973.	61363.	86255.	135619.	349850.	70183.
2500000. -$10000000	0.	5072.	14828.	24753.	39433.	62057.	88187.	142753.	420832.	127834.
10000000 -$********	0.	7944.	0.	20931.	39444.	59038.	84736.	142758.	787514.	431354.
TOTAL	0.	6010.	14747.	24135.	38034.	61210.	85260.	134713.	331658.	48410.

AVERAGE INHERITANCE BY (WIDOWED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

--AGI-- AMOUNT-	--NO--- --$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	0.	177156.	91660.	130758.	142534.	146438.	116705.	179827.	87200.	134710.
500000. -$1000000.	0.	143129.	110346.	198279.	140525.	183372.	225016.	193952.	189965.	165437.
1000000. -$2500000.	0.	246884.	280516.	244691.	278413.	306333.	315821.	310215.	296026.	286365.
2500000. -$10000000	0.	492181.	525883.	460633.	545869.	560407.	531556.	516481.	499357.	520582.
10000000 -$********	0.	272362.	0.	50000.	1175190.	1327099.	900499.	1072348.	844719.	892590.
TOTAL	0.	175313.	119140.	158925.	162261.	200282.	230783.	230785.	290912.	173985.

AVERAGE INHERITANCE AS PERCENT OF AVERAGE AGI BY (WIDOWED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

--AGI-- AMOUNT-	--NO--- --$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	0.	2833.	613.	541.	372.	232.	136.	142.	43.	350.
500000. -$1000000.	0.	2443.	775.	832.	376.	333.	270.	136.	72.	349.
1000000. -$2500000.	0.	4675.	1862.	966.	714.	499.	366.	229.	85.	408.
2500000. -$10000000	0.	9703.	3546.	1861.	1384.	903.	603.	362.	119.	407.
10000000 -$********	0.	3429.	0.	239.	2979.	2248.	1063.	751.	107.	207.
TOTAL	0.	2917.	808.	658.	427.	327.	271.	171.	88.	359.

TABLE 11G

NUMBER OF CHILDREN BY (MARRIED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

	--NO--- --AGI-- ------- COUNT--	--$1--- UNDER-- $10000- COUNT--	$10000- UNDER-- $20000- COUNT--	$20000- UNDER-- $30000- COUNT--	$30000- UNDER-- $50000- COUNT--	$50000- UNDER-- $75000- COUNT--	$75000- UNDER-- $100000 COUNT--	$100000 UNDER-- $200000 COUNT--	$200000 UNDER-- ******* COUNT--	TOTAL-- ------- COUNT--
300000. -$ 500000.	770.	2089.	2529.	2859.	2859.	2199.	660.	440.	110.	14516.
500000. -$1000000.	0.	628.	1004.	1506.	2762.	1130.	753.	879.	0.	8661.
1000000. -$2500000.	115.	384.	419.	494.	693.	491.	362.	618.	264.	3840.
2500000. -$10000000	47.	99.	115.	126.	191.	131.	101.	206.	209.	1225.
10000000 -$********	5.	9.	14.	10.	19.	11.	21.	30.	48.	167.
TOTAL	937.	3208.	4082.	4995.	6523.	3963.	1898.	2173.	630.	28410.

CHILDREN'S 1981 AGI BY (MARRIED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	-38728.	11009.	40090.	71166.	108444.	130702.	55770.	54320.	25765.	458536.
500000. -$1000000.	0.	1978.	14219.	39413.	104584.	71674.	67679.	104637.	0.	404184.
1000000. -$2500000.	-9723.	2104.	6289.	12463.	27173.	29999.	31477.	85043.	93745.	278570.
2500000. -$10000000	-3153.	549.	1717.	3138.	7579.	7996.	8869.	29995.	91370.	148059.
10000000 -$********	-276.	46.	198.	252.	719.	668.	1864.	4287.	25943.	33701.
TOTAL	-51880.	15686.	62512.	126431.	248499.	241039.	165659.	278282.	236822.	1323049.

INHERITANCE BY (MARRIED) PARENT'S BY GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	103130.	133747.	219856.	236049.	750818.	281555.	51917.	61896.	3423.	1842391.
500000. -$1000000.	0.	19078.	63940.	126677.	324297.	286101.	51463.	92806.	0.	964364.
1000000. -$2500000.	15190.	42435.	50248.	63835.	101405.	93381.	65152.	127329.	58861.	617835.
2500000. -$10000000	8646.	18932.	23447.	24005.	39834.	28721.	26187.	57181.	63480.	290432.
10000000 -$********	1829.	3884.	8237.	4641.	6816.	2380.	13201.	20543.	23173.	84704.
TOTAL	128795.	218076.	365728.	455207.	1223169.	692139.	207919.	359756.	148937.	3799725.

TABLE 11H

AVERAGE CHILD AGI IN 1981 BY (MARRIED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	0.	5269.	15850.	24890.	37927.	59426.	84522.	123487.	234288.	31588.
500000. -$1000000.	0.	3152.	14159.	26165.	37870.	63442.	89859.	119082.	0.	46665.
1000000. -$2500000.	0.	5486.	15004.	25242.	39232.	61053.	86880.	137599.	355053.	72548.
2500000. -$10000000	0.	5543.	14868.	24888.	39710.	61142.	87532.	145476.	438145.	120834.
10000000 -$********	0.	5227.	14347.	25123.	38160.	59122.	87319.	142281.	543744.	201816.
TOTAL	0.	4889.	15314.	25309.	38095.	60828.	87282.	128066.	375759.	46570.

AVERAGE INHERITANCE BY (MARRIED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	0.	64011.	86922.	82556.	262592.	128013.	78682.	140710.	31122.	126919.
500000. -$1000000.	0.	30396.	63671.	84096.	117430.	253241.	68329.	105618.	0.	111339.
1000000. -$2500000.	0.	110620.	119886.	129294.	146404.	190048.	179827.	206019.	222933.	160903.
2500000. -$10000000	0.	191291.	203069.	190413.	208700.	219613.	258446.	277335.	304406.	237027.
10000000 -$********	0.	441909.	596416.	461998.	361891.	210662.	618468.	681731.	485703.	507242.
TOTAL	0.	67969.	89596.	91125.	187510.	174667.	109548.	165562.	236314.	133747.

AVERAGE INHERITANCE AS PERCENT OF AVERAGE AGI BY (MARRIED) PARENT'S GROSS ESTATE AND CHILD'S AGI -- WEIGHTED

	--NO--- --AGI-- ------- AMOUNT-	--$1--- UNDER-- $10000- AMOUNT-	$10000- UNDER-- $20000- AMOUNT-	$20000- UNDER-- $30000- AMOUNT-	$30000- UNDER-- $50000- AMOUNT-	$50000- UNDER-- $75000- AMOUNT-	$75000- UNDER-- $100000 AMOUNT-	$100000 UNDER-- $200000 AMOUNT-	$200000 UNDER-- ******* AMOUNT-	TOTAL-- ------- AMOUNT-
300000. -$ 500000.	0.	1215.	548.	332.	692.	215.	93.	114.	13.	402.
500000. -$1000000.	0.	964.	450.	321.	310.	399.	76.	89.	0.	239.
1000000. -$2500000.	0.	2016.	799.	512.	373.	311.	207.	150.	63.	222.
2500000. -$10000000	0.	3451.	1366.	765.	526.	359.	295.	191.	69.	196.
10000000 -$********	0.	8454.	4157.	1839.	948.	356.	708.	479.	89.	251.
TOTAL	0.	1390.	585.	360.	492.	287.	126.	129.	63.	287.

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CHOOSING BETWEEN GIFTS AND BEQUESTS: HOW TAXES AFFECT THE TIMING OF WEALTH TRANSFERS

David Joulfaian

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Choosing Between Gifts and Bequests: How Taxes Affect the Timing of Wealth Transfers
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ABSTRACT

A number of theories have been advanced to explain the size and timing of intergenerational transfers. One factor only recently explored is the effects of taxes, and in particular the estate tax, on such transfers. This paper represents the first attempt to explore how capital gains and gift taxes, in addition to the estate tax, interact to influence incentives in the timing of transfers. Using estate tax data and exploiting variations in state inheritance, gift, and capital gains tax rates, this paper finds taxes to be an important consideration in the choice between gifts and bequests. In particular, each of capital gains and gift taxes are found to be important determinants of the timing of transfers. These findings are robust to a number of specifications that control for borrowing, charitable bequests, marital status, and the portfolio composition of wealth transfers.

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1. Introduction

Intergenerational transfers may take place during life, as in inter vivos gifts, or as in bequests at death. A number of factors may explain the size and timing of these transfers. In particular, the tax treatment of each of these two modes of transfers may influence how total transfers are allocated between gifts and bequests. If gifts are accorded a preferential treatment, then more of transfers may take place during life, and vice versa. Of course, non-tax factors may also influence this allocation and parents may postpone transfers until death notwithstanding the tax consequences. Parents my give simply because they enjoy giving and not care much about timing their giving. Parents can also be strategic and may time their transfers so as to extract services from their children (Bernheim, Shleifer, and Summers, 1985). Indeed, and despite the income tax incentives for instance, the related literature on charitable giving shows that little of such transfers take place during life (Joulfaian, 2000a, Table 14; Joulfaian, 2001, Table 8-7).

Since the enactment of the gift tax in 1932, the decades' old conventional wisdom argued for the superiority of gifts over bequests as a tax minimization strategy. In part, this reflected the fact that gifts were taxed at statutory tax rates set below those of the estate tax that applied to bequests.[1] There is little doubt that the wealthy, particularly given resources at their disposal, are likely to consider differences in estate and gift taxes in allocating their intergenerational transfers between *inter-vivos* gifts and bequests. They may also consider the

[1] Through 1976, gift tax rates were set equal to 75 percent of the estate tax. The intent of the lower rates was to increase short run federal government revenues by accelerating transfers; effectively prepaying estate taxes. See Harriss (1940, pp 5).

income tax treatment of such transfers. Gifts, for instance, are subject to a gift tax which effectively applies at a rate below that of the estate tax levied on terminal wealth. In addition, recipients of gifts carryover the donor's (adjusted) basis, and may become subject to capital gains taxes at the future sale or disposal of the underlying asset. In contrast, and under the income tax, bequests are accorded a step-up in basis; all gains accrued by the donor avoid capital gains taxes at death. Few studies, however, have examined the combined effects of all these taxes on the timing of transfers. Adams (1978) and Kuehlwein (1994), for instance, explore whether bequest and gift taxes are equalized in the timing of transfers. Bernheim (1987), Page (2003), Poterba (1998), McGarry (2000), and more recently Bernheim, Lemke, and Scholz (2001) argue that higher estate taxes encourage gifts.

The purpose of this paper is to examine the pattern of wealth transfers by the very wealthy, and gauge the effects of capital gains, gift, and estate taxes in contrast to the current literature which exclusively focuses on the latter. I trace the tax consequences of transfers and explore the conditions for the superiority of each of gifts and bequests. Next, I empirically explore whether taxes influence the allocation of transfers between lifetime gifts and bequests using information from federal estate tax records. In addition, I employ variations in state estate, gift, and capital gains taxes, the reduce the identification problem (Feenberg, 1987).

This paper is organized as follows. Section 2 provides a brief description of the federal estate, gift, and income tax treatment of transfers. Section 3 analytically explores how taxes may influence the choice between gifts and bequests. Gift and capital gains taxes raise the price of gifts, while the estate tax raises the price of bequests. Thus, two individuals with the same wealth, even same estate tax rate, may face different incentives in timing their transfers.

Contrary to the decades old conventional wisdom, gifts are not necessarily the superior mode of transfers, particularly in the case of appreciated assets by donors with short life expectancies and married individuals, and in the presence of state gift taxes. Section 4 describes estate tax data and construction of variables related to modeling the timing of transfers. The data provide information on bequests in 1989 and cumulative lifetime gifts. Individuals required to file estate tax returns roughly represent the top two percent of the population, and are typically under-represented in survey data.[2] Indeed, estate tax returns provide the only source of information on cumulative lifetime gifts. The latter is not only important in modeling the pattern of transfers, but is also critical in calculating tax rates. Again contrary to the conventional wisdom, many in the sample are worse off under a gift regime. Section 5 provides empirical evidence on the effects of taxes. These are found to be an important consideration in determining lifetime gifts (Tables 7-9). Simulation results suggest that about two-thirds of gifts would not take place if estate and gift taxes were repealed. A concluding comment is provided in section 6.

2. The Tax Treatment of Transfers

The estate tax applies to stocks, bonds, real estate, businesses, life insurance proceeds, and pension assets, among other assets held at death. Estate expenses, outstanding debts,

[2] The projected net worth of individuals potentially required to file estate tax returns in 1992 was $5 trillion, of which $1.5 trillion is in corporate equity; they represent 1.5 percent of the population (Johnson, 1998). The comparable figures from the Flow of Funds for the entire household (and nonprofit) sector are $23 trillion and $2.9 trillion, respectively. The estate tax filing threshold was $600,000 in 1992.

spousal bequests and charitable bequests are deductible in computing the taxable estate. In 2001, the tax is computed by applying to the taxable estate a rate schedule that ranges from 18 to 55 percent. A surtax of 5 percent applies to taxable estates between $10 million and $17 million, which has the effect of creating a marginal tax rate of 60 percent, as shown in the first column of Table 1.[3]

The tax is reduced by a number of credits in computing the final tax liability. The largest tax credit is the unified credit set at a value of $220,550 in 2001, equivalent to an exemption of $675,000 ($600,000 for the years 1987-1997). The second largest credit is that for state death taxes. The credit rate ranges from 0 to 16 percent of the federal taxable estate, as shown in column 2 of Table 1. It has the effect of reducing the maximum statutory federal estate tax rate to 39 percent, as shown in the last column of Table 1.

As in the case of bequests, lifetime gifts are also subject to tax. The gift tax is integrated with the estate tax sharing a common tax rate schedule, and unified credit. The tax is computed annually by applying the tax rate schedule to gifts cumulated over life, with a credit for previously paid gift taxes. An unlimited exemption applies to gifts for tuition and medical expenses, in addition to an annual exemption of $10,000.

A unique feature of the gift tax is that it applies on a tax exclusive basis. To illustrate the implications of this, consider an individual with tax rate of 0.5 and wealth of $300. He transfers $200 to his children and pays $100 in gift tax, for total transfers of $300; the effective tax rate is 0.33, or 100/300, and not 0.5 as under the estate tax where the tax liability

[3] For an overview of historical developments and a more detailed description of estate and gift taxes, see Joulfaian (1998).

would be $150. Also in contrast to the estate tax, it does not provide a credit for state gift taxes.

The income tax treatment of transfers varies as well. In the case of bequests, accrued gains on appreciable assets, such as stock, escape capital gains taxation as the donor's basis in assets is stepped up to the value at death. In the case of gifts, the beneficiary retains the donor's adjusted basis.[4] Consequently, the donor may have to pay capital gains taxes on assets liquidated to pay the gift tax. In contrast to the gift tax, liquidating assets to pay the estate tax does not trigger capital gains taxes.

3. How Taxes Influence the Timing of Transfers

As eluded to earlier, individuals make transfers for a variety of reasons. The motives for the size and the timing of such transfers can be altruistic or that parents may derive joy from giving, and not care much about timing. They can also be strategic as parents consider the services provided by their children, and more likely postpone much of their transfers.

Consider a very wealthy individual with wealth W, who wishes to transfer it to his heirs. Assuming the joy of giving is the primary motivation, this individual may time his transfers so as to maximize the share of W received by his heirs, but is otherwise indifferent to the timing. Some of these transfers may take place during life, as in inter-vivos gifts (G), or at death, as in bequests (B). The total amount received or available to the heirs, T, at a cost of W to the donor, is:

[4] This basis, however, is stepped up by the amount of the gift tax paid on the accrued gains share of the asset transferred.

$$T = G + B \tag{1}$$

or,

$$T = \frac{\alpha W}{P_G} + \frac{(1-\alpha)W}{P_B} \tag{1'}$$

where, α is the share of wealth transferred during life, and P_G and P_B are the gift and bequest prices, respectively. Following first order conditions, the individual maximizes the size of transfers T by setting α at the point where $P_G/P_B = 1$. Gifts are more attractive when the relative price of gifts is less than 1, but beyond this point, bequests become more attractive.

In the case of the wealthy, the measurement of taxes can get pretty complicated as much of their wealth is held in the form of business, real estate, or publicly traded stocks (Eller, 1997). If such wealth is held until death, in year n, the estate tax liability is:

$$TAX_E = \frac{\tau_e W(1+\pi)^n}{(1+\delta)^n} \tag{2}$$

where τ_e is the estate tax rate, π is the rate of return or the rate at which assets appreciate, and δ is the individual discount rate. From (2), it follows that the price of bequests can be defined as:

$$P_B = \frac{(1+\delta)^n}{(1+\pi)^n(1-\tau_e)} \tag{3}$$

as in Boskin (1976), or $P_B = 1/(1-\tau_e)$ when $\pi = \delta$.

If instead, the individual transfers his appreciable wealth to the beneficiaries during life, or year 0, then the expected tax on gifts in period n will be:

$$TAX_G = \left(\frac{\tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta} + \frac{\tau_c \beta (1 - \tau_g)}{(1+\delta)^n} + \frac{\tau_c [(1+\pi)^n - 1]}{(1+\delta)^n} + \frac{\rho \tau_e \tau_g}{(1+\delta)^n}}{1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta}} \right) W \qquad (4)$$

where τ_g is the gift tax rate, τ_c the capital gains tax rate, β the share of accrued gains, and ρ the probability of dying within three years from the date gifts were made. The first term reflects the gift tax paid by the donor. The second term reflects capital gains taxes that the donor may have to pay if assets are liquidated to pay the gift tax. The third term reflects capital gains taxes expected to be paid by the beneficiary on gains accrued by the donor.[5] Such gains, however, are reduced by gift taxes to avoid double taxation. The fourth term reflects capital gains taxes on gains accrued by the donee. The fifth term accounts for additional estate taxes on gifts made within three years of the date of death. If the donor dies within 3 years, the gift tax itself becomes taxable under the estate tax; gifts lose much of the benefit of getting taxed on a tax exclusive basis.[6] Equation (4) is derived in Appendix A.

From (4), it follows that the price of gifts is:

$$P_G = \frac{(1+\delta)^n \left(1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta}\right)}{(1+\pi)^n - \tau_c \beta (1 - \tau_g) - \tau_c [(1+\pi)^n - 1] - \rho \tau_e \tau_g} \qquad (5)$$

[5] Recall that gifts, unlike bequests, do not benefit from a full step up in basis.

[6] This equation can be further complicated by introducing borrowing and transferring cash as a way to avoid capital gains taxes (Auten and Joulfaian, 2001), or endogenizing portfolio allocation between cash or equivalent and appreciable assets.

Using (3) and (5), the relative price of gifts becomes:

$$\frac{P_G}{P_B} = \frac{(1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta})(1 - \tau_e)(1 + \pi)^n}{(1 + \pi)^n - \tau_c \beta (1 - \tau_g) - \tau_c [(1 + \pi)^n - 1] - \rho \tau_e \tau_g} \quad (6)$$

When the underlying asset is cash or equivalent, and say pays interest as in the case of bonds and notes, equation (6) simplifies to:[7]

$$\frac{P_G}{P_B} = \frac{(1 + \tau_g)(1 - \tau_e)(1 + \pi)^n}{(1 + \pi)^n - \rho \tau_e \tau_g} \quad (6')$$

or, in the absence of the three year recapture rule, the more familiar:

$$\frac{P_G}{P_B} = (1 + \tau_g)(1 - \tau_e) \quad (6'')$$

At a tax rate of 0.55, and using (6''), the relative price is 0.67 and gifts are the superior mode of transfers.

The advantage of one mode of transfer over another critically depends on the values of the various parameters in (6). Assume away confiscatory taxes ($0 \leq \tau_c < 1$, $0 \leq \tau_e < 1$, and $0 \leq \tau_g < 1$), set $\rho = 0$, and, for notational convenience, define the denominator in (6) as A:

[7] Here π may denote the interest rate net of ordinary income taxes. To simplify the analysis, and to the extent that this tax would apply under the two modes of transfers, I assume this is equivalent to the rate at which assets appreciate. This is irrelevant in case of (6").

$$A = \tau_c - \beta\tau_c + \beta\tau_c\tau_g + (1+\pi)^n - \tau_c(1+\pi)^n > 0$$

which is unambiguously positive ($0 \le \beta \le 1$, $0 \le \tau_c < 1$, $0 \le \tau_e < 1$, and $0 \le \tau_g < 1$). Differentiating the relative price of gifts with respect to the estate, gift, and capital gains tax rates, respectively, yields,

$$\frac{\partial(P_G / P_B)}{\partial \tau_e} = -\frac{(1 - \beta\tau_c + \tau_g)(1+\pi)^n}{(1-\beta\tau_c)A} < 0$$

$$\frac{\partial(P_G / P_B)}{\partial \tau_g} = \frac{(\beta\tau_c - 1)^2 [(1+\pi)^n - 1](1-\tau_c)}{(1-\beta\tau_c)A^2} > 0$$

$$\frac{\partial(P_G / P_B)}{\partial \tau_c} = \frac{(1-\tau_e)(1-\beta\tau_c+\tau_g)(1+\pi)^n(\beta - \beta\tau_c + (1+\pi)^n - 1)}{(1-\beta\tau_c)A^2} + \frac{\beta(1-\tau_e)(1+\pi)^n\tau_g}{(1-\beta\tau_c)^2 A} > 0$$

The relative price of gifts, rises with capital gains and gift tax rates, and declines with the estate tax rate. The effects of the various taxes on the relative price are further illustrated in Figure 1, which assumes $\tau_e = \tau_g = 0.55$, $\tau_c = 0.25$, $n = 20$, $\beta = 0.5$, and $\pi = 0.08$.

To numerically compare the advantages of gifts over bequests, I continue to assume that assets appreciate at the rate $\pi = 0.08$. The capital gains tax rate is set at $\tau_c = 0.25$, which approximates the combined state and federal tax rates. Federal statutory estate and gift tax

rates are set at 0.55, or $\tau_e = \tau_g = 0.55$, and $\rho = 0$ except when $n \leq 3$ where $\rho = 1$. Equation (6) is evaluated using these parameters. Table 2 reports values for the relative price of gifts for values of β ranging from 0 to 1, with values of n ranging from 0 to 40 years. When the relative price equals one, estate and gift tax prices are equalized; bequests are preferable to gifts when it exceeds one, and when it is less than one, gifts are preferable. As demonstrated, the advantages of making bequests, or gifts, depend on the size of accrued gains and the length of n. Gifts are generally preferable, except when $n \leq 3$, but their desirability diminishes with the size of accrued gains, β, and n.

The bottom panel of Table 2 replicates the figures in the top panel but sets the capital gains tax rate to zero ($\tau_c = 0$). The reported relative price of gifts drops across the board by as much as a third.[8] Except in the rare case of instant death, n= 0, gifts are by far superior. Capital gains taxes, and as already demonstrated in Figure 1, go a long way in bridging the gap between the tax treatments of gifts and bequests.

