CHAPTER 2
Charitable Bequests
Introduced by Daniel Skelly

Statistics of Income (SOI) periodically collects data and publishes statistical analyses of estate tax returns. The Form 706, *Estate Tax Return*, provides information on charitable bequests, portfolio composition, and other data on decedents and their beneficiaries. Wealth, tax rates, age, and marital status are thought to be important indicators of giving at death [1]. These factors, as well as individual values and beliefs, predispose individuals to make charitable bequests. Tax incentives can also affect the amount given as well as the timing and type of bequests. During the 1980's, for example, charitable bequests as a percentage of gross estate remained in the range of six percent.

Total giving to charities in 1990 was nearly $123 billion, or about two percent of the Gross National Product (AAFRC, 1987: Giving USA: Estimates of Philanthropic Giving in 1986 and the Trends They Show). The majority of these gifts were by individuals, both directly (83.1 percent) and through bequests (6.4 percent). Total bequests to charities amounted to $7.8 billion in 1986.

There are three papers in this section that focus on the charitable bequests. The Steuerle study examines patterns of giving among wealthy individuals. It looks at income tax returns of decedents just prior to death (one or two years prior to death). Steuerle examines the relationship between charitable giving and income, and charitable giving and wealth. He finds that top wealthholders tend to give away only a tiny percentage of wealth during their lifetime.

One important inference is that wealth seems to play only a limited role in determining the amount given during one's lifetime, except to the extent that it increases realized income. Wealth, on the other hand, is an important determinant of charitable bequests. Those with greater amounts of wealth tend to give both greater absolute amounts and larger percentages of their estates to charitable causes.

The article by Johnson and Rosenfeld examines social and economic factors that affect charitable giving, particularly those factors that may influence an individual's decision to make a charitable bequest. The presence of a surviving spouse and other dependents compete directly with charities as beneficiaries. This is demonstrated by the importance of marital status and, to a lesser degree, age, as determinants of charitable giving. Decedents with higher net worth are better able to meet these competing needs. The sex of the decedent plays a role as well. Tax policy also plays a significant role in determining the timing and form of gifts and affects the amount given. Specifically, a variety of psychological and social influences seem to play a large role.

The paper by Joulfaian examines the role of the estate tax in influencing both the amount as well as the diversification of charitable bequests for wealthy individuals. The paper focuses on the pattern of aggregate charitable bequests, bequests to certain categories of charitable organizations, as well as the effect of the estate tax deduction on the different categories of charitable bequests. Data show that bequests generally benefit, at most, one or two categories of charitable organizations. The findings suggest higher tax rates induce more giving and increase the number of categories of charitable bequests. The results also indicate that the pattern of bequests is influenced by terminal wealth and its composition, and by marital status, age and gender.

1 Joulfaian, D. "Charitable Bequests and Estate Taxes," *National Tax Journal*, 1991 and Johnson, B. and Rosenfeld, J. "Examining the Factors that Affect Charitable Giving." *Trusts and Estates,* August 1991.

Charitable Giving Patterns of the Wealthy

by C. Eugene Steuerle, Ph.D *

Although a fair amount of research as been done on the relationship of charitable giving to individual income, much less is known about the relationship of giving to wealth. [1] Few data are available on the charitable donations of the wealthy, especially the relationship of their lifetime giving to giving via bequest. The combined patterns of lifetime giving and bequests reveal some of the motivations behind individual charitable activity, especially by those who held significant wealth at the time of their death.

This study examines patterns of giving among wealthy individuals. The principal data are a sample of 4,143 estate tax returns filed in 1977 (for deaths generally in 1976 and 1977), matched with the income tax returns of decedents in years just prior to death, from 1974 through 1976. Each estate generally had assets worth $60,000 or more ($120,000 or more for decedents dying in 1977).

The 4,143 estate tax returns used for this study constitute 1 our of 10 of the more than 41,000 returns used in *Statistics of Income-Estate Tax Returns* (U.S. Department of the Treasury, Internal Revenue, 1979) and for related wealth studies (Schwartz, 1983). In many cases, however, matching income tax returns could not be found or were not filed for these decedents. In addition, since information on charitable giving during life was to be examined, only returns field by itemizers were often useful. This study, therefore, usually focused attention on those decedents from whom there was available income tax information from the year prior to death or on persons in this latter group who actually itemized.

Under ideal conditions, one would want to examine a data set that was free of measurement errors, possible sample selection bias, and similar statistical problems. Unfortunately, no such data on wealthholders exist. Instead, capital income reported on income tax returns or in surveys is poorly measured, perhaps much worse than wealth reported on estate tax returns. The data used in this study also have several limitations. First, accounting for wealth takes place in a period different from that in which income tax returns are filed. Charitable giving in one year is thus compared to wealthholding in the following year (at the time of death). Wealth transfers, consumption out of wealth, or wealth accumulation out of income could have occurred between the points at which measurements were made. Moreover, charitable giving in the year prior to death may be atypical.

For tax accounting reasons, wealth is also likely to be understated. Valuations for estate tax purposes are typically low for reported assets, especially businesses, farms, houses, and other non-liquid or infrequently traded assets. Estimates must be reasonable, but there is a strong incentive to provide the lowest among available choices. In addition, much wealth from life insurance or pensions does not pass through estates, so estimates of value of estates and inheritances are often understated. Finally, estate tax returns reveal only the wealth of the decedent; in cases where comparisons are made with income tax returns of joint filers, the wealth (and charitable bequests) of only one spouse are contrasted with the annual lifetime charitable giving of both spouses.[2]

---

* Eugene Steuerle is Director of Finance and Taxation Projects, The American Enterprise Institute. He is the former Economic Staff Coordinator in charge of design and coordination of the Treasury's mid-1980s Tax Reform Effort. This article was previous published in *America's Wealthy and The Future of Foundations* (1987) Teresa Odendahl, Ed. The Foundation Center: New York, NY.

[1] Wealth data actually improves our understanding of the relationship of giving to income. Previous research (Steuerle, 1985a) has indicated that the relationship of realized, and therefore measurable, income to wealth is poor and that most real income from capital is not recognized by individuals. As a consequence, most existing research on the relationship of giving to income must make use of an income measure that understates true economic income.

[2] Unless otherwise noted, charitable giving made at death will be referred to specifically as "charitable bequests" whereas the term "charitable contributions" will

TABLE 7–1.
DECEDENTS' (PRIOR YEAR) CHARITABLE CONTRIBUTIONS AS A PERCENTAGE OF GROSS INCOME SUBJECT TO TAX (GIST) BY SIZE OF GIST AND BY SIZE OF NET WORTH

GIST	Total number contributing	Charitable contributions ($000)	GIST ($000)	% Charitable contributions/ GIST
Zero or negative	53	8.5	−4,284	—
$1–$2,499	77	2.5	107	2.3
$2,500–$4,999	177	10.8	678	1.6
$5,000–$7,499	260	41.3	1,622	2.6
$7,500–$9,999	227	61.8	1,967	3.1
$10,000–$14,999	377	92.9	4,712	2.0
$15,000–$19,999	299	141.8	5,213	2.7
$20,000–$29,999	429	262.2	10,546	2.5
$30,000–$49,999	497	668.1	19,412	3.4
$50,000–$99,999	351	862.2	23,937	3.6
$100,000 or More	177	3,983.2	36,498	10.9
Total all classes	2,924	6,135.3	100,408	6.1

PATTERNS OF GIVING

As indicated in Table 7-1, charitable giving as a percentage of income tends to decrease as income increases, but it increases once income rises above middle-income levels.[3] A contrast of charitable bequests with net worth also tends to show a slight U-shaped pattern (Table 7-2). Thus, giving relative to net worth declines slightly as net worth increases toward $500,000, then rises significantly as net worth increases. The wealthiest decedents -- those with $2.5 million or more of net worth -- have by far the highest rate of giving, donating almost one-fifth of their net worth to charity.

TABLE 7–2.
CHARITABLE BEQUESTS AND NET WORTH

Amount of net worth	Total number	Charitable bequests ($ millions)	Total net worth ($ millions)	% Charitable bequests/ net worth
<$100,000	578	5.3	36.1	14.8
$100,000–$249,999	990	5.3	161.9	3.3
$250,000–$499,999	476	4.0	170.1	2.4
$500,000–$999,999	601	17.1	406.6	4.2
$1,000,000–$2,499,999	231	25.0	335.3	7.5
$2,500,000 or more	48	80.6	414.8	19.4
All net worth classes	2,924	137.3	1,524.6	9.0

Tables 7-1 and 7-2 confirm information that is available from separately published statistics on income and estate tax returns. A more useful and original contrast can be made among estate tax returns with itemized deductions in the year prior to death and other populations of returns. Table 7-3 presents estimates for four different groups of returns on which deductions were itemized, mainly in 1975: first, those from the estate-income match with $120,000 or more in assets; second, all decedents with $120,000 or more in assets (the estate tax population); third, all top wealthholders (defined as all living persons holding assets valued at $120,000 or more); and, fourth, all returns, regardless of wealth, that itemized deductions in 1975.[4]

Reading across Table 7-3 from the estate-income match toward the population of all itemizers, average income and average wealth fall. The rate of giving also drops, although the difference in rates of giving between top wealthholders and all itemizers (3.6 percent and 2.9 percent, respectively) is perhaps not as much as one might have suspected. Some differences, such as the rates of giving of estate tax returns as opposed to those of all top wealthholders, should be attributed to differences in average age. At given income and tax rates, the elderly have been shown to give more than younger groups.

Another revealing statistic from Table 7-3 (similar statistics can also be derived by comparing Tables 7-1 and 7-2) is that top wealthholders tend to give away only a tiny percentage of wealth during their lifetimes. Contributions represent slightly less than 1/2 of 1 percent (between 0.41 percent and 0.46 percent) of net worth. This relatively small amount

refer to the annual contributions made during the year before death of the decedent.

[3] The data show results somewhat similar to those found in earlier studies of charitable contributions (see Clotfelter and Steuerle, 1981).

[4] To obtain the second and third groups, returns in the estate-income match are actually "reweighted." In the former case, recall that each return in the estate-income match actually represents (or is selected from) a much larger group of estate tax returns. In the latter case, a technique referred to as the estate multiplier is used, and each deceased person of a given age is taken to represent a portion of the living population, with the weight or number of persons so represented being determined by the probability of dying at that age. By using this technique, we are able to derive estimates of the wealth and charitable contributions of all top wealthholders, not just those who have died in a particular year. As can be seen in the table, for instance, the wealthy have net worth in excess of $1 trillion, whereas the wealthy who filed estate tax returns in 1977 have net worth of only about $19 billion.

TABLE 7–3.
CHARITABLE GIVING FOR VARIOUS POPULATIONS OF ITEMIZERS

	Estate income file[a]	Estate tax returns[a]	All top wealthholders[a]	All returns itemizing in 1975
		Total ($ million)		
Annual charitable contributions	5.8	84.6	4,351	15,343
Charitable bequests	122	1,409	—	—
Adjusted gross income	78.7	1,573	127,019	532,611
Net worth	1,240	19,146	1,091,960	—
Number of tax returns	1,541	48,350	4,063,740	26,074,061
		Average per return ($)		
Annual Charitable contributions	3,764	1,750	1,115	590
Charitable bequests	79,169	29,141	—	—
Adjusted gross income	51,071	32,534	31,257	20,427
Net worth	804,672	395,988	268,708	—
		Rates of Giving (%)		
Contributions/AGI	7.4	5.4	3.6	2.9
Contributions/ net worth	0.46	0.44	0.41	—

[a] Restricted to estate tax returns with $120,000 or more of gross estate.

TABLE 7–4.
CHARITABLE BEQUESTS (ESTATE TAX) AS A MULTIPLE OF CHARITABLE CONTRIBUTIONS (INCOME TAX), IN THOUSANDS OF DOLLARS

Size of charitable contributions	Number	Charitable contributions	Estate tax bequests: Total	Estate tax bequests: As a multiple of contributions
Nonitemizers	1,035	—	10,243	—
No contributions	212	—	7,558	—
$1–$249	388	47	7,360	156.5
$250–$499	308	110	2,781	25.2
$500–$999	359	252	8,715	34.6
$1,000–$2,499	342	550	8,096	14.7
$2,500–$4,999	132	461	4,974	10.8
$6,000–$9,999	75	494	22,819	46.2
$10,000–$24,999	49	715	9,952	13.9
$25,000 or more	24	3,506	54,841	15.6
Total all classes	2,924	6,135	137,338	22.4

[b] In another study for this project, Boris has found that, at least for gifts to foundations, the ratio for lifetime giving to bequests tended to be higher in the years before 1970.

is fairly constant among the different categories of wealthholders shown in the table.

Table 7-4 compares charitable bequests with charitable contributions listed on income tax returns in the year prior to death. In the aggregate, charitable bequests represent over 20 times the amount of charitable contributions in a single year.[5] At first, one might suspect that this ratio would be high only for those taxpayers who had been less generous that average during their lifetimes. The ratios of charitable bequests to charitable giving, however, are high even for those taxpayers who appear to have been relatively generous during their lifetimes. Those who gave more than $25,000 in annual gifts, for instance, fall into the classification of the most generous of lifetime givers, yet even they gave 15.6 times as much in the year of their death as during the previous year. Although not shown in Table 7-4, this phenomenon is not confined to the year prior to death. When returns from two years prior to the respondent's death are examined, a similar result is obtained.[6]

One important inference from Tables 7-3 and 7-4 is that wealth seems to play only a limited role in determining the amount given during one's life, except perhaps to the extent that it increases realized income. Nonetheless, it is an important determinant of charitable bequests, as those with greater amounts of wealth tend to give both greater absolute amounts and larger percentages of their estates to charitable causes.

TABLE 7–5.
DISTRIBUTION OF PERSONS BY SIZE OF CHARITABLE CONTRIBUTIONS AND CHARITABLE BEQUESTS

Size of charitable contributions	Size of charitable bequests: No charitable bequests	$1–$50,000	$50,000–$250,000	$250,000–$1 million	$1 million or more	Total
No charitable contributions or nonitemizers	1,075	125	30	14	3	1,247[a]
$1–$999	881	128	30	12	4	1,055
$1,000–$9,999	419	89	22	13	6	549
$10,000–$24,999	23	11	6	6	3	49
$25,000 or more	11	2	4	2	5	24
Total	2,409	355	92	47	21	2,924

[a] Includes 1,035 nonitemizers

Table 7-5 displays the distribution of charitable amounts given during life by size of charitable bequests. Many persons who are very generous in death can clearly be seen to have given little or nothing in the way of lifetime gifts. For instance, 13 of 21 persons bequeathing $1 million or more to charity actually gave less and $10,000 in annual

[5] In another study for this project, Boris has found that, at least for gifts to foundations, the ratio for lifetime giving to bequests tended to be higher in the years before 1970.

[6] This is the only way that one can check whether giving in the year before death displays any peculiar pattern. No further information is available on total lifetime patterns of giving or even on giving several years before death.

gifts.[7] In contrast, many who were relatively generous during life made few or no contributions at time of death. Thus, of the 24 individuals who contributed more than $25,000 in annual giving, 11 made no charitable bequests whatsoever.

Table 7-6 presents charitable contributions and bequests as percentages of income and net worth, rather than in dollar amounts. The result of both Tables 7-5 and 7-6 are broadly similar. For instance, of 32 persons who made annual contributions of over 40 percent of their income, 19 left no charitable bequests. At least in percentage terms, however, Table 7-6 indicates that givers may be more likely to give a high percentage of their estate than of their income to charity. Thus, 101 (or 3.4 percent of these returns) gave away 40 percent or more of net worth at death, but only 32 (or 1.1 percent) gave away more than 40 percent of income.[8]

TABLE 7–6.
DISTRIBUTION OF PERSONS BY CHARITABLE CONTRIBUTIONS AS A PERCENTAGE OF INCOME AND CHARITABLE BEQUESTS AS A PERCENTAGE OF NET WORTH*

	Charitable bequests as % of net worth					
Charitable contributions as % of income	No charitable bequests	0.01–3.00	3.01–20.00	20.01–40.00	40.00 or More	Total
No charitable contributions or nonitemizers	1,075	97	26	11	38	1,247[a]
0.01–3.00	834	90	23	9	29	985
3.01–20.00	450	79	39	12	22	602
20.01–40.00	31	3	7	2	7	50
40.00 or more	19	4	3	1	5	32
Total	2,409	273	98	35	101	2,916[b]

* Income is measured by gross income subject to tax.
[a] Includes 1,035 nonitemizers.
[b] Total differs slightly from Table V because returns reporting positive charitable contributions and negative income are excluded from this table.

