

Does the Use of Efficiency Data Make Donors Behave More Rationally?

ABSTRACT

This is the first known study that tracks the use of information, including financial statement information, by donors as they make a contribution decision. Using experimental economics and internet behavioral research techniques, subjects make actual donations to two organizations. One of them is efficient and the other is relatively inefficient. I examine whether individuals use efficiency information to make contribution decisions. To better understand donor preferences, I examine whether a social preference, responding to the norm of reciprocity, explains an otherwise unexpected behavior.

I find that 40 percent of the participants made contributions without viewing the efficiency signals of both organizations and, therefore, financial information may not be as relevant to individual as once believed. Donors who used financial information made decisions consistent with the expectations of researchers, regulators, and consumer advocacy groups. Responding to the norm of reciprocity had an effect on the allocation decisions of the subjects and should be included as a viable donor preference.

Keywords

Financial Information Relevance, Fundraising, Not-for-Profit, Experimental Economics, Modified Dictator Game, Information Seeking

Data Availability

Data used for this paper are derived from a laboratory experiment

DOES THE USE OF FINANCIAL INFORMATION MAKE DONORS BEHAVE MORE RATIONALLY?

INTRODUCTION

Americans gave an estimated \$260 billion dollars to charities, which represents 76.5 percent of the total amount contributed to nonprofit organizations in 2005 (Giving USA (2006). These donors are expected by researchers, regulators, consumer protection agencies, and nonprofit managers to prefer to contribute to organizations that spend a significant portion of their resources on the mission of the nonprofit organization, in other words, efficient organizations. As a result, many studies include models with the underlying assumption that individuals view financial information prior to donation and donors prefer efficient organization (e.g., Posnett 1989; Weisbrod and Dominguez 1986; Greenlee and Brown 1999). However, other studies show that individual donors do not behave as expected (Frumkin and Kim 2001; Tinkelman 1998; Parsons 2007 ; Khumawala et al. 2005; Keating et al. 2003). These studies find that many people donate to organizations that are inefficient and appear wasteful. One common but unstudied explanation for this behavior is that individual donors do not always demand financial data prior to making the donation decision (e.g. Gordon and Khumawala 1999; Tinkelman 1998; Baber et al. 2001). This study investigates whether donors use financial information and whether the use of these data will help donors make choices that are consistent with expectations.

Studying the relevance of accounting information to donors is important. First, there is very little research available to guide regulators, executive directors, and researchers in the production of useful information to donors. A better understanding of donor preferences will help researchers specify models of donor giving. Second,

executive directors and their accountants should understand whether financial information affects the level of donations. Third, it is important to understand the impact of readily available financial information on new web sites like Charity Navigator.org and GuideStar.org which are dedicated to providing donors with information about charities. It is the hope of the website developers and consumer watchdogs that accessible information will help donors make better decisions (Philanthropic Research 2006; Navigator 2006). There is little research to substantiate these expectations.

This is one of the first studies to directly monitor the use of information by donors as they make an actual donation decision. Additionally, there are no studies showing that the use of financial information by individual donors will yield decision outcomes consistent with expectations since donors have many motivations. To investigate the objectives of this paper, I examine whether individuals use efficiency information to make contribution decisions and whether individuals who view the efficiency signals from nonprofit organizations will donate more to the most efficient organization. In addition, to better understand donor preferences, I investigate whether a social preference, responding to the norm of reciprocity, explains otherwise unexpected behavior.

Using a version of the dictator game, subjects make actual donations to two real organizations, Participants allocated ten dollars between them and the two organizations in a three person modified dictator game, used in experimental economics. One organization was highly efficient (Organization B) and the other organization (Organization A) was much less efficient. The participants analyzed financial information, presented on webpages, about two organizations (Organization A and

Organization B) for the purpose of making a donation decision. The available information included a set of financial statements financial ratios and basic information about the charity. The use of experimental economics in accounting research can help bridge the work between to the two fields of study and to broaden accounting researchers' view on a particular subject (Moser 1998).

