

# THE PRESTIGE MOTIVE FOR MAKING CHARITABLE TRANSFERS

WILLIAM T. HARBAUGH\*

This draft: 1/8/1998

If people are so self-interested, why do they give their money away to charities? One possibility is that people care about the level of the public good their donations provide. But this is not a good explanation: freeriding typically dominates donating even for people who care a great deal about the good in question, and even in groups that are substantially smaller than those in which we observe people contributing.

An alternative explanation for giving is that the benefit comes from the donation itself, not from the good it buys. This idea is ancient. In the Old Testament, God promises those giving to the temple that he will

“...open to you the windows of heaven, and pour you out a blessing, that there shall not be room enough to receive it.”<sup>1</sup>

More recently, Gary Becker (1974) develops an economic model where it is the amount the donor gives, rather than the quantity of the public good that he receives, that enters the utility function. James Andreoni (1989) shows that such a model can explain many of the observed facts of charitable giving, such as broad participation by people of different incomes, better than a model

without this motive.

In this paper I consider two separate types of benefits that might arise from donations: those that are purely internal, derived from the donor's own knowledge of what he has given, and those that the donor only gets when other people know how much he has given. I call these the "intrinsic benefit" and the "prestige benefit" respectively.

Abundant descriptive evidence suggests that the prestige benefits from public recognition of donations are an important reason why people give. Large anonymous donations are so rare that they are newsworthy events. On the other hand, every university has buildings prominently named after alumni who gave substantial amounts, often only after the explicit promise of this sort of recognition. Most universities have a set price for those wishing to have a chair named after them. The prestige motive is important enough that the form of recognition the charity will provide in exchange for the gift is often spelled out in legal contracts, and there are even cases where donors have demanded the return of donations after their gifts have not been recognized to their satisfaction. For example, in 1997 a \$3 million donation to the New York City Children's Zoo was revoked by the donors after they argued that the city had not followed the contract which stipulated how their gift would be publicly recognized.<sup>2</sup>

In this paper I use data on gifts by lawyers to their law school to estimate a utility function which includes both prestige and intrinsic benefits. I estimate the parameters of this function by exploiting a common way by which charities report donations: publicizing the categories into which the donations fall, rather than the exact amounts. For example, the charity might say that donations of from \$500 to \$999 place the donor in the "Sustaining Contributor" category. Within this category, any portion of a donation that is above the \$500 lower bracket is not reported by

the charity, and so provides no additional prestige, only additional intrinsic benefits. The more money people donate, the higher the tastes for both intrinsic and prestige benefits, while the greater the proportion of these donations that are just equal to the bracket, the higher the taste for prestige.

To get a simple measure of the importance of the prestige effect, I will then use the estimated utility function to compare predicted donations to the charity under two hypothetical plans: no reporting and exact reporting. A comparison of these results allows a measure of the effect of the prestige motive on donations. The distinction between the prestige and intrinsic motives for giving provides an interesting insight into behavior, and is also important to charities and to society at large. While intrinsic benefits are obtained through the act of giving, and are therefore largely outside a charity's control, prestige is acquired only when a charity actually makes a public report of the amount of the donation. Common sense suggests, and virtually every "how to" book on fundraising agrees, that the actions of charities to solicit gifts and reward donors with public recognition have a large effect on giving and the voluntary provision of public goods. Despite this importance, there is currently little understanding of the workings of these factors, and no measure of the share of giving attributable to them. This paper will provide a measure of one part of that connection between the actions of the charity and donations, the part which is based on prestige.