Both Tables 7-5 and 7-6 confirm that the pattern of large bequests and small annual contributions is the prevalent behavior for most taxpayers who make large bequests. Thus, lifetime giving and bequest giving are not great predictors of each other.

ECONOMETRIC RESULTS

Table 7-7 represents a more rigorous analysis of lifetime giving. Some common econometric techniques are used to explain charitable contributions reported on income tax returns.[9] Income, price of giving, and other dependent and independent variables are defined in roughly the same way as is in many recent econometric studies. The principal difference between this study and most previous studies is that net worth is added as a variable.

TABLE 7–7.
EQUATIONS EXPLAINING CHARITABLE CONTRIBUTIONS† REPORTED ON INCOME TAX RETURNS

DEPENDENT VARIABLE: ℓn (CHARITABLE CONTRIBUTIONS + $10)						
Independent variables	Equation 1	2	3	4	5	6
ℓn Net worth			.09 (.05)			−.07 (.07)
ℓn Price		−2.15* (.24)	−2.04* (.25)		−2.47 (.20)	−2.44 (.20)
ℓn Realized income	.98* (.05)	.41* (.08)	.37* (.08)			
ℓn Economic income				.82* (.05)	.28* (.06)	.36* (.10)
Married	−.55* (.10)	−.58* (.10)	−.60* (.10)	−.67* (.11)	−.62* (.10)	−.61* (.10)
Dependents	.33* (.12)	.37* (.12)	.37* (.12)	.30* (.13)	.36* (.12)	.34* (.12)
Age unknown	1.51* (.65)	1.32* (.63)	1.20 (.63)	1.35* (.66)	1.22 (.63)	1.29* (.64)
Age between 35 and 49	.12 (.51)	−.001 (.50)	−.06 (.50)	−.01 (.52)	−.06 (.50)	−.02 (.50)
Age between 50 and 64	.48 (.48)	.32 (.47)	.25 (.47)	.45 (.49)	.27 (.47)	.33 (.47)
Age 65 or over	.76 (.48)	.63 (.47)	.53 (.47)	.92 (.49)	.66 (.47)	.75 (.48)
Intercept	−4.47	.442	−.236	−3.13	1.46	1.57
r^2	.241	.280	.282	.206	.277	.278

† Standard errors are shown in parentheses.
* Significant at the .05 level.

In equation 1 (Table 7-7), charitable contributions are defined as a function of income, age, marital status, and the presence of dependents, but not of price (or taxes) or net worth.[10] The income measure used here, however, is not economic income but rather the income reported by the taxpayer on the tax return. Thus, this equation follows most previous studies of charitable giving by using the

[7] Nonitemizers give less than $2,600 to charity -- the maximum standard deduction in 1975 -- or else they would itemize.

[8] Of returns reporting both positive contributions and positive bequests (thus excluding both nonitemizers and those not adequately planning for death), the ratio is roughly similar: 63 with bequests of 40 percent or more of net worth by only 13 with contributions of 40 percent or more of income.

[9] See, for instance, Clotfelter and Steuerle (1981) and Feldstein and Taylor (1976).

[10] Only 11 percent of itemizers had no contributions. As is typical in charitable studies with such a high percentage of positive givers, ordinary least square rather than a Tobit or similar regression technique was used.

amount of income realized or reported by the individual as the measure of income. Note that the coefficient for the income variable, 0.98, is very close to 1.00, implying that giving as a percentage of this realized income will stay fairly constant after controlling for age, marital status, and presence of dependents. For instance, if income increases from $10,000 to $100,000, the rate of giving would be predicted to fall less than 5 percent. When taxes (or price) are added to the model, however, the coefficient of income is decreased significantly, while the price coefficient increases in absolute value (see equation 2). This result is again consistent with previous studies. Because price and income are highly correlated, of course, interpretation is difficult, and it is always possible that the regression attributes to changes in price some of the effect of the changes in income and vice-versa.

Equation 3 goes one step further and adds net worth as a variable. The results are changed only trivially from equation 2, and the coefficient for net worth fails to meet the statistical test of significance at the .05 level. Even if significant, the size of the coefficient indicates that an increase in net worth, all other things being equal, would have only a small effect on charitable contributions. For instance, if net worth increased 20-fold from $50,000 to $1 million, giving would be predicted to increase only by 31 percent.

The low coefficient on net worth is actually quite similar to that obtained by Feldstein and Clotfelter (1976) in survey data from the 1963 and 1964 surveys conducted by the Board of Governors of the Federal Reserve System (coefficient = .095; standard error = .057). The coefficient on net worth obtained here is slightly higher than that obtained by Dye (1977), who used a 1974 national sample of household giving behavior of low- and middle-income taxpayers interviewed by the Survey Research Center at the University of Michigan (coefficient = .05; standard error = .01).[11] Although wealth and income from capital tend to be understated significantly in surveys, regressions run on these data sets have tended nonetheless to show the same price and income elasticities as have similar regressions run on tax returns. Perhaps it is not surprising that the wealth elasticities would have the same tendency to be small or insignificant.

Because recognition of income from capital is largely a discretionary event (Steuerle, 1985b), recognized income from capital is actually a very poor measure of real income from capital. Much of the total return to capital, especially of top wealthholders, is accrued in the form of unrecognized capital gains. In equations 4, 5, and 6, therefore, recognized income from capital is replaced with an estimate of the economic income from capital. The latter measure is obtained essentially by multiplying net worth by 5 percent and adding that income to labor income. Estimated income from capital is closer to an expected return from capital, as assets will fluctuate in value from year to year. Nonetheless, it is a more accurate measure of the well-being of the household than is a recognized income measure that is unadjusted for the presence of accrued capital gains and for the effect of inflation on the measure of income from capital.

When economic income is substituted for recognized income, the income elasticity tends to fall. In equation 4, the income elasticity is .82. Unlike equation 1, where the rate of giving out of income tends to stay constant, an elasticity of .82 implies that as income rises from $10,000 to $100,000, the rate of giving falls by over one third. Since there is no separate price variable in equations 1 and 4, the income elasticity really reflects the combined effect on charitable giving of both an increase in income and a likely increase in tax rates. Thus, when recognized income goes up, so do tax rates, while an increase in economic income, if not recognized, would involve no simultaneous increase in taxes. In equations 5 and 6, price is added back as a variable. When these equations are compared to equations 2 and 3, the price effect can be seen to be stronger in those equations that use economic income as a variable, while the income effect is somewhat weaker in equation 5. Equation 6 must be interpreted with caution since the economic income variable is measured in part from the net worth variable, so that one cannot really separate out the income from the net worth effect.

[11] Households did not report actual net worth in the Michigan survey, but only classified themselves as falling in certain groups.

The results demonstrate that individual lifetime giving may tend to be a function more of recognized income than of economic income. Individuals may be much more likely to give out of cash income than they are to give out of accrued gains in the value of corporate stock or land. By the same token, tax incentives from charitable giving do not apply to income that is never recognized.

In order to interpret further this data on charitable giving, Table 7-8 presents wealth and income information for the sample of top wealthholders. What becomes apparent almost immediately is that the ratio of income to wealth of top wealthholders declines significantly as wealth increases. Gross capital income subject to tax is only 2.2 percent of wealth for decedents with wealthholdings of $2.5 million, while it is 5.9 percent of wealth for those with wealthholdings of $250,000 to $500,000. These results arise in large part because persons with lesser amounts of wealth often receive a greater percentage of their capital income in the form of interest and dividends. Those with greater amounts of wealth tend to hold real estate and corporate stock, and returns from these assets are often deferred or never realized for tax purposes.

What this declining ratio of income to wealth also suggests is that the difference between economic income and recognized income tends to increase as wealth increases. To the extent that individuals are more likely to give out of their recognized income, top wealthholders will be those who are most affected by the increasing gap between economic and recognized income.

Effect on Giving of Other Demographic Factors

Except for the effect of marriage, other variables in all the equations in Table 7-7 tend to show the same effects as those reported in previous econometric studies. Giving increases significantly with age. Since the estate-income match contains information on much more elderly individuals than do most surveys or samples of tax returns, the "age unknown" category is likely to be comprised primarily of persons aged 55 or older. Hence, the significance of the age coefficient for this group confirms a significant increase in giving with age, all other things being equal. Moreover, the coefficients for other groups tend to increase with age, and their failure to be significant at the .05 level is probably simply a function of the limited number of returns of younger ages.

Giving also tends to increase with the presence of dependents, a result consistent with the notion that those with dependents are likely to give more because they or their children are involved with more institutions, such as schools or clubs. While marriage has a negative effect on giving, as opposed to the positive effect revealed in most previous studies, these other studies do not include so many elderly. A logical reconciliation of results is that, among nonelderly persons, marriage is likely to increase lifetime giving, but elderly persons are more likely to become more cautious with their giving if they are planning for the future care of their spouses.

CONCLUSIONS

This study reveals a number of patterns of charitable activity among top wealthholders. While top wealthholders as defined here comprise only a small part of the total population, they are the persons most likely to give large enough amounts to start new charities or foundations or to undertake new enterprises with existing charities. Several conclusions are particularly relevant for the charitable sector; giving by top wealthholders at death tends to be much larger than annual giving during life; wealth has only a limited effect on lifetime giving; and giving is more likely to take place out of realized income than out of economic income. These observations are consistent with each of the following hypotheses or explanations, none of which are mutually exclusive:

1. For the very wealthy, charitable giving may compete less with consumption than with wealthholding itself. Indeed, wealthholding confers such benefits on individuals that they reveal a willingness to pay additional taxes to hold onto wealth that most likely will never be consumed.

2. Many persons may not take maximum advantage of the tax laws, either because they are ignorant of opportunities available to them or because existing legal mechanisms for encouraging giving to charity are insufficient.

TABLE 7–8.

ALL DECEDENTS: GROSS CAPITAL INCOME SUBJECT TO TAX AS A PERCENTAGE OF WEALTH (IN THOUSANDS OF DOLLARS)

Size of Wealth	Total number	Average wealth	Average gross capital income	Gross capital income as a percentage of wealth	Gross capital income subject to tax as a % of wealth: Zero or negative: Number	Zero or negative: Wealth	Zero or negative: Gross capital income	Under 3 percent: Number	Under 3 percent: Wealth	Under 3 percent: Gross capital income
Under $100,000	519	72	9	12.4	41	3,269	−43	120	9,620	140
$100,000 under $250,000	980	164	10	6.1	66	10,460	−140	263	42,429	547
$250,000 under $500,000	445	344	20	5.9	22	7,597	−139	102	35,261	532
$500,000 under $1,000,000	668	675	34	5.1	39	25,608	−775	168	114,206	1,273
$1,000,000 under $2,500,000	255	1,458	70	4.8	18	25,638	−144	75	110,868	1,656
$2,500,000 or more	57	8,272	183	2.2	9	48,197	−578	23	314,916	1,211
All decedents	2,924	563	26	4.5	195	120,770	−2.116	751	627,302	5,361

Size of wealth	Gross capital income subject to tax as % of wealth (continued): 3 percent under 5 percent: Number	3 percent under 5 percent: Wealth	3 percent under 5 percent: Gross capital income	5 percent under 7 percent: Number	5 percent under 7 percent: Wealth	5 percent under 7 percent: Gross capital income	7 percent under 10 percent: Number	7 percent under 10 percent: Wealth	7 percent under 10 percent: Gross capital income
Under $100,000	99	7,930	315	57	4,340	260	48	3,850	331
$100,000 under $250,000	235	39,291	1,541	161	27,583	1,623	98	15,943	1,360
$250,000 under $500,000	109	37,055	1,487	92	31,282	1,808	54	18,931	1,575
$500,000 under $1,000,000	204	139,757	5,692	119	78,818	4,628	70	47,243	3,852
$1,000,000 under $2,500,000	93	134,038	5,337	29	41,848	2,436	22	32,441	2,618
$2,500,000 or more	14	71,788	2,591	7	24,838	1,462	2	6,128	507
All decedents	754	429,860	16,964	465	208,707	12,216	294	124,534	10,244

Size of wealth	Gross capital income subject to tax as % of wealth (continued): 10 percent under 15 percent: Number	10 percent under 15 percent: Wealth	10 percent under 15 percent: Gross capital income	15 percent or more: Number	15 percent or more: Wealth	15 percent or more: Gross capital income
Under $100,000	42	2,968	358	112	5,192	3,237
$100,000 under $250,000	81	13,338	1,579	76	11,969	3,232
$250,000 under $500,000	40	14,490	1,716	26	8,398	1,916
$500,000 under $1,000,000	39	25,314	3,059	29	19,720	4,627
$1,000,000 under $2,500,000	11	17,137	1,925	7	9,790	3,999
$2,500,000 or more	—	—	—	2	5,645	1,751
All decedents	213	73,247	8,636	252	60,716	18,761

3. Tax incentives are offset significantly, at least for top wealthholders, by the prior tax incentive not to recognize income in the first place.

Each of these possible explanations is discussed briefly in the paragraphs that follow.

Charitable Giving Versus Wealthholding.

At death, individuals can either give their assets to charity or to other individuals, but they can no longer consume their own wealth. Individuals who accrue substantial holdings often demonstrate that they are not likely to consume all their wealth during their lifetimes; they have chosen not to buy annuities or engage in other behavior that would maximize lifetime consumption and minimize their holdings at the time of their death. Many researchers would argue that such behavior indicates that the life cycle model provides only limited information on the ways in which individuals save and consume. For instance, the elderly as a group tend to increase, not decrease, their net worth as they age (Menchik and David, 1983). Even if one believes that the life cycle hypothesis explains the consumption behavior of most individuals, however, those with the greatest amount of wealth at death will be those for whom the hypothesis most likely will be inapplicable.

Seen in this light, lifetime charitable giving among top wealthholders must be viewed in part not as competing with consumption, but with the maintenance or accrual of wealth itself. This wealthholding provides increased power, prestige, control over existing assets or businesses, insurance over unforeseen events, and the option of making future decisions with respect to the transfer, investment, or disposition of the wealth.

The substantial increase in charitable giving at time of death is consistent with this notion. Many top wealthholders may be much more willing to make charitable bequests simply because wealth accumulation or retention is no longer an alternative. In effect, at death some transfer must be made either to charity or to other persons.

What makes this pattern of giving even more remarkable is that lifetime giving almost always has more tax advantages than posthumous giving. Both income and estate taxes are lessened in the former case, whereas bequests involve only estate tax reduction. Additional income tax savings could be used to increase consumption without any decrease in total charitable contributions, or to increase total charitable contributions without any decrease in consumption. Put another way, the only benefit from the increased taxation is a lengthening of the period of time in which the person holds onto the wealth. Thus, wealthholding appears to confer advantages on persons other than increased consumption, either for themselves or for their heirs.

Taking Advantage of the Tax Laws

An alternate explanation of this same tax behavior is that individuals are either ignorant of the tax laws or that the existing mechanisms for taking advantage of these laws, such as provisions for trusts, are either inadequate or too costly to use. Ignorance of complicated tax laws is a common phenomenon that cannot be disregarded. Trusts may be costly to set up and may be avoided for this reason, especially by those with lesser amounts of wealth. Certainly many individuals, including some of the most wealthy, have been found to plan inadequately for their estates.

To the extent that this is true, it offers the prospect that additional efforts by the charitable sector could increase giving. Existing methods of approaching wealthy individuals may simply be inadequate. If charitable giving provides a sense of well-being to the giver, then perhaps it needs to be better "advertised" and "packaged." The dissemination of information about optimal tax planning may also be poor, inefficient, or expensive.

If persons hold onto wealth not only for future consumption, but also for the insurance, power, and security it brings, then existing legal vehicles for making donations to charity during one's lifetime may not adequately appeal to potential donors.
A charitable remainder trust, for instance, may be well geared to the consumption needs of a donor, but what if the potential donor has little concern with future consumption patterns and simply wants to maintain control over his wealth? Perhaps better forms of trust or legal vehicles could be developed to take care of the lifetime needs of the giver.

Charitable Incentives and the Recognition of Income

A third explanation for the charitable behavior revealed in this study is that lifetime giving is affected significantly by the tendency not to recognize income in the first place. Top wealthholders hold most of their assets in the form of corporate stock and real estate and do not recognize many of the returns from those investments. This may affect charitable giving in two ways. First, to the extent that charitable giving is more likely to take place out of cash and liquid assets, it may be reduced where the income from assets flows through in less liquid forms. Second, since recognition of capital income at the individual level is largely a discretionary event, tax incentives to give will only apply to that income for which such discretion is exercised. For income that is not recognized or is sheltered by artificial losses, the price effect is basically zero. For many taxpayers, therefore, the existing tax system may discourage the recognition of income so much that a charitable incentive applies only to a small portion of the true economic income of the taxpayer.