To examine whether social influences will affect the relevancy of financial information and explain the otherwise unexpected behavior, the norm of reciprocity is introduced. The norm requires that one person try to repay what another person has bestowed. By obligating the recipient to an act of repayment in the future, the norm of reciprocity allows an individual to give something to another with confidence of repayment. The need to comply with the norm of reciprocity is very strong and may affect judgment and choice (Cialdini 1985).

Invoking the norm of reciprocity is a popular method to increase donations, Organizations often send small or token gifts with solicitations to attract donations (Waasdorp 2004; Ruzicka 1993; Hart 1993). Incorporating the desire to comply with social pressure is seldom included as a preference in accounting research; however, it can provide an in-depth understanding of behavior and the relevance of financial data.

Since the predictions made in this study are based on the use of financial information as well as the amount donated to the organizations, I programmed the experimental materials to track the selection of information. All information is presented to the subjects on computer screens, and selections are monitored and tracked. This information allows me to divide the sample into those who viewed the program ratio and those who did not.

Overall, these results provide evidence that using accounting information in donor decision making helps individuals make choices consistent with popular expectations. Further, it is important to include other donor preferences, such as responding to social pressure, in future studies since they have been shown to affect choice. Additionally, nonprofit researchers need to revise beliefs about relevancy. Many donors may not find accounting information, particularly the program ratio relevant to their decision making. Therefore, the relevancy of accounting information is not a foregone conclusion.

The study is organized as follows: Section II explains how using accounting information improves decision outcomes. The section also includes the development of an alternative theory to describe donor behavior. Section III describes the experiment, and Section IV provides results. Section V summarizes and concludes the paper.

RESEARCH HYPOTHESES

Expectations vs Reality

In many nonprofit accounting research studies (e.g. Greenlee and Brown 1999; Tinkelman 1999) individuals are expected to prefer to pay the lowest price for their donations (i.e., desire more money going directly to the missions of the organization). In order to determine the price of a donation, financial information becomes relevant in the decision making process. A key financial indicator of a low-priced donation is total program costs to total costs (program ratio).

The program ratio indicates how well the nonprofit organization allocates its resources to the programs that support its mission and is a common measure of nonprofit organizational efficiency (Parsons 2003; Tinkelman 1999; Baber et al. 2002; Posnett

1989). Efficient charities allocate more resources to the intended beneficiaries and they keep administrative costs within reasonable limits. Consequently, efficient NPOs devote the majority of their spending to the programs and services they purport to provide and spend less to raise resources.

Several research models are based on the expectations that donors prefer efficient organization and use financial information to make the determination. Many studies (e.g. Tinkleman (2004; 1999; Weisbrod and Dominguez 1986; Callen 1994; Posnett and Sandler 1989) implicitly assume that donors use financial data and upon viewing positive information, are more likely contribute to the organization. These studies also find an inverse relationship between donations and price.

However, some researchers have found that individual donors do not always behave as predicted. The results of these studies indicate that certain financial information is not as relevant as expected. In addition, Steinberg (1986a; 1986b) found no statistical relationship between fundraising overhead and donations. Frumkin and Kim (2001) did not find a relationship between overhead costs and contributions.

In Tinkleman (1998), the relationship between individual donations and ratings of efficiency, effectiveness, and compliance with government standards and joint cost disclosures was not found. Tinkleman concluded that the lack of a significant relationship was due to high information costs, donor ignorance, or information irrelevance. He also found a weaker relationship between individual donations to price when compared to other types of donors.

To explain why individual donors continue to donate to nonprofits with high fundraising costs, Keating et al. (2003) proposed that individual donors ignore financial

information because either they are ill informed or motivated by the mission of the organization. Many of the nonprofit organizations included in their study had fundraising expenses in excess of 70% of donation revenue.

Parsons (2007) hypothesized that individual donors would contribute more if they received positive financial information along with other solicitation information. As seen in other studies, individual donors did not behave as expected. Donors in receipt of positive financial information did not give more than donors who did not receive financial information. In addition, the likelihood of contributing did not increase with the receipt of positive financial information.

The reason frequently given for the unexpected findings is the irrelevance of financial information to individual donors. Since donors may not view all relevant information, overall individual donations may not show this preference

H1a: Overall donations to nonprofit organizations will not show a noticeable preference for efficient organizations.