The figures in Table 2 provide a measure of the relative price of gifts in the general case. They do not account for preferential treatment accorded certain transfers, nor do they account for state gift taxes. In the presence of state gift taxes the relative price of gifts is likely to be higher; unlike bequests, they do not benefit from a credit for state taxes. In 1999, for instance, the maximum combined state and federal estate and gift tax rates in New York were 0.60 and 0.76, respectively.[9] If Table 2 were to be updated to reflect these tax

[8] Note that the outcome can be different within the range of the progressive rate schedule where gifts are made before wealth appreciates in value.

[9] The maximum estate and gift tax rate in New York was 0.21 before 2000.

parameters, it would show that gifts are inferior to bequests for any combination of n and β.[10]

Also the analysis thus far compares bequests to gifts. An alternative strategy may dictate the postponement of gifts until the death of the second spouse. Given the unlimited marital deduction under the estate tax and step-up in basis at death, bequests to spouse and the deferral of gifts can be superior to outright gifts to children. If the individual bequeaths his wealth to his spouse in period n, who in turn transfers them to the children immediately, the expected tax on such bequests would be:

$$TAX_E = \left(1 + \frac{\rho \tau_e}{(1+\delta)^m}\right)\left(\frac{\tau_g}{1+\tau_g}\right)\frac{W(1+\pi)^n}{(1+\delta)^n} \qquad (2')$$

where ρ reflects the probability that the surviving spouse dies within three years ($m \leq 3$), when additional estate taxes apply. The tax price becomes:

$$P_W = \frac{(1+\tau_g)(1+\delta)^{n+m}}{[(1+\delta)^m - \rho \tau_e \tau_g](1+\pi)^n} \qquad (7)$$

If the death of the surviving spouse occurs after three years ($\rho = 0$), this simplifies to:

$$P_W = \frac{(1+\tau_g)(1+\delta)^n}{(1+\pi)^n} \qquad (7')$$

[10] These figures are available from the author upon request.

Comparing (7) and particularly (7') to (5), it is obvious that $P_W < P_G$ as the numerator is larger and the denominator smaller in the latter; holding parameters constant, the optimum strategy for married individuals is to forego (postpone) gifts. As further demonstrated in Table 3, this strategy is superior to making of noncash gifts by married couples for any set of values for n and β.[11]

4. Data Sources and Construction of Variables

The above suggests that the advantages of lifetime gifts decline with gift and capital gains taxes, and rise with the estate tax. In addition, they suggest that married individuals may have the least incentive to make gifts of non-cash assets. To empirically gauge how the wealthy respond to taxes in the timing of transfers, I employ data drawn from the estate tax returns of decedents in 1989. The sample is limited to the estates of parents with total assets in excess of $600,000, the filing threshold in 1989. Estate tax returns provide information on wealth and its composition. Information is available on assets held, debts, funeral expenses, and expenses of settling the estate such as attorney, and executor commissions. More importantly, they also provide information on the cumulative amount of lifetime taxable gifts made from 1977 through 1989. These gifts are transfers in excess of the annual exemption, and do not include payments for tuition and medical expenses, all of which are tax free. Demographic information is available on age of the decedent, marital status, gender, and state of residency. For this data set, the number and relationship of beneficiaries is also available.

[11] To clarify the comparison, I focus on $n \geq 5$ and $m > 3$.

Wealth is defined as the maximum amount that can be transferred, and is measured as net worth at death less life insurance proceeds and estate expenses, plus lifetime gifts and gift taxes.[12] I exclude observations with negative wealth. Business ownership is measured as the fraction of the estate in the form of farm, noncorporate businesses, and closely held corporate stock.

Individual annuitant mortality tables are employed in determining life expectancies and the probability of dying within three years of the date of the gift.[13] The mortality rates in these tables are lower than those for the general population. Given that the individuals in this sample represent the wealthiest segment of society using the latter would overstate the mortality rates (Poterba, 1997).

For each individual, the marginal federal estate tax rate is computed by adding $1,000 to wealth using 1987 law and assuming all wealth is transferred to the children at death. Conversely, the marginal federal gift tax rate is computed assuming all wealth is transferred during life. The federal capital gains tax rate is set equal to the maximum statutory rate of 0.28.

Many of the years prior to 1987 represent a transition period. The Economic Recovery Tax Act (ERTA) of 1981 increased the size of gifts and bequests exempt from taxation, in steps over six years, from $175,625 in 1981 to $600,000 in 1987. Thus, gifts (or bequests) in the amount of $600,000 in 1987 would be fully exempt, but would be partially taxable if made

[12] These gifts are in nominal values as the years when the gifts were made are not known.

[13] The rates for males and females rates are obtained from the 1983 Individual Annuitant Mortality (IAM) table from www.soa.org.

in earlier years. Similarly, ERTA lowered tax rates from a maximum of 70 percent down to 50 percent. Thus gifts made in 1981 would be subject to a maximum tax rate of 70 percent, while gifts or bequests in 1984 would be taxed at a rate of 55 percent. Given these rate differentials, it is easy to demonstrate the inferiority of gifts and the wisdom of scaling back of such transfers. While this can be used to debunk the conventional wisdom, one needs to look beyond the transition period, where many may have postponed gifts, and hence my choice of 1987.

A common problem encountered in studies of the effects of taxes on economic behavior is how to identify the tax price effects separately from the effects of income (Feenberg, 1987), or, in this case, wealth. This problem arises because the marginal tax rate can be determined by other regressors, wealth in particular, which confounds the measurement of tax effects. Consequently, I employ state taxes which introduce variations in tax rates independent of wealth, especially in the case of the gift tax which applies in seven states (see Table 4).[14] In addition, I employ relative prices constructed with maximum tax rates as instruments, which should be completely independent of wealth.

Federal tax rates are augmented with state estate, gift, and capital gains tax rates also in effect in 1987.[15] For each of the 50 states and the District of Columbia, I compute the estate tax rate net of the federal credit for state death taxes. All jurisdictions tax bequests as they set

[14] States with gift taxes account for about 17 percent of the national terminal wealth reported on estate tax returns. See Eller (1997, Table 5, column 2).

[15] The results reported below change very little when 1989 law, the year of death, is used. The 1987 and 1989 state and federal laws are similar except for Wisconsin which phased out its gift tax over the period 1988 through 1992.

the federal credit as their minimum tax. In 1987, twenty-five states employed a "pick-up" tax where the state rate is set equal to the maximum available federal tax credit.[16] The net tax rate for these jurisdictions is zero. Seven states levied their own estate taxes, while the remaining 19 states levied inheritance type taxes; all employ the federal credit as their alternative minimum tax. Table 4 provides the maximum estate and gift tax rates for these states, before applying the federal credit.[17] The capital gains tax rate is set equal to the maximum tax rate in effect in each of the 51 jurisdictions. These are also reported in Table 4. The combined federal and state capital gains tax rate is computed as $0.28 + (1\text{-}0.28)\tau$, which accounts for the deductibility of state income taxes.

The computed tax rates and mortality rates are incorporated in equation (6) to compute the relative price of gifts. This measure, however, is likely to be sensitive to the composition of wealth. If wealth is mostly cash or equivalent, then $\beta = \tau_c = 0$ as in (6') and (6''). Thus, the price is computed as a weighted average price of cash and noncash transfers using estate portfolio shares as weights.[18] For non-cash assets, the share of accrued gains (β) is set equal

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[16] These states are Alabama, Alaska, Arizona, Arkansas, California, Colorado, District of Colombia, Florida, Georgia, Hawaii, Illinois, Maine, Minnesota, Missouri, Nevada, New Mexico, North Dakota, Oregon, Texas, Utah, Vermont, Virginia, Washington, West Virginia, and Wyoming.

[17] Detailed estate and gift tax rate schedules are available upon request. Both schedules are obtained from the Advisory Commission on Intergovernmental Relations (1987, p. 71).

[18] Ideally, the share of assets in the estate plus those transferred during life should be used. The assets composition of the latter, however, is not observed. Anecdotal evidence suggests that gifts by the very wealthy are more likely to be non-cash in nature. To test for the robustness of the results, I assume all gifts are cash in an alternative set of estimates.

to 0.5.[19] Furthermore, assets are assumed to appreciate at the rate π= 0.08 over individual life expectancies.

The share of wealth held in the form of business assets is employed as a control variable. Business assets are defined to include farms, noncorporate businesses, and closely held stock.[20] These assets may represent the source of livelihood of the parent, and thus reflect some measure of unwillingness to part with them or give up control. Unfortunately, we do not observe the asset composition of gifts made during life, and consequently the share in terminal wealth is employed.

Table 5 provides sample statistics for select variables. For the sample of 2361 estates, we observe mean wealth of $10.7 million, with a standard deviation of $23.5 million. The mean gift is $0.3 million, which represents about 2 percent of wealth.[21] The average age is 77.5 years, measured at 1987 levels, with 45 percent of the individuals widowed. The gift tax rate is about 55 percent, the estate tax rate is 0.52, and the capital gain tax rate is 31 percent; the average price of gifts is 0.95. On average, business assets represent about 14 percent of the gross estate.

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[19] This is based on data from long-term gains realized in 1985 (Auten and Wilson, 1999, pp. 125). The observed value does not vary with age, contrary to expectations, which perhaps is a reflection of a portfolio optimization strategy. Following a tax minimization strategy, as in Balcer and Judd (1987), individuals may sell asset with high basis and hold those with low basis until death. This assumption is relaxed in sensitivity analyses below.

[20] Closely held stock includes ownership of a minimum of 20 percent of a firm, publicly traded or otherwise.

[21] Recall that these gifts are in excess of the annual exclusion ($10,000 or $3,000 pre-1982) and do not include transfers to cover medical and tuition expenses.

5. Empirical Findings

5.1. Basic Statistics

Columns 2 and 3 of Table 5 provide statistics on the attributes of those with and without gifts. About 60 percent of the sample, or 1,433 estates, did not report lifetime gifts. Their mean wealth is $8 million. On average, these individuals are 74.4 years old, with 41 percent widowed. In contrast, those who reported gifts are much wealthier and slightly older. The mean wealth is $14.4 million with mean age of 77.3 years. They are also more likely to be widowed consistent with the expectations in Table 3. The average gift is about $0.74 million, with a ratio of gifts to wealth of 5.2 percent. The estate and gift tax rates are slightly larger and the capital gains tax rate slightly smaller, but, given the large standard deviations, not statistically different from non-donors. Similarly, little variation is observed in the business share of wealth. Most importantly, the relative tax price of gifts is 0.91, smaller than the price of 0.98 for non-donors.

Table 6 provides further detail on the pattern of gifts disaggregated by size of wealth. The top panel shows the pattern of giving and the associated attributes of donors. The average gift rises with wealth, but without a clear pattern for the fraction of wealth transferred. When compared to the tabulations in the middle panel, donors are more likely to be widowed, and are slightly older. They face higher gift tax rates, but also face higher estate tax rates with slightly lower capital gains rates. One striking difference between the two groups is that donors face a lower relative price of gifts than non-donors at every wealth level.

Turning to all individuals in the sample, the bottom panel of Table 6 shows that the relative frequency of gifts rises with wealth. In addition, the amount, but not the share of

wealth, transferred during life rises with wealth, consistent with the top panel of Table 6. These figures also show the share of business assets to rise with wealth.

Tables 5 and 6 show that those who make lifetime gifts face lower prices of gifts relative to bequests. Table 7 provides further evidence on the effects of the tax price on the probability of making gifts. It breaks down the sample by size of the relative price of gifts, ranging from a price below 0.80 to a price above 1.15. Over half of those who face a price below 0.8 provide for lifetime gifts. This fraction gradually declines to a low of 5 percent when the price is over 1.15, a pattern pointing to the disincentive effects of taxation.

5.2. Multivariate Analyses

While the above basic statistics, particularly Table 7, suggest that taxes are an important consideration, I resort to multivariate analysis to shed further light on the determinants of gifts and gauge the effects of taxes. I estimate a number of equations to explore the determinants of lifetime gifts, and report the results in Table 8. While the tax price is the primary variable of interest, the explanatory or control variables include wealth, marital status, gender, age, number of children, and business ownership.

Column 1 of Table 8 provides Probit IV estimates of the probability of making gifts. The instrument is the relative price of gifts measured using the maximum values of state and federal capital gains, estate and gift tax rates.[22] The estimates in this criterion equation show that the probability of making gifts rises with wealth. The estimated coefficient is 0.42 with a

[22] The simple correlation coefficient between the tax price and wealth is 0.57, compared to 0.002 for wealth and the price constructed using maximum tax rates.

corrected standard error of 0.04. This suggests that the probability of making a gift rises by 0.15 percentage points for every one percent increase in wealth.

Married parents are less likely to engage in lifetime transfers than their widowed counterparts, consistent with theory and the pattern reported in Tables 3 and 6. The estimated coefficient is -0.22 with standard error of 0.07. When compared to widowed individuals, the probability of making gifts is 8 percentage points lower. Similarly, male individuals seem the least likely to give; the estimated coefficient is -0.18 with a standard error of 0.07. Compared to their female counterparts, the probability of giving is 7 percentage points smaller. The probability of making gifts rises with age as well, but at a declining rate. The number of children and business ownership have positive, albeit imprecisely measured, effect on giving.

Turning to the key finding of interest, the probability of reporting gifts declines with the relative tax price, consistent with a tax minimization strategy and the pattern observed in Table 7. The estimated coefficient is -1.16 with a standard error of 0.38. The marginal effect is -0.43; for every 10 percent increase in the relative price, the probability of making gifts drops by 4.3 percentage points.

The second column of Table 8 reports 2SLS estimates of the level of gifts, augmented with the inverse mill's ratio and corrected standard errors, following Lee, Maddala, and Trost (1980) extension of Heckman (1979). The estimated coefficient on the share of wealth transferred during life seems unaffected by the size of wealth. This is consistent with the pattern reported in Table 6. As with the Probit estimates, gifts are greatest for widowed individuals; the fraction of wealth transferred is four percentage points lower for married individuals. Business ownership and the number of children seem to have little effect on

giving.

Again highlighting the importance of taxes, the estimated coefficient on the price of gifts is -0.17 with a standard error of 0.06; the implied elasticity with respect to the price is -2.9, evaluated at mean values. For the most part, these findings are reinforced in the Tobit (FIML) estimates reported in the last column of Table 8. The estimated coefficient on price is -0.15 with a standard error of 0.03, which implies a price elasticity of -2.3.

A. Alternative Estimates

In the earlier estimates, the price constructed using the maximum values of estate and gift tax rates was used as an instrument. Now, as an alternative, consider the use of the actual tax parameters directly. As shown in the first panel of Table 9, the Probit and Tobit coefficients are slightly smaller than the estimates reported in Table 8 and continue to be significant, unlike the estimated coefficient in the level equation. Moving to the second panel of Table 9, however, reveals that the estimates are little affected when the maximum estate and gift tax rates are used directly in constructing the relative price.

A primary assumption in the above estimates is that parents choose between transferring their wealth to their children during life and at death. No allowance is made for inter-spousal transfers as in (7'), or the consumption of wealth by the surviving spouse. The latter may reduce the size of wealth available for intergenerational transfers, and, by reducing the size of taxable estate, may also lead to an erroneous measure of the tax price.[23] As a

[23] Note, however, that much of the spousal bequests of the wealthy take the form of trusts (QTIP) intended to benefit the children. See the last column of Table 9 in Joulfaian (2000a).

robustness check on the estimates, and their sensitivity to the treatment of spouses, Table 8 is reproduced by dropping married individuals from the sample. For the sub-sample of 1,056 widowed individuals, and as shown in panel 3 of Table 9, the estimated coefficients on price continue to be negative and significant but slightly larger than those reported in Table 8.

The earlier estimates in Table 8 are also potentially biased if some individuals have changed their state of residence. In this case, an individual may have made gifts as a resident of one state but retired and died in another state which is recorded as the state of residence. In a not too unrealistic example, consider the case of a New York resident, a state with a gift tax, who makes lifetime gifts and then retires to sunny Florida, a state without a gift tax. The maximum state and federal gift tax rate in New York is 0.76 compared to 0.55 in Florida; 0.60 and 0.55 for the estate tax. The data would show a Florida resident to have made lifetime gifts and lead to an erroneous measure of the gift tax. As a test of the robustness of the above results, I exclude estates with reported Florida residency, some 293 observations. The estimated coefficient on the price for this sub-sample, and as shown in panel 4, remain virtually identical to those reported in Table 8.

Charitable bequests may also complicate the picture. These transfers are part of the wealth variable but are not received by the beneficiaries in life or at death. If these transfers are tax motivated perhaps the treatment thus far is reasonable. Alternatively, individuals may set aside funds for charity without any consideration for the heirs or taxes (Joulfaian, 2000b). In this case, both the dependent variable and the wealth variable on the right hand side are potentially measured with errors. This error can be compounded by the fact that lifetime charitable contributions, which are not observed, are already excluded from wealth. As a

robustness check on the estimates, wealth is reduced by the full amount of charitable bequests.[24] As reported in panel 5 of Table 9, the estimated coefficients on the price are identical to those reported in Table 8.

To the extent that we do not observe the composition of gifts, the price is potentially measured with error if this composition deviates from that observed for terminal wealth, used to construct price measure. In an additional experiment, the price is measured by assuming all gifts are cash in nature. Such transfers are added to terminal wealth, and the cash share is re-calculated.[25] Using this alternative measure of price, the estimated coefficients are qualitatively similar to those reported earlier, albeit larger in absolute value (panel 6).

Borrowing is another consideration as it represents one approach to avoiding capital gains taxes (Auten and Joulfaian, 2001). An individual may borrow against his assets without having to liquidate them, and transfer the proceeds during life. At death, the assets, fully stepped up, may be sold to settle the debts. To control for such strategy, the regressors in Table 8 are augmented with the ratio of debts to assets held at death, plus gifts.[26] As can be seen for the figures reported in panel 7 of Table 9, the basic set of estimates remain unaffected.

The federal progressive rate schedule, and the combined nature of the estate and gift tax, may introduce incentives for early transfers as a means of "freezing" the estate and

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[24] The mean of the dependent variable becomes 0.0219 (se= 0.0631).

[25] The mean share slightly increases to 0.2874 (se= 0.2376).

[26] The mean value of this ratio is 0.0401 (se= 0.0894). Large donors during life seem to carry greater debts.

avoiding estate taxes on future appreciation. Given the aggregate nature of the data, such behavior may introduce errors in measurement, particularly of wealth. As such, I exclude all observations with wealth under $3.5 million, some $0.5 million above the level which triggers the maximum federal tax rate in 1987. Gauging from the estimates reported in panel 8 of Table 9, this treatment has little effect on the earlier estimates.

The estimated equations in Table 8 are further replicated by replacing the relative price of gifts with the maximum gift tax rate (panel 9) and alternatively with the maximum capital gains tax rate (panel 10). These variables certainly do not capture all the tax consequences of transfers, especially as they ignore the tax treatment of bequests. However, they are unaffected by any of the assumptions related to appreciation rates and intergenerational portfolio preferences made in constructing the relative price. These estimates, which ignore life expectancies and the interaction between the various taxes implicit in (6) and (6'), are qualitatively similar to those reported in Table 8, and continue to highlight the importance of taxes.

B. Some Simulations

Using equation (6), I employ the parameters from Table 8 to simulate the effects of a number of tax regimes on the pattern of gifts observed in the sample. First, I set estate, gift, and capital gains tax rates to the values reported in Table 5, or 0.5231, 0.5477, and 0.3140, respectively. I assume a time horizon of 20 years ($n= 20$, $\rho= 0$), $\beta= 0.5$, and the sample mean cash share of wealth of 0.28.

The estimated coefficients in the Tobit equation suggest that repealing estate and gift

taxes would reduce gifts by about 64 percent. Here assets are passed to the heirs free of capital gains and estate taxes at death, but continue to be exposed to capital gains taxes when transferred during life as basis is carried over. On the other hand, if, in addition, capital gains taxes were also repealed, then gift would decline by only 7 percent.

If instead, gifts were to be taxed on a tax inclusive basis, lifetime transfers would decline by some 71 percent. This would also require setting the statutory gift tax rate to 110 percent, which is equivalent to an estate tax rate of 52.31 percent on a tax inclusive basis. While this regime equalizes estate and gift taxes, capital gains taxes continue to apply in the case of gifts. In contrast, repealing the capital gains tax only ($\tau_c = 0$) would increase gifts by 64 percent. This change would significantly reduce the price of gifts as shown in the bottom panel of Table 2.[27]

Not surprisingly, these estimates suggest that estate and gift taxes have significant implications for lifetime transfers by the wealthy. These estimated effects are in harmony with the observed historical pattern of gifts. In 1976, for instance, the maximum gift tax rate was increased from 0.5775 to 0.7, and the estate tax rate reduced from 0.77 to 0.70. In anticipation of the increase in gift tax rates at the beginning of 1977, gifts increased substantially in 1976. Gift tax receipts were $1.8 billion in 1976 (1977 fiscal year) compared to only $0.4 billion in 1975, and $0.16 billion in 1977.[28] Similarly, gift tax receipts in New York dropped by some 36 percent in 1999 (FY2000), from $125 to $79.5 million, as the gift

[27] While the selection variable is not precisely measured, the simulated effects from the level equation are slightly larger than those derived from the Tobit estimates.

[28] See Joulfaian (2000a, Figure 1).

tax expired in 2000.[29]

While these findings suggest that taxes are an important consideration in the timing of transfers, they are subject to a number of caveats. Because gifts in this data represent transfers over a lifetime, the resulting aggregation bias may preempt us from accurately gauging the effects of taxes and determinants of gifts in general. On the other hand, and notwithstanding the aggregation bias, cumulative lifetime transfers are essential in computing tax rates. More importantly, they are likely to be more informative than gifts reported in a single year.

6. Conclusion

This paper explores the tax treatment of different modes of wealth transfers, with a special emphasis on the behavioral responses of the rich. It traces the effects of income, estate, and gift taxes on the price of wealth transfers. Capital gains taxes, in addition to gift taxes, are shown to significantly raise the cost of lifetime gifts. In contrast to the conventional wisdom, gifts are not universally superior.

The empirical results demonstrate that taxes have significant effects on the timing of transfers. This finding suggests that the wealthy are influenced by taxes in setting their lifetime transfers, which adds another dimension to the literature on intergenerational transfers. While addressing how taxes influence the disposition of wealth, however, the paper does not examine how wealth accumulation itself, and consequently overall transfers, might be

[29] The combined state and federal maximum gift tax rate dropped from 0.71 in 1999 to 0.55 in 2000, while the estate tax rate dropped from 0.60 to 0.55.

affected by taxes (Stiglitz, 1983; Holtz-Eakin, 1996; Kopczuk and Slemrod, 2001).

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Table 1

Federal Marginal Tax Rates After Unified Credit and the State Death Tax Credit, 2001

Taxable Estate ($000's)		Estate or Gift Tax Rate (%) (1)	State Death Tax Credit Rate (%) (2)	Net Federal Estate Tax Rate (%) (3)
over	but not over			
Under	675	0.00	Varies	0.00
675	700	37.0	4.0	33.0
700	750	37.0	4.8	32.2
750	900	39.0	4.8	34.2
900	1,000	39.0	5.6	33.4
1,000	1,100	41.0	5.6	35.4
1,100	1,250	41.0	6.4	34.6
1,250	1,500	43.0	6.4	36.6
1,500	1,600	45.0	6.4	38.6
1,600	2,000	45.0	7.2	37.8
2,000	2,100	49.0	7.2	41.8
2,100	2,500	49.0	8.0	41.0
2,500	2,600	53.0	8.0	45.0
2,600	3,000	53.0	8.8	44.2
3,000	3,100	55.0	8.8	46.2
3,100	3,600	55.0	9.6	45.4
3,600	4,100	55.0	10.4	44.6
4,100	5,100	55.0	11.2	43.8
5,100	6,100	55.0	12.0	43.0
6,100	7,100	55.0	12.8	42.2
7,100	8,100	55.0	13.6	41.4
8,100	9,100	55.0	14.4	40.6
9,100	10,000	55.0	15.2	39.8
10,000	10,100	60.0	15.2	44.8
10,100	17,184*	60.0	16.0	44.0
17,184*	and over	55.0	16.0	39.0

* 21,040 between 1988 and 1997.