An example may help to clarify why tax incentives for lifetime charitable giving by the very wealthy may be minimal. According to Table 7-8, taxpayers with $2.5 million or more of wealth recognize about 2.2 percent of wealth as gross capital income subject to tax. For a taxpayer with $8.3 million of wealth, this implies income subject to tax of about $180,000. Suppose other deductions and income offset each other, so that total income against which charitable deductions are allowed also equals $180,000. Then the maximum amount of charitable contributions which can be given and still result in a current tax deduction is $90,000, or only about 1 percent of wealth. For gifts of appreciated property or gifts to nonoperating foundations, the maximum tax incentives apply at even lower percentages of income.

In effect, taxes can induce individuals to give only to the extent that their income is taxable. Given the fact that many of the very wealthy realize only a small part of their capital income, there is only a limited income tax incentive for them to donate significant portions of their wealth to charity during their lifetimes.

The lifetime giving patterns of the wealthy might reasonably be explained by any of the three reasons offered here: the advantages of wealthholding itself, inadequate planning or ignorance of the tax laws, and limited lifetime incentives when income is not recognized in the first place. I would argue that all three are important and interact to explain the charitable giving patterns of the wealthy.

SUMMARY

Wealth is an important factor in deathtime giving, but it plays only a limited role in determining the amount of giving during life. The ratio of charitable bequests to charitable giving during a prior year of life is very high for all classes of wealthy taxpayers, both those who are generous during life and those who are not. Lifetime and deathtime giving, moreover, are not found to be great predictors of each other. Many with little lifetime giving are very generous at death, and many who are very generous during life give nothing out of their wealth at death.

Regression analysis confirms the weakness of net worth as an explanatory variable for lifetime giving. Taxes (price), income, age, and marital status, on the other hand, remain significant predictors. People are also more likely to give out of realized income than out of economic income. Giving out of realized income, of course, may be induced both because charitable deductions can reduce tax only to the extent that income is realized and because individuals may be more likely to give out of liquid than non-liquid assets.

There are three possible explanations for this observed pattern of giving by top wealthholders. First, wealthholding itself may confer on individuals substantial independent benefits such as increased options with respect to future decisions, insurance against unforseen events, prestige, and control. In fact, many people demonstrate that they are willing to pay additional taxes to hold temporarily onto wealth that neither they nor their heirs will consume. Second, some persons may not take maximum advantage of the tax laws because of ignorance of the opportunities available to them or because of the inadequacy of existing legal mechanisms. Finally, existing income tax incentives to give are offset

significantly by the prior incentive not to recognize income in the first place.

ACKNOWLEDGEMENTS

The author is indebted to Gerald Auten, Thomas Barthold, Elizabeth Boris, Charles Clotfelter, Carol Hooper, Teresa Odendahl, and Gabriel Rudney for helpful comments, to Millard Munger and Gordon Wilson for programming assistance, and to Martha Sheppard and Katy Breen for help in the preparation of the manuscript.

BIBLIOGRAPHY

Auten Gerald and Gabriel Rudney. 1985. "Tax Policy and Its Impact on the High Income Giver." in *1985 Spring Research Forum Working Papers.* Washington: Independent Sector and United Way Institute, pp. 525-547.

Barthold, Thomas and Robert Plotnick. 1984. "Estate Taxation and Other Determinants of Charitable Bequests." *National Tax Journal* XXXVII: 225-237.

Bernheim, B. Douglas, Andrei Schleifer, and Lawrence H. Summers. 1984. *Bequests as a Means of Payment* NBER Working Paper Series # 1303. Cambridge, MA: National Bureau of Economic Research.

Boris, Elizabeth. 1987. "Creation and Growth: A Survey of Private Foundations."

Boskin, Michael. 1976. "Estate Taxation and Charitable Bequests." *Journal of Public Economies* 5:27-56.

Boulding, Kenneth E. 1962. "Notes on the Theory of Philanthropy." In *Philanthropy and Public Policy* edited by Frank G Dickinson. New York: National Bureau of Economic Research.

Clotfelter, Charles and Eugene Steuerle. 1981. "Char itable Contributions." In *How taxes Affect Economic Behavior,* Henry J. Aaron and Joseph A. Pechman, eds. Washington: The Brookings Institution.

Cushman, John Fairchild, Jr. 1979. *Charitable Giving and Philanthropic Foundations: An Economic Analysis.* Dissertation, University of Virginia.

Dye, Richard F. "Personal Charitable Contributions: Tax Effects and Other Motives." National Tax Association -- Tax Institute of America, Proceedings of the Seventieth Annual Conference, Columbus, OH, pp. 311-17.

Feldstein, Martin and Amy Taylor. 1976. "The income tax and Charitable Contributions." *Econometrica* 44: 1199-1216.

Feldstein, Martin and Charles Clotfelter. 1976. "Tax Incentives and Charitable Contributions in the United States: A Microeconomic Analysis." *Journal of Public Economics* 5: 1-26.

Fullerton, Don and Shira D. Goodman. 1982. "The Economic Recovery Tax Act of 1981 : Implications for Charitable Giving." *Tax Notes* 24: 1022-36.

Hochman, Harold M. and James P. Rodgers. 1977. "The Optimal Tax Treatment of Charitable Contributions." *National Tax Journal* XXX, No. 1: 1-18.

Lampman, Robert J. 1962. *The Share of Top Wealthholders in National Wealth, 1922-1956.* Princeton: Princeton University Press.

Lindsey, Lawrence B.1985 "Giving and Tax Cuts: Recent Experience." *Tax Notes.* 27: 1399-1402.

McNees, Stephen K. 1973. "Deductibility of Charitable Bequests." *National Tax Journal.* XXVI: 79-97.

Menchik, Paul L. and Martin David. 1983. "Income Distribution, Lifetime Savings, and Bequests." *American Economic Review* 83: 672-90.

Nelson, Ralph. 1977. "Private Giving in the American Economy." Research papers sponsored by the Commission on Private Philanthropy and Public Needs. Washington: U.S. Department of Treasury, pp. 115-34.

Salamon, Lester M. "Partners in Public Service: Toward a Theory of Government-Nonprofit Relations." In *Between the Public and Private: The Nonprofit sector,* edited by Walter Powell, forthcoming.

Schwartz, Marvin. 1983. "Trends in Personal Wealth, 1976-1981." *Statistics of Income Bulletin* 3:1-26.

Smith, James D and Stephen D. Franklin. 1974. "The Concentration of Personal Wealth, 1922-1969." *American Economic Review* 64: 162-67.

Steuerle, Eugene. 1985a. "Wealth, Realized Income and the Measure of Well-Being." In *Horizontal Equity, Uncertainty and Economic Well-Being* edited by Martin David and Timothy M. Smeeding. New York: National Bureau of Economic Research.

_____. 1985b. *Taxes, Loans and Inflation.* Washington: The Brookings Institution.

Taussig, Michael K. 1967. "Economic Aspects of the Personal Income Tax Treatment of Charitable Contributions" *National Tax Journal* 20, No. 1: 1-19.

U.S. Department of the Treasury, Internal Revenue Service. 1979. *Statistics of Income -- 1976 Estate Tax Returns.* Washington, DC: Government Printing Office.

Wagner, Richard E. 1977. "Death, Taxes and Charitable Bequests: A Survey of Issues and Options." Research papers sponsored by the Commission on Private Philanthropy and Public Needs. Washington: U.S. Dept. of the Treasury, 2337-2352.

Weisbrod, Burton A. and W. Lee Hansen. 1968. "An Income-Net Worth Approach to Measuring Economic Welfare." *American Economic Review* 70: 12-21.

Weisbrod, Burton A. and Stephen H. Long 1978 "The Size of the Voluntary Nonprofit Sector: Concepts and Measures." In Burton A. Weisbrod, *The Voluntary Nonprofit Sector: An Economic Analysis.* Lexington, MA: Lexington Books, pp. 11-49.

Editor's Note: This paper originally appeared in America's Wealthy and the Future of Foundations, Teresa Odendahl, Editor, The Foundation Center, 1987.

Charitable Bequests and Estate Taxes

by David Joulfaian, Ph.D

ABSTRACT

This paper examines the effects of the estate tax on charitable bequests using estate tax records for decedents in 1986 filed during the years 1986 through 1988. It focuses on the pattern of aggregate charitable bequests, bequests to six categories of charitable organizations, as well as the effect of the estate tax deduction on the number of categories of charitable bequests. The findings suggest that higher tax rates induce more giving and increase the number of categories of bequests. The results also indicate that the pattern of bequests is influenced by the terminal wealth and its composition, and by marital status, age, and gender.

I. Introduction

CHARITABLE bequests are an important source of philanthropic support. About 700 of the estates of decedents in 1986 alone, for instance, contributed over $175 million to the arts and humanities, or over one-half the combined budgets of the National Endowment for the Arts (NEA) and the National Endowment for the Humanities.[1] Despite their importance, relatively little attention has focused on the pattern and determinants of charitable bequests and the role of the estate tax.

The estate tax provides a deduction for charitable bequests. While there is some consensus regarding the effects of the personal income tax on charitable contributions[2], the evidence on the effects of the estate tax on charitable bequests is scant and mixed. There are three major questions that need to be addressed. First, what is the impact of the estate tax on the level of giving? Given that the Federal government provides a tax subsidy of over $1.5 billion in the form of an estate tax deduction for charitable bequests,[3] it is important to evaluate whether the deduction induces additional giving. Second, how does the tax affect the pattern of giving to different types of charitable organizations? Finally, how does the tax system affect the number of categories of charitable bequests? This last question is particularly important in light of the striking empirical fact documented below that most bequests involve at most one or two types of organizations.

In this paper I analyze recent patterns of charitable bequests with an emphasis on its determinants and the observed incompleteness in giving. I focus on the estates of decedents in 1986 while the most recent studies focused on decedents in 1976 (Clotfelter 1985, p. 241) and Connecticut decedents in the 1930s and 1940s (Barthold and Plotnick 1984). Furthermore, I study the pattern of six categories of bequests. These include bequests to (1) the arts and humanities, (2) religious, (3) education, medical, and scientific research, (4) social welfare, (5) foundations, and (6) other types of donees. I also evaluate the effects of the estate tax on the number of categories of bequests.

The results support the view that the estate tax deduction stimulates charitable bequests. All categories of charitable bequests are found to be responsive to the estate tax. However, the results suggest that bequests to the arts and humanities, social welfare, and foundations are the least price responsive. Furthermore, the estate tax deduction also reduces the incompleteness in bequests in that the number of donees rises as the tax price declines. In addition, the results also show that bequests rise with wealth and age, and that women bequeath more than men.

II. Estate Tax and Other Determinants of Bequests

In a model of lifetime utility maximization, an individual's utility, with appropriate discounting, is determined by his

*Office of Tax Analysis, U.S. Department of the Treasury, Washington, DC 20220.

own lifetime consumption (C_L), the consumption or endowment of relatives and heirs (C_H) which is determined by gifts (G) and inheritances (B) from parents, and the own-endowment of such relatives (W_H)[4], charitable contributions (CC), and charitable bequests (CB).[5]

The parent's lifetime preferences can be presented by the following utility function:

$$U(C_L, C_H, CC, CB). \quad (1)$$

The individual faces a budget constraint which requires that the sum of consumption, gifts (G) and bequests to relatives (B), and charitable contributions and bequests not exceed the individual's lifetime wealth (W), or

$$P_L C_L + P_G G + P_B B + P_{CC} CC + P_{CB} CB \leq W. \quad (2)$$

The individual selects the amounts of consumption and transfers to relatives and charity by maximizing (1) subject to (2) and the heirs' budget constraint:

$$C_H \leq W_H + G + B. \quad (3)$$

Solving for the first-order conditions and invoking the implicit-function theorem yields the following equation for charitable bequests:[6]

$$CB = CB(P_L, P_G, P_B, P_{CC}, P_{CB}, W, W_H). \quad (4)$$

Given income tax rate t and estate and gift (unified transfer) tax rate e, and after setting the price of consumption to 1, the price variables are:

$$P_L = 1$$

$$P_G = 1 + e$$

$$P_B = (1 + \pi)[(1 - e)(1 + i)]^{-1}$$

$$P_{CC} = 1 - t$$

$$P_{CB} = (1 + \pi)(1 + i)^{-1}$$

where π is the inflation rate defined as $(1 + p)^L - 1$, i is the interest rate also defined as $(1 + r)^L - 1$, with p and r being the annual inflation and discount rates respectively, and L is life expectancy. Note that the above formulation and prices are similar to those in Boskin (1976) except for the price of lifetime gifts (P_G).[7]

In principle it would be desirable to estimate (4) with all the appropriate right-hand-side variables. However, our data do not capture all of the explanatory variables. Consequently, the demand function (4) for charitable bequests would have to be reduced to the form

$$CB = f(P_{CB}, W) \quad (5)$$

where P_{CB} is the price of charitable bequests defined as 1 − e with the price of gifts at death (P_B) normalized at 1, and W is "bequeathable" wealth held at death. The implications of (5) are somewhat different from those of (4) since the focus is on how one allocates terminal and not lifetime wealth between bequests to family and charitable bequests.

Four previous econometric studies have attempted to estimate (5) and gauge the effect of the estate tax. McNees (1973), using the Internal Revenue Service 1957–59 estate tax file for decedents with gross estate over $60,000, found taxes to be a significant factor determinant of bequests. McNees used ordinary least squares in evaluating the determinants of bequests and the tax rate (not price) was used as a right-hand-side variable. Furthermore, all returns showing no bequests were dropped from the sample used to estimate the parameters.

Using the same data as in McNees, Boskin (1976) estimated Tobit regressions of contributions. Using a linear functional form, Boskin found an elasticity of giving with respect to the tax price of −1.2, calculated at the mean. Boskin also studied the pattern of giving using 1969 estate tax data and reported a price elasticity of −2.0. When Boskin distinguished bequests by type of donee on the 1957–1959 file, the price elasticity ranged from −0.7 to −2.0 for bequests to religious, education-scientific, and health and social welfare organizations, and −1.8 to −5.2 for other categories. The wealth

elasticity ranged from 0.2 to 0.7 depending on the type of donee. Wealth was defined as the adjusted disposable estate.

Using a pooled sample of grouped data available by estate class for the period 1948 to 1963, Feldstein (1977) reported great variance in the estimated elasticities, which ranged from −4.0 to −0.1. Wealth was measured in terms of gross estate before debts and other offsets. Recently, Barthold and Plotnick (1984) analyzed Connecticut probate records for decedents during the 1930s and 1940s. They estimated Tobit regressions in logarithmic specification. Their findings challenged the conventional view in that they found the estate tax price to have no significant effect on charitable bequests. Gross estate or total assets were used as a measure of wealth and the tax rate reflected both federal and state tax laws.

In the latest study, Clotfelter (1985, p. 241) used 1976 estate tax return data for decedents with gross estates over $60,000 but limited to net estates over $5,000. Using logarithmic specification, he reported an elasticity with respect to the tax rate of −2.79 and −1.67, and with respect to the size of wealth of 0.18 and 0.42, depending on the definition of wealth. The results also show that charitable bequests rise with the age of the decedent and that they are greatest for the never-married single, followed by separated and divorced, and widowed, respectively. Clotfelter also studied the determinants of giving using different population strata and specifications.

This paper complements the existing literature and overcomes some of its limitations in several ways. First, it uses recent data on bequest patterns (1986), which are more relevant to tax policy. Second, and for the first time ever, the paper employs combined data from estate tax returns (Form 706) and returns filed by life insurance companies (Form 712) for decedents, which provide broader measures of bequeathable wealth. This is especially true when compared to wealth from probate records, which may understate wealth reported on tax returns by over 25 percent (mainly Schedule G and Form 712 information). Third, the data employed provide greater detail on categories of bequests and allow for the study of the tax effects on the level of giving to individual categories and the number of categories as well.

III. Data Sources and Construction of Variables

A. Data

This paper uses data on decedents in 1986 provided by the Statistics of Income Division of the Internal Revenue Service. The data for 1986 decedents are compiled by combining three random samples of estate tax returns (Form 706) filed during the years 1986 to 1988. The samples for each of the three years are stratified by size of estate, age, and whether the individual died in 1986.[8]

The data contain information on 12 categories of assets held at death and lifetime transfers, debts, funeral expenses, attorney fees and executor commissions, life insurance policy loans, and other estate administration expenses, among others. It also includes information on jointly-owned property, community property, and life insurance owned by others and excluded from the estate,[9] among others. All assets are reported, regardless of whether they were held directly, in trusts, or subject to a power of attorney. Demographic information is also available on the file. These include age, marital status, sex, state residency, date of death of spouse for widowed decedents, among others.