To properly calculate the expected utility of all alternatives in a choice set, individuals must evaluate all available information. A rational choice of donors who prefer low-priced donations, therefore, is a choice that is carefully and accurately evaluated (MacDonald 2003) . All available and relevant information about the alternatives in the decision set should be analyzed by the decision-maker.. Some (i.e., Keating et. al 2003) speculate that obtaining financial information about nonprofit organization is difficult; therefore, the cost (effort) of information is high. However, if donors have a preference for efficient organization, a “rational” donor would view financial information, especially when the cost of the information is near zero.

Accordingly, the following hypothesis is predicted:

H1b: Donors who view program ratios will contribute more to the most efficient organization than donors who do not view both ratios.

Reciprocity, Rationality, and Donation Levels

Another possible reason donor chose organizations that yield a higher priced donation include responding to social norms like the norm of reciprocity. Social context can have a significant effect on the outcome and actions of individuals and can affect the relevance of information that is available to decision makers (Cialdini and Goldstein 2004). Reciprocity, a strong human reaction and one of the most widespread and basic norms of human culture (Gouldner 1960; Blau 1964) places strong demands on individual actions and may make certain information less relevant. Therefore, it is important to consider the social context of a decision when studying the significance and usage of information.

Including social preferences, such as complying with the norm of reciprocity, in accounting research studies is uncommon; however these preferences exist and they may have a significant impact on decision outcomes (Demski 2004; Sprinkle 2003). In this part of study, I consider the impact of social preferences on contribution decisions in order to shed additional light on rational donor decision making.

Many nonprofit institutions use small gifts to induce donors to contribute to their organizations (Waasdorp 2004; Ruzicka 1993; Hart 1993). The effectiveness of this tactic is due to three characteristics of the norm of reciprocation. The first characteristic is its overwhelming influence. The norm is very powerful and it often overpowers the influence of other factors that normally determine compliance with a request. Second, the norm applies to uninvited favors, thereby reducing the ability to decide whom we

wish to owe and putting the choice in the hands of others (Regan 1971; Cialdini 1985).

Third, the norm can lead to unequal exchanges. To be rid of the uncomfortable feeling of indebtedness, an individual will often agree to a request for a substantially larger favor than the one he or she received (Cialdini 1985).

The gift causes the donor to feel obligated to return the gesture by making a donation to the organization. A recent study shows that this technique is effective. Falk (2004) reports that variation in the size of the gift included in NPO solicitation directly influenced the size of the donation. The donors who received a gift with their solicitation contributed more to the organization. The authors attributed the norm of reciprocity as the explanation for these results.

In addition, in their model of Individual Giving, Gordon and Khumawala (1999) proposed that donors would be less likely to demand financial information when they receive an extrinsic benefit. Receiving a gift from an organization can be considered a benefit. Therefore, I predict the following:

H2: The level of donations to the inefficient organization increases when donors receive gift from that organizations and chooses not to view efficiency information.

To counteract the influence of social pressures, Cialdini (2004) suggests the following:

“By understanding persuasion techniques, we can begin to recognize strategies and thus truly analyze requests and offerings. Our task must be to hold persuasion professionals accountable ...and to ...donate to their causes only when they have acted truthfully in the process. If we make this vital distinction in our dealings with practitioners of the persuasive arts, we will rarely allow ourselves be tricked into assent.(Cialdini 2004)”

Decision makers should not let the gift be the sole factor influencing decision making. As a result, if donors view the program ratios and not be swayed by the gift, I predict that:

H3: The level of donations to the inefficient organization decreases when donors receive gift from that organization and chooses to view efficiency information.

EXPERIMENT

The Dictator Game

A modified version of the dictator game was used. The dictator game is a two-person game in which the first person chooses how to divide a payoff with another person. In the original dictator game developed by Forsythe et al. (1994), subjects divide m dollars between themselves, π_{self} , and another subject, π_{other} , so that $\pi_{\text{self}} + \pi_{\text{other}} = m$. However, in the modified dictator game, the other subject(s) are charitable organizations, $\pi_{\text{NPOa,b}}$. The dictator game used for this study is further changed by allowing the NPO players to offer a gift to the subjects before the subjects make their allocation decision.