Table 2

Relative Price of Gifts to Price of Bequests

	Years (n)										
β	0	1	2	3	5	10	15	20	25	30	3
0.00	1.000	0.994	0.989	0.985	0.758	0.806	0.842	0.868	0.887	0.900	0
0.25	1.067	1.057	1.049	1.041	0.792	0.837	0.871	0.895	0.913	0.925	0
0.50	1.143	1.129	1.116	1.104	0.831	0.873	0.904	0.926	0.942	0.953	0
0.75	1.231	1.211	1.193	1.177	0.875	0.913	0.941	0.961	0.975	0.985	0
1.00	1.333	1.306	1.282	1.260	0.925	0.959	0.983	1.001	1.013	1.021	1
π= 0.08, τ_c= 0.25, and τ_e= τ_g= 0.55.											
Zero Capital Gains Taxes											
0.0-1.0	1.000	0.969	0.942	0.918	0.697	0.697	0.697	0.697	0.697	0.697	0

Table 3

Relative Price of Gifts by Married Couple to Price of Bequests to and Gifts by Surviving Spouse

	Years (n)							
β	5	10	15	20	25	30	35	40
0.00	1.087	1.155	1.207	1.244	1.271	1.291	1.304	1.313
0.25	1.136	1.200	1.248	1.283	1.308	1.326	1.338	1.347
0.50	1.191	1.251	1.295	1.327	1.350	1.366	1.377	1.384
0.75	1.254	1.309	1.349	1.377	1.397	1.412	1.421	1.428
1.00	1.326	1.374	1.410	1.435	1.452	1.464	1.473	1.479

π= 0.08, τ_c= 0.25, τ_e= 0, and τ_g= 0.55.

Table 4

Maximum Estate, Gift, and Capital Gains Tax Rates by State, 1987

State	Estate*	Gift	Gains	State	Estate	Gift	Gains
Alabama	16.00	0.00	5.00	Missouri	16.00	0.00	6.00
Alaska	16.00	0.00	0.00	Montana	16.00	0.00	11.00
Arizona	16.00	0.00	3.20	Nebraska	16.00	0.00	5.90
Arkansas	16.00	0.00	7.00	Nevada	16.00	0.00	0.00
California	16.00	0.00	9.30	New Hampshire	16.00	0.00	0.00
Colorado	16.00	0.00	5.00	New Jersey	16.00	0.00	3.50
Connecticut	16.00	0.00	2.80	New Mexico	16.00	0.00	8.50
Delaware	16.00	6.00	8.80	New York	21.00	21.00	7.50
District of Colombia	16.00	0.00	10.00	North Carolina	16.00	12.00	7.00
Florida	16.00	0.00	0.00	North Dakota	16.00	0.00	14.00
Georgia	16.00	0.00	6.00	Ohio	16.00	0.00	6.90
Hawaii	16.00	0.00	10.00	Oklahoma	16.00	0.00	6.00
Idaho	16.00	0.00	3.28	Oregon	16.00	0.00	9.00
Illinois	16.00	0.00	2.50	Pennsylvania	16.00	0.00	2.10
Indiana	16.00	0.00	4.20	Rhode Island	19.14	0.00	7.58
Iowa	16.00	0.00	4.31	South Carolina	16.00	8.00	7.00
Kansas	16.00	0.00	9.00	South Dakota	16.00	0.00	0.00
Kentucky	16.00	0.00	2.40	Tennessee	16.00	9.50	0.00
Louisiana	16.00	3.00	6.00	Texas	16.00	0.00	0.00
Maine	16.00	0.00	10.00	Utah	16.00	0.00	7.75
Maryland	16.00	0.00	4.50	Vermont	16.00	0.00	8.75
Massachusetts	16.00	0.00	5.00	Virginia	16.00	0.00	5.75
Michigan	16.00	0.00	4.60	Washington	16.00	0.00	0.00
Minnesota	16.00	0.00	9.00	West Virginia	16.00	0.00	6.50
Mississippi	16.00	0.00	5.00	Wisconsin	16.00	12.50	2.77
				Wyoming	16.00	0.00	0.00

* These rates are gross of the federal credit for state death taxes (maximum credit rate of 0.16).

Table 5

Sample Statistics for Selected Variables
(Standard Deviations in Parentheses)

Item	Observations		
	All	Without Gifts	With Gifts
Wealth ($Millions)	10.7341	7.4627	14.3511
	(23.5298)	(13.9303)	(30.2214)
Gifts ($Millions)	0.2928	0	0.7449
	(1.5211)	0	(2.3565)
Gift/Wealth	0.0203	0	0.0517
	(0.0566)	0	(0.0808)
Age	75.5371	74.3740	77.3330
	(11.2110)	(11.9548)	(9.6895)
Widowed	0.4473	0.4082	0.5070
	(0.4973)	(0.4917)	(0.5002)
Male	0.6146	0.6462	0.5657
	(0.4861)	(0.4783)	(0.4959)
Cash Share	0.2751	0.2674	0.2872
	(0.2361)	(0.2374)	(0.2338)
Gift Tax Rate (τ_g)	0.5477	0.5260	0.5813
	(0.1291)	(0.1487)	(0.0800)
Estate Tax Rate (τ_e)	0.5231	0.5008	0.5581
	(0.1185)	(0.1398)	(0.0601)
Capital Gains Tax Rate (τ_c)	0.3140	0.3157	0.3113
	(0.0246)	(0.0245)	(0.0246)
Relative Price of Gifts, Equation (6)	0.9518	0.9791	0.9095
	(0.1447)	(0.1589)	(0.1065)
Relative Price Instrument	0.9278	0.9341	0.9180
	(0.0799)	(0.0818)	(0.0760)
Business/Wealth	0.1363	0.1335	0.1406
	(0.2386)	(0.2374)	(0.2405)
Observations	2,361	1,433	928

Table 6

Sample Attributes by Size of Wealth and Giving Status

Size of wealth ($1000s)		Observations			Sample Mean							
		All	with Gifts		Wealth ($1000s)	Gifts ($1000s)	Gifts/ Wealth	Gift Tax Rate	Estate Tax Rate	Gains Tax Rate	Price of Gifts	Fraction Widowed
			Number	Percent								
Individuals Reporting Gifts												
0	1,000	28	28	100	799	87	10.4	37.9	34.9	30.8	111.1	67.9
1,000	2,500	17	17	100	1,586	161	8.9	45.5	44.7	30.9	99.9	47.1
2,500	5,000	53	53	100	4,428	125	2.9	56.9	55.3	31.0	92.4	45.3
5,000	10,000	459	459	100	6,948	358	5.1	57.4	55.4	31.2	91.6	53.8
10,000	20,000	228	228	100	13,895	646	4.5	63.6	60.5	31.3	85.9	48.7
20,000	50,000	105	105	100	30,041	1,919	6.2	57.8	55.4	31.0	91.9	41.9
50,000	******	38	38	100	116,810	4,379	4.5	57.3	55.4	30.7	90.5	47.4
All		928	928	100	15,339	745	5.2	58.1	55.8	31.1	91.0	50.8
Individuals Not Reporting Gifts												
0	1,000	266	0	0	691	0	0.0	29.9	27.3	31.5	116.6	60.5
1,000	2,500	106	0	0	1,425	0	0.0	44.6	44.4	31.5	102.7	50.0
2,500	5,000	173	0	0	4,262	0	0.0	58.0	55.9	32.0	94.9	36.4
5,000	10,000	640	0	0	6,766	0	0.0	57.9	55.5	31.5	93.3	35.5
10,000	20,000	169	0	0	13,278	0	0.0	64.1	60.1	31.2	87.0	31.4
20,000	50,000	61	0	0	28,211	0	0.0	61.3	56.8	32.2	96.1	41.0
50,000	******	18	0	0	96,756	0	0.0	59.7	56.1	31.4	95.8	16.7
All		1,433	0	0	7,752	0	0.0	52.6	50.1	31.6	97.9	40.8
All Individuals												
0	1,000	294	28	9.5	701	8	1.0	30.6	28.0	31.4	116.1	61.2
1,000	2,500	123	17	13.8	1,448	22	1.2	44.7	44.4	31.4	102.3	49.6
2,500	5,000	226	53	23.5	4,301	29	0.7	57.7	55.7	31.7	94.3	38.5
5,000	10,000	1,099	459	41.8	6,842	149	2.1	57.7	55.4	31.4	92.6	43.1
10,000	20,000	397	228	57.4	13,632	371	2.6	63.8	60.3	31.3	86.3	41.3
20,000	50,000	166	105	63.3	29,368	1,214	3.9	59.1	55.9	31.5	93.4	41.6
50,000	******	56	38	67.9	110,364	2,971	3.1	58.1	55.6	30.9	92.2	37.5
All		2,361	928	39.3	10,734	293	2.0	54.8	52.3	31.4	95.2	44.7

Table 7

Probability of Making Gifts by Price of Gifts

Relative Price of Gifts*		Sample Size	Number with Gifts	Percent with Gifts
Under	0.80	189	103	0.55
0.80	0.85	275	145	0.53
0.85	0.90	397	185	0.47
0.90	0.95	478	212	0.44
0.95	1.00	418	166	0.40
1.00	1.05	250	70	0.28
1.05	1.10	145	29	0.20
1.10	1.15	69	11	0.16
1.15	and over	140	7	0.05
All		2,361	928	0.39

* Price as defined in text.

Table 8

Determinants of Lifetime Gifts
(Standard errors reported in parentheses)

Variable	Criterion	Level	Tobit
Constant	-11.0810*	-0.4046	-0.8070*
	(1.3084)	(0.4538)	(0.1254)
ln Wealth	0.4157*	0.0094	0.0262*
	(0.0379)	(0.0151)	(0.0033)
Male	-0.1806*	--	-0.0217*
	(0.0678)	--	(0.0058)
Married	-0.2167*	-0.0391*	-0.0255*
	(0.0725)	(0.0122)	(0.0061)
Number of Children	0.0337	0.0008	0.0027
	(0.0225)	(0.0026)	(0.0021)
Age	0.1108*	0.0057	0.0088*
	(0.0296)	(0.0050)	(0.0028)
$Age^2 \cdot 10^{-3}$	-0.6906*	-0.0314	-0.0523*
	(0.1999)	(0.0322)	(0.0187)
Business Share	0.0892	0.0207	0.0182
	(0.1237)	(0.0127)	(0.0116)
ln Relative Price of Gifts	-1.1562*	-0.1671*	-0.1493*
	(0.3752)	(0.0600)	(0.0338)
λ	--	0.0590	--
	--	(0.0536)	--
σ	--	--	0.0993*
	--	--	(0.0012)
$\Phi(z)$	0.3709		0.3201
Log-Likelihood	-1,377	1,039	6,923
Observations	2,361	928	2,361

* Significant at the 5 percent level.

Table 9

Alternative Estimates of Lifetime Gifts
(Standard errors in parentheses)

Variable	Criterion	Level	Tobit
	1. Use Actual Tax Rates (no instruments)		
ln Relative Price of Gifts	-0.954*	-0.055	-0.108*
	(0.273)	(0.039)	(0.002)
λ or σ		0.022	0.099*
		(0.041)	(0.002)
	2. Use Maximum Estate and Gift Tax Rates		
ln Relative Price of Gifts	-1.110*	-0.127*	-0.143*
	(0.360)	(0.042)	(0.032)
λ or σ		0.009	0.099*
		(0.038)	(0.025)
	3. Exclude Married Individuals (n= 1,056)		
ln Relative Price of Gifts	-1.596*	-0.279*	-0.221*
	(0.599)	(0.125)	(0.063)
λ or σ		0.116	0.117*
		(0.086)	(0.002)
	4. Exclude Florida Residents (n= 2,068)		
ln Relative Price of Gifts	-1.224*	-0.146*	-0.148*
	(0.408)	(0.067)	(0.038)
λ or σ		0.039	0.101*
		(0.059)	(0.001)
	5. Reduce Wealth by Charitable Bequests		
ln Relative Price of Gifts	-1.180*	-0.170*	-0.151*
	(0.377)	(0.061)	(0.034)
λ or σ		0.062	0.097*
		(0.055)	(0.002)
	6. Assume all Gifts are Cash in Nature		
ln Relative Price of Gifts	-2.036*	-0.533*	-0.302*
	(0.377)	(0.169)	(0.034)
λ or σ		-0.192	0.097*
		(0.111)	(0.001)
	7. Account for Borrowing		
ln Relative Price of Gifts	-1.199*	-0.162*	-0.159*
	(0.376)	(0.058)	(0.033)
λ or σ		0.042	0.099*
		(0.050)	(0.001)

Table 9, Continued

Alternative Estimates of Lifetime Gifts
(Standard errors in parentheses)

Variable	Criterion	Level	Tobit
8. Exclude observations with Wealth>$3.5 million			
ln Relative Price of Gifts	-1.175*	-0.085*	-0.143*
	(0.390)	(0.048)	(0.032)
λ or σ		-0.044	0.090*
		(0.042)	(0.001)
9. Replace Price with Maximum Gift Tax Rate			
Gift Tax Rate	-0.781*	-0.041	-0.075*
	(0.379)	(0.041)	(0.034)
λ or σ		0.005	0.100*
		(0.038)	(0.002)
10. Replace Price with Maximum Capital Gains Tax Rate			
Capital Gains Tax Rate	-4.977*	-0.013	-0.389*
	(1.135)	(0.155)	(0.101)
λ or σ		0.021	0.100*
		(0.037)	(0.002)

* Significant at the 5 percent level.

Appendix A

In the case of the wealthy, who hold very little of their assets in the form of cash, capital gains taxes may apply in addition to gift taxes. The donor (donee) pays the gift tax, T_G, by selling a fraction of the asset, which also results in capital gains tax T_D. The latter is defined as:

$$T_D = \tau_c \beta (T_G + T_D) \tag{A1}$$

or,

$$T_D = \frac{\tau_c \beta}{1 - \tau_c \beta} T_G \tag{A1'}$$

where τ_c is the capital gains tax rate, and β is the appreciation component or accrued gains share of the asset. The gift tax paid, T_G, depends on the applicable gift tax rate, τ_g, and the amount received by the beneficiary, $W\text{-}T_G\text{-}T_D$. The tax is defined as:

$$T_G = \tau_g (W - T_G - T_D) \tag{A2}$$

or,

$$T_G = \frac{\tau_g}{1 + \tau_g + \frac{\tau_c \beta \tau_g}{1 - \tau_c \beta}} W \tag{A2'}$$

Capital gains taxes, T_B, may apply at the disposition of the assets by the beneficiaries, n years in the future. These taxes apply to gains accrued by the donor in the past, and gains accrued by the donee over n years. As stated earlier, the donee retains the donor's basis adjusted for gift taxes. The adjustment is equal to the amount of the gift tax attributable to the amount of gains accrued by the donor, βT_G. More specifically, the present value of future capital gains taxes is defined as:

$$T_B = \frac{\tau_c [\beta (W - T_G - T_D) - \beta T_G]}{(1 + \delta)^n} + \frac{\tau_c (W - T_G - T_D)[(1 + \pi)^n - 1]}{(1 + \delta)^n} \tag{A3}$$

or, using (A1') and (A2'),

$$T_B = \frac{\frac{\tau_c \beta(1-\tau_g)}{(1+\delta)^n} + \frac{\tau_c[(1+\pi)^n - 1]}{(1+\delta)^n}}{1+\tau_g + \frac{\tau_c \beta \tau_g}{1-\tau_c \beta}} W \qquad \text{(A3')}$$

where π is the rate at which the asset appreciates, and δ the discount rate. The first term measures the capital gains tax on gains accrued by the donor and the second term the tax on gains accrued by the beneficiary.

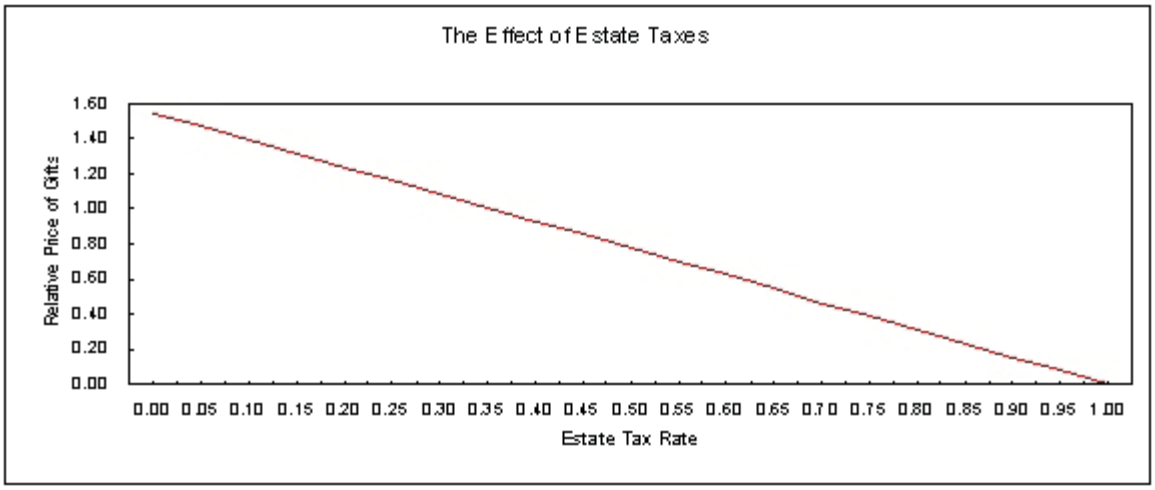
If the donor dies within three years form the date of making the gifts, the gift tax is added to the taxable estate, and additional estate taxes may apply. This additional tax, with probability of ρ dying within three years, is defined as $T_{E,G} = \rho\tau_e T_G/(1+\delta)^n$.

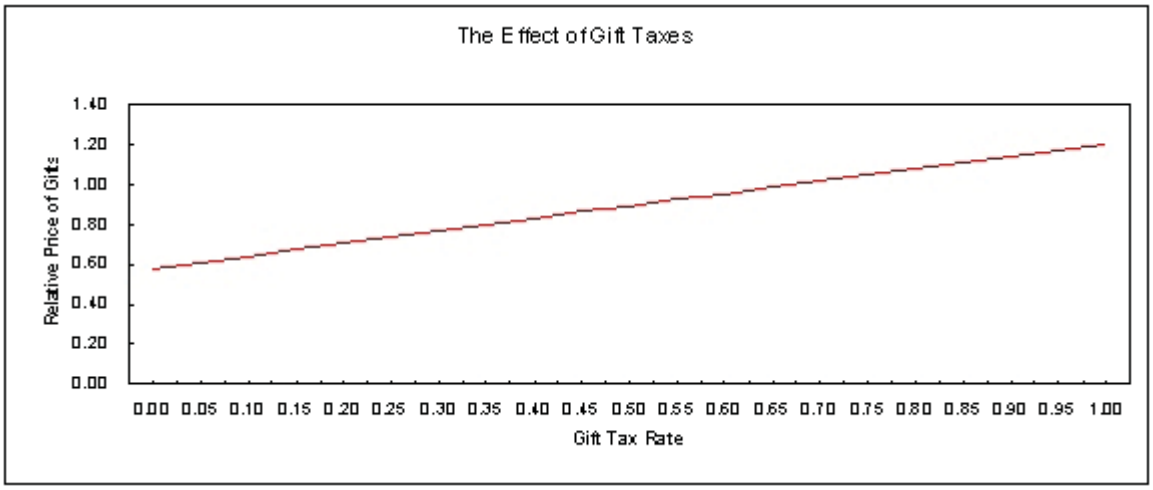
The combined sum of capital gains and gift taxes is $T_D + T_G + T_B + T_{E,G}$, or:

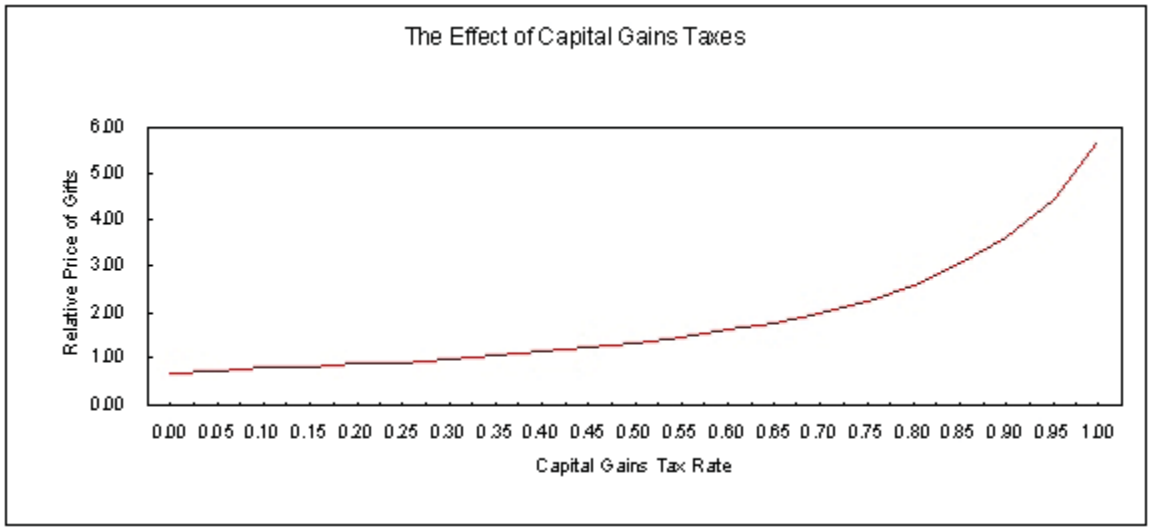
$$TAX_G = \left(\frac{\tau_g + \frac{\tau_c \beta \tau_g}{1-\tau_c \beta} + \frac{\tau_c \beta(1-\tau_g)}{(1+\delta)^n} + \frac{\tau_c[(1+\pi)^n - 1]}{(1+\delta)^n} + \frac{\rho \tau_e \tau_g}{(1+\delta)^n}}{1+\tau_g + \frac{\tau_c \beta \tau_g}{1-\tau_c \beta}} \right) W \qquad \text{(A4)}$$

which is equation (4) in the text.

Figure 1. The Effect of Taxes on the Relative Price of Gifts
(20-yr holding period, 8 percent appreciation rate, and 50 percent accrued gains share)







Charitable Bequests: Evidence from Federal Estate Tax Returns

by Martha Britton Eller

Federal estate tax data provide a unique glimpse into the charitable bequest patterns of wealthy Americans. According to data collected by the Statistics of Income Division (SOI) of the Internal Revenue Service (IRS), charitable bequests by wealthy estate tax decedents reached $10.1 billion in 1995, about 7.0 percent of the $143.9 billion in total charitable giving for 1995, as estimated by the AAFRC Trust for Philanthropy [1]. The total charitable bequest, as reported on estate tax returns, was contributed by 14,283 decedents. A decedent's estate is required to file a Federal estate tax return, Form 706, if the value of gross assets, at death, exceeds the filing threshold in effect at the date of death. For year of death 1995, the focus in this article, the estate tax filing threshold was $600,000 in gross assets. Gross assets, deductions from gross estate, including the charitable deduction, and tax computation information are reported on the Federal estate tax return, making the return a rich source of data on wealthy taxpayers.