#### I. PRESTIGE AND INTRINSIC BENEFITS UNDER DIFFERENT REPORTING PLANS

Since a more complete model of the donor's optimization problem is given in William Harbaugh (1998), I will only review the essential points here. I assume that donors have a utility

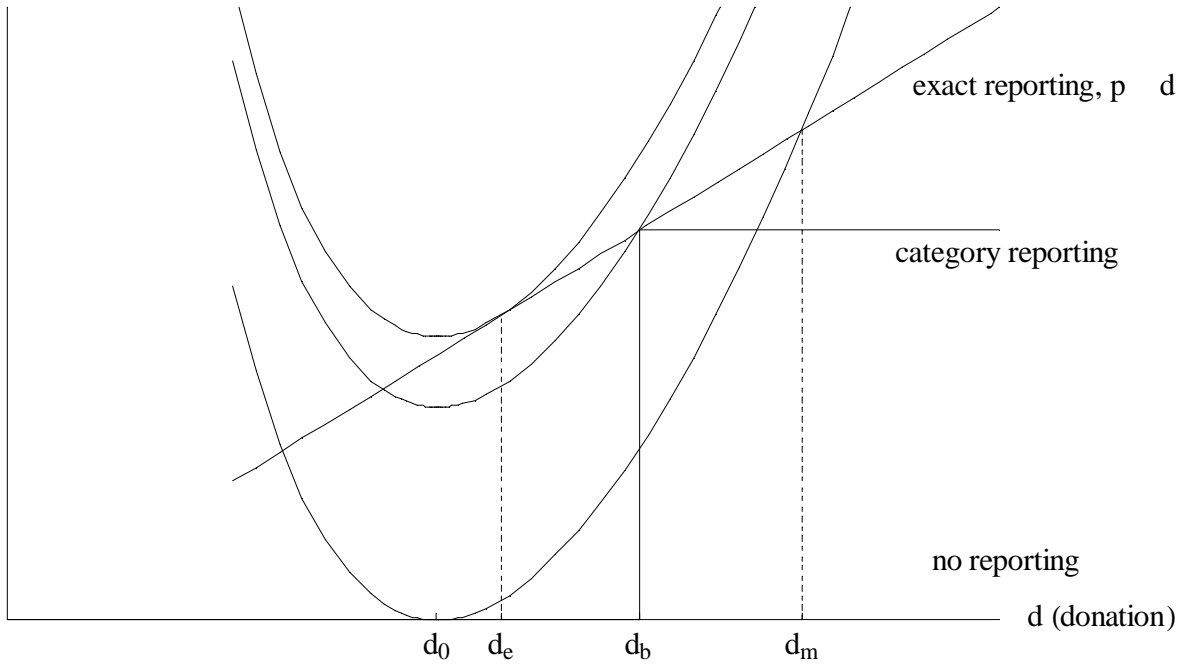
function  $U = U(x, p, d)$ , where  $x$  is the private good,  $p$  is prestige, and  $d$  is the intrinsic benefit, assumed equal to the actual amount donated. The donor faces the budget constraint  $w = x + q d$ , where  $w$  is income and  $q$  is the after-tax price of giving. I assume that prestige is equal to the publicly reported amount of the donation, and for simplicity that  $q = 1$ . Substituting the budget constraint into the utility function gives  $U = U(w-d, p, d)$  or  $U = V(p, d; w)$ . Solving this for a fixed  $w$  and fixed levels of utility gives level curves in  $(d, p)$  space, as shown in Figure 1. Note that by construction the budget constraint must be satisfied along these curves, and that higher curves represent higher utility.

The reporting plans of the charity, perhaps most intuitively interpreted as an additional constraint, can be shown in the same  $(d, p)$  space. These plans translate a donation  $d$  into a report  $r$ , which society then converts to the prestige  $p$  that enters the utility function. Three possible reporting plans are shown in Figure 1, along with level curves for a single donor with given wealth.

In the first plan, no reports are made, and the prestige function is a horizontal line at zero. The best donors can do is to give  $d_0$ . In the second, charities report the exact amount of the donation, so the prestige function is the line  $p = d$ . The utility maximizing donation is now  $d_e$ . Since a dollar donated now buys prestige as well as intrinsic benefits, donations can be expected to increase, unless the prestige reduces  $Ud$  or increases  $Ux$  significantly. In the third plan, the charity sets a category with a minimum amount or lower bracket needed to gain classification into that category. (I will examine situations where the charity sets more than one such category.) Those donating less than the amount of the lower bracket of the category get zero prestige, while those donating the bracket amount or more get credit for the amount of the category, as shown by

p (prestige)

FIGURE 1: LEVEL CURVES AND REPORTING PLANS



the step function in Figure 1. Under this plan the optimal donation depends on preferences and the bracket. A person with preferences as shown will give the bracket amount  $d_b$  (or more) unless the bracket is above  $d_m$ . Note that under a given category reporting scheme a person's optimal donation may be either greater or less than what it would have been under exact reporting.