The individuals in this sample, after adjusting for inflation, are somewhat wealthier than those with gross estates over $60,000 studied in Boskin (1976) and Clotfelter (1985, p. 241), but comparable to those in Barthold and Plotnick (1984). Only estates with assets over $500,000 were required to file in 1986. Few returns below this threshold were filed. Since the Paperwork Reduction Act does not require complete reporting of information on such returns, they were dropped from the sample. Other returns dropped are those with unknown age or those age 30 or under (mostly minors). I also dropped

those with bequeathable wealth under $5,000, as well as those who bequeathed their entire estate to charity (about 50 estates). The resulting sample consists of 13,492 returns, or 218 less than the original sample of 13,710 returns.[10]

B. Tax Price

The price per dollar of charitable bequest is defined as one minus the marginal tax rate. The marginal tax rate is constructed as follows. For each estate, the tax liability is computed using 1986 tax law. First, the total estate tax liability is computed in the absence of charitable bequests. Second, $1,000 in charitable bequests are assumed for all estates, and the estate tax liability is recalculated. Next, the marginal rate is computed as the change in tax liability divided by 1000. This procedure, which is consistent with that followed in earlier papers (see McNees 1973, Boskin 1976, and Clotfelter 1985, p. 241) leads to an exogenous tax price variable. State and local taxes are ignored.[11]

The estate tax Code effective in 1986 is drastically different from provisions effective during the years studied by Clotfelter, Boskin, and McNees, as well as Barthold and Plotnick. First, the 1976 Act, effective for decedents dying after 1976, unified the estate and gift taxes. As a result, all lifetime gifts—directly or through trusts—are aggregated with taxable estate to determine a tentative estate tax. The tentative estate tax is computed using a unified tax rate schedule, and a credit is provided for any gift taxes on the lifetime transfers.

Second, the 1981 Act reduced the maximum tax rate from 70 percent to 55 percent. It raised the exemption level to $500,000 in 1986 ($600,000 in 1987 and thereafter) from $60,000 in 1976. Third, after 1976, certain real property used in a farm or other trade or business can be valued based on its actual use rather than the market value. The value of a farm based on its crop yield can be considerably lower than its market value based on development potential. The valuation difference, however, is limited to $750,000.

Fourth, the 1981 Act provided for a marital deduction equal to the spousal bequest—also referred to as the unlimited marital deduction. Under previous law, the deduction for such bequests was limited to the greater of one-half of the adjusted gross estate or $250,000. For such returns, spousal bequests were assumed to remain unaltered in computing the tax liability in the absence of charitable bequests. Implicitly, this treatment assumes that such transfers would be taxed at the spouse's death in any event (see Clotfelter 1985, p. 249). Fifth, the 1984 Act repealed the $100,000 exclusion for the value of interests under qualified and individual retirement (IRAs) plans.[12]

C. Categories of Bequests

In previous research, Boskin (1976) and Barthold and Plotnick (1984) studied the determinants of giving to four categories of beneficiaries. These included bequests to (1) religious, (2) education-scientific, (3) health and social welfare, and (4) other organizations. In this paper six categories of giving are studied: (1) arts and humanities, (2) religious, (3) education, medical, and scientific, (4) social welfare, (5) foundations, and (6) other categories of bequests. The breakdown into these categories provides greater insights into patterns of giving and also reduces aggregation bias.

In select instances, the sum of the bequests or the gross contributions may exceed the actual deduction. This situation arises when a non-profit organization assumes the estate tax liability of the decedent. When an individual bequeaths a fraction of his estate to charity with the stipulation that the non-profit organization assume the estate tax liability, the actual (net) charitable bequests (gross bequest less estate tax) will fall short of the gross bequest. As a result, and when appropriate, the six categories of bequests are scaled down in order to sum to the net contribution or actual deduction.

D. Wealth Measure

Wealth is defined as the adjusted disposable estate. In many ways, this is

identical to Clotfelter's (1985, p. 241) definition of net estate, defined as total assets less debts, estate expenses, and the tax liability in the absence of bequests. Two categories of lifetime transfers are recognized in defining wealth. The first includes transfers with certain retained interests or powers (revocable trusts and others). These transfers are treated as part of the decedent's estate, although such assets are not part of the "probate" estate.[13] The second category of transfers generally includes outright gifts such as irrevocable trusts or direct gifts and are not included in the decedent's estate. It should be noted that lifetime transfers can be essential to the computation of tax liability under the current unified transfer tax structure.[14] Our measure of wealth is also defined to include proceeds from life insurance policies not owned by the decedent and not included in the gross estate (reported on Form 712 by insurance companies). It is not unusual for a person to pay the premiums on policies owned by the spouse, children, or trusts formed to their benefit.

Table 1 provides a summary of selected statistics for all observations in the sample as well as those with charitable bequests. The average disposable wealth of decedents is about $1.9 million. About 31 percent are widowed and slightly over 50 percent are married. Almost 10 percent are age 90 or over, and those in their 80s, 70s, and 60s each make up 20 percent of the sample. The average charitable bequest is about $190,000. The average is greatest for foundations and lowest for social welfare organizations and the arts and humanities. The average number of categories of bequests is 0.341. Individuals in this sample face a first-dollar tax price of 0.75. The second column in Table 1 provides mean statistics conditional on giving. It shows that an individual with charitable bequests is on average wealthier, older, is female, and faces a lower tax price with a mean of 1.8 categories of bequests.

IV. Empirical Estimates of Bequests

Fewer than 20 percent of the individuals in the sample made bequests to charity. In the case of certain categories of bequests, fewer than two percent gave anything (arts and humanities). Hence, limited dependent variable methods are appropriate. Following standard practice, it is assumed that the observed bequest, Y, takes the form:

$$Y = \beta_i' x_i + u_i \quad | \text{ if } \beta_i' x_i + u_i > 0 \qquad (6)$$

$$= 0 \quad | \text{ if } \beta_i' x_i + u_i \leq 0 \qquad (6')$$

where x_i represents explanatory variables with β_i' coefficients, and u_i is a censored normally distributed error term. Given these assumptions, (6) can be estimated using the Tobit model. This is done for total bequests as well as bequests to six categories of donees.

The dependent variable is defined as the natural logarithm of bequests (plus 1). The right-hand-side variables x_i include the log of wealth, dichotomous variables for marital status, age, and gender, as well as the log of the tax price (1 minus the tax rate). While other variables such as the income of survivors (see Becker and Tomes 1979, p. 1156) and their relationship to the decedent, religious affiliation, education, and occupation among others, may significantly influence the amount of giving, the SOI data do not contain such variables for all filers.[15] Conceivably, age and marital status may act as proxy for the number of survivors, while additional variables used, such as the shares of life insurance and family businesses (non-corporate business and farms) in "bequeathable" wealth, along with the demographic variables, may capture the endowments or the dependence of the survivor on the decedent's lifetime income, especially in the case of the spouse.

Table 2 presents the estimates from Tobit regressions. It reports the regression coefficients and their respective t-tests as well as other relevant statistics at the bottom of each table. The following is a summary of the results:

Wealth: As measured by the disposable estate, wealth has positive effects on total bequests. Wealth also influences bequests to the arts and humanities, education-scientific organizations, social welfare or-

TABLE 1
SUMMARY STATISTICS FOR SAMPLE OF ESTATE TAX RETURNS

Item	Mean	Conditional Mean
Wealth	1905900	2582600
ln Wealth	14.018	14.220
Widow	0.305	0.514
Single	0.072	0.148
Separated	0.002	0.002
Divorced	0.051	0.045
Age over 90	0.095	0.217
Age 80 to 90	0.239	0.390
Age 70 to 80	0.207	0.221
Age 60 to 70	0.216	0.103
Sex (male)	0.639	0.486
Insurance Share of Wealth	0.094	0.027
Business Share of wealth	0.056	0.030
First-dollar Price	0.748	0.584
Last-dollar Price	0.767	0.680
ln First-dollar Price	-0.333	-0.559
ln Last-dollar Price	-0.307	-0.429
Bequests:		
Total	189910	1003200
Arts & Humanities	10876	57456
Religious	15127	79914
Research	45804	241970
Social Welfare	9316	49214
Foundations	76436	403790
Other	32347	170880
ln (Bequests):		
Total	2.078	10.975
Arts & Humanities	0.197	1.039
Religious	0.991	5.236
Research	1.101	5.817
Social Welfare	0.294	1.551
Foundations	0.317	1.676
Other	0.602	3.179
Number of Categories	0.341	1.800

ganizations, foundations, and other categories of giving. Interestingly, wealth does not significantly influence bequests to religious organizations but greatly influences giving to education-scientific organizations followed by foundations and other categories. The elasticity of bequests with respect to wealth is 0.23, toward the lower end of the 0.18 to 0.42 range reported in Clotfelter (1985, Table 6.9). It is lower than the 0.4 estimate in Barthold and Plotnick as well as Boskin's estimates of 0.52 to 1.1 using 1957–59 data and 0.4 using 1969 data.[16]

Marital Status: Consistent with previous findings, single decedents leave larger bequests to charity than their married counterparts. In the case of social welfare, divorced and separated decedents are also found to leave greater bequests to charity. The bequests of widowed decedents are about the same as those of married decedents. The expected bequests of single decedents exceed those of married decedents by a factor of 2.3. The expected bequests of separated and divorced decedents are about the same as those of married individuals, except for giving to other categories.[17] Generally, these results are consistent with those in Clotfelter (1985), partially consistent with those in Barthold and Plotnick (1984), and different from those in Boskin (1976).

Age: Again consistent with the existing

literature, charitable bequests rise with age. Those in their 90s gave 40 percent more than those in their 80s; those in their 80s gave 36 percent more than those in their 70s; and those in their 70s gave 76 percent more than those in their 60s.[18] These results are consistent with those in Clotfelter (1985). Boskin (1976) reported that those under the age of 65 contributed less to charity, while Barthold and Plotnick (1984) failed to find a significant relationship.

Sex: Women bequeath more to charity than men.[19] This is true for total bequests as well as bequests to individual categories. An exception is bequests to foundations, where sex is found to be insignificant. The expected total bequests of male decedents are about 17 percent below those of female decedents. This result is similar to that in Clotfelter (1985) but different from that in Barthold and Plotnick (1984). Boskin (1976, p. 39) found that sex was not an important determinant of bequest behavior.

Price: The coefficient on the price variable is negative and significant in all the regressions. The elasticity for total bequests is estimated at −3.00, slightly larger (in absolute value) than that of −2.79 in Clotfelter (1985). For the various categories of bequests, I find giving to the arts and humanities, social welfare, and foundations to be the least price sensitive.[20] Overall, these results confirm the earlier findings in McNees (1973), Boskin (1976), and Clotfelter (1985) on the tax-induced effects of bequests, and contradict the findings in Barthold and Plotnick (1984). The findings on foundations also contradict the conjecture of a high elasticity in Boskin (1976, p. 44)[21] The 1969 Act, of course, changed the tax treatment of foundations, which could explain some of the difference.

Other variables: The expected bequest declines with the life insurance and family business shares of wealth. Insurance policies are purchased to provide for the well-being of the surviving spouse and other heirs, and, as such, the greater the relative proceeds from life insurance policies the smaller is the charitable bequest. Similarly, individuals with family businesses and farms have a strong affinity to keep such entities within the family and, as a result, leave less to charity.

V. Bequest Incompleteness

Undoubtedly, the congressional intent for allowing a deduction for charitable bequests, coupled with the tax-exempt status of recipient organizations, is to promote giving to all such entities. Yet, our data show a lack of diversification in the categories of bequests. Of the 13,492 estates in our sample, 2,554 estates had bequests. Of these, 1,307 reported one category of beneficiary, 693 reported two categories, 365 reported three categories, 142 reported four categories, 41 reported five categories, and 6 reported six or more categories.

This section focuses on the observed incompleteness of giving (or lack of diversity in bequests). The data show that most bequests benefit at most one or two categories of charitable organizations. This is not only puzzling but has interesting implications given congressional intent. The central issue that needs to be addressed is whether the number of categories of bequests is responsive to the tax price and the deductibility of charitable bequests. Another issue, of course, is why there is so little diversification to begin with, and why altruism is limited to one or two types of charities.

The only study to come close to addressing this issue is Barthold and Plotnick (1984) based on probate data from the 1930s and 1940s for Connecticut decedents. They presented a model of "categorical choice" (pp. 231–233) and estimated multinomial logit equations for five groups giving to zero, one, two, three, or four categories of bequests. Barthold and Plotnick's results (Table 5) indicate that while the estate tax and size of estate may increase the odds of giving, the tax price and wealth are not significant determinants of the number of categories of bequests.

To address determinants of the number of categories of bequest and validate the

TABLE 2
TOBIT ESTIMATES OF CHARITABLE BEQUESTS
DEPENDENT VARIABLE = ln (1 + BEQUESTS)

	Total	Arts and Humanities	Religious	Ed., Med. Research	Social Welfare	Foundations	Other
Constant	-48.405 *	-122.292 *	-27.321 *	-59.646 *	-85.951 *	-157.842 *	-78.563 *
	12.557	8.893	5.129	10.318	7.596	11.848	9.773
ln Wealth	1.610 *	4.541 *	-0.412	1.735 *	1.972 *	6.296 *	2.259 *
	5.870	5.020	1.075	4.245	2.562	7.394	4.045
Widow	0.897	-0.567	0.739	0.894	1.317	0.603	1.930
	1.649	0.305	1.015	1.106	0.863	0.341	1.743
Single	8.507 *	12.395 *	6.804 *	8.789 *	11.103 *	11.778 *	9.004 *
	12.473	5.709	7.475	8.828	5.967	5.438	6.569
Divorced	0.809	0.343	0.054	0.125	4.279	5.323	4.118 *
	0.929	0.111	0.045	0.095	1.749	1.917	2.405
Age Over 90	11.246 *	8.387 *	12.873 *	10.158 *	16.339 *	13.778 *	12.362 *
	14.372	3.113	11.649	8.830	6.128	4.927	7.386
Age 80 to 90	8.703 *	6.832 *	10.617 *	7.564 *	14.227 *	11.634 *	10.177 *
	12.485	2.743	10.554	7.321	5.645	4.518	6.600
Age 70 to 80	6.511 *	3.407	8.059 *	5.325 *	10.885 *	7.107 *	6.671 *
	9.305	1.332	8.009	5.110	4.292	2.721	4.274
Age 60 to 70	2.460 *	1.310	3.035 *	1.342	5.997 *	2.280	3.261 *
	3.485	0.489	2.956	1.257	2.290	0.834	2.038
Sex	-1.292 *	-5.794 *	-1.301 *	-1.938 *	-2.324 *	-0.753	-1.629 *
	3.261	4.245	2.496	3.307	2.150	0.573	2.075
Insurance	-5.023 *	-14.197	-7.361 *	-4.354	-22.808 *	-5.626	-12.608 *
	2.998	1.611	2.766	1.763	2.347	0.825	2.677
Business	-4.349 *	-13.548 *	-4.827 *	-8.270 *	-6.428	-1.858	-6.490 *
	3.308	2.225	2.557	3.742	1.552	0.486	2.253
ln Price	-21.416 *	-27.143 *	-17.881 *	-23.009 *	-21.256 *	-30.933 *	-23.371 *
	20.791	6.467	12.560	14.420	6.516	8.002	10.235
Sigma	13.275 *	20.832 *	14.881 *	16.544 *	20.048 *	23.035 *	18.404 *
	59.194	17.806	42.345	42.123	21.903	20.929	31.125
Log-Likelihood	-13368	-1942	-8185	-8224	-2818	-2594	-5111
Z	-1.08	-2.46	-1.49	-1.49	-2.26	-2.30	-1.88
F(Z)	0.1401	0.0069	0.0681	0.0681	0.0119	0.0107	0.0301
Observations	13492	13492	13492	13492	13492	13492	13492
Number Positive	2554	267	1401	1383	401	364	781

* Significant at least at the 5% level. Absolute t-statistics are reported below coefficients.

Elasticities:							
Wealth	0.23	0.03	-0.03	0.12	0.02	0.07	0.07
Price	-3.00	-0.19	-1.22	-1.57	-0.25	-0.33	-0.70
Ratios:							
Widow	13.4%	-0.4%	5.2%	6.3%	1.6%	0.6%	6.0%
Single	229.3%	8.9%	58.9%	81.9%	14.1%	13.4%	31.1%
Divorced	12.0%	0.2%	0.4%	0.9%	5.2%	5.9%	13.2%
Age 90 over 80	42.8%	1.1%	16.6%	19.3%	2.5%	2.3%	6.8%
Age 80 over 70	35.9%	2.4%	19.0%	16.5%	4.1%	5.0%	11.1%
Age 70 over 60	76.4%	1.5%	40.8%	31.2%	6.0%	5.3%	10.8%
Sex	-16.6%	-3.9%	-8.5%	-12.4%	-2.7%	-0.8%	-4.8%

congressional intent, I estimate a multinomial logit model. Since seven outcomes are possible, the bivariate logit model, of course, is not appropriate. Table 3 provides results from multinomial logit regressions on the number of categories of giving. The number of donees ranges from one to six or more, with the coefficients for no bequests set to zero. The results show that the tax price variable is highly significant and has a negative sign consistent with the Tobit results earlier. Furthermore, the coefficient on the price increases in absolute value as one moves from column 1 to column 6 of Table 3. Apparently, the estate tax by inducing bequests also leads to an increase in the number of donees. Generally, and consistent with the Tobit results above, the number also rises with wealth and age as evident from the size and sign of their respective coefficients. Furthermore, women (up to four categories) as well as single (up to five categories) individuals seem to give to a larger number of donees.

