

DO CHARITY RATINGS MATTER?

Vidhi Chhaochharia*
University of Miami
E-mail: vchhaochharia@exchange.sba.miami.edu

and

Suman Ghosh
Florida Atlantic University
E-mail: sgosh@fau.edu

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Abstract

This paper investigates whether donor contributions to charities responds to the information incorporated in charity ratings. Using charity ratings data from 1999-2004, we find that ratings do have a significant effect on contributions received. We find that charities that have the lowest rating have 16 % less contributions as compared to charities with the highest rating. In addition we find that charities in turn react to lower ratings by increasing their fundraising expenditures. Our results suggest that ratings do have an effect in reducing the asymmetry of information that exists amongst donors and the charities.

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Corresponding Author: Suman Ghosh; Department of Economics, Florida Atlantic University, 777 Glades Road, Boca Raton, FL 33431; E-mail- sgosh@fau.edu; Ph: 561 297 2948.

1. Introduction

In 2005, individuals in the US gave over 260.28 billion dollars to charity, or 76 % of the total dollars donated. About 70 to 80 percent of Americans contribute annually to at least one charity. The trends in giving over the last 30 years show that total giving has been on a steady rise. The theoretical and empirical research on charities has specifically studied the motivations behind these donations and government policy towards donations to charities.¹ The literature assumes that after money is donated to charities there is no accountability issue and hence it is assumed to be disbursed efficiently towards their respective destinations. But charities might also be susceptible to the same kind of inefficiencies as for-profit firms are.

As this following quote from Steinberg and Weisbrod (1998) pg 76-77 emphasizes:

“Favoritism, nepotism, kickbacks, self-dealing, and other abusive power relationships can govern nonprofit allocation, particularly when allocation criteria require subjective judgements by the nonprofit employee. There is more scope for such abuse in the nonprofit sector because nonprofits are not subject to financially motivated takeover bids that limit abuse among for-profits.”

Several high-profile nonprofit financial scandals in recent years,² contributed to calls for non-profit accountability and a more efficient “social capital market”, in which charitable donations would flow to the most effective organizations. Today, accountability and

¹ Andreoni (1990), Glazer and Konrad (1996), Harbaugh (1998 a,b) and Ribar and Wilhem (2002) are some important papers which study giving motivations and Andreoni and Payne (2003) and Payne (1998) study government policy towards charitable giving. See Andreoni (2006) for an exhaustive survey of the literature.

² In 1992, William Aramony, the CEO of United Way had to resign following allegations for cronyism and financial wrongdoing. Now jailed power lobbyist Jack Abramoff created the Capital Athletic Foundation as a nonprofit, then collected millions of dollars from his clients and used most of it for noncharitable purposes. Similar examples abound including such venerable charities such as Red Cross.

performance measurement are part of most discussions about the future of the nonprofit sector. In response to this, a handful of rating organizations have emerged to help donors navigate the charitable universe. Each organization scrutinizes charities according to selected criteria and makes this information available to the public in the form of some kind of rank or grade. Thus the rating organizations reduce the asymmetry in information about the charities to donors. They serve as an independent body providing information on the charities to potential donors. However, till date we know of no research that explores the effects of these independent evaluations providing additional information about charities.

Although the rise of the watchdog organizations has been hailed as a policing authority on the charities and more importantly of making the search and transaction costs for donors less, there have been studies criticizing these organizations also. For example Hopkins (2002) accuses watchdog agencies of setting arbitrary and flawed standards, of lacking the proper training and experience to effectively evaluate charities, and of falsely portraying themselves as neutral bodies. Thus, it is not clear whether donors perceive the ratings seriously while making their donations; and without any concrete empirical investigation it is difficult to draw any conclusion. This paper is the first study which delves into this issue.

The first question that we ask in our study is whether ratings have an independent effect on contributions received? If the answer to the previous question is in the affirmative, which we find it is, then it begs another question—how do the charities respond to the ratings in terms of their fundraising expenditures? A priori, one might have arguments in both directions. Firms can either increase (decrease) their fundraising expenditures next period if they receive a bad (good) rating this period to compensate for the latter; or they

might also decrease (increase) their expenditure since the marginal benefit is now lower (higher).³ We find that charities that have the lowest rating have 16 % less contributions as compared to charities with the highest rating. In addition we find that charities in turn react to lower ratings by increasing their fundraising expenditures.