## II. DATA

I use exact and publicly reported donations by the class of 1976 to the alumni fund of a prestigious law school - the name of which I have agreed to keep confidential - for each year from 1989 to 1993. I also have income data for the alumni, obtained from a survey conducted in 1991. There are a total of 223 complete observations, out of a class of 379. For estimation, I use only the 146 alumni who made at least one positive donation during this period.

The category reporting plan was changed in 1992. Prior to 1992, the lower brackets of the categories were \$100, \$250, \$500, and \$1000. For 1992 through 1994, categories were \$500, \$1000, \$2500 and \$5000. (There were also higher categories, in both cases. Only two donors gave at these levels, and they are excluded from the analysis.) This reporting change affected donations as the model predicts: the number of donations at the omitted categories fell. I use the reported 1991 income as the proxy for income in each year. This is a crude measure, and it might well be preferable to incorporate other information, such as the stock market level, as a measure of year to year changes. I also assume that the after-tax price of giving is 0.66, for all donors and years. This is a serious approximation, in part because of individual variation in marginal tax rates, in part because of tax law changes during this period, and in part because some employers, particularly law firms, match employee donations. (Information on which donors could take

advantage of this is not available.) While it would be possible to estimate more appropriate prices, both this and the better income measures discussed above would complicate the econometric procedure substantially, since each donor in each year would then face a different budget constraint. As the measure of prestige associated with a given category, I use the average of all donations for the given year that fall within the brackets of that category.

### III. ECONOMETRIC METHOD

The econometric method I adopt is similar to methods developed for non-convex budget constraints. Stephen Pudney (1989) describes these in detail. Since these methods involve determining the optimal donation by comparing the utility from donations on each different portion of the constraint, a specific functional form for preferences is necessary. I use the Stone-Geary utility function

$$U = \log x + b \log ( p + k_1 ) + c \log ( d + k_2 ),$$

where, as above,  $x$  is the private good,  $p$  is prestige,  $d$  is the intrinsic benefit, assumed equal to the donation, and  $k_1$  and  $k_2$  are constants. Donors maximize this function subject to the constraints of income, the price of donations, and the category reporting plan which relates donations to  $p$ .

This function requires relatively few parameters. While it allows donations to be linear functions of income, which is convenient for the derivation of the likelihood function, it does not restrict donations to constant percentages of income, as the Cobb-Douglas utility function would. If  $k_1$  is positive, it allows for the possibility of no reported donations (therefore no prestige). If  $k_2$

is positive, it allows for the possibility of no donations (and therefore no intrinsic benefit).

However, this functional form does impose weak separability and a linear expenditure system of demands.

One implication of this model of behavior is that donations just below the kink in the reporting function have zero probability. The maximum likelihood method will therefore produce indifference curves steep enough to fit the donation closest to the kink, even if such curves do not fit the rest of the data well. One explanation for these observations is that they truly represent optimal behavior and should be used as they are in the estimation. Another, which I adopt, is that the donors can make mistakes. Donors will be uncertain about their preferences, about aspects of their budget constraint such as income or the tax treatment of a donation, and about the way in which the charity will report donations. I use two different models for errors. In the first, I simply assume that  $\hat{d} = d^* + \varepsilon$ , where  $\hat{d}$  is the actual donation,  $d^*$  is the optimal one, and  $\varepsilon$  is distributed  $N(0, \mathbf{S}_\varepsilon)$ . In the second, I attempt to account for the fact that donations just equal to the bracket will be optimal for a wide variety of preferences and incomes, and that therefore it is less likely that donors with optimal donations at a bracket will make errors that throw them off a bracket. I do this by assuming that alumni with optimal donations at a bracket will deviate from that bracket only with probability  $\nu < 1$ . If they do make an error, it is distributed as above, as are donations from donors whose optimal donation is not at a bracket. This model has an advantage over the first specification in that it tends to attribute errors to those for whom uncertainty about income and preferences should be most likely to lead them to change their donations, namely those whose optimal donations are not at the brackets.