A reasonable alternative to the multinomial logit model is to apply econometric methods associated with count data such as the Poisson model. Here, the dependent variables Y_1 through Y_7, with

TABLE 3
DETERMINANTS OF THE NUMBER OF CATEGORIES OF CHARITABLE BEQUESTS

	Multinomial Logit Model						
	Number of Categories						Poisson
	1	2	3	4	5	6	Model
Constant	-5.146 *	-7.410 *	-10.825 *	-13.536 *	-35.378	-29.505	-4.579 *
	7.349	7.723	8.972	6.770	0.006	0.006	13.731
ln Wealth	0.070	0.147 *	0.337 *	0.414 *	0.517 *	0.076	0.096 *
	1.374	2.095	3.876	2.797	2.070	0.104	3.948
Widow	-0.031	0.225	0.131	0.142	0.301	-1.112	0.077
	0.317	1.675	0.727	0.471	0.571	0.969	1.601
Single	0.890 *	1.329 *	1.301 *	1.943 *	2.301 *	0.806	0.815 *
	7.400	8.356	6.005	5.921	4.127	0.580	14.696
Divorced	-0.192	0.409 *	0.218	0.466	0.735	-17.589	0.143
	1.163	1.974	0.701	0.983	0.859	0.002	1.784
Age Over 90	1.517 *	1.835 *	2.540 *	2.321 *	20.192	17.896	1.478 *
	11.379	9.653	8.636	4.640	0.003	0.003	20.246
Age 80 to 90	1.130 *	1.617 *	1.877 *	2.224 *	19.991	17.026	1.294 *
	9.441	9.261	6.581	4.635	0.003	0.003	18.728
Age 70 to 80	1.017 *	1.063 *	1.574 *	1.179 *	19.489	17.257	1.004 *
	8.400	5.780	5.408	2.285	0.003	0.003	14.054
Age 60 to 70	0.444 *	0.488 *	0.372	0.831	18.178	-0.249	0.434 *
	3.419	2.454	1.088	1.524	0.003	0.000	5.499
Sex	-0.141 *	-0.147	-0.444 *	-0.898 *	-0.296	-1.130	-0.215 *
	2.024	1.611	3.552	4.403	0.840	1.153	6.475
ln Price	-2.913 *	-2.998 *	-2.803 *	-3.847 *	-5.179 *	-9.135	-2.482 *
	15.298	10.480	7.338	5.081	3.332	1.920	23.675
Log-Likelihood	-8203						-9066
Observations	13492						13492
Number Positive	1307	693	365	142	41	6	2554

* Significant at least at the 5% level. Absolute t-statistics are reported below coefficients.

values ranging from 0 through 6 types of donees, are assumed to have independent Poisson distributions with parameters λ_1 through λ_7. The probability of Y_i equal to some value j, is given in (7):

$$Prob(Y_i = j) = e^{-\lambda i} \cdot \lambda_i^j / j! \quad (7)$$

Further assuming that the lambda's are log-linearly dependent on x_i, the right-hand-side variables, then

$$ln\ \lambda_i = \beta_0 + \Sigma \beta_i x_i. \quad (8)$$

The results from this Poisson regression reported in Table 3 are qualitatively similar to those obtained from the multinomial logit. The number of categories of bequests rises with wealth and declines with price. The elasticity of the expected number of categories is 0.1 with respect to wealth and about −2.5 with respect to price. The expected number is also higher for single as well as female individuals, and rises with age. Similar results were obtained when censored Poisson and binomial regressions were estimated (not reported).

Both the multinomial logit and the poisson models provide evidence on the effects of the estate tax price on diversity in bequests. The coefficients in the logit model are significant except for the number of donees being equal to six or more (only 6 such cases exist). Similarly, the tax price coefficient from the Poisson model again suggests that the estate tax deduction reduces the degree of incompleteness in giving and leads to greater diversity in bequests.

VI. Conclusion

This paper examined the role of the estate tax in influencing the amount as well as the diversification of charitable bequests for wealthy individuals. It used estate tax data for decedents in 1986 with returns filed during the years 1986 through 1988. It studied the determinants of bequests in the aggregate as well as by type of donee. The paper also addressed the effects of the estate tax on the diversity of charitable bequests.

The results suggest that higher estate tax rates raise the size of charitable bequests of all categories. Furthermore, results from multinomial logit and Poisson models indicate the estate tax and the deductibility of bequests lead to a diversification in giving. These indicate that the tax price is a significant determinant of the number of categories of bequests.

ENDNOTES

**I am grateful to Harvey Rosen, Paul Menchik, Daniel Feenberg, Gene Steuerle, Lowell Dworin, Bill Randolph, Robert Gillette, Gerald Auten, Thomas Barthold, Robert Weaver, and participants in the Tax Economist Forum for helpful comments and useful discussions. Comments from two referees were also helpful. The views expressed are those of the author and do not necessarily reflect those of the Department of the Treasury.

[1]See Johnson (1990, p. 56), Office of Management and Budget (1987, I-Z73-77) and U.S. Department of Commerce (1988, p. 225).

[2]See Clotfelter (1985, Table 2.12) and Fullerton (1990, p. 18–22) for a review of the literature.

[3]See Office of Management and Budget (1991, A-75).

[4]See Becker and Tomes (1976 and 1979). Also see Kotlikoff (1988, p. 53).

[5]His utility may also be determined by donations by others (R) as well government spending (G). See Kingma (1989) for a review of the literature on the crowding-out effect of government spending, the effect of donations by others, and the various models of giving. It should be noted that since a portion of government spending is in the form of matching grants, G may operate through the price of giving as well.

[6]Both W and W_H are held constant. Estate taxes, however, may affect the labor supply behavior of both parents and children.

[7]Since the gift tax is exclusive, the proper price should be 1 + e and not 1/(1 − e) as in Boskin. Consider a parent with e = 0.50 making a gift of $1.00 to his daughter. In this case the tax is $0.50 and is paid by the parent. The daughter receives $1.00 and Treasury receives $0.50. The total transfer is actually $1.50, but the tax is based on $1.00, in sharp contrast to the way tax liability is computed under the income and estate taxes. In this example, the price of a $1.00 gift is $1.50 and not $2.00 as it would be under Boskin's measure. Another potential adjustment may capture the differential in the income tax rates between parent and children subjected to income streams from gifted assets. See Bernheim (1987). A further adjustment may involve the tax treatment of capital gains, since step-up in basis is provided for bequeathed property but denied for liftetime transfers.

[8]See Johnson (1990) for further detail.

[9]Life insurance proceeds excluded from estate are obtained from Form 712 reported by insurance companies to the IRS.

[10]Note that the empirical results presented below are robust with respect to these deletions.

[11]Unlike the income tax, the federal estate tax provides dollar-for-dollar credit for state death taxes and smooths out (eliminates in most cases) cross-state differences in tax burdens. In any event, computing state tax liabilities is an extremely difficult task. For states with a "pick-up" tax only, the computation is straightforward and essentially redundant. For the remaining states, however, one does not only have to consider the diverse tax treatment of wealth transfers but also has to identify the location of the property. The state tax liability reflects the size of wealth, the relationship to heirs (in case of inheritance taxes), and the state in which the property is located and whether it is tangible or intangible, since states tax property located within their borders. It should be noted that 24 states and the District of Columbia have a "pick-up" tax only, 7 have estate and "pick-up" taxes, and 19 have inheritance and "pick-up" taxes (or allowable federal credit for state death taxes). See Advisory Commission on Intergovernmental Relations (1988). For the less wealthy, especially those not required to file federal tax returns, state taxes may influence bequest behavior since the federal tax credit may not be available.

[12]Interestingly, this treatment is ignored in studies investigating the determinants of IRA contributions and effects on savings. See Skinner and Feenberg (1990) for a review of the literature.

[13] Aside from excluding certain assets such as those in trusts, probate data also suffer from valuation deficiencies necessary to computing estate tax liabilities.

[14]If the unified credit is fully used in reducing an individual's gift taxes, then wealth held at death will not benefit from the exemption.

[15]Select information on heirs is available for estates with assets of $5 million or more.

[16]Elasticity coefficients are estimated as F(z)*b, where F(z) computed as $\Sigma B_i X_i/\text{Sigma}$ is the cumulative normal distribution representing the probability of observing a bequest > 0, b is the Tobit regression coefficient for the right-hand-side variable of interest, B_i represents each of the reported coefficients, and each X_i is the value of the right-hand-side variables at the mean. See McDonald and Moffitt (1980).

[17]These ratios are reported at the bottom of Table 2 and are computed as $e^{F(z)b}$.

[18]These ratios are computed as $e^{F(z)(b_i - b_{i-1})}$, where i is an age class and i − 1 is the previous (younger) class.

[19]A possible explanation for this outcome is that women on average have fewer (dependent) heirs since they tend to outlive their spouses.

[20]Since the regressions are specified in nonlinear form, the elasticities from the separate regressions cannot be aggregated to the total. We have explored the estimation of a system of demand equations for the six categories (the 7th missing equation is bequests to heirs) to constrain the regressions. Such endeavor has proven very difficult given the number of categories and the severe censoring nature of the data (see Deaton 1986, p. 1808, for instance). When we used a linear specification, the following price elasticities for total bequests and the six separate categories were obtained:

$$-0.70 - 0.49 \; -1.22 \; -1.18 \; -0.61 \; -0.26 \; -0.80$$

where the elasticity coefficients of the separate categories roughly aggregate to that of the total. Note that the wealth elasticity under the linear specification, though significant, is about 0.02. Also see Clotfelter (1985, p. 245). Results from semi-log specified regressions were not dramatically different from those reported in Table 2.

[21]Bequests to foundations were combined with "other" bequests in the 1957–1959 data used in Boskin (1976). The finding of a high elasticity (−1.8 to −5.20) for the "other" category was implicitly attributed to private foundations.

REFERENCES

Advisory Commission on Intergovernmental Relations (1987). *Significant Features of Fiscal Federalism,* 1988 Edition, Volume 1, Washington, D.C. 20575.

Barthold, Thomas, and Robert Plotnick (1984). "Estate Taxation and Other Determinants of Charitable Bequests," *National Tax Journal* 37, 225–37.

Becker, Gary S. and Nigel Tomes (1976). "Child Endowments and the Quantity and Quality of Children," *Journal of Political Economy* 84, 143–162.

Becker, Gary S. and Nigel Tomes (1979). "An Equilibrium Theory of the Distribution of Income and Intergenerational Mobility," *Journal of Political Economy* 87, 1153–89.

Bernheim, B. Douglas (1987). "Does the Estate Tax Raise Revenue?" in L. Summers, ed., *Tax Policy and the Economy* 1, Cambridge, MIT Press.

Boskin, Michael J. (1976). "Estate Taxation and Charitable Bequest," *Journal of Public Economics* 5, 27–56.

Clotfelter, Charles T. (1985). *Federal Tax Policy and Charitable Giving,* University of Chicago Press.

Deaton, Angus (1986). "Demand Analysis," in Zvi Griliches and Michael D. Intriligator, eds., *Handbook of Econometrics,* Volume III, North Holland.

Feldstein, Martin (1977), "Charitable Bequests, Estate Taxation, and Intergenerational Wealth Transfers," in *Research Papers,* sponsored by the Commission on Private Philanthropy and Public Needs, vol. III, Special Behavioral Studies, Foundations and Corporations, U.S. Department of the Treasury, 1485–1500.

Fullerton, Don (1990). "Tax Policy Toward Art Museums." National Bureau of Economic Research, Working Paper No. 3379, Cambridge, Massachusetts.

Johnson, Barry (1990). "Estate Tax Returns, 1986–88," *SOI Bulletin,* Spring, Department of the Treasury, Internal Revenue Service, U.S. Government Printing Office, Washington, D.C. 20402.

Kingma, Bruce Robert (1989). "An Accurate Measurement of the Crowd-Out Effect, Income Effect, and Price Effect for Charitable Contributions," *Journal of Political Economy* 97, 1197–1205.

Kotlikoff, Laurence J. (1988). "Intergenerational Transfers and Savings," *Journal of Economic Perspectives* 2, 41–58.

McDonald, John F. and Robert A. Moffitt (1980). "The Uses of Tobit Analysis," *The Review of Economics and Statistics* 62, 318–21.

McNees, Stephen K. (1973). "Deductibility of Charitable Bequests," *National Tax Journal* 26, 79–98.

Office of Management and Budget (1987). *Budget of the United States Government, Fiscal Year 1987,* Appendix, U.S. Government Printing Office, Washington, D.C. 20402.

Office of Management and Budget (1991). *Budget of the United States Government, Fiscal Year 1991,* U.S. Government Printing Office, Washington, D.C. 20402.

Skinner, Jonathan and Daniel Feenberg (1990). "The Impact of the 1986 Tax Reform Act on Personal Saving." National Bureau of Economic Research, Working Paper 3257, Cambridge, Massachusetts.

U.S. Department of Commerce, Bureau of the Census (1988). *Statistical Abstract of the United States,* U.S. Government Printing Office, Washington, D.C. 20402.

Editor's Note: This paper originally appeared in the National Tax Journal, June 1991.

Factors Affecting Charitable Giving: Inferences From Estate Tax Returns, 1986

by Barry W. Johnson and Jeffrey P. Rosenfeld, Ph.D

INTRODUCTION

Analysis of Federal Estate Tax Returns (Forms 706) filed for 1986 decedents shows the interplay of social and economic factors on bequest decisions. Data from 706 returns show that marital status, gender and social class are important predictors of charitable giving. These factors, coupled with individual values and beliefs, predispose a person to make a charitable bequest. Tax incentives can also affect the amount given, as well as the timing and form of such bequests.

Total giving to charities in 1986 was nearly $92 billion, or about 2 percent of the Gross National Product (AAFRC, 1987: Giving USA: Estimates of Philanthropic Giving in 1986 and the Trends They Show). The majority of these gifts were given by individuals, both directly (82.2%) and through bequests (6.7%). Total bequests to charities amounted to $6.2 billion in 1986. These bequests can have a significant impact on recipient organizations.

Data on the charitable bequests of wealthy decedents dying in 1986 are presented in Table 1 [1]. As a group, these "top wealthholders" gave $4.1 billion, and accounted for about 71 percent of all such bequests made by U.S. decedents (Giving USA, 1987). Nine percent of the estate tax decedents made gifts of $1 million or more. These large gifts totalled nearly $3 billion, or about 72 percent of the charitable bequests made by top wealthholders. The majority of the remaining decedents represented in Table 1 made bequests of less than $250,000. Even so, the sum of these "small" bequests was over $200 million. It is no wonder that organizations expend considerable fund raising effort to garner bequests.

Table 1. – 1986 Decedents, Charitable Bequests by Size of Bequest
[All figures are estimates based on samples--money amounts are in thousands of dollars]

Size of Bequest	Decedents[1]		Bequests	
	Number	Percent	Amount	Percent
Total	**8,990**	**100.0%**	**$4,146,944**	**100.0%**
Under $250,000	6,491	72.1	207,147	5.0
$250,000 Under $500,000	645	7.2	235,994	5.7
$500,000 Under $1,000,000	1,039	11.6	723,519	17.4
$1,000,000 Under $10,000,000	778	8.7	1,680,865	40.6
$10,000,000 or More	37	0.4	1,299,418	31.3

[1]Includes all U.S. estate tax decedents making charitable bequests, with net worth of $500,000 or more.

1986 DECEDENTS

The bequest data examined in this article were gathered by the Internal Revenue Service's Statistics of Income Division (SOI). SOI samples estate tax returns annually in order to evaluate the effects of tax policy and to provide annual estimates of the financial characteristics of estate tax filers. Currently, an estate tax return must be filed within 9 months of a decedent's death; a six-month extension is available beyond that. Thus, returns for a particular year of death may be filed over a period of several years. This article presents data from returns filed in 1986-1988, focusing on 1986 as the year of death. A Federal estate tax return was required for all 1986 decedents with at least $500,000 in total gross estate at the time of their death; the top tax rate was 55 percent.