Our paper is structured as follows. In the next section we relate our work with the relevant literature. In section 3 we construct a simple theoretical model in order to analyze the response of charities in terms of fundraising expenditures to the ratings that they receive. In section 4 we describe our data. In section 5 we specify our main empirical model which we use for our analysis followed by the results in section 6. In section 7 we perform some robustness checks and finally we conclude in section 8.

2. Relevant Literature

This paper fits into two distinct literatures: (1) how do markets react to news about institutions and (2) how do institutions react to the news? Some papers which fall into the first branch of literature are that of the information content of school grades and how consumers value them. Given the difficulty of calculating the relationship between school quality and student outcome, Black (1999) uses an ingenious methodology by using house prices to infer the value parents place on school quality. She finds that parents are willing to pay 2.5 percent more for a 5 percent increase in test scores. A similar study by Figlio and Lucas (2004), using detailed data on repeated sales of individual residential properties in

³ Fundraising expenditures can be thought akin to advertisement expenditures of firms. They have an independent positive impact on sales (donations in case of charities) by reaching out to customers (donors). Thus it is a question of how charities perceive donors to react to the ratings. For example, for a bad rating received they might decide to negate the effect by the increased donations coming as a result of increased fundraising expenditures or else if they think donors will react to the rating considerably they might rather take steps to correct the fundamentals, by say increasing the percentage spent on the charitable programs per se.

the state of Florida, finds a significant effect of state-administered school grades on house prices.⁴ In the finance literature there have been studies which investigate the consequences on stock prices following bond ratings changes. Dichev and Piotroski (2001) is one such paper which studies that question. Their paper also studies the differential impact of upgrades as against downgrades of bond ratings changes on long run stock prices.⁵

The second branch of literature consists of papers which study how institutions in turn react to the new information which was previously not available to consumers. Jin and Leslie (2003) study the effect of an increase in product quality information to consumers on firms' choices of product quality.⁶ In the health care literature Dranove et.al (2003) use national data on Medicare patients at risk for cardiac surgery and find that cardiac surgery report cards in New York and Pennsylvania led both to selection behavior by providers and to improved matching of patients with hospitals. In the schooling literature there has been several studies in a similar vein to enquire about institutional responses to school accountability. Figlio and Getzler (2002) investigate how schools in six counties in Florida "game the system" by reshaping the test pool of students in order to get high test scores as a response to school accountability. Similarly Jacob (2005), look at the effects of test-based accountability in Chicago schools and find that low achieving students in struggling schools are the most likely to be placed in special education. Cullen and Reback (2006) use aggregate data to exploit the discontinuity in rewards in Texas's accountability system to show that schools respond to incentives to shape the test pool.

⁴ Soon after taking office in January 1999, Governor Jeb Bush of Florida started a system of accountability amongst the Florida schools based largely on student test scores, in which each school would receive a letter grade from the government ranging from "A" to "F". Figlio and Lucas exploit those grades (which started from 1999) to examine the effect on housing prices.

⁵ Other papers in this vein are Holthausen and Leftwich (1986) and Pinches and Singleton (1978).

⁶ More precisely they study the effect of hygiene quality grade cards on health inspection scores of restaurants and also the impact on restaurant revenues. Thus they integrate both strands of enquiry mentioned above, as we do in the current paper for charity ratings.

In this paper we combine these two strands of enquiry for charities in the US. The papers within the charity literature that are close to our work are as follows. Papers like Weisbrod and Dominguez (1986), Posnett and Sandler (1989), Khanna et.al (1995) and Okten and Weisbrod (2000) estimate the factors influencing charitable contributions to non-profit organizations. One of the main factors that have been considered in this literature is that of fundraising expenditures. It is precisely here that ratings and rankings can have a significant effect. Fundraising is an activity which is pursued by charities themselves to channel contributions to their organization. On the other hand ratings are given by third parties in order to assess the fundamentals of a given charity and hence to provide an independent view to donors about the proper use of their donations. Thus the interplay between the variables that influence contributions and the ratings received by those organizations can have an ambiguous impact on the contributions received. In that vein, we investigate how ratings affect the influence of the other economic variables that have been so far considered in the previous literature.