Subject Recruitment

One hundred and thirty-six participants were recruited for the study. The participants were undergraduates and graduate students from a university in the Midwest. Students were viewed as reasonable proxies for individual donors, particularly since they have been used as donors in prior research (Khumawala and Gordon 1997; Eckel 1996; Eckel and Grossman 2003) and 91.9% of the students selected for this study reported giving to charities in the past. Descriptive statistics and characteristic of the subjects is presented in Table 1.

Design and Materials

Subjects were randomly assigned to one of four conditions in a four within-subjects x two between-subjects design. The two independent variables are the gift conditions (no gifts, gift from A only, gift from B only, and gift from both organizations) and efficiency (high efficiency and low efficiency).

Organizational efficiency was measured by the program ratio. The program ratio is calculated by dividing total program expenses into total expense. According to Give.org, the Better Business Bureau Charity Evaluation Division indicates that a ratio of less than 65% is considered a sign of inefficiency. In addition, Charity Navigator, a nonprofit, national service organization that evaluates the performance of NPOs, suggests that program ratios less than 70% are inefficient. Therefore, for purposes of this study, low efficiency was organizations with a program ratio of less than 65 percent. These cutoffs were used in the study to increase the generalizability of the results since these measures are widely accepted. The actual names of the organizations were removed.

For each allocation task, participants chose between two organizations whose mission is to assist children facing cancer and other life-threatening illness. Other research indicates that organizations that help children and organizations that perform cancer research receive among the highest donations in experiments (Khumawala and Gordon 1997; Eckel and Grossman 2003). Therefore, for this study, organizations that give children with life-threatening illnesses like cancer a special wish¹ was chosen.

¹ The organizations were selected using Guidestar.org. Guidestar.org is a website that contains extensive information about nonprofit organizations. It uses information from IRS form 990 to obtain financial and

To assess the impact of non-financial information on the level of donations, certain non-financial information about the low efficient organization was purposely retained and enhanced. The organization had a very compelling mission which was retained and included in the program and mission pages. Also, the organization's directors were given more descriptive, impressive titles to enhance their possible impact.

Experimental Procedure

The design of this study incorporates a unique internet-based mouse-lab. To collect information about the search activities of the participant, webpages were used as cues and a computer program tracked the pages viewed, sequence of pages viewed, and amount of time each subject viewed the pages. The home page has links to all supporting pages. These pages have links back to the homepage and the other pages. Subjects were able to access portions of the organization's financial statement information (i.e., assets, liabilities, income, expenses, footnotes, and financial statement ratios) and other information, including NPO mission, board members, and goals.

Combining internet-based research in a laboratory experiment setting offered several advantages. Using internet based-research (IBR), the researcher can automate the data collection process, reducing errors. In addition, IBR allowed for the noninvasive observation of the decision making process of the subject. The laboratory aspect of the design increased the internal validity of IBR studies (Bryant et al. 2004) by eliminating

non-financial data. Keywords like "cancer" and "children" were used to query the database. Organizations with similar revenue and expenses and, pairs containing one organization with one high (<65%) and one low program (>65%) ratios were selected for further review. The 65% cutoff was obtained from the Better Business Bureau, Standards for Charitable Accountability, as the point where nonprofits become efficient or inefficient (BBB 2003). The pair with the most complete information was selected.

the possibility of multiple submissions, and increased participation drop-out, and increasing variability in the research setting.

Subjects in each of the four experimental groups were asked to allocate tokens between themselves and two nonprofit organizations. Each participant received a \$5.00 for attending the session and \$10.00 to allocate between him and two charities. When subjects completed their search, they clicked on the “Donation Allocation” icon, where they are directed to allocate the \$10.00 endowment. The treatment groups varied according to whether subjects receive a gift (see below) from one or both NPOs. After the allocation decisions were made, additional survey information was collected.

At the survey page, the Personal Norm of Reciprocity scales (Perugini et al. 2003), a survey of attitudes towards reciprocity, an eight item manipulation check, and a demographic information questionnaire was presented and subjects completed them on-line. The monitor was asked to verify that checks are written to each organization, accompany the experimenter to the mailbox, and sign a statement verifying that the organizations were paid. The total time expended by participants was 35-45 minutes.