There were an estimated 45,800 U.S. citizens who died in 1986 with gross estates above the $500,000 filing requirement, representing only about 2.2 percent of the U.S. decedent population [2]. These decedents had a combined gross estate of over $66 billion. Over 56 percent of them were male, most of whom were married; most of the female decedents were widowed. The average age at death for males and females was 73.8 and 79.5, respectively.

Almost 20 percent of these 1986 decedents made bequests to charitable organizations. These bequests accounted for slightly over 24 percent of their net estates. (Net estate, or net worth, is defined as total assets, including life insurance owned by the decedent and certain lifetime transfers, minus debts [3].) The average (mean) bequest amount was $461,000. The minimum bequest value was $100 and the maximum, well over $150 million. Gender and net worth are the two most important variables for predicting the value of bequests.

Female decedents were almost twice as likely as males to make bequests to charitable organizations. Table 2 shows that their rate of charitable giving exceeds the rate for men and also exceeds the aggregate rate for all decedents. It also illustrates that, regardless of sex, the likelihood of making a charitable bequest increases significantly as net worth rises.

Table 2. – Charitable Donors as a Percent of Estate Tax Decedents by Sex and Size of Net Worth, 1986
[All figures are estimates based on samples]

Size of Net Worth	All Decedents[1]		Male Decedents[1]		Female Decedents[1]	
	Number	Percent	Number	Percent	Number	Percent
Total	**8,990**	**20.4%**	**3,766**	**15.2%**	**5,224**	**27.0%**
$500,000 Under $1,000,000	5,054	18.1	1,903	12.8	3,151	24.1
$1,000,000 Under $2,500,000	2,668	22.0	1,196	16.5	1,472	30.2
$2,500,000 Under $5,000,000	739	27.7	366	20.8	373	41.0
$5,000,000 or More	529	39.6	302	35.1	227	47.8

[1]Includes all U.S. estate tax decedents making charitable bequests, with net worth of $500,000 or more.

Almost half the women and 35 percent of the men in the highest net worth group made bequests to charities. This may be due to the ability of larger estates to adequately provide for family members and make a significant gift, or to the lower cost of charitable giving incurred at the higher tax rates.

While the likelihood of making a charitable bequest increases significantly with the size of net worth, regardless of sex, Table 3 suggests that net worth does not substantially influence the relative amount given by female decedents. Women, on average, give about 24 percent of their net estates. The charitable giving of male decedents is more sensitive to net worth. Their giving, as a percentage of net estate, almost doubles, from 16 percent for those in the lowest net worth category, to 30 percent in the highest. Interestingly, while women are more likely to make a charitable bequest, and those with net worth less than $5 million gave more than men, men in the largest net worth category gave away a larger percentage of their estates.

Marital Status

Married decedents of both sexes were the least likely group to make a charitable bequest; their bequests, as a percentage of net worth, were also the smallest, averaging about 14 percent for females and 19 percent for males (see Table 4). Widowed decedents were more than twice as likely to make charitable gifts, giving away just over 23 percent of their net estates. Single decedents were the most likely to make bequests and gave the largest percentage of their estates. It is worth noting the difference in the bequest behaviors of separated or divorced male and female decedents. The amount given by males in that group resembles that of their married counterparts, while the amount bequeathed by separated or divorced females parallels the behavior of widows.

The data in Table 4 indicate that a greater percentage of women make these bequests. The large percentage of widowed women can be explained by the fact that married women often outlive their husbands. The charitable giving of widows often represents the bequest desires of both spouses. They choose to make their charitable gifts after the death of the second spouse, having first provided for dependents and taken full advantage of the unlimited marital deduction.

Today's cohort of wealthy women age 65 and over tend to be very traditional and, as a result, may be more fiscally conservative (Odendahl, 1987). They tend to allow financial advisors to have a large role in their money management (Odendahl, 1987). They are also more likely to make lifetime gifts, as well as charitable bequests because very wealthy women have traditionally been more involved with philanthropic activities than either men or their less wealthy counterparts.

The above observations seem consistent with the findings of other researchers (see, for example, Joulfaian, 1990 and

Table 3. – Charitable Bequests as a Percentage of Net Worth, by Sex and Size of Net Worth, 1986
[All figures are estimates based on samples--money amounts are in thousands of dollars]

Size of Net Worth	All Decedents[1]		Male Decedents[1]		Female Decedents[1]	
	Amount	Percent	Amount	Percent	Amount	Percent
Total	**$4,146,944**	**24.3%**	**$2,159,824**	**24.5%**	**$1,987,120**	**24.1%**
$500,000 Under $1,000,000	704,496	20.1	220,774	16.3	483,722	22.5
$1,000,000 Under $2,500,000	883,421	22.0	342,501	18.9	540,920	24.6
$2,500,000 Under $5,000,000	577,015	22.6	267,651	21.2	309,365	24.0
$5,000,000 or More	1,982,012	28.5	1,328,898	30.4	653,114	25.1

[1]Includes all U.S. estate tax decedents making charitable bequests, with net worth of $500,000 or more.

Table 4. – Donors As A Percentage of All Estate Tax Decedents, Gifts As A Percentage of Net Worth, By Sex and Marital Status, 1986

Marital Status	All Decedents[1]		Male Decedents[1]		Female Decedents[1]	
	% Donors	% Given	% Donors	% Given	% Donors	% Given
Total	20.4%	24.3%	15.2%	24.5%	27.0%	24.1%
Married	9.6	18.1	9.2	19.1	11.4	13.8
Widowed	28.3	24.0	26.9	25.8	29.0	23.3
Single	42.7	43.7	32.2	46.0	56.0	40.6
Divorced/Separated	18.5	22.0	15.8	16.2	22.4	28.6

[1]Includes all U.S. estate tax decedents making charitable bequests, with net worth of $500,000 or more.

Boskin, 1976). While Boskin found that sex was relatively unimportant, he notes that marital status, particularly the difference between married and unmarried decedents was statistically significant. A surviving spouse and dependents take precedence over charitable bequests, particularly among younger decedents.

Age

The size of charitable bequests, relative to estate size, increases with the age of the decedent (see Table 5). As potential heirs age and develop their own fortunes, benefactors are freer to substitute charitable for non-charitable beneficiaries. The 1986 decedents in our sample who were under 60 years of age gave almost 14 percent of their net estate to charity. Those in their 70's gave nearly 60 percent more than those in their 60's. Decedents in their 80's gave about 5 percent more than those 10 years their junior. Those in their 90's gave an additional 7 percent over the octogenarians. The relationship between age and giving, as with that of sex and giving, must be interpreted cautiously, however. The potential collinearity of these variables with marital status blurs the separate influences of these factors on philanthropic decisions.

Beneficiaries

For analytical purposes, bequests to recipient organizations were placed into one of the following categories: Arts and Humanities; Religious; Educational, Medical or Scientific; Social Welfare; Private Foundations; or Other. In 1986, foundations received almost $1,228,233, including 63 percent of the largest gifts (those of $10 million or more), while organizations involved with education or medical and scientific research, usually private colleges and universities, were the favored beneficiaries of estates making smaller contributions. Religious organizations received bequests from the greatest number of decedents, but ranked fourth in the amount received.

Table 5. – Number of Benefactors, Net Worth, Charitable Bequests and Bequests As A Percentage of Net Worth, By Age At Death
[All figures are estimates based on samples--money amounts are in thousands of dollars]

Age At Death	Number[1]	Net Worth	Bequest	Percent
Total	8,990	$17,033,439	$4,146,944	24.3%
Under 50	64	99,650	13,627	13.7
50 Under 60	185	399,368	53,855	13.5
60 Under 70	701	1,139,199	171,688	15.1
70 Under 80	2,007	4,545,496	1,097,118	24.1
80 Under 90	3,820	7,013,895	1,772,626	25.3
90 And Older	2,212	3,835,830	1,038,030	27.1

[1]Includes all U.S. estate tax decedents making charitable bequests, with net worth of $500,000 or more.

Approximately 42 percent of bequests from male decedents went to private foundations (see Figure 1) [4]. Educational, medical or scientific organizations were their second most frequent recipients. Forty percent of the bequests made by female decedents went to educational organizations. They also gave more to religious organizations than men. Foundations ranked third on the list of charitable beneficiaries.

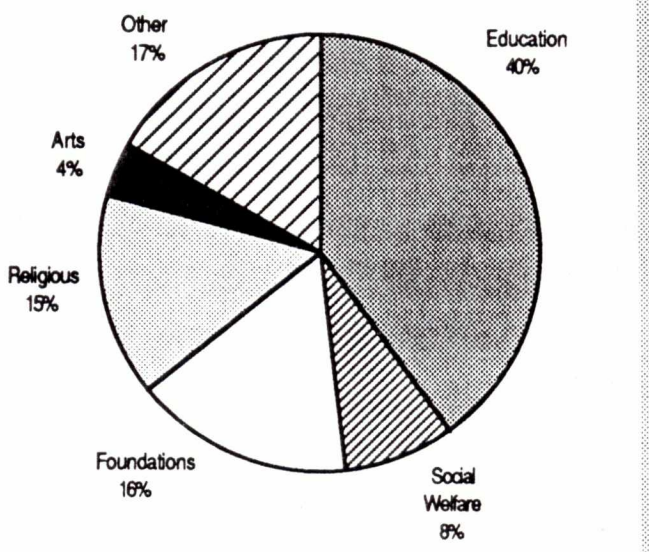
ATTITUDINAL FACTORS

The decision to make a charitable bequest is shaped by economic, social, and psychological factors. Boskin (1976), writing on motives for charitable giving, identifies the following economic factors: savings and consumption habits, lifetime gifts, lifetime contributions, and non-charitable bequests. The tax treatment of contributions affects the relationship of these factors. Along with these economic considerations are social factors which impact on charitable giving. The testamentary behavior of wealthy people is shaped by social norms and values (Schervish, 1986), community standards and peer pressures, as when, for example, charitable giving becomes a way of "Keeping Up With The Joneses" (Rosenfeld, 1991).

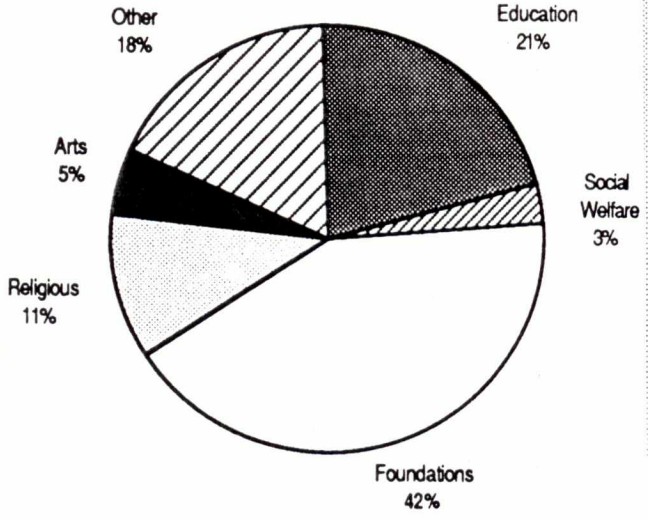
There is also a psychological component to charitable giving. Survey data show that many wealthy benefactors give out of desire to share their wealth with others who are less fortunate. Gifts are made to organizations involved with issues of personal interest or concern to the donor. Values instilled through religious involvement seem to play an important role for these donors. Consistent with this theme is the finding that people who make charitable bequests frequently believe in the efficacy of individual effort, rather than government, to address social problems (Boris, 1987).

On the other hand, bequests to colleges, museums, or hospitals are often motivated by what psychologist Eric Erikson has called "generativity": the desire to build something which will perpetuate the work or memory of the donor, or the donor's family (Erikson, 1950; 1982)[5]. Charitable giving can also be less than altruistic, as when motivated by guilt. There are also pragmatic motives for charitable giving. These include bequests to organizations (such as colleges or

Figure 1
Beneficiaries of Charitable Bequests by Sex of Benefactor,1986



Female Decedents



Male Decedents

universities) from which a business or a family will benefit (Schervish, 1987). Whatever the motive, the decision to make a charitable bequest typically occurs late in life for most wealthy individuals.

Sociological research confirms that top wealthholders put their energies into acquiring and accumulating wealth until relatively late in life. Only after they feel financially secure -- often at about the time they contemplate retirement -- do they become more involved with the social, political and philanthropic causes which will eventually motivate their charitable bequests (Rosenfeld, 1980, 1991).

Foundations

Foundations are typically formed by white, Protestant males over the age of 50 who are married and have children. Most were set up in the 1950's and 60's, although some continue to be formed today, primarily through bequests. The Survey on Foundation Formation, Growth and Termination found that the primary reason for establishing a foundation was to have a means of giving systematically in an area philosophically important to the founder (Odendahl & Boris, 1986). It is also a way of maintaining control over the uses of their contributions. There are a variety of other motives for setting up a foundation. Among these are concern for the welfare of others, feelings of social responsibility, and tax considerations.

Foundation formation may be particularly sensitive to changes in tax rates (Boskin, 1976). The decline in foundation formation following the 1969 Tax Reform Act, which eliminated some of the tax advantages afforded gifts to foundations, may reflect this economic fact. Ever since 1969, wealthholders have established fewer foundations, but continue making bequests to existing foundations. The costs involved in setting up a foundation, both in terms of personal involvement and capital, in the absence of tax advantages, has encouraged wealthholders to make bequests to existing foundations while finding other ways to achieve their lifetime philanthropic goals.

THE CHARITABLE DEDUCTION

There has been much debate over the effectiveness of the charitable deduction allowed for both the Federal income and estate tax. Economists argue that a significant amount of charitable behavior depends on these deductions. According to this line of reasoning, the tax and the deduction have two opposing effects. First, the tax reduces the estate available for division between potential heirs and charities. This is known as the wealth effect and should have a negative effect on gifts to charity. Second, the deduction reduces the price of giving to charity relative to giving to a non-charity which should encourage charitable giving. This is called the price effect because the price of each additional dollar given to charity, relative to a non-charity, is only $1 - the marginal tax rate (the

amount of tax savings attributable to the deduction) (Boskin, 1976). Thus, in the highest tax bracket, the cost of a dollar given to charity, rather than a non-charity, is only $ .45 ($1 - .55). The progressive structure of the tax rates suggests that both the wealth and price effects increase with the size of the taxable estate. The magnitude of these effects determines the effect of changes in the tax system on charitable giving (Boskin).

Survey research (Independent Sector, 1990) indicates that tax consequences are not a major consideration when people decide to make charitable gifts. Ninety percent of respondents surveyed in 1986 said they would not change their charitable giving patterns in 1987 in response to the limits placed on both the valuation of assets given to charity and on the relative size of the charitable deduction as a part of the Tax Reform Act of 1986. Only 2 percent of the respondents in the sample attributed their charitable giving to tax incentives, while 37 percent said they gave because of strong feelings toward a particular charity.

A series of focus groups with estate-planning professionals confirm that taxes affect the level and timing of a gift, but not the decision to make a gift. In 1986 and 1989, the Statistics of Income Division of IRS conducted focus groups with estate-planning professionals to discuss a wide range of issues associated with charitable giving. Estate planners, accountants, and bank trust officers who work with affluent clients say that these clients come to them with pre-existing goals concerning charitable bequests. They rarely suggest charitable giving as a tax savings option. This finding is consistent with the survey research mentioned earlier, and helps put taxes, as incentives or constraints on charitable giving, in perspective. They affect timing and level of charitable giving. By examining price elasticities, it is possible to measure this effect.

Empirical Studies

In order to examine the effects of taxes on charitable bequests, a measure of the change in giving associated with a change in the tax rate is needed. This measure is known as the price elasticity of charitable giving. An elasticity greater than 1 (in absolute terms) means that a change in the tax rate stimulates a relatively larger change in the amount bequeathed. In that case, the tax is said to be an efficient means of stimulating behavior. If, on the other hand, the elasticity is less than 1, it can be argued that the deduction is inefficient, as the loss in revenue is not made up by gifts to charity; in this case, charities would fare better if the deduction were abolished, and instead, the government were to distribute tax revenue directly to them.

Several economists have used both Federal estate tax returns and state probate records to quantify the effects of taxes on giving (for a more complete discussion see Joulfaian, 1990, or Clotfelter, 1985). Two separate studies using 1957-59, 1969, and 1976 Federal estate tax data showed a price elasticity of charitable bequests greater than one for small and moderate size estates (Boskin, 1976 & Clotfelter, 1985). Elasticities very close to 1 were calculated for the very largest estates, leading to the conclusion that the tax deduction was efficient for all but the very wealthy. Both concluded that eliminating the deduction would sharply curtail charitable bequests and increase bequests to heirs. A reduction in tax rates would have a similar, although less severe, effect.