It was actually around the mid 1990's that the watchdog agencies started operating and hence the studies mentioned above were not affected by their presence. Since now we have data on the ratings of these agencies it is worth exploring the role that they might play on contributions. It is precisely here that our paper fits into the literature.

3. A Simple Model of Charity Ratings and Response of Charities

The empirical outline that we follow in the paper is as follows. First, we test whether ratings have a significant effect on donor contributions. Then, we estimate how charities respond to rating changes. As argued before, one can think of arguments in both directions.

In the theory part in this section we try to model the possible reactions of charities and the underlying forces that may drive their behavior. Thus we assume that there is a positive association between ratings and contributions (which we find in the main results later) and then model the behavior of the charities in terms of their fundraising expenditures. We test the empirical results for the theoretical implications of this section later in section 6(c).⁷

We denote the rating that a particular charity j receives in period t as r_t^j . We also denote by α_t^j , the fraction of the donor population who is solicited by firm j in period t . Given this, charity j can estimate $x_t^j(\alpha_t^j, r_{t-1}^j)$, the average expected gift from all solicited donors in period t when α_t^j is the fraction solicited and r_{t-1}^j is the rating that the charity received in the previous period. It is important to note that the ratings affect charity prospects with a lag, as we find in our data. Also we assume that $\frac{\partial x_t^j}{\partial r_{t-1}^j} > 0$ and $\frac{\partial x_t^j}{\partial \alpha_t^j} > 0$.⁸ These assumptions imply that a positive rating in the current period is associated with a higher average contribution in the next period and also a higher fundraising effort translates into higher contributions in the current period. We also assume that the cross partials are negative. Lastly, the fundraising technology is very simple: Brochures cost ‘ v ’ dollars apiece to charities. So depending on the number of solicitations, the fundraising expense increases. Thus given a solicitation rate of α_t^j , the total level of gross receipts in contributions in any period is given by $(\alpha_t^j m x_t^j)$, where m is total population.

Suppose that each charity j assumes that the number of other charities is fixed and none of them changes its behavior to respond to j ’s choice. Then, each charity chooses α_t^j each period which maximizes

⁷ Rose-Ackerman (1982) was one of the earliest theoretical models which takes fund-raising into account but does not delve into how it works. Andreoni (1998) gives a complete theory of charitable fund-raising.

⁸ Even though for the current model we assume these relationships, we actually verify and confirm these in our empirical results later.

$$R_t^j = \alpha_t^j m[x_t^j(\alpha_t^j, r_{t-1}^j) - v]. \quad (1)$$

Net contributions reaches an extreme value, where

$$\alpha_t^j (\partial x_t^j / \partial \alpha_t^j) + x_t^j(\alpha_t^j, r_{t-1}^j) - v = \varphi(\alpha_t^j, r_{t-1}^j) = 0. \quad (2)$$

By applying the Implicit Function Theorem we get:

$$\left(\frac{\partial \alpha_t^j}{\partial r_{t-1}^j} \right) = - \frac{\alpha_t^j (\partial^2 x_t^j / \partial \alpha_t^j \partial r_{t-1}^j) + \partial x_t^j / \partial r_{t-1}^j}{2(\partial x_t^j / \partial \alpha_t^j) + \alpha_t^j \partial^2 x_t^j / \partial (\alpha_t^j)^2}$$

From the second order condition we know that the denominator will be negative. Hence the sign of $(\partial \alpha_t^j / \partial r_{t-1}^j)$ will depend on the numerator. Now from our assumption we know that $\partial x_t^j / \partial r_{t-1}^j$ is positive. And since the cross partials are negative, the sign depends on the relative magnitudes of the terms $\alpha_t^j (\partial^2 x_t^j / \partial \alpha_t^j \partial r_{t-1}^j)$ and $\partial x_t^j / \partial r_{t-1}^j$. Thus we see that the response of charities to rating changes in the previous period is potentially ambiguous. We enquire in the data as to how do firms actually respond to rating changes, which we take up later.