I find the parameters that maximize the probability of drawing the observed donations,

given observed incomes. To find the probability of a given observation, I first take the utility function parameters under consideration and the person's income and find his optimal donation,  $d^*$ . This is done by calculating the utility this person would get by making his optimal donation on each segment of the reporting plan, and then picking the segment and then the donation where utility is highest. For the first error model, I then evaluate the p.d.f. for  $\epsilon$ ,  $f(\epsilon)$ , at  $\epsilon = \hat{d} - d^*$ , using the value of  $S_\epsilon$  under consideration as the estimate of the error variance. The second model is handled analogously.

#### IV. RESULTS

Table 1 gives parameter estimates and standard errors from the two models. Table 2 gives predicted donations under no reporting and under exact reporting for a variety of incomes and also for the entire dataset. The income specific predictions do not include the impact of the error term. Since donations are truncated at zero, and donations under exact reporting are always higher than under zero reporting, the effect of the truncation is to increase the expected donation under zero reporting by more than that under exact reporting, so it can be argued that these predictions overestimate the impact of reporting on donations. The predictions of overall giving (based on the income of the sample) in the last columns of the table do include the impact of these errors.

For brevity I only give information about fit for the first error model, results for the second are in general slightly better. The model over predicts the numbers of small bracket donations and under predicts for larger brackets. The model prediction is 254 \$100 bracket donations, out of 720 total donations. As there are 115 actual \$100 bracket donations, chance

would imply that 41 \$100 donations are correctly predicted as such, while the model correctly predicts 73. The model predicts 54 versus 32 actual \$250 donations, so chance would imply that 2 of these are correctly predicted as such, while the model correctly predicts 8. As there are very few donations at higher amounts, I omit those here.

I use the difference between donations under no reporting and under exact reporting as a simple measure of the incremental effect of the prestige motive, because this measure is not dependent on the particular brackets used under category reporting. The last two columns of Table 2 show that under exact reporting donations would be from a quarter to a third above what they would be under no reporting, where they only depend on the intrinsic motive. If donors were not making optimization errors, the effect of the prestige motive would be stronger yet: many donors would double or even more than double their donations in response to the prestige motive. These amounts seem sufficient to warrant the importance charities attach to reporting gifts and recognizing donors, and they corroborate the descriptive evidence that, at least for some donors, the prestige motive is quite strong.

## V. CONCLUSIONS

By examining category reporting this paper has concentrated on the simplest and most accurately measurable way by which the actions of a charity can, through a prestige effect, influence the amount donors give. The results support the hypothesis that donors have a taste for prestige, and they show that a substantial portion of donations can be attributed to it.

Some caveats should be made. First, there is clearly a substantial amount of heterogeneity among donors, and it might be more appropriate to use a model that explicitly allows for such

heterogeneity. Additionally, donors may give bracket amounts simply because such amounts are focal points noted on the mailing envelope, rather than because the donors are explicitly optimizing in the face of intrinsic and prestige benefits. This effect will bias my estimate of the prestige motive upwards.

These are atypical donors, giving to an atypical charity. Lawyers have good reasons to signal that they are successful. Donations to law schools are an obvious way to do this, so the prestige motive may be stronger for these donations than for those to, say, the Salvation Army. On the other hand, there are also reasons the prestige motive might be weaker for these donors than is typical. Relative to other groups who make public donations, a law school class is small and members have many ways to gain information about each other outside of seeing names and donor categories in the alumni magazine. The prestige motive might be considerably stronger in other cases, say for a public figure who wants people who do not know him personally to be aware of his generous behavior.