Joulfaian (1990) obtained similar results using 1986 data. His research is significant because it suggests that the scope of charitable giving is influenced by tax incentives. Joulfaian found that the number of different charities included in the benefactor's estate-plan increased as the marginal tax rate faced by the estate rose. He also described differential giving (i.e. to the arts, to education, to foundations, etc.) based on marginal tax rates. Between 1976 and 1986 the value of charitable bequests (as described in the following section) declined significantly. Joulfaian's study suggests that the effects of this decline were distributed unevenly across charitable sectors.

Charitable Giving, 1976 and 1986

Tax reforms in 1976 and 1982 have significantly changed the composition of the estate tax population. The filing requirement in 1976 was $60,000 and the top tax rate was 77 percent. As a result of reforms, the maximum rate was lowered to 55 percent and the filing requirement raised to $500,000 by 1986, and ultimately to $600,000 for decedents dying in 1987 and later. The tax law was also modified in several other ways, the most significant being the creation of the unlimited marital deduction, replacing the previous deduction, which was limited to one half the value of the decedent's gross estate. It was predicted that these changes would have a significant impact on charitable bequests.

Table 6 presents selected data for decedents dying in 1976 and 1986 with gross estates of at least $500,000 in constant 1986 dollars [6,7]. The number of filers in this group and their aggregate net worth increased about 45 percent over the period. The percentage of filers making a charitable bequest has remained fairly stable, declining slightly from just over 22 percent of all decedents in 1976 to nearly 20 percent in 1986. The value of charitable bequests, relative to the size of net worth, however, has declined significantly. In 1976, over 10 percent of aggregate net worth was bequeathed to charities;

Table 6. – Decedents With Estates Valued at $500,000[1] or More, 1976 and 1986 Years of Death[3]

[All figures are estimates based on samples–money amounts are in thousands of dollars[1]]

Item	1976 YOD[1,2]	1986 YOD
Total Number of Filers	31,772	45,800
Aggregate Net Worth	$45,377,360	$66,018,791
Filers Making Charitable Bequests	7,020	9,114
Percent Filers Making Bequests	**22.1%**	**19.9%**
Aggregate Charitable Bequests	$4,613,320	$4,152,733
Bequests as a Percent of Net Worth	**10.2%**	**6.3%**

[1]Constant 1986 dollars.

[2]1976 year of death is represented by returns filed in 1977.

[3]Table inclues decedents with net worth less than $500,000.

that percentage fell to just 6.3 percent in 1986. The actual amount given decreased about 10 percent in real terms over the period.

It is certainly an oversimplification to attempt to describe the charitable giving behavior of U.S. decedents solely in terms of the effects of taxes. The fact that only 23 percent of all decedents whose estates' incurred tax liabilities made charitable bequests says that taxation is, at best, an imperfect inducement for philanthropic activity. The above data, however, show that their influence can be significant.

CONCLUSION

The decision to include philanthropic bequests among the beneficiaries of an estate is dependent on many factors. Specifically, a variety of psychological and social influences seem to play a large role. The presence of a surviving spouse and other dependents compete directly with charities as beneficiaries. This is demonstrated by the importance of marital status and, to a lesser degree, age, as a determinant of charitable giving. Decedents with higher net worth are better able to meet these competing needs. The sex of the decedent plays a role as well, particularly in today's cohort of very wealthy older women, where social changes brought about by the women's movement have been less pervasive (Odendahl, 1987). Tax policy also plays a significant role in determining the timing and form of gifts and affects the amount given. Even here, though, net worth, obligations, potential heirs, and the liquidity of the estate are key factors as well.

A number of researchers are currently studying philanthropic behavior by tracking individuals over periods of time, rather than using traditional cross sectional data (see Auten and Randolph, 1990 and Steinberg, 1990). The assumption underlying this approach is that an individual's charitable giving represents a structured, long term goal. Likewise, charitable bequests can best be understood as expressions of giving which had been socially and economically structured earlier in the decedent's life. Future research on charitable giving will make more systematic connections between bequests at the end of a lifetime, and charitable giving throughout life.

ACKNOWLEDGMENTS

The authors are grateful to Daniel Skelly for his help and support. Thanks are also due to Michael Alexander, Marvin Schwartz and Margaret Riley for reviewing and editing drafts of this paper and to Nat Shaifer for his work on the tables. Special thanks to David Joulfaian for his technical advice and comments.

NOTES

[1] The data presented here are for 1986 decedents who were required to file a Federal estate tax return because their gross estate at the time of death was at least $500,000. Additionally, returns for decedents with net estates valued at less than $500,000 have been removed from the sample for this analysis. The charitable bequests examined here are those intended as a deduction from gross estate as reported on Schedule O of Form 706. When there is no estate tax due, as when the unlimited marital deduction is used, small charitable bequests are often omitted from the form, or are reported with the other beneficiary data on page 2 of the return; these will be absent from our estimates.

[2] Based on the number of deaths of U.S. residents in 1986 as reported by the National Center for Health Statistics.

[3] Researchers have used various measures of wealth to study charitable giving. These include: total gross estate (Bartold & Plotnick); economic estate - total gross estate minus estate expenses and taxable lifetime transfers; adjusted economic estate - economic estate less the amount of tax that would have been owed in the absence of a charitable bequest (Boskin); and adjusted disposible estate - adjusted economic estate plus taxable lifetime transfers (Clotfelter, Joulfaian). Economic estate most closely approximates the actual estate available for a charitable bequest. However, the expenses related to a decedent's death and the administration of the estate are often reported on the decedent's final income tax return rather than on the Form 706. This may be particularly true when an estate is non-taxable, as when there is a large bequest to the surviving spouse or charity. Therefore, although net worth overstates the amount of estate available for distribution, it has less potential for introducing a bias due to reporting practices.

[4] Bequests to foundations are ultimately used to support other organizations. For example, in 1986 foundation gave over 2.2 billion dollars to the following types of organizations (expressed as a percentage of their total giving): Welfare - 26.9%, Education - 21.9%, Health - 20.5%, Cultural Activities - 14.7%, Social Science - 8.8%, Science - 6.4%, and Religion - 1.3% (Source: The Foundation Grants Index, 18th Edition, Foundation Center, 1989.)

[5] Erikson says that generativity is an important developmental task during adulthood.

[6] All dollar amounts were converted to constant 1986 dollars using the implicit price deflator for gross national product, *Economic Report of the President,* U.S. Government Printing Office, Washington, DC, 1990. Only returns with $500,000 or more of gross estate in 1986 dollars were included.

[7] 1976 year of death data are represented by data collected during tax year 1977, *Statistics of Income--1976, Estate Tax Returns,* U.S. Government Printing Office, Washington, DC, 1979.

SELECTED REFERENCES

AARCF Trust For Philanthropy. (1987). Special Report of Giving USA: An Analysis of Charitable Contributions by Upper-Income Households for 1986 and 1987. New York, NY.

AARCF Trust For Philanthropy. (1987). *Giving USA: Estimates of Philanthropic Giving in 1986 and the Trends They Show.* New York, NY. Clancey, L.A.

AARCF Trust For Philanthropy. (1989). *Giving USA: The Annual Report on Philanthropy for the Year 1988.* New York, NY. Weber, N. (ed).

Auten, G.E., & Randolph, W.C. (1990, December). *Do Taxes Affect Giving?: Recent Studies that Challenge the Consensus.* Paper presented at the Allied Social Science Annual meetings, Washington, DC.

Barthold, T., & Plotnick, R. (1984). Estate Taxation and Other Determinants of Charitable Bequests. *National Tax Journal,* 37(2), 225-237.

Boris, E.T. (1987). 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,* (pp. 237-248). New York, NY: United Way Institute.

Boskin, M.J. (1976). Estate Taxation and Charitable Bequests. *Journal of Public Economics,* 5, 27-56.

Clotfelter, C.T. (1985). *Federal Tax Policy and Charitable Giving.* University of Chicago Press.

Clotfelter, C.T. & Steuerle, C.E. (1981). Charitable Contributions. In H. J. Aaron & J.A. Pechman (Eds.). How Taxes Affect Economic Behavior (pp. 403-446). Washington, DC: Brookings Institution.

Erikson, E. (1950). *Childhood and Society.* New York: W.W. Norton. For an updated version, see Erikson, E. (1982). *The Life Cycle Complete: A Review.* New York: W.W. Norton.

Independent Sector. (1990). *Giving and Volunteering in the United States*. Washington, DC.

Johnson, B.W. (1990, Spring). Estate Tax Returns, 1986-1988. *Statistics of Income Bulletin,* 9(4), 27-61. Washington, DC: U.S. Government Printing Office.

Joulfaian, D. (1990, December). *Charitable Bequests and Estate Taxes.* Paper presented at the Allied Social Science Annual meetings, Washington, DC.

Odendahl, T. & Boris, E. (1986, March). Foundation Formation, Growth and Termination: A Report on the Charitable Attitudes of the Wealthy and a Survey of Foundations. *1986 Spring Research Forum of the Independent Sector, Working Papers,* (pp. 41-52). New York, NY: United Way Institute.

Odendahl, T.J. (1987, March). Lady Bountiful and Her Good Works? 1987 Spring Research Forum of the Independent Sector, Working Papers, (pp.436-450). New York, NY: United Way Institute.

Odendahl, T.J. (1988, March). The Political Economy of Charitable Giving by Elites in the United States. *1988 Spring Research Forum of the Independent Sector, Working Papers,* (pp. 656-677). San Francisco, CA: United Way Institute.

Rosenfeld, J. P. (1980, March). Benevolent Disenheritance. *Psychology Today,* (pp. 38-40 et seq).

Rosenfield, J.P. (1991, April). Old Age, New Beneficiaries. *American College of Trust and Estate Council Notes,* (pp. 8-11).

Schervish, P.G., Herman, A., & Rhenisch, L. (1986, March). Toward a Central Theory of the Philanthropic Activities of the Wealthy. *1986 Spring Research Forum of the Independent Sector, Working Papers,* (pp. 219-227). New York, NY: United Way Institute.

Schervish, P.G., & Herman, A. (1987, January). Varieties of Philanthropic Logic Among the Wealthy. *1987 Spring Research Forum of the Independent Sector, Working Papers,* (pp. 215-235) New York, NY: United Way Institute.

Schervish, P.G. (1989, March). Wealth and the Spiritual Secret of Money. *1989 Spring Research Forum of the Independent Sector, Working Papers,* (pp. 509-522). Chicago, Il: United Way Institute.

Steinberg, R. (1990, March). Taxes and Giving: New Findings. *1990 Spring Research Forum of the Independent Sector, Working Papers,* (pp. 487-500). Boston, MA: United Way Institute.

Steuerle, E. (1985). The Charitable Giving Patterns of the Wealthy. Unpublished manuscript.

Editor's Note: This paper originally appeared in Trust and Estates, August 1991.

Charitable Giving 1963-1990, (Selected Years)

Introduced by Jeffrey P. Rosenfeld, Ph.D

Data from the Federal estate tax return (Form 706), show important long-term trends and patterns in charitable giving. The following 3 tables provide an overview of decedents and their charitable bequests for selected years, 1963-1990. All of the tables were created using original SOI microdata files. Because of changes in the information reported on the Form 706, and changes in the data items included in SOI studies over the years, some values may not be present in some years. Data items have been chosen which are as conceptually similar as possible, given the length of the time series presented and the many changes in the estate tax law which occurred over the period. All data appear as they were originally published (current dollars) *and* in constant 1987 dollars (based on the Implicit Price Deflator for GNP); this analysis is based only on the constant dollar amounts.

Table 1 compares charitable giving based on data from Form 706 for selected years, 1963-1990. The table shows net worth and charitable bequests, by sex, making it possible to compare charitable giving by men and women with estates valued at $600,000 or more (in constant 1987 dollars). In 1963, the gender differences in charitable giving were slight. About 51 percent of decedents leaving charitable bequests were male and 49 percent were female. But by 1990, the gender difference was significantly greater for decedents with estates valued at $600,000 or more. About 61 percent of decedents making charitable bequests in 1990 were women, and only 39 percent were men. This increase can be partly ascribed to changes in the tax code which allowed for an unlimited deduction from gross estate for property bequeathed to the surviving spouse (typically the female spouse). This creates an incentive to postpone bequests to charities so that such bequests can be used as tax deductions against the surviving spouse's estate. Total net worth for male decedents was typically larger than total net worth for female decedents throughout the 27-year period, but women left proportionately more of their estates to charities during each of the filing years included in Table 1.

Table 2 compares charitable giving for decedents based on sex, marital status and net worth, 1963-1990 (selected years). The data allow comparisons of charitable giving for men and women. Based on data from Form 706, decedents who made charitable bequests were often single. In fact, SINGLE was the modal category of marital status for both male and female decedents during each of the filing years included in Table 2. The proportion of net worth given to charities was very similar between men and women, despite the fact that single men, on average, tended to have greater net worth than single women throughout this time period.

Table 3 compares charitable giving for decedents based on age, sex and net worth. The data, based on Form 706 in selected filing years, show that woman aged 75 and older were more likely to make a charitable bequest than women in any other age group. It also shows that older women, as a group, gave a higher percentage of their net worth to charitable institutions. The pattern is similar for men. Older men were more likely to make a charitable bequest and, of those who made such bequests, older men, as a group, bequeathed a larger percentage of their net worth. Men, regardless of age, were less likely to make charitable bequests than women.

Table 1A.--Charitable Bequests, by Sex of Decedent and Net Worth, in Current Dollars

(Money amounts are in thousands)

Filing year	Charitable bequests		Net worth		Charitable bequests, males		Net worth, males		Charitable bequests, females		Net worth, females	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
1963	11,881	876,030	78,393	16,129,099	5,495	413,123	49,604	10,117,539	6,386	462,907	28,789	6,011,560
1966	13,823	1,195,576	97,321	20,678,977	6,251	558,689	61,508	13,007,319	7,572	636,887	35,813	7,671,658
1970	16,724	2,129,599	133,599	27,967,696	7,544	825,334	83,266	17,396,659	9,179	1,304,265	50,333	10,571,038
1973	21,198	1,989,173	175,363	36,448,018	8,999	914,208	109,246	22,916,977	12,199	1,074,964	66,118	13,531,041
1977	24,396	2,994,964	200,732	45,435,204	11,258	1,952,419	124,411	29,086,605	13,139	1,042,545	76,320	16,348,599
1983[1]	9,023	2,333,990	56,518	41,911,956	3,995	1,097,388	35,025	26,848,126	5,028	1,236,602	21,493	15,063,831
1987	8,987	3,978,020	45,113	62,997,555	3,903	2,026,249	25,664	38,281,516	5,084	1,951,771	19,449	24,716,039
1990	9,993	5,538,523	53,168	83,456,364	3,923	2,578,835	29,201	48,846,321	6,070	2,959,688	23,967	34,610,042

[1] The 1983 sample excluded returns filed for decedents dying prior to 1982; these decedents accounted for approximately 8 percent of the returns filed in 1983. Therefore, these estimates understate the actual filing year totals.

Table 1B.--Charitable Bequests, by Sex of Decedent and Net Worth for Returns with Total Gross Estate of $600,000 or More, in Constant 1987 Dollars

(Money amounts are in thousands)

Filing year	Charitable bequests		Net worth		Charitable bequests, males		Net worth, males		Charitable bequests, females		Net worth, females	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
1963	6,167	3,186,130	28,446	46,705,391	3,165	1,537,008	18,787	29,418,865	3,002	1,649,122	9,659	17,286,526
1966	7,185	4,147,296	32,996	55,818,382	3,586	1,989,220	21,647	35,272,772	3,599	2,158,076	11,349	20,545,610
1970	7,669	6,386,560	36,343	59,916,268	3,973	2,467,738	23,963	37,497,636	3,696	3,918,821	12,381	22,418,632
1973	7,809	4,725,977	37,266	59,760,743	3,851	2,236,337	24,258	37,950,887	3,958	2,489,640	13,007	21,809,856
1977	7,174	5,263,495	32,994	48,856,517	3,610	3,644,854	21,648	32,156,044	3,564	1,618,641	11,346	16,700,473
1983[1]	5,019	2,702,260	28,452	41,413,182	2,295	1,299,709	18,279	27,218,038	2,723	1,402,552	10,173	14,195,144
1987	8,441	4,394,526	42,274	68,778,142	3,748	2,246,770	24,157	41,974,526	4,693	2,147,755	18,118	26,803,616
1990	9,607	5,518,339	49,850	81,530,546	3,786	2,568,363	27,424	47,882,753	5,821	2,949,976	22,426	33,647,793

[1] The 1983 sample excluded returns filed for decedents dying prior to 1982; these decedents accounted for approximately 8 percent of the returns filed in 1983. Therefore, these estimates understate the actual filing year totals.