As part of SOI's annual estate tax study, the source of statistics provided here, detailed data on gross charitable contributions, or bequests, by estate tax decedents are collected. Estate tax decedents are defined as all decedents for whom estate tax returns were filed. In the course of the estate tax study, each charitable contribution is assigned to one of six contribution categories, and each category describes a general activity performed by qualifying charitable institutions. Categories include: education, medicine, and science; religion; social welfare; private foundations; arts and humanities; and other, a category for a wide range of activities, such as public safety, housing, and environmental quality, as well as activities not classified elsewhere.

The 1995 Estate Tax Decedent Population

Internal Revenue Code (IRC) section 2055 states that the "value of the taxable estate shall be determined by deducting from the value of the gross estate the amount of all bequests, legacies, devises or transfers" to qualifying charitable institutions, including organizations which conduct religious, charitable, scientific, literary, and educational activities, among others. For year of death 1995, the population of estate tax decedents included 14,283 individuals who, upon their deaths, contributed to a broad spectrum of charitable organizations recognized by the Internal Revenue Service under IRC section 2055. Charitable contributors who utilized the charitable deduction in 1995 represented 18.3 percent of the overall estate tax decedent population that included 78,023 decedents, and they bequeathed $10.1 billion in gross contributions to qualifying charities (Figure A). The deduction reduced the combined taxable estate by more than $9.7 billion and represented 16.2 percent of total allowable deductions taken by 1995 decedents. The discrepancy between combined gross charitable contributions, $10.1 billion, and the combined charitable deduction, $9.7 billion, is a product of estate tax law that disallows use of the charitable deduction for Federal estate, generation-skipping transfer, and State death taxes paid out of funds designated for a charity.

In addition to charitable transfers to qualifying organizations, unlimited marital transfers, administrative expenses, indebtedness, taxes, and casualty losses are also deductible against gross estate, under IRC sections 2053, 2055, and 2056. For 1995 estate tax decedents, total allowable deductions exceeded $60.0 billion. The deduction for bequests to charitable organizations, $9.7 billion, was the second largest combined deduction against gross estate, exceeded only by the deduction for marital transfers. Transfers to surviving spouses, also fully deductible under Federal estate tax law, totaled $40.9 billion, or

Figure A

1995 Estate Tax Decedents, Selected Items

[All figures are estimates based on samples--money amounts are in thousands of dollars]

Item	Amount
Total gross estate, date of death [1]	136,296,004
Total gross estate, tax purposes [2]	136,138,678
Charitable bequests, total	10,117,929
Charitable deduction, total	9,703,375
Spousal bequests, total	40,919,708
Total allowable deductions	60,076,194

[1] Gross estate shown at value on date of death.

[2] Gross estate shown at value used in tax computation, either date-of-death value or value on alternate valuation date.

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Charitable Bequests: Evidence from Federal Estate Tax Returns

68.1 percent of total allowable deductions. More than half of all 1995 estates, 53.1 percent, were nontaxable (i.e., they reported no estate tax liability), while 46.9 percent were taxable (i.e., they reported an estate tax liability).

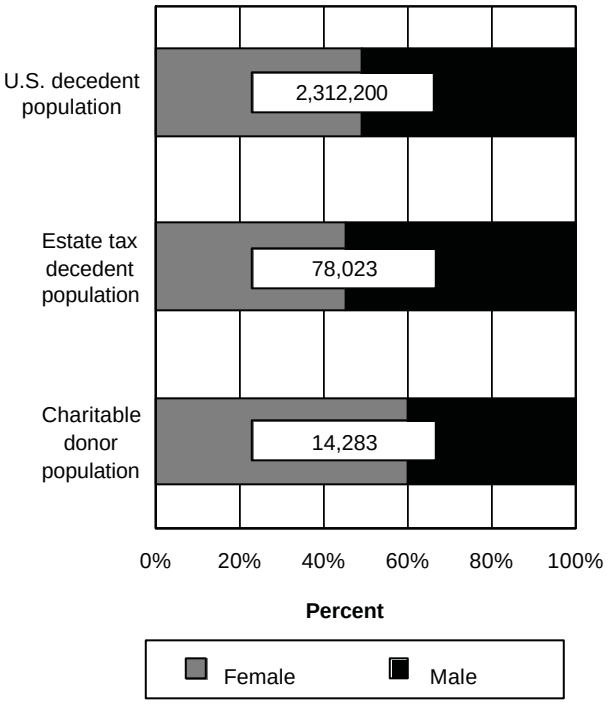
Since the contributors described in this article were members of the larger estate tax decedent population, fully understanding the subset of contributors requires an examination of the wealthy estate tax decedent population as a whole, which included 78,023 individuals who died in 1995 with gross estates at or above the estate tax filing threshold of $600,000. While the estate tax decedent population has grown significantly in recent years, increasing 29.9 percent between years of death 1992 and 1995, it is still only a small fraction of both the U.S. living and decedent populations. Estate tax decedents represented less than 1.0 percent of the total U.S. resident population in 1995, according to the U.S. Census Bureau, and the deaths of estate tax decedents represented only 3.4 percent of all deaths that occurred among resident Americans during 1995, according to the U.S. National Center for Health Statistics [2].

While the entire U.S. decedent population is about equal parts male and female, the population of estate tax decedents is comprised of a male majority. The deaths of males made up 50.7 percent of all U.S. deaths in 1995, and female deaths were about 49.3 percent of all deaths (Figure B). In contrast, however, male decedents represented 54.9 percent of the estate tax decedent population in 1995, while female decedents represented only 45.1 percent of that population. Despite their lesser presence in the entire estate tax decedent population, females were the majority of charitable contributors. Nearly 60.0 percent of the donor population was female, and only about 40.0 percent was male. Of course, marital status at death plays a role in this finding. The majority of female estate tax decedents were widowed—with no spouse as a potential heir—and therefore more likely to contribute to charity. The majority of male estate tax decedents were married.

In terms of financial well-being, the combined total gross estate, or wealth accumulated, for 1995 estate tax decedents was $136.3 billion (Figure C). However, their combined net worth, defined as gross assets less liabilities (debts and mortgages), better represents the funds available for charitable donations. Combined net worth for wealthy estate tax decedents who died in 1995 totaled $130.5 billion. Overall, then, estate tax decedents' charitable contributions, $10.1 billion, represented 7.8 percent of their combined capacity to donate.

Figure B

U.S. Decedent, Estate Tax Decedent, and Charitable Donor Populations, by Sex, 1995



The estate tax decedent population increased by 29.9 percent between 1992 and 1995, and decedents' combined total gross estate increased by 30.5 percent between these years. The charitable donor segment of the estate tax population increased by less than the estate tax population as a whole, with growth barely exceeding 27.0 percent. Gross charitable contributions increased by 19.4 percent between 1992 and 1995, while contributions as a percentage of net worth for all decedents remained largely unchanged, around 8.0 percent for both years. Charitable contributions as a percentage of net worth for donors decreased only slightly, from 28.8 percent in 1992 to 28.0 percent in 1995.

Charitable Bequests: Evidence from Federal Estate Tax Returns

Figure C

Estate Tax Decedent Populations, Selected Items, 1992 and 1995

[All figures are estimates based on samples--money amounts are in thousands of dollars]

Item	Year of death		Percent change
	1992	1995	
	(1)	(2)	(3)
Number of estate tax decedents	60,080	78,023	29.9
Total gross estate, all decedents, date of death [1]	104,451,937	136,296,004	30.5
Total net worth, all decedents [2]	100,150,035	130,455,305	30.3
Number of charitable donors	11,235	14,283	27.1
Charitable donors as a percent of all decedents	18.7	18.3	-0.4
Gross charitable bequests	8,473,075	10,117,929	19.4
Charitable bequests as percent of net worth, all decedents	8.1	7.8	-0.3
Charitable bequests as percent of net worth, donors	28.8	28.0	-0.8

[1] Gross estate shown at value on date of death.

[2] Net worth is calculated as total gross estate less debts and mortgages. Negative values of net worth are constrained to zero.

Allocation of Charitable Bequests

The motives for philanthropic giving are varied and complex and reflect the "range of cultural and philosophical underpinnings of this country" [3]. It would be an insurmountable task to construct a definitive list of possible motives for giving to charity, since an individual's decision to give may be rooted in tradition, in tax incentives, or in myriad possibilities between the two. The wide range of motives for giving is reflected in the diverse areas of study that have examined it, including sociology, psychology, economics, and finance. Over time, though, broad values and motives for giving by wealthy donors have been identified [4].

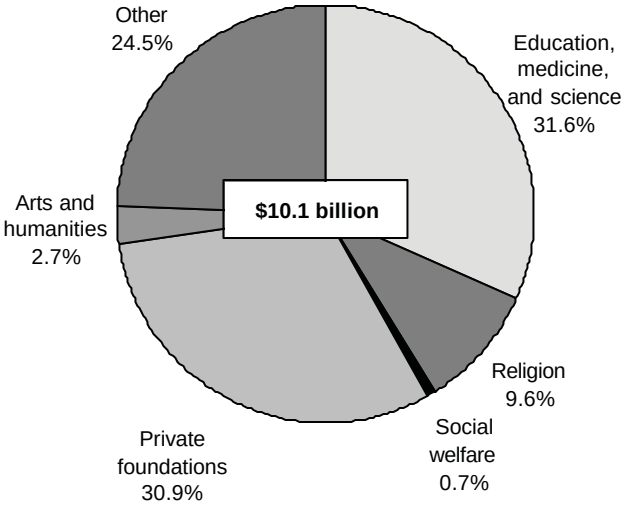
While charitable bequest data collected by SOI do not directly contain information on individuals' motives for giving, the allocation of decedents' funds, in the aggregate, speaks indirectly to the motives for giving. Wealthy estate tax decedents who died in 1995 contributed $10.1 billion to charitable organizations and charitable activities that they deemed important. On average, these donors gave to 1.7 types of organizations, including organizations involved in education, medicine, and science; religious organizations; social welfare organizations; private foundations; and various other qualified organizations.

The largest combined contribution, almost $3.2 billion, went to educational, medical, and scientific organizations and represented 31.6 percent of gross charitable contributions (Figure D). More than half of all contributors in 1995, 51.1 percent, gave to these types of charitable organizations. The second largest combined gift, $3.1 billion, went to private foundations and represented 30.9 percent of gross charitable contributions. Bequests to private foundations were left by 980 decedents, a mere 6.9 percent of charitable contributors in 1995.

The large, aggregate contributions to these top two categories of organizations—education, medicine, and science and private foundations—reveal the "roots of philanthropy," including civic responsibility, scientific philanthropy, and social responsibility, according to researchers [5]. Wealthy individuals who give with civic responsibility as their motive "believe in an educated citizenry, {and} thus tend to fund institutions that promote equality through education," while wealthy Americans who espouse scientific philanthropy support "basic research in the physical and social sciences" in order to expand our knowl-

Figure D

Charitable Bequests by Type of Recipient Organization, 1995



Charitable Bequests: Evidence from Federal Estate Tax Returns

edge and solve society's problems [6]. These donors view the funding of research at universities and other organizations as a "primary way of contributing to the betterment of society" [7]. Donors who are motivated by a sense of social responsibility view their wealth as an obligation. As such, these contributors "hope to provide opportunities for others to make good" [8].

Giving to private foundations indicates several other motives, including, but not limited to, concern for the welfare of others, personal satisfaction, tax incentives, and control of business assets [9]. Most private foundations are established by gifts from a single family or individual rather than from a large number of contributors, and many foundations bear the name of the contributing family, forever preserving an individual's, or family's, role in society. Private foundations typically do not themselves conduct charitable activities but rather make grants to other charitable organizations that conduct such activities.

Disparate bequest patterns among estate tax decedents signal a wealth-based difference in motivations for giving, as preferences for charities vary by gross estate class. The smallest estates split the majority of their money and assets between educational, medical, and scientific charities, 36.1 percent of their gross contributions, and religious charities, 29.3 percent of their contributions, while the largest estates overwhelmingly prefer to give to private foundations, 48.5 percent of their gross contributions (Figure E). The largest estates gave just 21.1 percent of their contributions to educational, medical, and scientific charities and only 2.5 percent of their contributions to religious charities.

Across gross estate categories, however, charitable donors most frequently selected religious organizations as charitable recipients, with about 8,400 contributions reserved for religious activities, a com-

Figure E

Allocation of Charitable Bequests to Recipient Organizations, by Size of Gross Estate, 1995

[All figures are estimates based on samples--money amounts are in thousands of dollars]

Size of gross estate, date of death [1]	Aggregate gross bequests	Religion		Private foundations		Social welfare	
		Amount	Percent	Amount	Percent	Amount	Percent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
All	**10,117,929**	**970,445**	**9.6**	**3,127,984**	**30.9**	**68,687**	**0.7**
$600,000 under $1 million	906,916	265,792	29.3	38,462	4.2	8,605	0.9
$1 million under $2.5 million	1,671,539	313,900	18.8	116,694	7.0	16,856	1.0
$2.5 million under $5 million	1,242,887	148,191	11.9	222,955	17.9	2,602	0.2
$5 million under $10 million	993,843	90,799	9.1	235,498	23.7	10,841	1.1
$10 million under $20 million	884,798	43,243	4.9	372,566	42.1	17,328	2.0
$20 million or more	4,417,945	108,520	2.5	2,141,809	48.5	12,454	0.3

Size of gross estate, date of death [1]	Arts and humanities		Education, medicine, and science		Other	
	Amount	Percent	Amount	Percent	Amount	Percent
	(8)	(9)	(10)	(11)	(12)	(13)
All	**272,800**	**2.7**	**3,194,230**	**31.6**	**2,483,781**	**24.5**
$600,000 under $1 million	18,217	2.0	327,796	36.1	248,043	27.4
$1 million under $2.5 million	62,906	3.8	745,200	44.6	415,983	24.9
$2.5 million under $5 million	34,287	2.8	537,765	43.3	297,086	23.9
$5 million under $10 million	14,937	1.5	359,179	36.1	282,589	28.4
$10 million under $20 million	10,302	1.2	291,849	33.0	149,510	16.9
$20 million or more	132,151	3.0	932,441	21.1	1,090,570	24.7

[1] Gross estate shown at value on date of death.

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bined gift of more than $970.4 million. The religious motive, as this finding suggests, is an important one, and one with "tremendous historical importance" [10]. After all, "since the earliest times, religions have played a major role in the supply and demand of welfare public goods," and "religion influences the tastes of the individual and provides a selective incentive for him to contribute" [11].

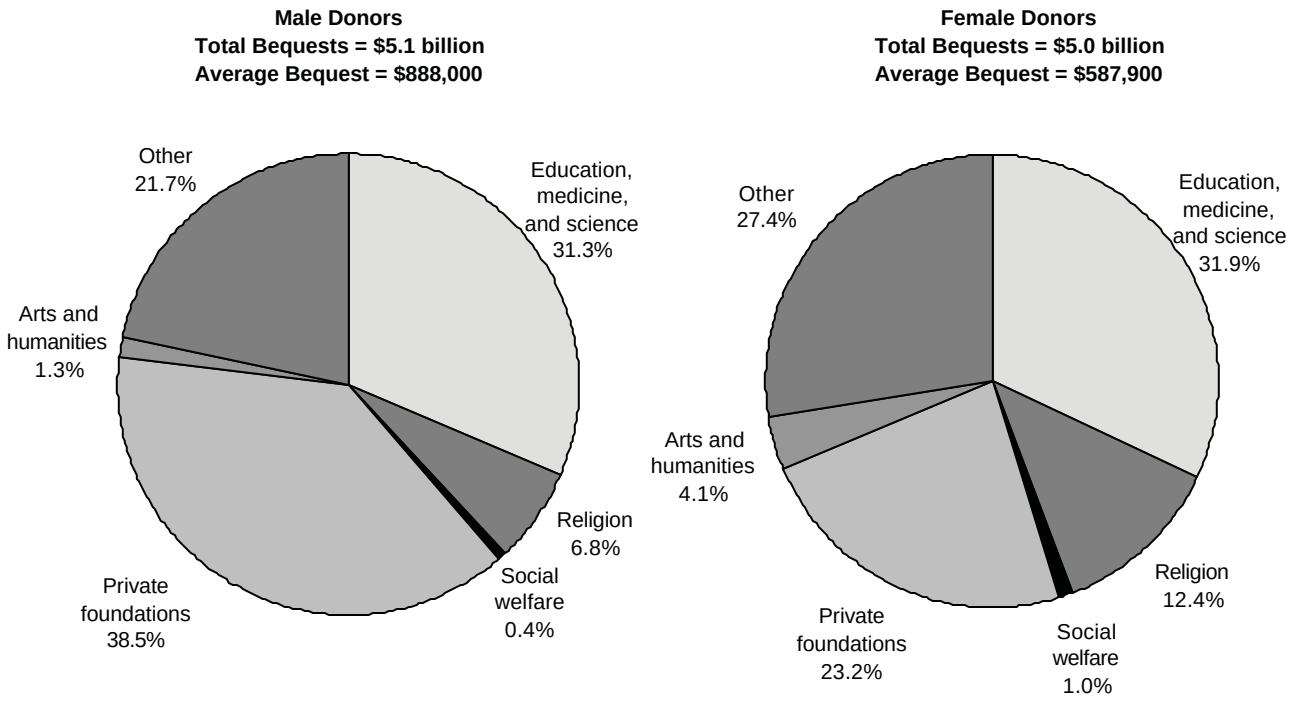
Bequest Patterns by Demographic Groups

Bequest Data by Sex

Charitable bequest data extracted from Federal estate tax returns reveal limited sex-based differences in the propensity to give, as well as limited sex-based preferences for types of charitable recipients. Female decedents in the 1995 estate tax population gave to charity with greater frequency than male decedents, as 24.3 percent of female estate tax decedents gave to charity, while only 13.4 percent of male decedents contributed. Of course, marital status at death probably plays a substantial role in this finding, since the majority of female estate tax decedents were widowed, while the majority of male estate tax decedents were married. With no spouses to designate as beneficiaries, widowed women more frequently designated charities as recipients of their estates. Despite the *de facto* difference in propensity to give, women and men gave comparable aggregate bequests, with women contributing $5.0 billion and men contributing $5.1 billion (Figure F). Although women gave more frequently, men gave more substantial gifts, on average. Male donors contributed, on average, about $888,000 to charity, and female donors contributed, on average, about $587,900 to charity. In terms of net worth, however, female donors contributed a slightly larger share of their net worth, 29.3 percent,

Figure F

Charitable Bequests, by Sex of Donor and Type of Recipient Organization, 1995



Charitable Bequests: Evidence from Federal Estate Tax Returns

compared to male donors, who contributed 26.8 percent of their net worth to charity.

In terms of contribution amounts, men, in the aggregate, gave the largest percentage of their gross contributions, 38.5 percent, to private foundations. Total contributions to private foundations exceeded $1.9 billion, even though only 8.2 percent of male contributors, 470 males, left bequests to such charities. The second largest bequest by men went to educational, medical, and scientific organizations and totaled $1.6 billion, representing 31.3 percent of gross contributions by men. In contrast with bequests to private foundations, given by only 8.2 percent of male contributors, almost 57.0 percent of male contributors left bequests to organizations in this category. The third largest aggregate contribution went to organizations in the "other" category, a combined contribution of $1.1 billion, or 21.7 percent of men's gross contributions. The "other" category includes organizations that perform a wide range of activities, such as public safety, housing, and environmental quality activities, as well as activities not classified elsewhere. About 43.0 percent of male contributors provided money and assets to these organizations.

Women's priorities in giving were, to a limited degree, different than the priorities of their male counterparts. Female contributors gave the largest percentage of their gross contributions to organizations that conduct educational, medical, and scientific activities. The combined bequest to such institutions, given by about 47.5 percent of female contributors and similar in magnitude to the bequest by males, totaled $1.6 billion. The bequest represented 31.9 percent of women's gross contributions. The second largest bequest by women, $1.4 billion, went to organizations in the "other" category. That contribution represented 27.4 percent of women's total contributions and was bequeathed by 45.6 percent of female contributors. Private foundations were the recipients of females' third largest contribution. Private foundations received almost $1.2 billion in funding, a bequest that represented 23.2 percent of women's aggregate contributions. Only about 6.0 percent of female contributors left bequests to private foundations. Compared to their male counterparts, women gave a much smaller percentage of their total contributions to private foundations and, instead, dispersed remaining funds among other types of organizations.

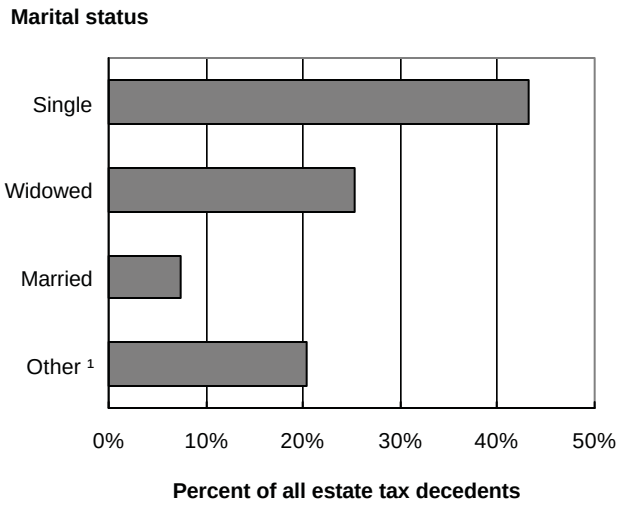
Compared to men, women gave larger percentages of combined bequests to every type of recipient organization, with the exception of private foundations.

Bequest Data by Marital Status

Charitable bequest data extracted from Federal estate tax returns suggest that an individual's marital status at death may influence his or her inclination to leave a bequest to charity. Compared to decedents in other marital status categories, single decedents were most likely to bequeath portions of their estates to charity, with 43.3 percent of single decedents making charitable bequests (Figure G). Widowed decedents were the second most philanthropic group, as they contributed to charity in 25.4 percent of all cases. The least philanthropic group, in terms of number of donors, were married decedents. Only 7.4 percent of all married decedents contributed to charity. Of course, this finding is explained by the presence of spouses who may be designated as beneficiaries and by the availability of the marital

Figure G

Charitable Donors as a Percentage of Estate Tax Decedents, by Marital Status, 1995



[1] "Other" includes legally separated, divorced, and marital status unknown.