Dependent Variables

The dependent variables used in this study are donations made to Organization A (DONATIONA) and donations to Organization B (DONATIONB). The donation variables represent the amounts contributed by the subjects to the nonprofit organizations, during the allocation portion of the experiment. Total donations are the combined total donated to both organizations. Donations to Organization A and B are tracked.

The subjective importance variables, measures of information relevance, were measured by a post-experiment questionnaire that subjects completed. Subjects were asked to rate² the usefulness of the information presented in the task.

RESULTS

Hypotheses Tests

In total, 136 subjects made complete, useable decisions in the four conditions, 36 in the control no gift condition, 34 in the GIFTAONLY condition (Treatment 2), where the less efficient organization, Organization A, makes a gift, 34 in the GIFTBONLY condition (Treatment 3), where the more efficient organization, Organization B, makes a gift, and 32 in the GIFTBOTH condition (Treatment 4), where both organization issues a gift.

(Insert Table 1)

Table 1 provides a summary of the demographic characteristics for the combined subject pool and for the two study groups, donated and viewed both ratios, and donated and did not view both ratios. Overall, for the combined experimental group, the average age of subjects was 20. Men comprised 64.0% of the sample. Most of the subjects, 91.9%, had given to charities in the past. The majority of the subjects (85.3%) decided to donate some amount to the NPOs. While 22.1% of the subjects were accounting and

² The subjects rated the importance of each information item by using a 10-point likert scale, “1” meaning not used or not helpful, and a score of “10” meaning the item was extremely useful, as used in Khumawala and Gordon (1997). These measures were used to help in the understanding of donor behavior.

business majors, 34% were science majors, and 36.7% were liberal arts and other majors. Thirty percent (30%) of the subjects had taken one or more accounting classes.

After randomly assigning the participants to the original 4x2 design, the subject responses were separated into two groups—those that viewed the ratios and donated and those that did not view the ratios and donated. Of the 136 participants, 54 participants or 40 percent did not view both program ratios prior to making their donation decision (see Table 2). The number of participants not viewing both ratios indicates that a significant number of subjects behaved “irrationally” by not viewing the available information to ensure maximization of the benefit to the intended beneficiaries and to themselves.

(Insert Table 2)

A total of 116 subjects donated to one or both organizations, 76 donated and viewed both program ratios, and 40 subjects donated and did not view both ratios (See Table 2). In comparison, the two groups are very similar, however the donated and viewed both group had a higher percentage of males (42.5% vs 67.1%), lower percentage of Asians/Asian-Americans (27.6% vs 40.0%), lower percentage of juniors and graduates, and lower percentage of science majors (28.9% vs 47.5%)—See Table 1. .

Table 3 presents descriptive statistics for the dependent measure: the average amount donated to the two organizations. The average amounts donated by these subjects to Organization A and B are also shown in Table 3. The differences and t-test results of comparisons across and down are also shown.

(Insert Table 3 Here)

H1a predicts that overall donations to nonprofit organizations will not show a preference for efficient organizations. Just as recent studies have shown, overall,

individual donors appear not to have a preference for efficient organization. Total average donations were equal. Organization A received an average of \$3.02 and Organization B received an average of \$3.35, difference of \$.33, $t=-.946$, $p=.346$.

Hypothesis 1b predicts that individuals who analyze both ratios will contribute more to the most efficient organization. The descriptive statistics in Table 3 show that subjects, across all treatment groups, who viewed both ratios gave Organization B \$1.06 ($t=2.323$, $p=.011$) more than they gave to Organization A. Donors who did not view both ratios gave significantly more to the inefficient organization, Organization A, (Difference \$1.07, $t=2.385$, $p=.011$), as predicted. Organization A received \$1.02 ($t=2.177$, $p=.016$) more from the donors who did not view the signals and Organization B received \$1.11 ($t=2.376$, $p=.010$) more from donors who viewed the ratios. These hypothesized contrasts suggest that when donors evaluated both ratios, their choices appear more rational. In other words, their choices are consistent with the expectations of regulators, consumer watchdogs, and researchers. On the other hand, if donors did not view these ratios, the choice appeared less rational, as predicted.