Table 2A:--Decedents Making Charitable Bequests, by Sex, Marital Status, and Net Worth, for Selected Years, in Current Dollars

(Money amounts are in thousands)

Filing year	Marital status	Number of donors	Percent of all decedents	Net worth	Charitable bequests	Percent donated
Female decedents						
1963	Married	545	9	268,721	35,802	13
	Widowed	4,012	22	1,386,299	268,827	19
	Single	1,667	42	441,490	138,829	31
	Other[2]	162	19	64,369	19,449	30
1970	Married	789	7	353,179	48,893	14
	Widowed	5,671	18	2,698,192	1,034,012	38
	Single	2,422	38	615,997	195,111	32
	Other	297	17	96,668	26,249	27
1973	Married	964	6	545,097	84,808	16
	Widowed	7,684	19	2,793,994	641,082	23
	Single	3,005	40	734,091	223,296	30
	Other	546	19	296,893	125,778	42
1977	Married	1,285	7	552,813	85,211	15
	Widowed	8,312	18	3,193,696	683,717	21
	Single	3,031	37	797,614	220,473	28
	Other	512	17	189,364	53,144	28
1983[1]	Married	314	7	465,439	51,377	11
	Widowed	3,813	26	3,734,853	901,760	24
	Single	776	49	570,702	239,741	42
	Other	126	16	233,913	43,723	19
1987	Married	434	10	984,165	155,759	16
	Widowed	3,539	28	5,860,596	1,294,945	22
	Single	990	54	1,079,909	437,887	41
	Other	121	20	273,564	63,179	23
1990	Married	405	8	1,109,888	126,969	11
	Widowed	4,380	28	8,529,568	2,165,224	25
	Single	1,070	56	1,443,372	473,982	33
	Other	215	22	600,446	193,513	32
Male decedents						
1963	Married	2,511	7	1,390,037	206,615	15
	Widowed	1,822	20	558,621	101,582	18
	Single	995	28	296,018	93,623	32
	Other	167	16	48,019	11,302	24
1970	Married	3,361	6	2,354,590	339,524	14
	Widowed	2,452	17	971,197	288,531	30
	Single	1,479	25	461,561	149,967	32
	Other	252	13	119,046	47,312	40
1973	Married	3,797	5	2,649,863	359,402	14
	Widowed	3,032	16	1,166,144	303,510	26
	Single	1,697	23	545,189	176,863	32
	Other	473	14	196,428	74,433	38
1977	Married	5,559	6	3,133,186	451,232	14
	Widowed	3,470	15	1,504,165	450,767	30
	Single	1,843	23	593,448	184,327	31
	Other	386	11	1,003,295	866,093	86
1983[1]	Married	2,006	8	3,241,645	400,757	12
	Widowed	1,147	20	1,244,772	399,221	32
	Single	692	35	649,220	183,736	28
	Other	149	11	233,825	113,673	49
1987	Married	1,466	9	4,785,796	694,833	15
	Widowed	1,630	29	2,954,580	833,310	28
	Single	619	30	1,127,921	448,252	40
	Other	188	16	272,840	49,854	18
1990	Married	1,505	8	5,788,218	661,190	11
	Widowed	1,430	23	3,322,905	800,442	24
	Single	724	32	1,887,575	887,052	47
	Other	264	20	609,121	230,151	38

[1] The 1983 sample excluded returns filed for decedents dying prior to 1982; these decedents accounted for approximately 8 percent of the returns filed in 1983. Therefore, these estimates understate the actual filing year totals.

[2] The category 'Other' includes seperated and divorced decedents, as well those for whom marital status was not known.

Table 2B:--Decedents Making Charitable Bequests, by Sex, Marital Status, and Net Worth, for Returns with Total Gross Estates of $600,000 or More, Selected Years, in Constant 1987 Dollars

(Money amounts are in thousands)

Filing year	Marital status	Number of donors	Percent of all decedents	Net worth	Charitable bequests	Percent donated
Female decedents						
1963	Married	307	16	992,221	136,529	14
	Widowed	1,934	31	4,798,443	967,274	20
	Single	674	54	1,413,496	474,185	34
	Other[2]	87	28	230,798	71,134	31
1970	Married	383	15	1,027,752	146,226	14
	Widowed	2,429	31	7,688,055	3,180,769	41
	Single	757	54	1,444,794	512,671	35
	Other	128	28	262,030	79,155	30
1973	Married	405	15	1,331,370	211,280	16
	Widowed	2,639	32	6,044,846	1,503,987	25
	Single	760	55	1,320,139	450,523	34
	Other	155	27	701,195	323,849	46
1977	Married	357	17	862,783	146,255	17
	Widowed	2,350	31	4,800,099	1,094,647	23
	Single	701	60	971,728	294,124	30
	Other	157	31	282,168	83,616	30
1983[1]	Married	240	11	568,791	64,499	11
	Widowed	2,035	30	3,977,094	1,028,826	26
	Single	365	43	544,578	253,325	47
	Other	83	20	279,608	55,902	20
1987	Married	391	10	1,071,781	171,068	16
	Widowed	3,240	28	6,364,872	1,425,009	22
	Single	940	53	1,165,985	480,731	41
	Other	121	20	307,471	70,948	23
1990	Married	387	8	1,092,919	125,482	11
	Widowed	4,190	29	8,390,102	2,161,498	26
	Single	1,030	57	1,411,646	470,749	33
	Other	214	24	597,709	192,246	32
Male decedents						
1963	Married	1,694	12	5,283,432	812,078	15
	Widowed	899	30	1,899,905	356,249	19
	Single	487	40	1,003,718	327,686	33
	Other	85	23	163,247	40,996	25
1970	Married	2,222	12	7,232,140	1,064,142	15
	Widowed	1,058	28	2,701,209	846,348	31
	Single	572	38	1,197,609	415,532	35
	Other	121	25	350,744	141,716	40
1973	Married	2,090	12	6,706,375	942,895	14
	Widowed	1,070	27	2,569,186	719,354	28
	Single	544	39	1,144,312	398,395	35
	Other	147	21	436,070	175,693	40
1977	Married	1,984	12	5,336,360	814,258	15
	Widowed	995	28	2,353,674	783,118	33
	Single	508	38	837,290	274,634	33
	Other	123	21	2,001,562	1,772,844	89
1983[1]	Married	1,149	8	3,809,351	505,317	13
	Widowed	648	24	1,369,895	473,029	35
	Single	414	44	702,215	185,373	26
	Other	85	12	270,707	135,989	50
1987	Married	1,434	9	5,332,938	777,402	15
	Widowed	1,563	30	3,255,070	922,454	28
	Single	567	30	1,230,783	492,819	40
	Other	185	17	303,514	54,095	18
1990	Married	1,483	8	5,775,707	657,196	11
	Widowed	1,359	24	3,277,032	799,059	24
	Single	705	33	1,873,208	879,141	47
	Other	240	19	597,856	232,967	39

[1] The 1983 sample excluded returns filed for decedents dying prior to 1982; these decedents accounted for approximately 8 percent of the returns filed in 1983. Therefore, these estimates understate the actual filing year totals.

[2] The category 'Other' includes seperated and divorced decedents, as well those for whom marital status was not known

Table 3A.--Decedents Making Charitable Bequests, by Sex, Age, and Net Worth, for Selected Years, in Current Dollars

(Money amounts are in thousands)

Female decedents						
Filing year	Age at death	Number of donors	Percent of all decedents	Net worth	Charitable bequests	Percent donated
1963	Under 40	187	21	34,086	7,140	21
	40 under 50	38	7	9,907	1,111	11
	50 under 65	479	13	169,282	36,994	22
	65 under 75	1,218	18	360,053	71,406	20
	75 and over[2]	4,464	26	1,587,551	346,256	22
1970	Under 40	15	7	5,761	776	13
	40 under 50	49	5	20,553	1,835	9
	50 under 65	573	9	229,069	51,410	22
	65 under 75	1,719	15	1,178,115	743,155	63
	75 and over	6,824	22	2,330,538	507,089	22
1973	Under 40	28	6	11,616	1,454	13
	40 under 50	56	5	137,701	76,596	56
	50 under 65	723	8	234,418	47,556	20
	65 under 75	1,989	14	741,240	159,672	22
	75 and over	9,404	23	3,245,102	789,686	24
1977	Under 40	21	5	4,028	893	22
	40 under 50	77	7	29,834	3,464	12
	50 under 65	680	6	219,125	42,346	19
	65 under 75	2,136	13	721,731	143,192	20
	75 and over	10,224	21	3,758,768	852,649	23
1983[1]	Under 40	7	6	10,730	2,590	24
	40 under 50	7	3	22,484	937	4
	50 under 65	299	12	253,883	55,793	22
	65 under 75	552	14	750,589	204,952	27
	75 and over	4,163	29	3,967,221	972,331	25
1987	Under 40	6	7	9,574	2,092	22
	40 under 50	10	5	14,783	674	5
	50 under 65	133	8	208,115	26,012	12
	65 under 75	645	18	1,183,099	358,659	30
	75 and over	4,290	31	6,782,663	1,564,335	23
1990	Under 40	6	7	6,564	24	0
	40 under 50	18	6	28,191	7,978	28
	50 under 65	120	6	389,072	132,877	34
	65 under 75	581	15	1,159,571	264,329	23
	75 and over	5,345	30	10,099,876	2,554,481	25

Footnotes at end of table

Table 3A.--Decedents Making Charitable Bequests, by Sex, Age, and Net Worth, for Selected Years, in Current Dollars--Continued

(Money amounts are in thousands)

Male decedents						
Filing year	Age at death	Number of donors	Percent of all decedents	Net worth	Charitable bequests	Percent donated
1963	Under 40	127	9	45,775	11,593	25
	40 under 50	49	2	29,252	3,098	11
	50 under 65	635	5	313,367	50,773	16
	65 under 75	1,469	10	576,283	80,058	14
	75 and over	3,215	17	1,328,017	267,600	20
1970	Under 40	14	1	3,628	486	13
	40 under 50	74	2	85,976	20,502	24
	50 under 65	756	4	367,751	47,119	13
	65 under 75	1,738	7	928,944	137,916	15
	75 and over	4,962	15	2,520,096	619,310	25
1973	Under 40	40	2	8,371	1,216	15
	40 under 50	100	2	66,545	28,148	42
	50 under 65	834	3	418,191	64,910	16
	65 under 75	2,119	7	1,072,716	165,664	15
	75 and over	5,905	13	2,991,802	654,272	22
1977	Under 40	62	2	15,758	971	6
	40 under 50	212	4	46,014	5,533	12
	50 under 65	1,380	5	435,573	48,682	11
	65 under 75	2,622	8	1,111,995	198,461	18
	75 and over	6,982	13	4,624,754	1,698,773	37
1983[1]	Under 40	10	2	6,661	906	14
	40 under 50	26	2	34,425	2,374	7
	50 under 65	253	3	333,519	47,947	14
	65 under 75	945	11	1,373,085	163,816	12
	75 and over	2,761	17	3,621,773	882,346	24
1987	Under 40	14	5	11,046	3,326	30
	40 under 50	34	4	56,195	7,164	13
	50 under 65	268	5	551,793	81,883	15
	65 under 75	590	9	1,507,494	174,663	12
	75 and over	2,997	23	7,014,610	1,759,214	25
1990	Under 40	26	8	59,093	16,615	28
	40 under 50	77	7	392,048	268,829	69
	50 under 65	298	6	832,921	144,341	17
	65 under 75	540	7	1,837,181	264,553	14
	75 and over	2,981	19	8,486,576	1,884,498	22

[1] The 1983 sample excluded returns filed for decedents dying prior to 1982; these decedents accounted for approximately 8 percent of the returns filed in 1983. Therefore, these estimates understate the actual filing year totals.

[2] The category '75 and over' includes decedents whose age was not known.

Table 3B.--Decedents Making Charitable Bequests, by Sex, Age, and Net Worth, for Returns with Total Gross Estate of $600,000 or More, Selected Years, in Constant 1987 Dollars

(Money amounts are in thousands)

Female decedents						
Filing year	Age at death	Number of donors	Percent of all decedents	Net worth	Charitable bequests	Percent donated
1963	Under 40	73	30	95,479	20,272	21
	40 under 50	21	11	34,160	3,287	10
	50 under 65	222	19	586,636	134,875	23
	65 under 75	550	26	1,200,604	241,597	20
	75 and over[2]	2,136	36	5,518,079	1,249,092	23
1970	Under 40	6	12	16,363	2,423	15
	40 under 50	28	12	61,067	4,745	8
	50 under 65	235	16	654,216	157,049	24
	65 under 75	681	26	3,497,438	2,356,167	67
	75 and over	2,747	34	6,193,549	1,398,437	23
1973	Under 40	13	15	27,592	4,002	15
	40 under 50	15	8	372,828	213,441	57
	50 under 65	235	16	493,895	100,628	20
	65 under 75	633	24	1,620,843	359,361	22
	75 and over	3,063	36	6,882,391	1,812,207	26
1977	Under 40	5	11	4,771	1,621	34
	40 under 50	11	8	44,188	5,013	11
	50 under 65	138	13	311,154	61,301	20
	65 under 75	561	27	1,030,366	205,724	20
	75 and over	2,850	35	5,526,300	1,344,981	24
1983[1]	Under 40	5	9	12,747	3,307	26
	40 under 50	4	3	26,924	1,179	4
	50 under 65	101	8	234,913	66,116	28
	65 under 75	348	20	877,800	244,236	28
	75 and over	2,264	32	4,217,687	1,087,714	26
1987	Under 40	6	7	10,839	2,348	22
	40 under 50	8	4	15,586	764	5
	50 under 65	123	8	226,770	28,922	13
	65 under 75	558	17	1,270,459	386,490	30
	75 and over	3,998	31	7,386,456	1,729,232	23
1990	Under 40	6	8	6,535	23	0
	40 under 50	17	6	27,804	7,977	29
	50 under 65	120	6	389,178	132,650	34
	65 under 75	552	15	1,138,185	261,752	23
	75 and over	5,126	31	9,930,674	2,547,573	26

Footnotes at end of table

Table 3B.--Decedents Making Charitable Bequests, by Sex, Age, and Net Worth, for Returns with Total Gross Estate of $600,000 or More, Selected Years, in Constant 1987 Dollars--Continued

(Money amounts are in thousands)

Male decedents						
Filing year	Age at death	Number of donors	Percent of all decedents	Net worth	Charitable bequests	Percent donated
1963	Under 40	60	13	159,177	42,697	27
	40 under 50	28	4	109,922	11,055	10
	50 under 65	381	8	1,169,315	191,495	16
	65 under 75	858	15	2,090,184	291,384	14
	75 and over	1,838	26	4,821,704	1,000,377	21
1970	Under 40	6	2	8,860	1,552	18
	40 under 50	40	3	269,515	65,278	24
	50 under 65	427	8	1,093,158	128,663	12
	65 under 75	978	14	2,789,597	402,223	14
	75 and over	2,521	25	7,320,572	1,870,022	26
1973	Under 40	14	5	11,073	570	5
	40 under 50	49	5	170,915	76,767	45
	50 under 65	346	7	984,012	156,748	16
	65 under 75	966	14	2,590,309	406,477	16
	75 and over	2,475	23	7,099,633	1,595,775	22
1977	Under 40	17	6	21,133	1,657	8
	40 under 50	30	3	43,887	2,468	6
	50 under 65	317	7	594,323	57,849	10
	65 under 75	778	14	1,740,774	306,866	18
	75 and over	2,467	24	8,128,769	3,276,014	40
1983[1]	Under 40	5	2	6,587	845	13
	40 under 50	20	3	42,353	3,064	7
	50 under 65	175	4	400,625	56,920	14
	65 under 75	549	12	1,598,345	189,081	12
	75 and over	1,547	19	4,104,258	1,049,800	26
1987	Under 40	13	4	11,840	3,292	28
	40 under 50	32	4	61,904	8,006	13
	50 under 65	254	5	614,136	90,029	15
	65 under 75	589	10	1,681,625	194,956	12
	75 and over	2,860	24	7,752,800	1,950,487	25
1990	Under 40	26	8	58,878	16,463	28
	40 under 50	74	7	391,368	268,882	69
	50 under 65	281	6	828,614	138,810	17
	65 under 75	528	8	1,830,077	264,081	14
	75 and over	2,876	20	8,414,865	1,880,128	22

[1] The 1983 sample excluded returns filed for decedents dying prior to 1982; these decedents accounted for approximately 8 percent of the returns filed in 1983. Therefore, these estimates understate the actual filing year totals.

[2] The category '75 and over' includes decedents whose age was not known.