Perhaps the most important and potentially interesting caveat is that there are alternative ways to model how donations, and public knowledge about donations, enter utility. For example, both the intrinsic and the prestige benefits from a donation may not simply equal the dollar amount, but instead might be relative to gifts by others. If so, it seems likely that a person's donations are mainly compared with those of a "reference group," as in Oded Stark (1990), composed of people whom the donor knows and shares common experiences and characteristics.

The importance of reference groups might explain why fund-raisers often emphasize such social activities as parties, dinners, and reunions: these strengthen such groups. The importance of relative donations within these groups may explain the common practice of having large donors

solicit contributions from others in their circle. People should presumably increase their donations after being told that a member of their group has given a large amount, especially after they have just had dinner with him.

In this paper I have used category reporting, and the tendency for donors to give amounts equal to the lower brackets of categories, only as a means of estimating the importance of the prestige and intrinsic motives given my assumptions about how these enter the utility function. In Harbaugh (1998) I examine the characteristics of the donation-maximizing category plan for a charity that has donors with these same sorts of preferences. In future work I plan to combine these approaches in an attempt to learn more about precisely how the intrinsic and the prestige benefits affect the utility of donors. For example, if the prestige benefit depends on how a person's reported donation compares to donations by others, the charity's optimal reporting plan will presumably be different than if prestige only depends on the amount itself. Assuming that fund-raisers know their donors and want to maximize donations, it should be possible to make inferences about donor's preferences from the actual reporting plans.

## REFERENCES

- Andreoni, James. "Giving with Impure Altruism: Applications to Charity and Ricardian Equivalence." *Journal of Political Economy*, 1989, 97:1447-1458.
- Becker, Gary. "A Theory of Social Interactions." *Journal of Political Economy* 1974, 82:1063-1094.
- Bible, King James Version, at <http://etext.virginia.edu/kjv.browse.html>
- Dunlap, David W. "\$3 Million Zoo Gift Revoked Because Plaque Is Too Small." *New York Times*, May 15, 1997.
- Harbaugh, William T. "What Do Donations Buy? A Model of Philanthropy Based on Prestige and Warm Glow." Forthcoming, *Journal of Public Economics*, 1998.
- Pudney, Stephen. *Modelling individual choice: the econometrics of corners, kinks and holes*. Cambridge, MA: Basil Blackwell, 1989.
- Stark, Oded. "A relative deprivation approach to performance incentives in career games and other contests." *Kyklos* 1990, 43:211-227.

TABLE 1: ESTIMATES OF PREFERENCES.

	log L	Estimated preferences	$S_{\varepsilon}$	$\nu$
Error model 1	-3859	$\ln x$ $+ 0.000276 \ln (p + 5.44)$ (0.00000449) (8.26) $+ 0.000256 \ln (d + -12.7)$ (0.00000676) (18.9)	330 (4.26)	n.a.
Error model 2	-3360	$\ln x$ $+ 0.000144 \ln (p - 49.9)$ (0.0000456) (4.04) $+ 0.000403 \ln (d + 29.6)$ (0.000127) (2.35)	364 (5.70)	0.714 (0.0218)

(standard errors in parentheses)

TABLE 2: PREDICTED DONATIONS UNDER DIFFERENT REPORTING SCHEMES.

Reporting	Income = 50,000		Income = 150,000		Income = 300,000		Total for all observations	
	None	Exact	None	Exact	None	Exact	None	Exact
Error model 1	32	45	70	123	127	242	119,100	151,589
Error model 2	1	65	61	127	151	243	99,001	134,744

---

\* Department of Economics, University of Oregon, Eugene, Oregon 97403-1285,

harbaugh@oregon.uoregon.edu

I would like to acknowledge the generous assistance of Oded Stark and useful comments from Zvi Griliches, Rick Harbaugh, and Louis Kaplow. Any remaining errors are my responsibility.

<sup>1</sup> King James Bible, Malachi: 3:10.

<sup>2</sup> New York Times, May 15, 1997.