Reciprocity and Rational Decision Making

On the whole, the norm of reciprocity increased overall donations to the organization among the subjects who donated. Table 4, reports the results of the following regression³:

³ “The dependent variables, total donations (DONATIONS), donations to A (DONATIONA), and donations to B (DONATIONB), do not have fully normal distributions, a violation of an ordinary least squares (OLS) assumption. Consequently, nonparametric tests were run and the same results were attained. Therefore, since OLS

$$\text{DONATIONS} = a_0 + a_1 \text{GIFT} + \varepsilon \quad (1)$$

Where:

DONATIONS=Total donated to both organizations by donor

GIFT=represents a dummy variable, coded 1 if a gift was issued to subject and 0 if not.

The coefficient on GIFT is significant and positive, ($t=2.249$, $p\text{-value}=.026$). The total amount donated to the organizations is related to the subjects responding to the norm of reciprocity. However, H2 relates to the effect of reciprocity on donations to the inefficient organizations, Organization A.

(Insert Table 4 Here)

H2 predicts that the level of donations to the inefficient organization increases when donors receive a gift from that organization and chooses not to view efficiency information. To test this prediction, a t-test was performed comparing the means from the test condition where the inefficient organization gave a gift to participants and the inefficient organization did not, treatment group 2. The results of the t-test are shown on table 4.

(Insert Table 5 Here)

Contrasting the donations to Organization A relative to Organization B in the test condition where Organization A makes a gift and Organization B does not, GIFTAONLY, I find that these donors gave Organization A significantly more than they gave to Organization B (See Table 4, Panel A, \$4.24 versus \$2.55, $t=2.268$,

regressions allow for more flexibility in analyzing the data, the results of the parametric tests are reported.”

$p=.022, 1\text{-tailed}$)⁴. The result indicates that, in this case, the desire to follow the norm of reciprocity is a strong influence and H2 is supported.

When subjects looked at the ratios of both organizations in the GIFTAONLY treatment group, they were not swayed by the gift made by Organization A (See Table 4, Panel B, \$1.76 versus \$5.13, $t=-4.05$, $p=.000, 1\text{-tailed}$). The results also indicate that Organization A was “punished” for trying to manipulate the subjects since donors gave Organization B \$3.37 more than they gave Organization A. Consequently, H3 is supported.

Other Analysis

Some participants did not find the financial information relevant. All participants were asked, via a survey, at the conclusion of the experiment whether they believed that the amount of resources devoted to administration costs should affect the amount donated to the organization. They were asked to rate their response from 1 to 5 (scale, 1= Strongly Disagree and 5= Strongly Agree). The participants who donated and did not view the ratios disagreed with this statement (mean=2.72). The participants who donated and viewed both ratios agreed with the statement (mean = 3.86). This is further evidence that the preference for efficiency may not be universal.

⁴ In contrasting the amounts given to Organization A and Organization B for all four treatment groups, only the GIFTAONLY treatment group has a significant difference between the two amounts.

SUMMARY AND CONCLUSIONS

This paper investigates the potential of an informed contributor. In one of the first studies to investigate the decision making process of donors while making an actual donation, I find that when donors seek and use information about organization efficiency, their decision outcomes are consistent with rational choice predictions. When participants do not view information about efficiency, their decisions appear less rational; they give more to the inefficient organizations. When the norm of reciprocity is invoked by gifts made by the organizations, participants who viewed both ratios and received a gift from the efficient organization increased donations to that organization. In addition, complying with the norm of reciprocity influenced donors who did not view both ratios to give the inefficient organization more than the efficient organization when the inefficient organization gave a gift. This evidence suggests that responding to social preferences should be included in future models of donor preferences since it can explain why donors contribute to inefficient organization.

The results further suggest that automatic use of available financial information by decision makers is not a foregone conclusion. Forty percent of the participant did not bother to view efficiency information. This suggests that there are other donor preferences that outweigh the preference for efficient organizations. Or perhaps, the preference does not exist for many donors. Alternatively, these results could indicate that some participants were not aware of the benefits of using the program ratio, and, therefore, public education efforts need to be continued and expanded.