Charitable Bequests: Evidence from Federal Estate Tax Returns

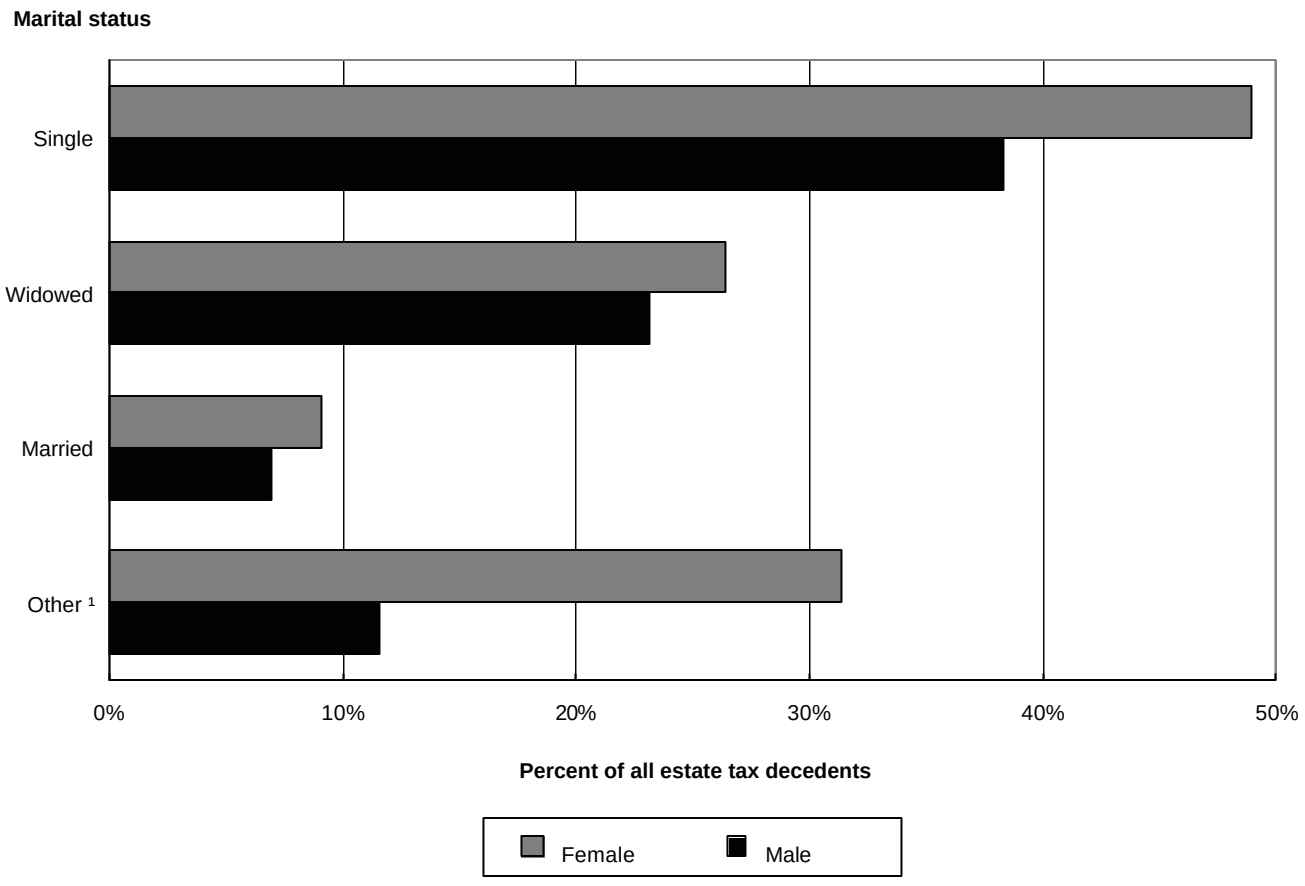
deduction, which was claimed by 97.2 percent of married decedents. For all gross estate categories, decedents with surviving spouses left, on average, more to their surviving spouses than to charity. The overall average charitable bequest by married decedents was about $779,500, while their average spousal bequest was almost three times that amount, a little more than $2.3 million. Therefore, when faced with the decision to give to charity or transfer property to surviving spouses, married decedents provided more liberally for surviving spouses.

In looking at both the marital status and sex of 1995 decedents, single female decedents and single male decedents were most likely, among all estate tax decedents, to give money and other assets to charitable organizations. Top givers, in terms of frequency, were single female decedents, who gave in 48.9 percent of cases (Figure H). Single male decedents, second in terms of the percentage who contributed, gave in 38.3 percent of cases. Female decedents in the "other" category—decedents who were separated, divorced or marital status unknown at date of death—were the third most philanthropic group, with 31.3 percent of those decedents giving to charity.

In terms of monetary contributions, widowed females and widowed males together gave about 53.0 percent of total charitable bequests in 1995, or

Figure H

Charitable Donors as a Percentage of Estate Tax Decedents, by Marital Status and Sex, 1995



1 "Other" includes legally separated, divorced, and marital status unknown.

Charitable Bequests: Evidence from Federal Estate Tax Returns

Figure I

Charitable Bequests as a Percentage of Net Worth, by Sex and Marital Status, 1995 Charitable Donors

[All figures are estimates based on samples--money amounts are in thousands of dollars]

Marital status	All donors		Males		Females	
	Charitable bequest amount	Percent of net worth [1]	Charitable bequest amount	Percent of net worth [1]	Charitable bequest amount	Percent of net worth [1]
	(1)	(2)	(3)	(4)	(5)	(6)
All	**10,117,929**	**28.0**	**5,091,751**	**26.8**	**5,026,178**	**29.3**
Married	2,108,267	18.3	1,940,781	19.3	167,485	11.2
Widowed	5,361,498	29.3	1,649,551	28.5	3,711,947	29.7
Single	2,238,320	44.7	1,377,527	52.1	860,793	36.5
Other [2]	409,844	31.9	123,892	24.4	285,952	36.8

[1] Net worth is calculated as total gross estate less debts and mortgages. Negative values of net worth are constrained to zero.

[2] "Other" includes legally separated, divorced, and marital status unknown.

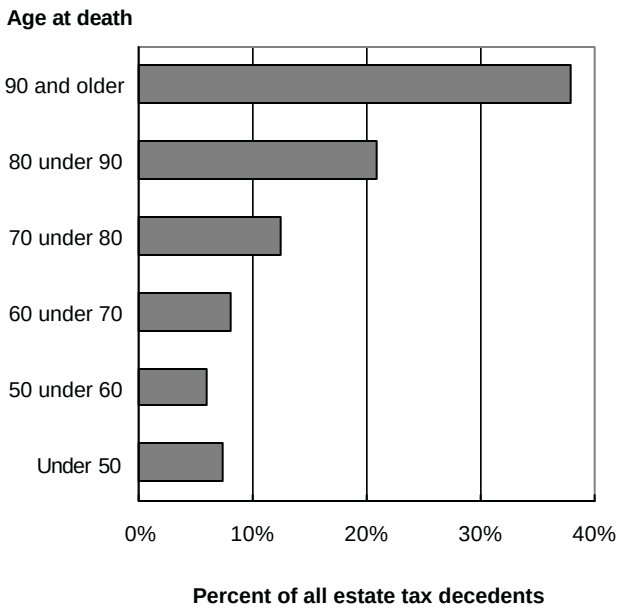
$5.4 billion (Figure I). Widowed females, top givers among all contributors, donated $3.7 billion, and widowed males gave more than $1.6 billion. Of course, the larger number of widowed females relative to the number of widowed males contributed to this finding. On average, widowed females gave only $640,800 to charity, while widowed males gave about $718,400. Married male decedents contributed $1.9 billion, the second largest contribution in terms of aggregate bequest size. However, it should be noted that the top four charitable donors in the married males category significantly increased the total contribution for the category as a whole. With these top male donors removed from the analysis, married males contributed $1.1 billion to charity, a contribution that falls below the contribution by widowed male decedents. In terms of net worth, single donors contributed the largest percentage of their net worth to charity, 44.7 percent.

Bequest Data by Age

Age at death may also affects a decedent's likelihood to contribute to charity, according to bequest data for 1995 estate tax decedents. Decedents who were 90 and older were most likely to contribute to charity. More than a third of these decedents, 37.9 percent, made contributions (Figure J). The second most philanthropic group were decedents between 80 and 90, with almost 21.0 percent of these decedents making charitable bequests. The least philanthropic group were those decedents between 50 and 60. Only 6.0 percent of these decedents contributed to charity. Those decedents under 50 contributed to charity more frequently than decedents between 50 and 60.

Figure J

Charitable Donors as a Percentage of Estate Tax Decedents, by Age at Death, 1995



Decedents between ages 80 and 90 outnumbered other age groups in the donor population. Those donors comprised the largest percentage, 40.3 percent, of all contributors, and they donated $4.4 billion

Charitable Bequests: Evidence from Federal Estate Tax Returns

Figure K

Charitable Donors, by Age at Death, 1995

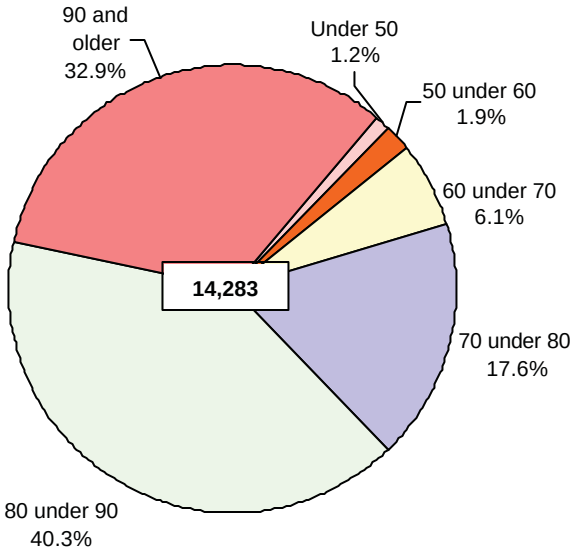


Figure L

Charitable Bequests as a Percentage of Net Worth, by Age at Death, 1995

[All figures are estimates based on samples--money amounts are in thousands of dollars]

Age	Net worth[1]		Charitable bequest amount	Percent of net worth
	Number of donors	Amount		
	(1)	(2)	(3)	(4)
All	**14,283**	**36,113,242**	**10,117,929**	**28.0**
Under 50	169	255,341	39,133	15.3
50 under 60	271	986,624	489,859	49.7
60 under 70	872	3,216,908	537,817	16.7
70 under 80	2,521	6,632,739	1,239,266	18.7
80 under 90	5,759	14,269,394	4,351,645	30.5
90 and older	4,693	10,752,235	3,460,209	32.2

[1] Net worth is calculated as total gross estate less debts and mortgages. Negative values of net worth are constrained to zero.

in gross contributions, the largest aggregate bequest by age group (Figure K). The second largest group of contributors were those ages 90 and older, representing 32.9 percent of the pool of contributors. These oldest decedents contributed $3.5 billion to charitable organizations and activities. The smallest group of contributors were younger than 50, with only 1.2 percent of all contributors in that age bracket.

Relatively young decedents and those in the oldest age group contributed most generously to charities during 1995, in terms of giving as a percentage of net worth. While the two groups were separated by at least four decades, both planned, in similar fashion, to give money and other assets to charitable functions at death. Contributors between ages 50 and 60 comprised only 1.9 percent of the donor population but bequeathed the largest percentage of their combined net worth, 49.7 percent (Figure L). The second most benevolent group were contributors 90 and older. These oldest decedents contributed 32.2 percent of their combined net worth to charity.

Bequest Data by Size of Gross Estate and Net Worth

While wealthy decedents who died in 1995 were an important source of funding for charitable activities, the very wealthy were unmatched in their level of giving. Estate tax decedents in the top gross estate category, "$20 million or more," contributed $4.4 billion, or 43.7 percent of charitable bequests in 1995 (Figure M). For all gross estate categories, the aggregate bequest by these top wealth holders was the largest overall bequest. Of the 359 decedents in the top category, less than 1.0 percent of the total estate tax decedent population, about half, or 182 individuals, bequeathed a combined contribution that exceeded $4.4 billion. The second largest charitable bequest, in terms of gross estate size, was given by decedents in the gross estate category "$1 million under $2.5 million." The 5,206 contributors, 18.6 percent of all estate tax decedents in that category, gave almost $1.7 billion to charity.

As expected, average charitable bequests increased with the size of gross estate. The average bequest to charity ranged from $135,600 for decedents in the "$600,000 under $1 million" gross estate category to $24.3 million for decedents in the "$20 million or more" category. Similarly, charitable bequests as a percentage of gross estate increased with size of gross estate, with decedents in the top gross estate category, "$20 million or more," giving 20.3 percent of their combined gross estate to charity. In every gross estate category, spousal bequests as a percentage of gross estate were larger than charitable bequests as a percentage of gross estate. For all decedents, charitable bequests represented 7.4 percent of combined gross estate, while spousal bequests accounted for 30.0 percent of combined gross estate. Overall, then, decedents gave more

Charitable Bequests: Evidence from Federal Estate Tax Returns

Figure M

Total Gross Estate, Charitable Bequests, and Spousal Bequests, by Size of Gross Estate, Estate Tax Decedents, 1995

[All figures are estimates based on samples--money amounts are in thousands of dollars]

Size of gross estate, date of death[1]	Total gross estate		Charitable bequest				Spousal bequest			
	Number of decedents	Amount	Number of donors	Amount	Average bequest	Percent of estate	Number of decedents	Amount	Average bequest	Percent of estate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All	**78,023**	**136,296,004**	**14,283**	**10,117,929**	**708**	**7.4**	**35,394**	**40,919,708**	**1,156**	**30.0**
$600,000 under $1 million	41,282	31,832,961	6,686	906,916	136	2.9	16,937	5,840,594	345	18.3
$1 million under $2.5 million	28,024	41,293,209	5,206	1,671,539	321	4.1	13,914	12,271,548	882	29.7
$2.5 million under $5 million	5,840	19,748,589	1,424	1,242,887	873	6.3	3,003	6,797,750	2,264	34.4
$5 million under $10 million	1,860	12,627,717	556	993,843	1,788	7.9	987	4,787,391	4,852	37.9
$10 million under $20 million	659	8,987,358	229	884,798	3,856	9.8	360	3,403,085	9,459	37.9
$20 million or more	359	21,806,171	182	4,417,945	24,288	20.3	194	7,819,340	40,251	35.9

[1] Gross estate shown at value on date of death.

generously to surviving spouses than to charities.

Again, it is often useful to examine charitable giving in terms of net worth, defined as total gross estate less liabilities (debts and mortgages), since net worth may more closely measure a decedent's capacity to give. In terms of net worth, donors, overall, contributed 28.0 percent of combined net worth to charities (Figure N). Charitable donors in the top net worth category, "$10 million or more," contributed $5.2 billion, 51.8 percent of total charitable bequests and 35.7 percent of their combined net worth, the largest percentages contributed by 1995 donors. As expected, as net worth increased, the percentage of net worth bequeathed to charity increased, from about 17.8 percent for net worth category "Under $1 million," to 35.7 percent for the top wealth holders.

Figure N

Charitable Bequests as a Percentage of Net Worth, by Size of Net Worth, 1995

[All figures are estimates based on samples--money amounts are in thousands of dollars]

Size of net worth[1]	Net worth		Charitable bequest	
	Number of donors	Amount	Amount	Percent of net worth
	(1)	(2)	(3)	(4)
All	**14,283**	**36,113,242**	**10,117,929**	**28.0**
Under $1 million	6,858	5,254,726	933,924	17.8
$1 million under $5 million	6,495	12,472,092	2,942,860	23.6
$5 million under $10 million	534	3,702,220	1,002,537	27.0
$10 million or more	396	14,684,204	5,238,608	35.7

[1] Net worth is calculated as total gross estate less debts and mortgages. Negative values of net worth are constrained to zero.

Effects of the Charitable Deduction

Just 2 years after the inception of the modern Federal estate tax, the Revenue Act of 1918 introduced a charitable deduction that would effectively reduce a decedent's taxable estate. Under the Act, any transfers of property to qualifying charitable organizations are fully deductible from the value of an estate. During the decades since the 1918 Act, the economic efficiency, merit, and propriety of the deduction, as an incentive for planned giving by wealthy taxpayers, have been discussed at substantial length. Moreover, growing reliance on the nonprofit sector to perform major social functions that might not otherwise be performed and the sector's reliance on contributions from outside sources add to the weight of such discussions. It seems clear that the role of nonprofit organizations, in education, health, the arts, and human services, make charitable bequests, as well as the ability of the charitable deduction to encourage those bequests, a matter of public policy importance [12].

While no one argues that the Federal estate tax structure, specifically, the charitable deduction available within that structure, is the primary determinant of charitable bequests, it is often asserted that the

Charitable Bequests: Evidence from Federal Estate Tax Returns

deduction is a significant determinant of such bequests. A number of studies have explored the relationship between the Federal estate tax and charitable bequests [13]. The deductibility of contributions in the calculation of net estate tax liability effectively reduces the price of giving to charity relative to the price of giving to non-charitable donees, making charitable bequests more attractive to the wealthy individual whose estate may be required to file a Federal estate tax return. This effect, called the tax price effect of giving to charity, is typically expressed as (1-x), where x is the marginal tax rate. For example, at the 39-percent marginal tax rate, the relative price of bequeathing another dollar to charity rather than to non-charitable heirs is $.61, or (1-x), since $.39 (or $x) in taxes are saved by doing so. However, the estate tax levied on non-charitable bequests also reduces the amount of after-tax wealth. This tends to reduce charitable contributions. As a result, the net effect of the estate tax on charitable giving is, in theory, ambiguous.

Charitable giving data collected by SOI may be used to examine the relationship between the charitable deduction and charitable bequests by wealthy decedents. Figure O shows the number of decedents who face each of the marginal tax rates in the estate tax rate schedule. Marginal rates are shown as applied to the adjusted taxable estate (after deductions are subtracted from total gross estate and adjusted taxable gifts are added to taxable estate). In general, the percentage of the decedent population that contributes to charity increases as the marginal tax rate increases. That is, as the price of giving, (1-x), decreases, a greater percentage of decedents chose to give to charity. While charitable contributors represent only 20.3 percent of the entire decedent population at the 37-percent tax rate, 32.3 percent of the entire decedent population contributed to charity at the 55-percent tax rate. Of course, due to the progressivity of the Federal estate tax structure, decedents in the highest tax brackets also have the greatest wealth. These top-wealth decedents have more funds available both for charity and for non-charitable heirs.

Figure P again shows the number of 1995 estates that utilized the charitable deduction at each marginal tax rate. In this figure, the solid bar represents the number of estates at the actual rates faced by 1995 contributors, that is, after the charitable deduction has been utilized in the calculation of adjusted taxable estate (the "after case"). The dotted bar represents the number of estates at marginal rates faced by estates in the absence of, or before utilization of, the unlimited charitable deduction (the "before case"). The values described by the dotted bar were derived by applying the tax rate schedule to hypothetical values of adjusted taxable estate, calculated as actual adjusted taxable estate plus charitable bequests. In both the before and after cases, the State death tax credit was calculated at each tax rate, based on the value of the adjusted taxable estate, either hypothetical or actual. Beginning at a marginal estate tax rate of 37 and continuing throughout the upper portion of the tax rate schedule, the number of estates at each rate is higher under the before case. That is, there is a shift from relatively lower rates under the after case to relatively higher rates under the before case. This suggests that, all else equal, there is a benefit to utilizing the charitable deduction, and that benefit is a lower marginal tax rate.

Another way to examine the effects of the charitable deduction is to compare taxable estates, those with reported estate tax liability, to nontaxable estates, those with no reported estate tax liability. Estate tax data for 1995 seem to indicate that dece-

Figure O

Charitable Donors as Percentage of Estate Tax Decedents, by Marginal Estate Tax Rate, 1995

[All figures are estimates based on samples]

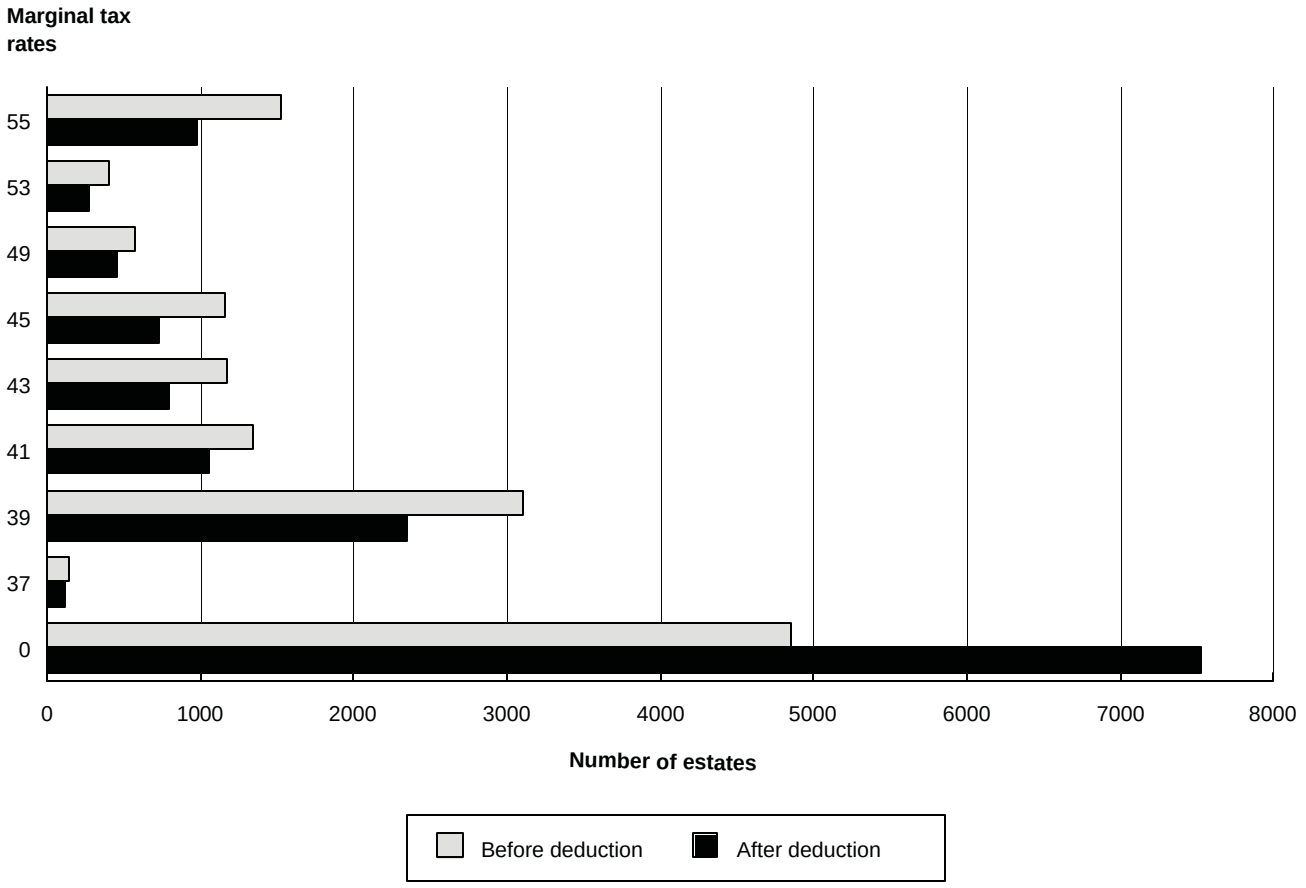
Marginal tax rate	Number of donors	Number of decedents	Donors as a percent of decedents
	(1)	(2)	(3)
All	**14,283**	**78,023**	**18.3**
0 percent	7,524	49,322	15.3
37 percent	116	571	20.3
39 percent	2,343	10,908	21.5
41 percent	1,056	4,843	21.8
43 percent	797	3,356	23.7
45 percent	737	3,174	23.2
49 percent	456	1,762	25.9
53 percent	270	1,039	26.0
55 percent	985	3,047	32.3

NOTE: 37 percent is the lowest marginal tax rate faced by taxable estates due to the unified credit.