4. Data

Data on charity ratings is obtained from the American Institute of Philanthropy. The institute creates these ratings annually for a sample of 500 charities. Ratings data is available from 1999-2004. The ratings are based on the cost efficiency of raising \$100 and the percentage spent on charitable purposes, which is the portion of total expenses that is spent on charitable programs. The remaining portion of the total expenses is spent on

fundraising and general administration.⁹ Direct mail and telemarketing solicitations are not considered part of charitable program expense but as fundraising expenditure. The cost efficiency of raising \$100 reflects how much is spent to raise each \$100 of funds collected. It is the ratio of fundraising expenditure to related contributions. So if a charity spends a lot on fundraising expenditure, then this ratio increases, which in turn is reflected in a poorer grade.¹⁰ The American Institute of Philanthropy (AIP) assigns grades to charities based on these criteria. The highest rating that a charity can be assigned is an A and the minimum an F. AIP assigns grades from A+ to F with 12 grade point classifications. We collapse the scale to 4 groupings where charities with A+, A or A- ratings are given an A. Similarly we classify the remaining grades into B, C and D categories¹¹. We provide a distribution of the AIP ratings in Figure 1. We find that there is some difference in ratings over time. Specifically, 21% of the firms were assigned the lowest grades in 1999 which changed to 19% in 2003. Similar patterns can also be seen in the other grade categories. In each report, AIP lists all organizations with new or still current grades broken down into thirty seven sub sectors such as AIDS or international development. For each organization AIP identifies whether the evaluation is new, whether the organization was willing to provide data, the percentage spent on program services and the letter grade as mentioned above. Each quarter, AIP evaluated or reevaluated about 20 % of the organizations listed in each guide; moreover, nearly every nonprofit in the data set was reevaluated at least once. Recently another watchdog agency called the Charity Navigator has also been creating ratings for a larger sample of charities; however this data is not available for a long enough

⁹ For more details see <http://www.charitywatch.org/criteria.html>

¹⁰ Though fundraising expenditure might hurt the charity through a lower grade, it separately has a positive impact on contributions as previous literature shows. This interaction will be crucial in our analysis.

¹¹ The results are similar for different categorizations of the ratings.

time series. Hence we use the ratings data created by the American Institute of Philanthropy.

Data on financials and other details of charities are obtained from National Center For Charitable Statistics' (NCCS) core data files. The NCCS is the national clearinghouse of data on the nonprofit sector in the United States. Working closely with the IRS and other government agencies, private sector service organizations, and the scholarly community, NCCS builds compatible national, state, and regional databases and develops uniform standards for reporting on the activities of charitable organizations. It is a program of the Center of Non-profits and Philanthropy (CNP) at the Urban Institute. It collects data for all charities that file a form 990, 990-EZ or 990-PF.¹² This data is available from 1990-2005. We combine the data on financials with that on ratings. Our final sample consists of an unbalanced panel of 1831 charity year observations from 1999-2004.

5. Empirical Specifications

We use the following empirical model for our analysis:

$$\ln \text{Cont.}_{it+1} = \alpha_i + \alpha_k + \alpha_t + \beta_1 \text{Rating}_{it} + \beta_2 \ln \text{Asset}_{it} + \beta_3 \ln \text{FundRaising}_{it} + \beta_4 \text{Age}_{it+1} + \beta_5 (\text{Age}_{it+1} * \ln \text{FundRaising}_{it}) + \beta_6 \ln \text{Price}_{it+1} + \beta_7 \ln \text{PSR}_{it} + \varepsilon_{it}$$

¹² Form 990 is an annual reporting return that certain federally tax-exempt organizations must file with the IRS. It provides information on the filing organization's mission, programs, and finances. The non-profit can file the shorter Form 990-EZ if the organization has less than \$100,000 in gross receipts and less than \$250,000 in total assets at the end of the year. Gross receipts include all income from all sources during the tax year without subtracting any expenses. Form 990-PF is the form that all private foundations and non-exempt charitable trusts must file; only those types of exempt organizations use Form 990-PF.