There are several implications of this study. First, the findings provide further support for the results of studies (i.e., Tinkelman 1998, Baber, Roberts, and Visvanathan 2001) that indicate small individual donors do not behave as expected or are “rationally ignorant.” When donors do not view the program ratio, they make choices contrary to normative theories of behavior. Conversely, when donors review the financial data, their choices are consistent with rational choice expectations. Due to the results of this study, researchers must be very cautious when evaluating the results of archival research involving individual donors. It is highly possible that many individual donors did not bother to view the financial information of the organizations, even when information is readily available to them.

Second, social preferences, such as conforming to the norm of reciprocity, affect donation levels. Traditional models of donor behavior and preferences are limited and aberrations are concluded as being “irrational” behavior. However, by expanding these models to include other needs and desires of decision makers, such as social preferences, behavior will appear more rational. Further, including other preferences in accounting research studies enriches existing knowledge of donor behavior.

Third, to increase donations to newer, less efficient organization, nonprofit managers should consider including a small gift to potential donors. A gift is effective in invoking the norm of reciprocity and can increase the level of donations to the organization.

Fourth, individuals should continue to be encouraged by consumer watchdogs and regulators to use nonprofit financial information in their decision to donate. These agencies encourage (U.S. Office of Personnel Management, 2006; BBB 2003; Princeton

Survey Research, 2001; Silvergeid, 2003) donors to use financial information to help protect them from wasteful or fraudulent organizations. Evidence revealed in this study indicates that individuals are able to use financial information to determine which organization devotes a greater portion of its resources to its programs. Encouraging more donors to use the information could reduce the number of individuals who fall victim to nonprofit fraud and pressures from social norms. In addition, with more and more information becoming available on the web (i.e, GuideStar, Charity Navigator, etc), it is much easier for potential donors to access the information recommended by these groups.

To further understand donor behavior, future research should look at the reasons individuals donate to inefficient organizations. The results of this study raise questions about the amounts donated to Organization A, the low efficiency organization, by the group who viewed both ratios.

This study has several limitations. First, undergraduate students were used to proxy donor behavior. Although 91% of the undergraduates used in this study said they have contributed in the past, some may have limited giving experiences which may influence the results of this study. Further, there is little age variability in the subject pool and, therefore, a full range of risk and giving preferences may not be fully represented.

Second, the amount of information available to the participants was limited to enable the participants to complete the task in a reasonable amount of time. On the web, potential donors can learn more about an organization by going to their internet sites. Despite these limitations, this study provides descriptive ex ante evidence to researchers

and financial information providers, and consumer advocates that when individual use nonprofit financial information, they will reward efficiency and not succumb to the pressures of social norm.

Table 1: Subject Characteristics

	Entire Sample (%)	Donated, Viewed Both Ratios (%)	Donated, Did not View Both Ratios (%)
n	136	76	40
Age	19.99	20.03	20.03
S.D.	(1.83)	(1.95)	(1.42)
Male	87 (64.%)	51 (67.1%)	17 (42.5%)
Female	49 (36.%)	25 (50.%)	23 (44.4%)
Giving to Charity in the past	125 (91.9%)	72 (94.7%)	35 (87.5%)
Attend religious services regularly	75 (55.1%)	43 (56.6%)	23 (57.5%)
Race			
Asian/Asian-American	37 (33.8%)	21 (27.6%)	16 (40.%)
Black/African-American	8 (5.9%)	6 (7.9%)	2 (5.%)
White/Caucasian	78 (57.4%)	46 (60.5%)	21 (52.5%)
Hispanic	2 (14.0%)	2 (2.6%)	0 (0.%)
Other	2 (1.5%)	1 (1.3%)	1 (2.5%)
Class			
Freshman	48 (35.3%)	29 (38.2%)	12 (30.5%)
Sophomore	27 (19.9%)	12 (15.8%)	10 (25.%)
Junior	31 (22.8%)	17 (22.4%)	9 (22.5%)
Senior	25 (18.4%)	17 (22.4%)	6 (15.%)
Graduate	5 (3.7%)	1 (1.3%)	3 (7.5%)
Major			
Accounting	10 (7.4%)	5 (6.6%)	4 (10.%)
Other Business	20 (14.7%)	12 (15.8%)	4 (10.%)
Psychology	9 (6.6%)	7 (9.2%)	2 (5.%)
Sciences	47 (34.6%)	22 (28.9%)	19 (47.5%)
Liberal Arts	15 (11.%)	9 (11.8%)	3 (7.5%)
Other	35 (25.7%)	21 (27.6%)	8 (20.5%)