Charitable Bequests: Evidence from Federal Estate Tax Returns

Figure P

Marginal Estate Tax Rates, Before and After the Charitable Deduction, 1995



dents give to charitable organizations for reasons beyond simply reducing their taxable estates and eliminating reported tax liabilities. While 22.5 percent of taxable returns utilized the charitable deduction as a means to reduce taxable estates, only 14.6 percent of nontaxable returns utilized the deduction (Figure Q). Compared to nontaxable estates, more taxable estates gave to charity. However, nontaxable estates gave a larger percentage of total gross estate to charity. For all 1995 decedents, nontaxable estates contributed 8.0 percent of their total gross estate to charity, while taxable estates contributed only 6.5 percent of their total gross estate.

Since married decedents may reduce their taxable estates with both the unlimited marital deduction and the unlimited charitable deduction, it is illustrative to examine the charitable giving behavior of these decedents. Taxable estates of married decedents gave to charity more frequently than nontaxable estates. Only 5.9 percent of all married decedents with nontaxable estates utilized the charitable deduction, while 16.8 percent of all married decedents with taxable estates claimed a charitable deduction (Figure R). However, nontaxable estates for married decedents claimed the deduction for spousal bequests in 98.4 percent of all cases, while taxable estates for married decedents claimed the deduction for spousal bequests in 89.7 percent of all cases.

Data Sources and Limitations

The data presented in this article are estimates based on samples of Federal estate tax returns filed in 1995, 1996, and 1997. These samples were limited to returns filed for decedents who died after 1981 with

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Figure Q

Utilization of Charitable Deduction, by Tax Status, 1995

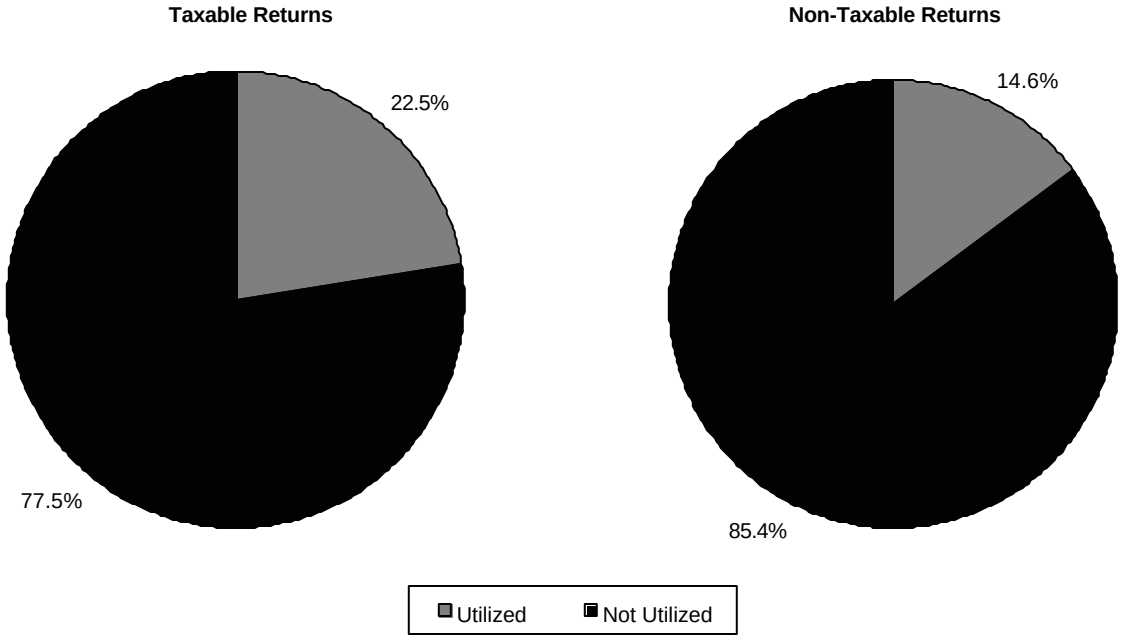
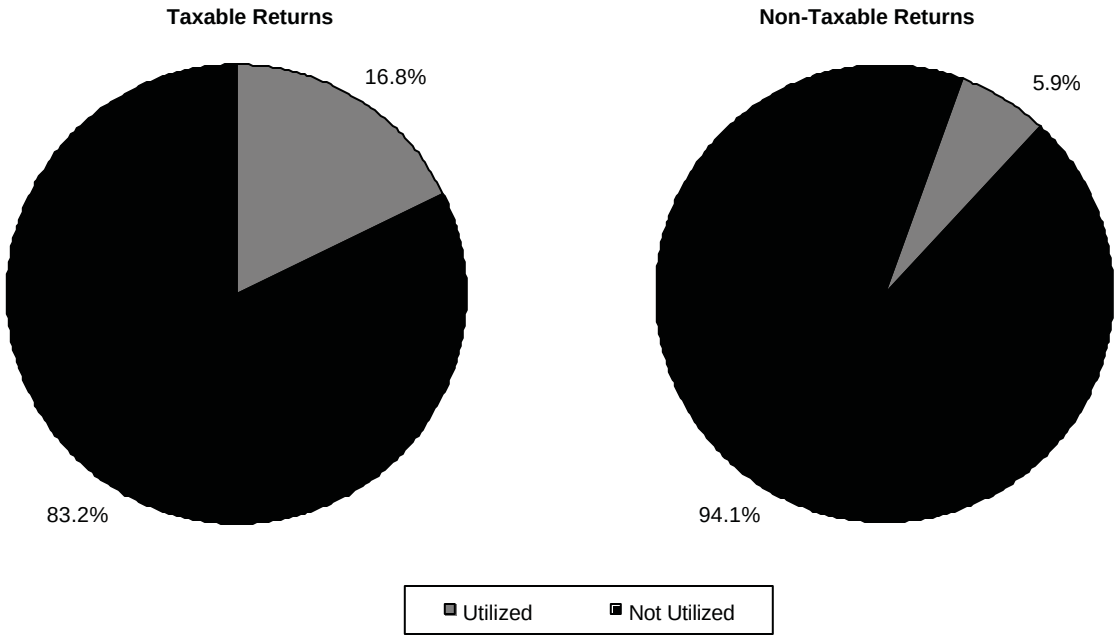


Figure R

Utilization of Charitable Deduction, Married Decedents, by Tax Status, 1995



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total gross estates of at least $600,000. The sample of returns filed in 1995 included 8,901 returns out of a total population of 69,755. In 1996, the year in which most returns for 1995 decedents were filed, 15,622 returns were sampled out of a total of 79,321 filed. There were 11,186 returns sampled out of a total of 90,006 returns filed during 1997. Of the 35,709 returns sampled during 1995-1997, there were 14,700 returns filed for 1995 decedents.

Estate tax returns were statistically sampled while the returns were being processed for administrative purposes, prior to any audit examination. Thus, returns were selected on a flow basis using a stratified random probability sampling method (Bernoulli sampling). Sample rates were preset based on the desired sample size and an estimate of the population. The design had three stratification variables: year of death, age at death, and size of total gross estate. For returns filed in 1995-1997, the year of death variable was separated into two categories: 1995 year of death and non-1995 year of death. Age was disaggregated into five categories: less than 40, 40 under 50, 50 under 65, 65 under 75, and 75 and older (including age unknown). Total gross estate was limited to four categories: $500,000 under $1 million, $1 million under $5 million, $5 million under $10 million, and $10 million or more. Sampling rates ranged from 3 percent to 100 percent. More than half of the strata were selected with certainty.

An examination of returns filed between 1982 and 1995 revealed that almost 99 percent of all returns for decedents who die in a given year are filed by the end of the second calendar year following the year of death. Further, the decedent's age at death and the length of time between the decedent's date of death and the filing of an estate tax return are related. Therefore, it was possible to predict the percentage of unfiled returns within age strata, using a ratio adjustment. The sample weights were adjusted accordingly, in order to account for returns for 1995 decedents not filed by the end of the 1997 calendar year.

The statistics presented in this article are based on samples, as described above. Therefore, estimates are subject to sampling error. In order to properly use these estimates, the magnitude of sampling error, as measured by coefficients of variation, should be taken into account. Figures S, T, U, V, and W present the coefficients of variation for selected

Figure S

Coefficients of Variation for Selected Items, 1995

[Money amounts are in thousands of dollars--coefficients of variation are percentages]

Item	Amount	Coefficient of variation
Total gross estate, date of death [1]	136,296,004	0.25
Total gross estate, tax purposes [2]	136,138,678	0.25
Charitable bequests, total	10,117,929	2.10
Charitable deduction, total	9,703,375	2.04
Spousal bequests, total	40,919,708	0.92
Total allowable deductions	60,076,194	0.69

[1] Gross estate shown at value on date of death.

[2] Gross estate shown at value used in tax computation, either date-of-death value or value on alternate valuation date.

NOTE: Figure S corresponds to Figure A.

Figure T

Coefficients of Variation for Value of Charitable Bequests, by Sex and Marital Status, 1995

[Money amounts are in thousands of dollars--coefficients of variation are percentages]

Marital status	All donors		Males		Females	
	Charitable bequest amount	Coefficient of variation	Charitable bequest amount	Coefficient of variation	Charitable bequest amount	Coefficient of variation
	(1)	(2)	(3)	(4)	(5)	(6)
All	**10,117,929**	**2.10**	**5,091,751**	**2.99**	**5,026,178**	**3.06**
Married	2,108,267	4.48	1,940,781	4.74	167,485	12.94
Widowed	5,361,498	2.92	1,649,551	5.48	3,711,947	3.49
Single	2,238,320	4.75	1,377,527	5.84	860,793	8.15
Other [1]	409,844	11.64	123,892	15.46	285,952	15.28

[1] "Other" includes legally separated, divorced, and marital status unknown.

NOTE: Figure T corresponds to Figure I.

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Figure U

Coefficients of Variation for Value of Charitable Bequests, by Age at Death, 1995

[Money amounts are in thousands of dollars--coefficients of variation are percentages]

Age	Charitable bequest amount	Coefficient of variation
All	**10,117,929**	**2.10**
Under 50	39,133	3.91
50 under 60	489,859	7.58
60 under 70	537,817	4.12
70 under 80	1,239,266	5.08
80 under 90	4,351,645	3.72
90 and older	3,460,209	3.51

NOTE: Figure U corresponds to Figure L.

variables and correspond to Figures A, I, L, M, and N, respectively.

Summary

Since Congress passed the Revenue Act of 1918, a deduction from gross estate has been available to estate tax decedents who, at their deaths, bequeath money or other assets to qualifying charitable organizations. The estate tax charitable deduction has provided wealthy decedents with the opportunity both to support charitable causes and to reduce the amount of net estate tax liability owed to the Federal government. The deduction was originally introduced as a means to elicit bequests to charity. In the years following the 1918 Act, the economic efficiency and social merit of the estate tax and the charitable deduction have been topics of public discourse.

In 1995, 78,023 individuals died with gross estates at or above the Federal estate tax filing threshold of $600,000. And, of that population, 14,283 decedents contributed funds to organizations in the philanthropic community, from youth development organizations, such as Girl Scouts of the U.S.A., to large, grantmaking private foundations, such as the Ford Foundation. Estate tax decedents' combined bequest, $10.1 billion, represented about 7.0 percent of the $143.9 billion in total charitable giving from all sources for 1995, as estimated by the AAFRC Trust for Philanthropy. Gross charitable contributions increased by 19.4 percent between 1992 and 1995, while contributions as a percentage of net worth for all decedents remained largely unchanged, around 8.0 percent. Charitable contributions as a percentage of net worth for donors decreased only slightly, from 28.8 percent in 1992 to 28.0 percent in 1995.

Sex, marital status, and age may predict the likelihood of contributing to charity, as well as the generosity of contributions. In terms of sex and marital status, single female decedents were most likely to contribute to charity, while widowed females, in the aggregate, contributed most generously to charity, $3.7 billion. However, on average, widowed females contributed only $640,800, while widowed males contributed about $718,400. In terms of age, decedents 90 and older most frequently gave to charity, while decedents between 80 and 90 comprised the largest percentage of all contributors and donated the

Figure V

Coefficients of Variation for Value of Total Gross Estate, Charitable Bequests, and Spousal Bequests, by Size of Gross Estate, 1995

[Money amounts are in thousands of dollars--coefficients of variation are percentages]

Size of gross estate, date of death [1]	Total gross estate	Coefficient of variation	Charitable bequest amount	Coefficient of variation	Average charitable bequest	Coefficient of variation	Spousal bequest amount	Coefficient of variation	Average spousal bequest	Coefficient of variation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All	**136,296,004**	**0.25**	**10,117,929**	**2.10**	**708**	**2.80**	**40,919,708**	**0.92**	**1,156**	**1.11**
$600,000 under $1 million	31,832,961	0.36	906,916	10.85	136	9.61	5,840,594	3.03	345	2.19
$1 million under $2.5 million	41,293,209	0.56	1,671,539	7.54	321	6.59	12,271,548	1.86	882	1.08
$2.5 million under $5 million	19,748,589	1.43	1,242,887	9.85	873	8.73	6,797,750	2.61	2,264	1.38
$5 million under $10 million	12,627,717	0.25	993,843	0.79	1,788	0.75	4,787,391	0.60	4,852	0.24
$10 million under $20 million	8,987,358	1.68	884,798	1.05	3,856	0.87	3,403,085	3.59	9,459	0.27
$20 million or more	21,806,171	1.04	4,417,945	1.60	24,288	1.46	7,819,340	1.78	40,251	1.66

[1] Gross estate shown at value on date of death.

NOTE: Figure V corresponds to Figure M.

Figure W

Coefficients of Variation for Value of Net Worth and Charitable Bequests, by Size of Net Worth, 1995

[Money amounts are in thousands of dollars--coefficients of variation are percentages]

Size of net worth [1]	Net worth amount	Coefficient of variation	Charitable bequest amount	Coefficient of variation
	(1)	(2)	(3)	(4)
All	**36,113,242**	**1.30**	**10,117,929**	**2.10**
Under $1 million	5,254,726	5.00	933,924	10.61
$1 million under $5 million	12,472,092	2.86	2,942,860	5.91
$5 million under $10 million	3,702,220	0.44	1,002,537	0.79
$10 million or more	14,684,204	1.07	5,238,608	1.35

[1] Net worth is calculated as total gross estate less debts and mortgages. Negative values of net worth are constrained to zero.

NOTE: Figure W corresponds to Figure N.

largest aggregate bequest by age group, $4.4 billion.

Motives for philanthropic giving are varied and complex and are based on diverse values that include religious heritage, personal philosophy, social responsibility, political beliefs, peer pressure, and egoism. For 1995 decedents, educational, medical, and scientific organizations received the largest share of charitable contributions, 31.6 percent. The total contribution to such organizations was almost $3.2 billion. The second largest contribution, $3.1 billion, went to private foundations and represented 30.9 percent of gross charitable contributions.

Notes and References

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[5] Boris, Elizabeth T., "The Values of the Wealthy: Philanthropic Attitudes as a Reflection of Political Philosophy in American Culture," 1987 Spring Research Forum of the Independent Sector, working papers, New York: United Way Institute, pp.237-248.

[6] Ibid.

[7] Ibid.

[8] Ibid.

[9] For more information, see Boris, 1987 and Odendahl, 1988, as cited in footnotes 3 and 4, respectively.

[10] Ireland, Thomas R. and David B. Johnson, *The Economics of Charity*, Center for the Study of Public Choice: Blacksburg, 1970.

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Estate Taxes and Charitable Bequests: Evidence from Two Tax Regimes

by

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Estate Taxes and Charitable Bequests: Evidence from Two Tax Regimes

Abstract

Much of the literature on the effects of estate taxation on charitable bequests has relied on cross sectional data, reflecting the uniqueness of death. Few have explored longitudinal data to exploit exogenous variations in tax regimes. The latter, however, continue to be susceptible to omitted variable as well as measurement error biases attributable to changes in the treatment of spousal bequests and frequent changes in tax regimes. This paper explores the effects of the estate tax on charitable bequests using administrative data from two tax regimes where earlier biases are minimized. The deductibility of charitable bequests is found to have significant implications for giving. However, the effects of estate tax repeal are much smaller. These findings are sensitive to expectations of the tax regime in effect at time of death.

JEL Fields: D19, H24, H31
Keywords: Bequests, Taxes, Charitable Giving

I. Introduction

Individuals save for a variety of reasons. For some, savings is bequest motivated, be it altruistic or strategic in nature. For others, it may reflect the simple desire to accumulate wealth. Regardless of the motivation, wealthy savers may have preset preferences as to how to divide their accumulated wealth among the various donees and heirs at death. Estate and inheritance taxes, by altering relative prices, may alter the division of these bequests. Even in the case of accidental bequests, savers may not be too indifferent as to how their terminal wealth is ultimately divided between the government and potential heirs.

Because bequests to charitable organizations are deductible in computing the estate tax liability, estate taxation lowers the price of such transfers relative to those to children. At the very same time, the estate tax lowers after-tax terminal wealth and the potential size of inheritances. These tendencies raise important policy considerations related to how changes in estate tax rates, including the elimination of the estate tax, may affect giving. Indeed, charitable bequests and the potential effects of estate taxation continue to attract attention, and feature prominently in the debate on taxing inheritances in the United States. With the wealthy leaving behind some $20 billion in charitable bequests annually, the implications of public policy for these sizeable transfers are worthy of study.

Much of the literature, reflecting the uniqueness of death, has relied on cross-sectional data in exploring the sensitivity of bequests to the estate tax. Individuals are assumed to choose between bequests to charity and bequests to children (and other heirs) by implicitly setting the marginal rate of substitution between the two to equal the relative price of charitable bequests. The price of spousal bequests is ignored and the estate tax is

assumed, implicitly or explicitly (Joulfaian, 2000a), not to affect the choice between spousal and charitable bequests.[1]

Many of the existing studies find large tax price elasticities suggesting that the deductibility is a significant stimulant to giving.[2] Many also find large wealth elasticities, which suggests that the estate tax, by lowering "bequeathable" or disposable wealth, has a dampening effect on giving. These estimates are not without their critics. Identifying the effects of progressive estate tax rates separately from wealth (Feenberg, 1987), for instance, may represent a serious challenge in evaluating the effects of estate taxation especially as only cross sectional data are available, again reflecting the uniqueness of death (Poterba, 1998). Joulfaian (2000a) employs variations in state tax rates to address this concern. Others, however, such as Barthold and Plotnick (1984), the only study to date to have employed longitudinal micro data, and more recently Kopczuk and Slemrod (2003) and Bakija, Gale, and Slemrod (2003), resort to pooling cross sectional or aggregated time series data over a long period where numerous changes in tax regimes have taken place.

Generally, it is difficult to draw inferences from the observed trend in aggregate bequests (Auten, Clotfelter, and Schmalbeck , 2000, Table 12-7). Kopczuk and Slemrod (2003), hereafter KS, resort to time series analysis of such aggregate data to discern how variations in tax regimes over time influenced the observed trend in giving. KS conclude that the effect of the estate tax can be larger than what has been reported earlier, an implicit reference to the predicted 12 percent reduction in bequests reported in Joulfaian (2000a), but do not report estimates of this effect. More recently, Bakija, Gale, and Slemrod (2003),

[1] This assumption reflects the full deductibility of spousal and charitable bequests (tax price of one), an assumption that may not be appropriate when using pre-1982 data as the tax treatment diverged.

[2] See McNees (1973), Boskin (1976), Feldstein (1977), Clotfelter (1985), Joulfaian (1991, 2000a, 2001), Auten and Joulfaian (1996), Greene and McClelland (2001), and McClelland (2004).

hereafter BGS, refine the work of KS and employ "pooled" grouped data. BGS exclude the estates of married decedents, and report results that suggest charitable bequests would seize to take place in the aftermath of estate tax repeal.[3] Using parameters from BGS, Bakija and Gale (2003) report estate tax repeal would reduce charitable bequests by 37 percent. In contrast, Barthold and Plotnick (1984), who employ pooled Connecticut probate records for the 1930s and 1940s, a period characterized by frequent changes in tax regimes, find taxes to have virtually no effect on giving.[4]

Large donors are likely to be very wealthy who may also face high tax rates by virtue of the progressive tax rate schedule. Thus it is difficult to disentangle the effects of wealth separately from those of high tax rates on giving. Resorting to pooled cross sectional or time series aggregate data is one way to address this identification problem as they exploit variations in statutory tax rates, changes that are independent of wealth variations. But this may also introduce a number of other biases, or at the very least exacerbate them. As Clotfelter (1985, pp. 240) points out, the price term is likely to be measured with error during periods of frequent changes in tax rates because it is not clear whether reported charitable bequests are influenced by current or past tax rates. Furthermore, there is also the question of whether planned bequests reflect future taxes, as estate planning by its very nature is forward looking. Indeed, the swift adjustment in spousal bequests documented in Bernheim (1987) highlights the importance of expectations.

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[3] More specifically, BGS employ IRS data for select years grouped into five wealth categories expressed in 1996 dollars; $400,000 to $750,000; $750,000 to $1.25 million; $1.25 to $2 million; $2 to 5 million; and over $5 million. BGS report price and wealth elasticities of -2.1 and 1.55, respectively, and state that "eliminating estate and inheritance taxes would have raised the price of charitable bequests by 77 percent, on average, while raising disposable wealth by an average of only 24 percent" in 1998.

[4] Using evidence from a recent survey, Schervish and Havens (2003) report charitable bequests to increase in the aftermath of estate tax repeal.

Furthermore, studies typically assume that individuals face a tax price for charity measured relative to the price of bequests to children (and other heirs). But married individuals, for instance, may leave their estates to their children, charity, as well as to their spouses. If transfers to these three recipients face different tax regimes, then the price of spousal bequests also needs to be considered, as well as the implications for the measured after-tax wealth. This omitted variable problem, as well as the ensuing errors in measuring the budget constraint, may have motivated BGS to exclude married decedents from their study. However, excluding married individuals may not adequately solve these problems.

Bernheim (1987) document how spousal bequests increased in the aftermath of introducing the unlimited marital deduction in 1982. The change in tax regimes, by setting a tax rate of zero for spousal transfers, seems to have stimulated additional transfers to spouses very likely at the expense of transfers to charity. Cognizant of these effects, BGS exclude married decedents. But because spousal bequests increase the wealth of the surviving spouse, they may also influence giving in the future. Consequently, the omitted tax price of spousal bequests and errors in measuring the budget constraint and the tax price faced by widowed decedents don't go away. In a more recent paper, Bakija, Gale, and Slemrod (2005), expand their earlier work and attempt to control for the price of spousal bequests.

Data on the never married singles and those divorced or separated are immune from measurement errors and specification bias caused by changes in the treatment of spousal bequests over time. But findings from such longitudinal data, that is yet to be explored, may not be viewed as very meaningful in explaining the pattern of giving and the estate tax

effects as widowed (and married) decedents account for the bulk of giving. Indeed, the latter group accounts for much of the wealth held by the super rich as well. Thus, the challenge is to find periods or tax regimes where wealth is consistently measured over time and less susceptible to measurement errors.

In this paper I explore the effects of the estate tax on charitable bequests using estate tax data on widowed, as well as divorced and never married single decedents. However, and in order to minimize measurement related problems, I examine data on decedents in 1976 and 1982, two regimes that embody substantially different tax rate schedules but where the measurement of wealth and charitable bequests is virtually identical.[5] Descriptive statistics on the pattern of giving in 1976 and 1982 show that giving to charity did not decline in the aftermath of tax rate reductions in 1982, and suggest that estate taxation may have little effect on bequests. This is a finding that is further confirmed by multivariate analysis.

The paper is organized as follows. Section II explores issues related to modeling the effects of estate taxation on charitable bequests for married couples. Section III describes the data and presents some basic results, while section IV provides some econometric findings. Section V concludes.

II. Modeling Charitable Bequests

A married individual faces at least three options in disposing of terminal wealth accumulated over a lifetime. He may bequeath his wealth to his surviving spouse, transfer

[5] In 1976, spousal bequests were deductible to the extent they did not exceed one half the estate. These bequests became fully deductible in 1982. As such, post 1982 data on widowed decedents grow less compatible over time depending on the size of spousal bequest and the remaining life expectancy of the surviving spouse (see Joulfaian, 1998, Table 19). Available pre-1970 data is also not compatible given the dramatic changes in the tax treatment of charities introduced by the Tax Reform Act of 1969.

it to his children (and other relatives and friends), or donate it to charity. If the estate tax treats these transfers differentially, then this may influence the allocation of bequests amongst the survivors. As such, an individual's objective is then to determine how to allocate this terminal wealth among the three potential donees.

More formally, and in a very simple model, an individual's utility is determined by charitable bequests (C), bequests to heirs (B), and spousal bequests (S) at death in period 1, or:

(1) $U_1 = C_1^{\alpha} B_1^{\beta} S^{\gamma}$

The individual maximizes his utility subject to a budget constraint which requires that expenditures on charitable and non-charitable bequests not exceed the individual's terminal wealth W, or:

(2) $P_C C_1 + P_B B_1 + P_S S \leq W_1$

where P_C denotes the tax price of charitable bequests, P_S for spousal bequests, P_B for bequests to children and others defined as $P_B = 1/(1-T')$. At a marginal tax rate T' of 0.55, it will cost the donor $2.22 for every $1 in bequests (B). In contrast, bequests to charity are exempt from taxation as they are deductible in computing the estate tax. Similarly, spousal bequests are fully deductible. Thus, $P_C = P_S = 1$, or the more familiar 1-T' when stated relative to the price of bequests to heirs. Before 1982, however, spousal bequests were deductible only to the extent that they did not exceed 50 percent of the estate. Thus, the

price of spousal bequests was one when these bequests were less than one half the gross estate (P_S =1), and P_S =1/(1-*T'*) when they exceeded this threshold.

Solving for the first-order conditions, not surprisingly spousal bequests decline with its tax price, or:

$$(3) \quad S = \frac{\gamma W_1}{P_S(\alpha + \beta + \gamma)}$$

such that $\frac{\partial S}{\partial P_S} < 0$

This is consistent with the experience in the aftermath of the introduction of the unlimited marital deduction, i.e., *T'*=0, in 1982 (Bernheim, 1987). Spousal bequests reported in 1982, when measured relative to the wealth of the estates, were 60 percent larger than the amount that is likely to have been reported under the law in effect in 1976 (Joulfaian, 2000b).

The surviving spouse is also faced with a similar, albeit limited, set of choices at death in period 2. More specifically, her choice is how to allocate her own accumulated wealth (W_S) plus wealth inherited from her spouse (S) between bequests to her children (B) and charity (C). More specifically, she maximizes her utility:[6]

$$(4) \quad U_2 = C_2^a B_2^b$$

subject to the budget constraint that her transfers do not exceed her terminal wealth W_2:

[6] I ignore discounting to simplify the exposition.

(5) $P_C C_2 + P_B B_2 \leq W_2$

where her terminal wealth consists of her own accumulated wealth plus bequests from her spouse, or $W_2 = W_S + S$ such that $\frac{\partial W_2}{\partial P_S} < 0$ from (3), for a given W_S; the terminal wealth of the spouse in period 2 is influenced by the tax regime in period 1. Equally important is the influence of spousal bequests on the observed tax price of giving to charity in period 2; $T_2 = T(W_S+S)$.

Solving for the first order conditions yields,

(6) $C_2 = (W_S + S)\frac{P_B}{P_C(P_B - 1)}\frac{a}{b}$

or, after some substitutions,

(7) $C_2 = \left[W_S + \frac{\gamma W_1}{P_S(\alpha + \beta + \gamma)}\right]\frac{aP_B}{bP_C(P_B - 1)}$

such that $\frac{\partial C_2}{\partial P_S} < 0$

which suggests that charitable bequests by the surviving spouse in period 2 are influenced by the terminal wealth of the first to die, W_1, and the price of spousal bequests P_S in period 1.[7] In other words, we cannot ignore the effects of the tax regime in period 1 on giving and wealth in period 2 for widowed individuals.

[7] In an alternative treatment, husband and wife may maximize joint utility subject to a common budget constraint in deciding how to allocate charitable bequests between the two.

III. Preliminary Look at Estate Tax Data

In moving away from the reliance on cross sectional estate tax data, the challenge in using longitudinal data is to control for the tax treatment of transfers to various donees as well as the frequently changing tax regimes. In particular, and as demonstrated above, the treatment of spousal transfers is the most problematic and commonly ignored in the literature. One approach to addressing this problem is to simply exclude married decedents. As eluded to earlier, however, this continues to overlook the influence of spousal bequests on the observed wealth of the surviving spouse (the second to die), which itself can be determined by past tax regimes.

In this paper, I resort to estate tax data for decedents in 1976 and 1982, years when the data on widowed decedents is the least tainted by tax induced changes in spousal bequests.[8] The tax Code in effect in 1976 had been in place virtually unaltered since 1954, except for the restrictions on gifts to certain charities, private foundations in particular, introduced by the 1969 Tax Reform Act. The intent of this act was to effectively reduce transfers to beneficiaries disguised as charitable gifts. The tax rate schedules in effect in 1982 were ushered by the Economic Recovery Tax Act of 1981 (ERTA81), enacted on August 13, 1981, and are markedly lower than those in effect in 1976. These rate reductions had been in part anticipated as early as November 1980, following the outcome of the Presidential elections. Equally important, the wealth reported by widowed decedents in the two periods reflects the 1976 tax treatment of spousal bequests, as the full marital deduction took effect for married decedents in 1982. Thus, we observe the pattern of giving to charity in the presence of exogenous variations in tax rates, as well as wealth

[8] Comprehensive data for the years 1977 through 1981 do not exist.

measures for widowed decedents that are not influenced by changes in the marital deduction.

The maximum tax rate in effect in 1976 was 77 percent. ERTA81 reduced the maximum tax rate in steps to 50 percent by 1985. The enabling legislation also introduced a "unified" tax credit which effectively exempted the first $225,000 in taxable estate in 1982, set to gradually increase to $600,000 by 1987. The tax rate schedule in effect in the intervening years is illustrated in Table 1.

Data on estate tax decedents in 1976 is available only for returns filed in 1977; returns filed in 1976 and after 1977 are not available. Returns with gross estates in excess of $500,000 are sampled at 100 percent; at 20 percent for those under $500,000. In contrast, population data for 1982 decedents is available for returns filed in 1982 through 1984, but only for those with estates in excess of $1 million; the less wealthy are sampled at an average rate of 30 percent. While estate tax returns are required to be filed within 9 months of the date of death, some are filed much later. [9] Anecdotal evidence suggests that late filers are likely to be distinctly different in terms of wealth and sophisticated estate planning.[10] Thus, to enhance the comparability of the two data sets, I limit the data on decedents in 1982 to estate tax returns filed in 1983, and discard those filed in 1982 and 1984. In addition, only estates in excess of $300,000 in 1982 dollars, the SOI sampling threshold for returns filed in 1983, are considered.[11]

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[9] Typically, some 15 percent of estate tax returns of decedents in a given year are filed in the year of death; 80 percent during the following year, and the remainder in later years.

[10] Indeed, regressing the log of wealth of decedents in 1982 on the year an estate tax return is filed yields a coefficient of 0.13 (se=0.01), implying that reported wealth is on average 13 percent higher for each year returns are filed late.

[11] The filing requirement was $225,000 for decedents in 1982.

To motivate the analysis, I first restrict the sample to widowed and married decedents. Their pattern of charitable bequests over the two periods is summarized in Figure 1A-B. Figure 1A shows the probability of giving to rise with wealth. Similarly, Figure 1B shows the share of wealth transferred to also rise with wealth. But given the progressive tax rate schedules in Table 1, this may also suggest that giving rises with tax rates as well. The fraction of estates giving as well as the share of wealth transferred is generally lower for estates in 1982 than their counterparts in 1976 when tax rates were higher, particularly for the wealthiest of estates. This may lead us to conclude that lower tax rates depressed giving in 1982.

However, and as demonstrated in Figure 2, much of the trend observed in Figure 1 is reversed when married decedents are excluded and the focus is restricted to widowed decedents. Indeed, in the case of the wealthiest of estates, those in excess of $20 million, the share of wealth transferred almost doubles.[12] Despite the tax rate reductions, the "generosity" of the very wealthy seems to have increased.

Figure 3 sheds some light on the diverging trends observed above. Married decedents, virtually across all wealth cohorts, seem to leave smaller bequests to charity in 1982 compared to the trend observed for 1976. In contrast, and more interestingly, Figure 4 exhibits a surge in spousal bequests for all wealth categories, which is very likely to have taken place at the expense of charitable bequests. Figures 3 and 4, combined, make the case that potential findings from longitudinal data on the effects of estate taxation can be biased if spousal bequests and their consequences for the evolution of wealth are not properly controlled for.

[12] Note that this group accounts from one half the bequests reported in the sample, weighted or otherwise.

Controlling for spousal bequests and their ultimate disposition is rather a difficult task, particularly as it requires the tracking of married couples across time and tax regime. As such, I focus only on widowed, never married singles, and divorced/separated decedents. The resulting sample consists of 14,051 estates, with about 55 percent representing decedents in 1976. Table 2 provides summary statistics for select variables, with all amounts stated in $1982. The mean charitable bequest CB is $287,300, with about one third giving to charity. Net of the tax savings from its deductibility, the mean after-tax bequest is $114,900, measured as CB-(T_0-T), where T is actual tax paid and T_0 is the tax liability computed by setting charitable bequests to zero; T=T(W-CB) and T_0=T(W). These estates are large with mean wealth W of about $1.6 million, and standard error of $17 million. Net of taxes paid, as well as the tax savings from deducting charitable bequests, i.e. W-T_0, disposable wealth is $886,500. This represents the maximum amount that can be transferred to the heirs. The average tax price P=(1-T') is 0.65. When evaluated using fully phased-in tax law, the after-tax wealth and charitable bequests, as well as the tax price, are higher.

Comparing those who give to those who don't give, and as illustrated in columns 2 and 3 of Table 2, we find that the sample of donors are wealthier with mean wealth of $2.6 million compared to $1 million for non-donors. They are also older with mean age of 81 years compared to 76 years for non-donors, and more likely to have never married. However, there seems to be very little difference in observed tax prices particularly when the fully phased-in tax law is used.

IV. Multivariate Analysis

I employ multivariate analysis to further gauge the effects of estate taxation, and control for the other determinants of charitable bequests. The latter include demographic variables such as age, gender, and marital status, as well as bequeathable or disposable wealth. Of particular interest is how these variables, the tax price and wealth in particular, influence the observed budget share (ω) allocated to charity. More specifically, I estimate the following equation for estate *i* in period *t*, where *w* is disposable wealth, W-T_0, or the maximum amount that can be transferred to the heirs, and Z is a vector of demographic attributes, or:

(8) $$\omega_{i,t} = \alpha \ln p_{i,t} + \theta \ln w_{i,t} + \gamma Z_{i,t} + \varepsilon_{i,t}$$

Two measures of the budget share are considered. One measure defines the budget share as [CB-(T_0–T)]/(W- T_0) consistent with Joulfaian (2000).[13] Another is the linear variant CB(1–T')/(W- T_0) explored in Randolph (1995). Under a proportional tax system, the two would be identical except when the entire estate is left to charity; T'=0 but T_0-T>0.[14] Beginning with the latter, a critical variable in explaining charitable giving is the tax price. This price, however, is likely to be endogenous to the size of bequests, as they reduce the size of the taxable estate; T=T(W-CB). Consequently, the tax price is instrumented using the first dollar tax price on charity. This marginal tax rate is derived by setting charitable bequests to zero and assuming $1,000 in gifts for all estates. As with all previous longitudinal studies on charitable bequests, the tax price is measured using the tax

[13] The numerator may be restated as $\sum_{j=1}^{n} CB_j P_j$ which reflects the convexity of the tax rate schedule and captures the various *j* kinks in the budget constraint.

[14] This is less of a concern under the income tax, as in Randolph (1995), where the deduction is limited to 50 percent or less of AGI.

law in effect in the year of death even though changes in tax regimes are known in advance. This restriction is relaxed later on, where the future tax price is employed.

Reflecting the censored nature of the data, FIML Tobit is employed in estimating (8) with results reported in Table 3. Beginning with demographic variables, the never married singles, as well as those divorced or separated bequeath more than their widowed counterparts. Gender seems to have some effect on giving, with male decedents leaving behind smaller bequests. Bequests rise with age, but at a declining rate. Those from the west or the south seem to be less generous.

Turning to the key variables of interest, and beginning with wealth, the estimated coefficient is 0.094 with a standard error of 0.009. In contrast, the coefficient on the tax price is negative with an estimated value of -0.124 and standard error of 0.057. Using these estimated parameters, the predicted change in bequests is approximated for each estate *i* in period *t* by first deriving the expected or fitted value for bequests from (8), or:

$$CB = (W - T_0)\{\Phi[\alpha \ln P + \theta \ln(W - T_0) + \gamma Z] + \phi\sigma\}P^{-1}$$

and comparing it to the value predicted after setting all the tax values to zero, i.e. T=T'=0, or:

$$CB = W[\Phi(\theta \ln W + \gamma Z) + \phi\sigma]$$

where $\Phi=\Phi(\beta' x/\sigma)$ and $\phi=\phi(\beta' x/\sigma)$ are the distribution and density functions of the standard normal which vary with the tax regime embodied in the regressors x.

Other things equal, these estimates suggest that in the absence of the estate tax, charitable bequests would decline by 3 percent, from a predicted weighted mean bequest of

$87,600 down to $84,300 (see bottom of Table 3).[15] At the same time, the probability Φ of making such bequests declines from a predicted 33 percent to 28 percent. Charitable bequests are predicted to decline by about 65 percent to $30,600 (sd=861,500) if only their deductibility were to be repealed.

The above measures of wealth and price reflect the year of death consistent with the convention employed in earlier longitudinal studies. However, given the phased in reductions in tax rates from 65 to 50 percent over the period 1982 and 1985, as well as the gradual expansion in the effective exemption from $225,000 in 1982 to $600,000 by 1987, the calculated tax rates in effect in the year of death may not reflect the true margin at which decisions are made. Indeed, and unless death in 1982 was perfectly anticipated, wills drawn or amended in 1981 and 1982, may very well reflect the fully phased-in law. The phased-in tax regime has implications for the measured budget share, after tax wealth, as well as the tax price.

To gauge the sensitivity of the above estimates to this possibility, the parameters in column one of Table 3 are re-estimated using the fully phased-in law. In other words, the maximum tax rate in effect is now 50 percent, and not the 65 percent in effect in 1982. Similarly, the size of the exempted estate is $600,000 instead of $225,000. The results are reported in column 2. Most of the coefficients estimated for the fully phased-in regime are somewhat different from those reported earlier. More specifically, the wealth coefficient is estimated with a value of 0.133 (se=0.007), significantly larger than the earlier estimate. The tax price coefficient is now positive, with a value of 0.06 (se=0.03). Combined, the estimates point to a much higher wealth effect. Repealing the estate tax increases predicted

[15] This represents a decline of 32 percent when compared to the initial amount of $124,000 in reported charitable bequests (column 2, Table 2). Such comparison, however, would be inappropriate. See McClelland (2004, p. 8).

bequests by about 62 percent, from a mean of $85,100 to $139,100, while repealing only the deductibility of charitable bequests would reduce it by a third down to $59,300 (sd=1,332,400).

For presentational purposes, wealth and price elasticity coefficients are calculated for each observation. The wealth elasticity is estimated as:

$$\eta_w = \beta \frac{1}{\omega} \Phi(z) + 1$$

and price elasticity as:

$$\eta_P = \alpha \frac{1}{\omega} \Phi(z) - 1$$

Using the actual budget share for each observation, the overall charitable bequest weighted wealth elasticity is 1.16, with a price elasticity of -1.21. In contrast, the wealth and price elasticity coefficients become 1.2 and -0.9, respectively, when future law is considered.

Now, had the budget share measure been defined as in Joulfaian (2000), the estimated effects would have changed significantly. As shown in Table 4, the wealth and price estimated coefficients are consistent with those reported earlier in Table 3. In the absence of the estate tax, bequests decline by 13 percent, from a predicted weighted mean of $104,200 to $90,800. On the other hand, and using the future tax regime, the predicted bequests rise by three percent, from a mean of $105,300 to $108,500. The predicted or expected bequest for each observation is derived from:

$$CB = (W - T_0)\{\Phi[\alpha \ln P + \theta \ln(W - T_0) + \gamma Z] + \phi\sigma\} + (T_0 - T)$$

and contrasted with that predicted in the absence of an estate tax, or:

$$CB = W[\Phi(\theta \ln W + \gamma Z) + \phi\sigma]$$

The divergent, though qualitatively similar, results highlight the importance of the specification employed in gauging the effects of estate taxation. The predicted change in bequests in case of repeal of the estate tax ranges from -13 to +3 percent when the latter specification is employed as in Table 4, compared to -3 to +62 percent in case of the earlier specification which employs a linear measure of the budget share. The specification in Table 4, however, has a greater predictive power. It predicts an average bequest of $104,200 compared to $87,600 in the alternative specification; the actual is $124,000. In addition, it predicts a maximum bequest well over $1 billion, pretty close to the actual, compared to a maximum under $300 million using the specification in Table 3.

The above estimated effects change considerably, but not qualitatively, when estates with wealth in excess of $20 million are excluded.[16] In case of estate tax repeal, and using the specification in Table 3, bequests decline by 20 percent using the year of death law and increase by 18 percent using future law. In contrast, bequests increase by 13 and 15 percent, respectively, using the specification in Table 4. The gap in the estimated effects highlights the importance of the presence of the wealthiest group, and points to the potential aggregation bias common to grouped and aggregated time series data.

It is interesting to note that there is little change in the qualitative results when the data is limited to the never-married singles. Using the specification in Table 3, charitable bequests by this group would decline by 12 percent if the estate tax were repealed. However, they would increase by 18 percent using future law measure of the tax price.

[16] This reduces the sample size to 14,010 observation with mean bequests of 65,900 and sd=399,600. The excluded observations number 41, with mean 54,046,100 and sd=215,371,400, and account for about half the bequests.

Using the specification in Table 4, bequests would increase by 31 percent, or by 18 percent using future law.[17]

V. Conclusion

This paper explores the effects of the estate tax on charitable bequests using two tax regimes where wealth is less susceptible to measurement errors. More specifically, I employ estate tax data for decedents in 1976 and 1982 and exclusively focus on widowed and unmarried decedents.

Tax rates were significantly reduced in 1982 and later years, yet descriptive statistics show that higher charitable bequests, relative to wealth, were observed in 1982 compared to the trend in 1976 when tax rates were higher. This trend suggests that estate taxation has little effect on bequests. Except for the stimulating effect of the deductibility of bequests, a similar conclusion is arrived at using multivariate analysis.

Notwithstanding the above findings, some may arrive at different conclusions using the very same estimated parameters. This paper assumes that estate tax repeal increases disposable wealth from $W\text{-}T_0$ to W. In contrast, McClelland (2004, p. 4) advocates that wealth should increase only by the tax liability below an estate's marginal tax rate. As an illustration, consider a taxable estate of $100 million which pays $55 million in estate taxes, facing a maximum tax rate of 55 percent under current (fully phased-in) law. Estate tax repeal in this paper is assumed to increase wealth by $55 million, from $45 to $100 million, which can be used to increase bequests to heirs as well gifts to charity. On the other hand, and using the assumptions in McClelland (2004), wealth will increase by less than $2 million.

[17] Note that no observation in 1976 reported wealth in excess of $20 million.

This paper also highlights the sensitivity of estimates to the expected tax regime in effect at death. The estimated effects of estate taxation vary considerably depending on whether behavior and estate planning reflect the current or expected tax regimes. If donors are assumed to respond to the tax regime in place at the date of death, then estate tax repeal would lead to a small reduction in bequests. On the other hand, if donors plan with the future tax regime in mind, then estate tax repeal may lead to a small increase in gifts. However, given the lack of data on when wills are drafted or amended, it is difficult to determine which tax regime is binding. This suggests that we should be cautious in employing longitudinal data, as well as interpreting results obtained from studies using such data.