Table 1: Subject Characteristics (Continued)

	All Groups (%)	Donated, Viewed Both Ratios (%)	Donated, Did not View Both Ratios (%)
No of Accounting Classes			
None	95 (69.9%)	51 (67.1%)	31 (77.5%)
One	15 (11.0%)	10 (13.2%)	2 (5.%)
Two	13 (09.6%)	9 (11.8%)	2 (5.%)
Three	3 (2.2%)	1 (1.3%)	0 (0.%)
More than Four	11 (8.1%)	5 (6.8%)	5 (12.5%)

Table 2
Donation Status and Viewing Signals Count-H1

Donate Status	Viewed Both Signals				Totals
	Yes		No		
Yes	76	93%	40	74%	116
	66%		34%		100%
No	6	7%	14	26%	20
	30%		70%		100%
Totals	82	100%	54	100%	137
	60%		40%		100%

^aThis table shows the number of subject who viewed and did not view the efficiency signal of the nonprofit organizations.

^b Donate Status is dummy variable, 1=Yes subjected donated and 0=No, subject did not donate.

TABLE 3 ^{a,b,c}

Panel A: Donors Choices Between Organization A and B--Overall

	Nonprofit Organizations		Difference	N	t	df	Sig. (1-tailed)
	A	B					
Average Total Donations-All Groups Combined	3.02	3.35	-0.33	116	-0.946	115	0.346

Panel B: The Effect of Donors Seeking Efficiency Information on The Level of Donations

Participants	Nonprofit Organizations		Difference	N	t	df	Sig. (1-tailed)
	A	B					
Donors who viewed both	\$ 2.67	\$ 3.73	\$ (1.06)	76	-2.323	75	0.011
Donors who did not view both	\$ 3.69	\$ 2.62	\$ 1.07	40	2.385	39	0.011

Difference	\$ (1.02)	\$ 1.11
t	-2.177	2.376
df	114	114
Sig (1-tailed)	0.016	0.010

^aThe level of donations is measured by the amount allocated to the nonprofit organizations.

^bOrganization A represents the inefficient firm with program ratio = 59% and Organization B represent the efficient nonprofit. Its program ratio = 90%. Both organizations are actual nonprofits.

^cParticipants received financial statements and basic information about both organizations.

Table 4
Regression of Total Donations on Gifts

$$\text{DONATIONS} = a_0 + a_1 \text{GIFT} + \varepsilon$$

Variable	Coefficient	Standard Error	T-statistic	p-value
Intercept	5.239	0.576	9.091	0.000
Gift	1.488	0.662	2.249	0.026

Adjusted R²=.050

Notes:

DONATIONS=Total Donations to both organizations

GIFT=represents a dummy variable, coded 1 if a gift was issued to subject and 0 if not.

Table 5

Planned Comparisons of Donations when Only Organization A (Inefficient) Makes A Gift to Potential Donors (GIFTAONLY)-H2 and H3

Panel A: Donors Did Not View the Efficiency Signal (H2)

Condition/Variable	Organization A		Organization B	Mean Difference	df	t-statistic	p-value ^a
GIFTAONLY	\$4.24	versus	\$2.55	\$1.69	11	2.27	0.02

n=12

Panel B: Donors Viewed the Efficiency Signal (H3)

Condition/Variable	Organization A		Organization B	Mean Difference	df	t-statistic	p-value ^a
GIFTAONLY	\$1.76	versus	\$5.13	(\$3.37)	18	-4.05	0.00

n=19

^a Consistent with a directional predication, p-value is one-tailed

GIFTAONLY -Treatment Group where only Organization A, least efficient makes a gift.

Organization A-Inefficient Organization, Organization B-Efficient Organization

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