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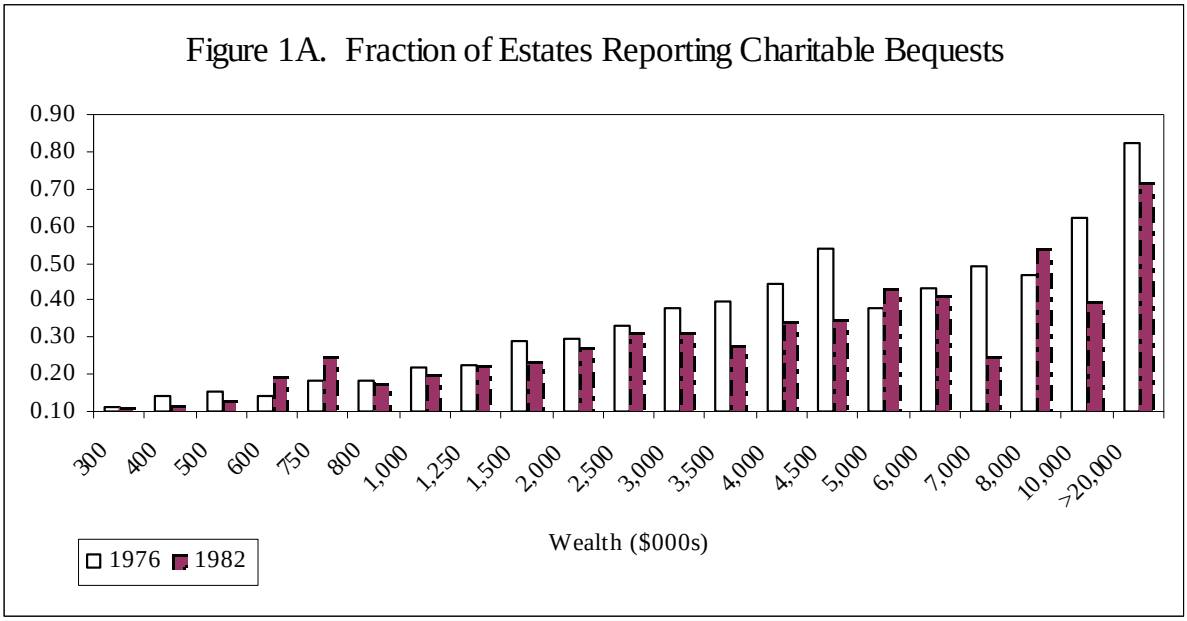
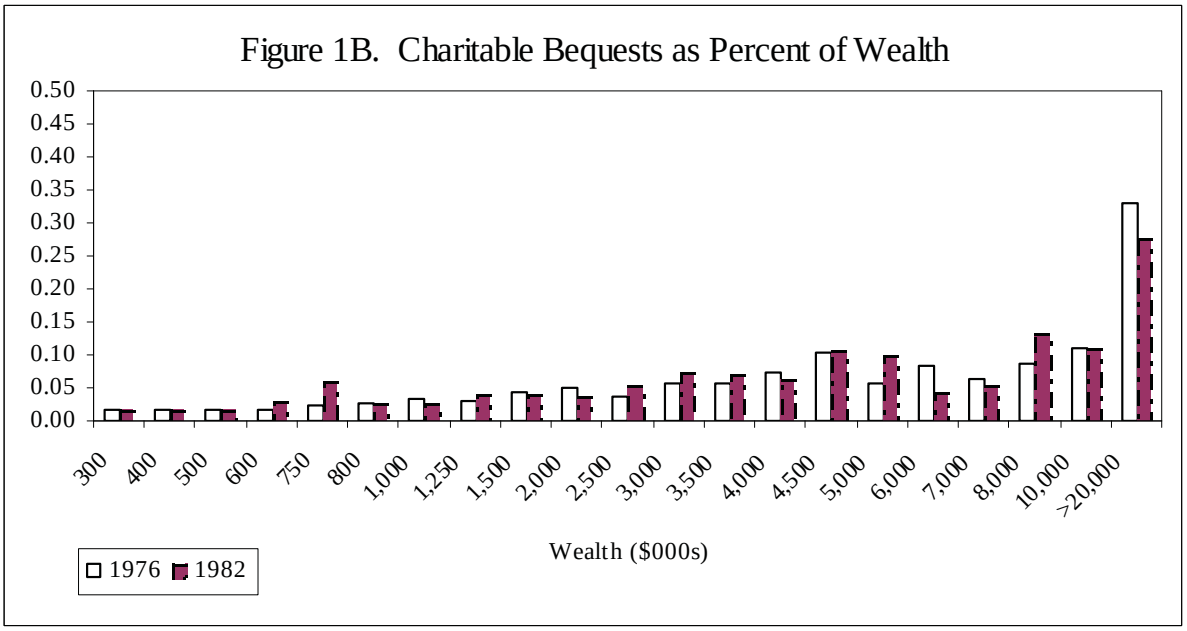
Table 1

Estate Tax Rate Schedule, by Year and Size of Taxable Estate (amounts in $000s)

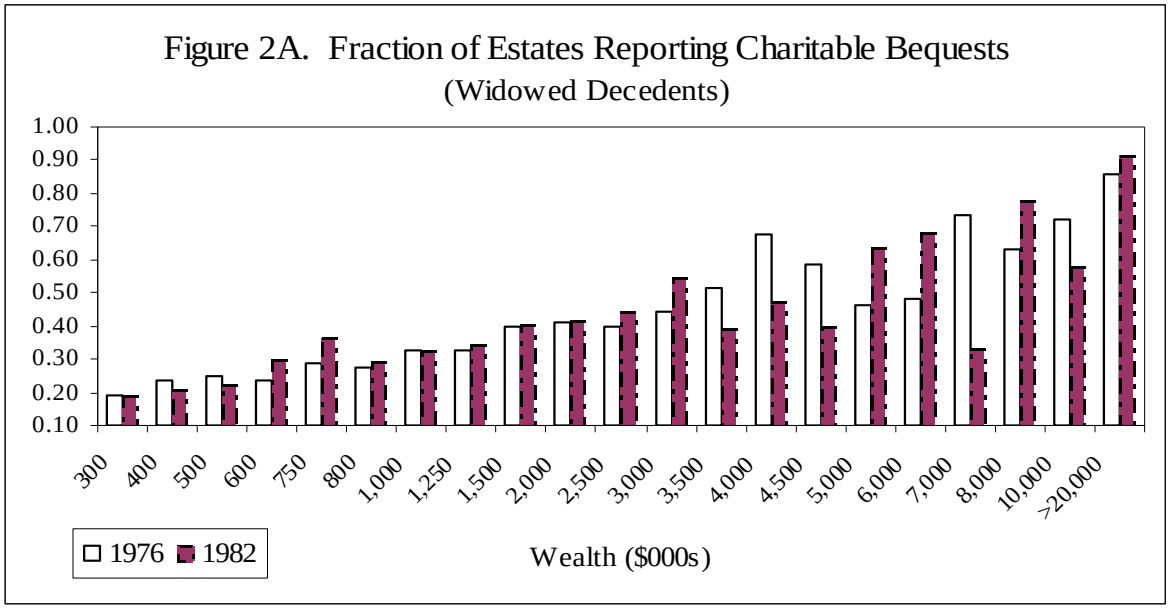
Taxable Estate Range		1976	1982	1983	1984	1985	1986	1987
-	5	3	18	18	18	18	18	18
5	10	7	18	18	18	18	18	18
10	20	11	20	20	20	20	20	20
20	30	14	22	22	22	22	22	22
30	40	18	22	22	22	22	22	22
40	50	22	24	24	24	24	24	24
50	60	25	24	24	24	24	24	24
60	80	28	26	26	26	26	26	26
80	100	28	28	28	28	28	28	28
100	150	30	30	30	30	30	30	30
150	200	30	32	32	32	32	32	32
200	225	30	32	32	32	32	32	32
225	250	30	32	32	32	32	32	32
250	275	32	34	34	34	34	34	34
275	325	32	34	34	34	34	34	34
325	400	32	34	34	34	34	34	34
400	500	32	34	34	34	34	34	34
500	600	35	37	37	37	37	37	37
600	750	35	37	37	37	37	37	37
750	800	37	39	39	39	39	39	39
800	1,000	37	39	39	39	39	39	39
1,000	1,250	39	41	41	41	41	41	41
1,250	1,500	42	43	43	43	43	43	43
1,500	2,000	45	45	45	45	45	45	45
2,000	2,500	49	49	49	49	49	49	49
2,500	3,000	53	53	53	53	50	50	50
3,000	3,500	56	57	57	55	50	50	50
3,500	4,000	59	61	60	55	50	50	50
4,000	4,500	63	65	60	55	50	50	50
4,500	5,000	63	65	60	55	50	50	50
5,000	6,000	67	65	60	55	50	50	50
6,000	7,000	70	65	60	55	50	50	50
7,000	8,000	73	65	60	55	50	50	50
8,000	10,000	76	65	60	55	50	50	50
10,000	and over	77	65	60	55	50	50	50
Exemption		60	0	0	0	0	0	0
Exempted Estate*		0	225	275	325	400	500	600

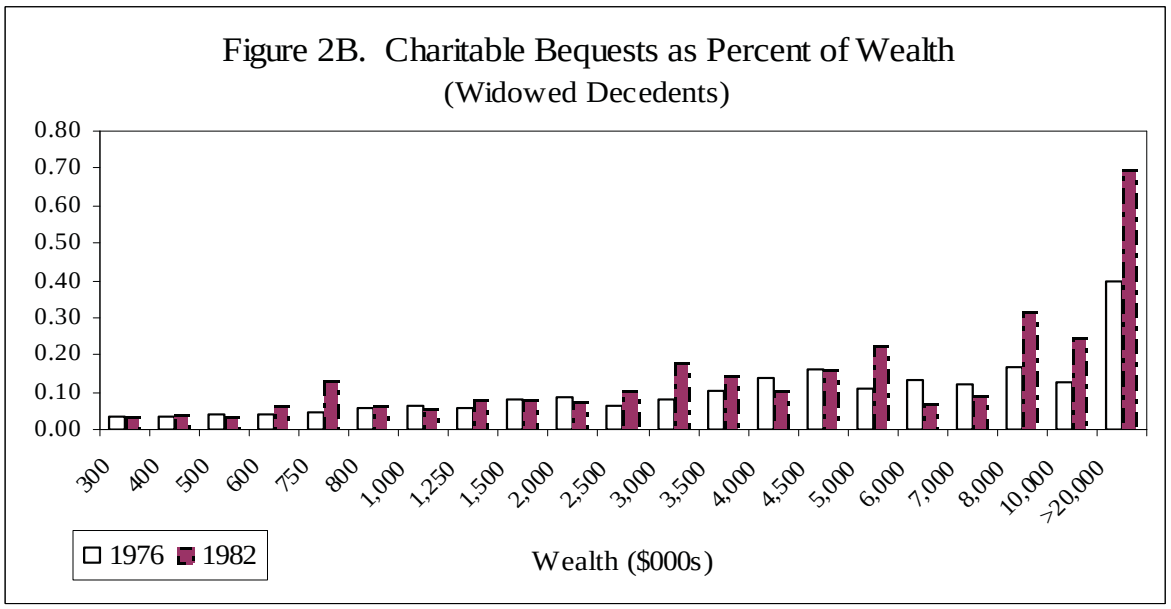
* Size of estate ($000s) exempt from federal estate tax by virtue of the unified credit which reduces the infra marginal tax rates in the shaded area to zero. The taxable estate is not reduced by any exemption. Note that the sample excludes observations with wealth under $300,000.



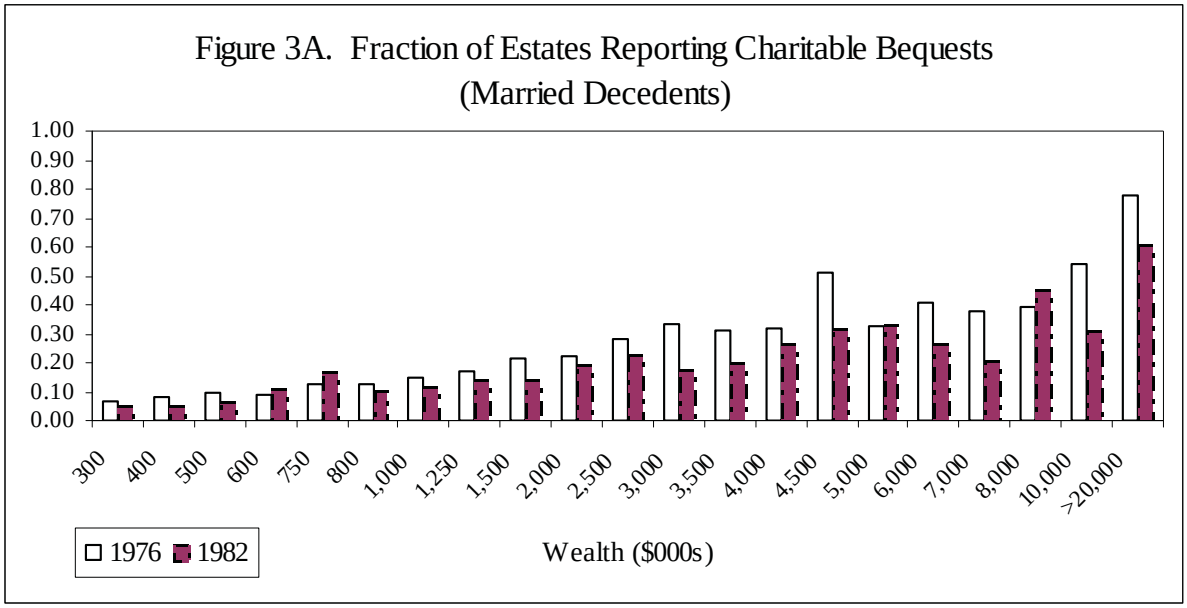


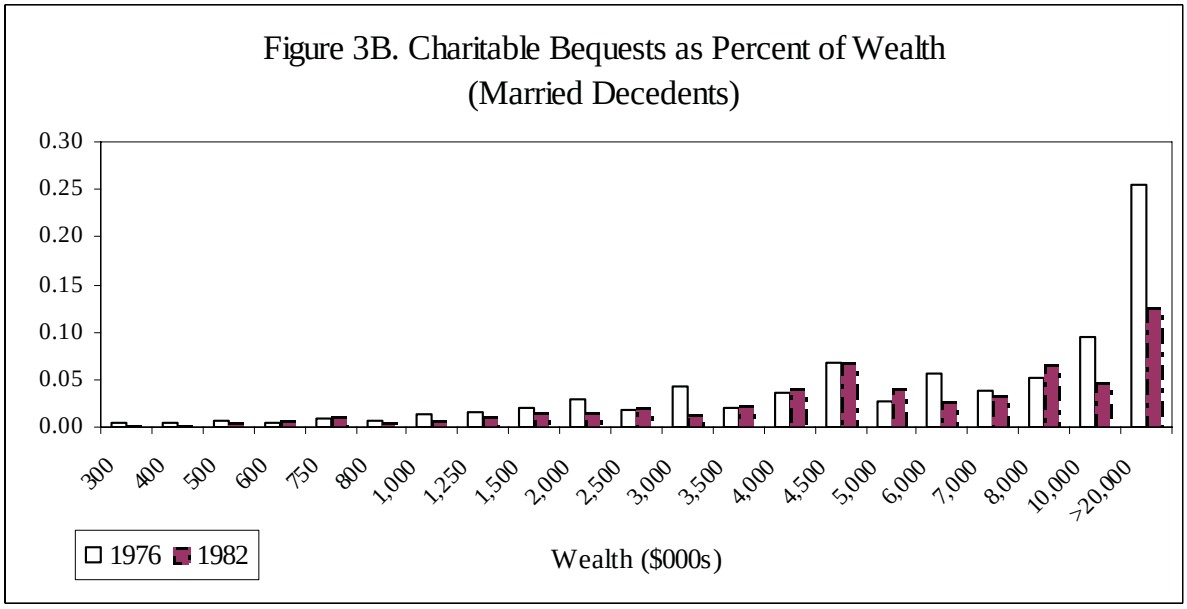
Amounts in $1982





Amounts in $1982





Amounts in $1982

Figure 4A. Fraction of Estates Reporting Spousal Bequests
(Married Decedents)

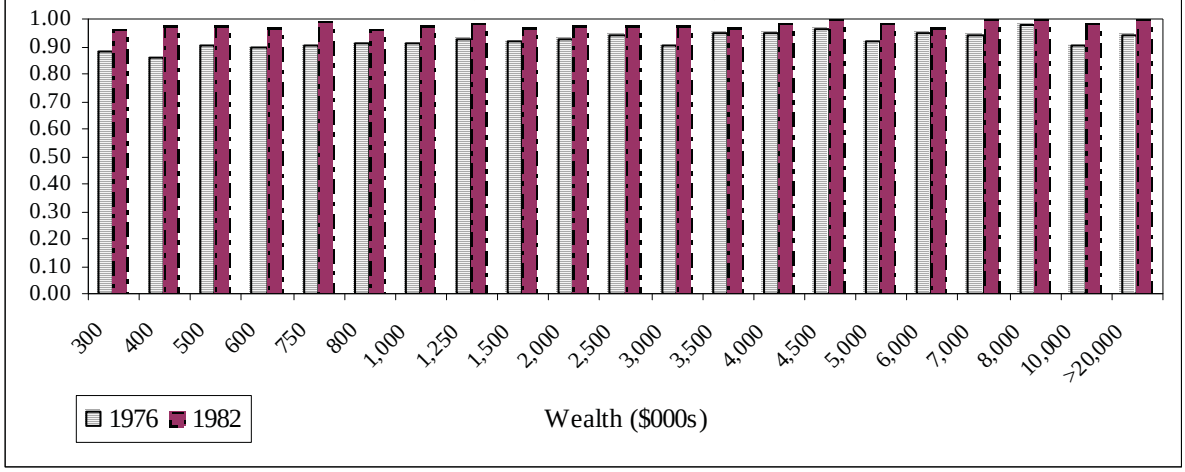
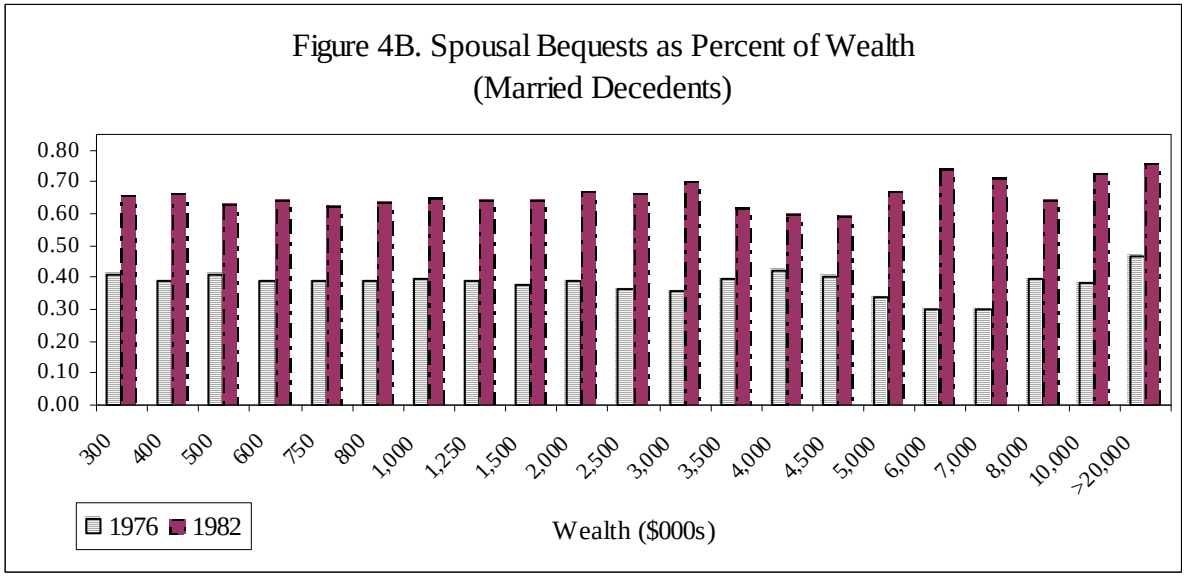


Figure 4B. Spousal Bequests as Percent of Wealth
(Married Decedents)



Amounts in $1982

Table 2. Sample Means for Select Variables (standard errors in parentheses)

Variable	All	Donors	Others
Charitable Bequests (CB)	287,326	892,202	-
	(11,872,300)	(20,909,468)	-
After-tax Bequests – Year of death law			
CB(1-T')	222,947	692,294	-
	(10,397,453)	(18,314,436)	-
CB-T_0	114,874	356,700	-
	(2,776,766)	(4,884,600)	-
After-tax Bequests – Phased-in law			
CB(1-T')	228,732	710,257	-
	(10,403,083)	(18,323,895)	-
CB-T_0	126,124	391,638	-
	(2,835,278)	(4,986,157)	-
Wealth (W)	1,456,628	2,226,355	1,090,996
	(12,253,134)	(21,424,701)	(1,742,053)
After-tax Wealth – Year of death law	886,467	1,189,111	742,707
W-T_0	(2,960,171)	(5,101,403)	(707,620)
After-tax Wealth – Phased-in law	950,900	1,277,112	795,983
W-T_0	(3,041,600)	(5,222,643)	(785,268)
Share of Wealth – Year of death law			
CB(1-T')/ (W-T_0)	0.0889	0.2761	-
	(0.2902)	(0.4581)	-
[CB-(T_0-T)]/(W-T_0)	0.0687	0.2134	-
	(0.2066)	(0.3188)	-
Share of Wealth – Phased-in law			
CB(1-T')/ (W-T_0)	0.0858	0.2666	-
	(0.2758)	(0.4337)	-
[CB-(T_0-T)]/(W-T_0)	0.0694	0.2155	-
	(0.2083)	(0.3213)	-
Tax Price – Year of death law	0.6503	0.6758	0.6382
1-T'	(0.1029)	(0.1522)	(0.0646)
Tax Price – Phased-in law	0.7184	0.7218	0.7168
1-T'	(0.1656)	(0.1781)	(0.1593)
Age	78.66	81.63	77.24
Male	0.37	0.33	0.39
Widowed	0.76	0.71	0.78
Single	0.16	0.22	0.13
Divorced/Separated	0.08	0.07	0.09
Dummy 1976	0.55	0.56	0.54
Observations	14,051	4,525	9,526

Table 3

FIML Tobit Estimates of Charitable Bequests in 1976 and 1982
Dependent Variable: $CB(1-T')/(W-T_0)$

	Year of Death Law		Fully Phased-in Law	
Variable	Coefficient	s.e.	Coefficient	s.e
Constant	-1.8535	0.1423	-2.4979	0.1426
Male	-0.0370	0.0068	-0.0428	0.0072
Single	0.1875	0.0085	0.2013	0.0089
Divorced/separated	0.0695	0.0123	0.0780	0.0131
Age	0.0083	0.0028	0.0109	0.0029
Age^2 /100	-0.0025	0.0018	-0.0039	0.0019
Midwest	-0.0084	0.0051	-0.0095	0.0074
South	-0.0205	0.0052	-0.0203	0.0074
West	-0.0265	0.0055	-0.0360	0.0079
Dummy 1976	-0.0062	0.0083	0.0094	0.0085
ln After-tax wealth	0.0940	0.0093	0.1334	0.0075
ln Tax Price	-0.1237	0.0573	0.0645	0.0373
ψ*	2.7974	0.0622	2.5219	0.0488
σ	0.1632	0.0015	0.2270	0.0018
Observations	14,051		14,051	
Log Likelihood	33,149		32,045	
$\Phi(z)$	0.395		0.337	
Charitable Bequests	Wtd. Mean	s.d	Wtd. Mean	s.d
Actual	124,000	7,210,600	124,000	7,210,600
Predicted	87,600	1,190,400	85,100	1,563,700
Predicted w/out tax	84,300	4,686,700	139,100	7,052,000

* Tax price is endogenous to bequests.

Table 4

FIML Tobit Estimates of Charitable Bequests in 1976 and 1982
Dependent Variable: $[CB-(T_0-T)]/(W-T_0)$

	Year of Death Law		Fully Phased-in Law	
Variable	Coefficient	s.e.	Coefficient	s.e
Constant	-1.6690	0.1259	-2.0444	0.1271
Male	-0.0336	0.0056	-0.0403	0.0063
Single	0.1571	0.0071	0.1767	0.0078
Divorced/separated	0.0508	0.0105	0.0603	0.0118
Age	0.0080	0.0022	0.0102	0.0024
Age^2 /100	-0.0027	0.0014	-0.0037	0.0016
Midwest	-0.0092	0.0056	-0.0084	0.0072
South	-0.0200	0.0058	-0.0194	0.0074
West	-0.0288	0.0060	-0.0367	0.0078
Dummy 1976	-0.0081	0.0072	0.0033	0.0073
ln After-tax wealth	0.0849	0.0088	0.1028	0.0072
ln Tax Price	0.0068	0.0506	0.0635	0.0328
ψ*	1.8863	0.0530	1.8393	0.0421
σ	0.1800	0.0015	0.2263	0.0018
Observations	14,051		14,051	
Log Likelihood	32,609		31,974	
$\Phi(z)$	0.340		0.316	
Charitable Bequests	Wtd. Mean	s.d	Wtd. Mean	s.d
Actual	124,000	7,210,600	124,000	7,210,600
Predicted	104,200	6,314,000	105,300	6,448,800
Predicted w/out tax	90,800	4,268,700	108,500	5,134,200

* Tax price is endogenous to bequests.