where $Cont_{it+1}$ denotes the contributions to organization i at year-end $t+1$, α_i denotes a charity fixed effect, α_k denotes a state fixed effect, α_t denotes a year-fixed effect. Time trends are included in the regressions to control for secularly trending variables. Autocorrelation in contributions over time will affect the standard errors. Hence we cluster standard errors at the charity level. $Rating_{it}$ denotes the rating of organization i at year-end t . The ratings are dummy variables which take a value 1 if the firm received an A rating. Similar dummies are defined for B, C and D. In the regression we exclude the A dummy so all results are interpreted relative to the excluded category.¹³ $FundRaising_{it}$, measures the organization's expenditures on fundraising in the previous year. Age_{it+1} , the number of years the organization has existed as a nonprofit entity, may affect donations in two ways- directly, as a source of information about organization reputation, and indirectly, by influencing the productivity of fundraising through interaction with fundraising. Hence we add the interaction term. $Asset_{it}$ is a proxy for the size of the organization at year-end t . $Ln Price_{it+1}$ the natural logarithm of the 'price' of contributing a dollar of output to the organization, is defined as $Price_{it+1} = (1-T)/(1-FundRaising_{it})$, where T is the marginal income tax rate facing the donor. PSR_{it} is the natural logarithm of the program service revenues that the organization received in the previous year. ϵ_{it} denotes the error term with the usual distributional assumptions. These specifications are standard in the literature on the determinants of charity contributions.¹⁴

¹³ To account for nonlinearity in grades we follow the methodology as in Jin and Leslie (2003). As in their analysis, we classify the grades into four categories and use a dummy variable specification for each category.

¹⁴ See for example Okten and Weisbrod (2000). We believe, to fruitfully investigate the effect of charity ratings it is indeed necessary to account for all the factors previously considered in the literature for charity contributions.

Summary Statistics

Table I reports the summary statistics for each year from 1999-2004. All variables are adjusted for inflation using the CPI index. The financial variables are expressed in 2001 constant dollars. Our sample consists of 1831 charities over the period 1999-2004. On average we find that the level of contributions has been increasing over time from 1999 to 2004. The average contributions in 1999 were 66.5 million dollars which increased to 124 million dollars in 2004. The median size of charities (assets) was 77.85 million dollars in 1999. Over time charities have been growing. The median size of charities has increased to 132 million dollars in 2004. Fundraising expenditure, which proxies for the amount of resources used by a charity to raise funds have been increasing over time as well. The average fund raising expenditure in 1999 was 6.40 million as compared to 10.67 million in 2004. Given that fundraising expenditure is a component of grades, we examine how much of the grades are explained by fundraising expenditure. With this aim when we regress grades on fundraising expenditure we find that 6% of the grade is determined by fundraising expenditure. This mitigates the concern that variations in fundraising expenditure completely explain the variation in the ratings.

6. Main Results

A. Effect of Ratings on Contributions

Table 2 presents our main regression results. Our dependent variable is log of contributions. All regressions include time, state and charity fixed effects. We also include time

Apart from consistency with the previous literature it will also allow us to test whether the effect of previous factors that have been investigated before still hold. We discuss those in the results section.

trends in the model since the variables of interest are trending upwards. Our main variable of interest is the ratings and its effect on contributions. We find that the ratings for charities in period t have a positive impact on level of contributions for charities in the period $t+1$. The coefficient on the D grade dummy is negative and significant with a magnitude of -0.174 . The magnitude of the coefficient suggests that charities with the lowest ratings had 16% less contributions as compared to A grade charities¹⁵. The mean contribution is 94.4 million dollars. So the absolute magnitude of the effect is 15.10 million dollars. The result suggests that charity ratings have a significant effect on contributions and non profits with the worst ratings tend to receive lower contributions as compared to the best rated charities. One of the main controls in the regression is the amount of fund raising expenditure. As expected we find the elasticity of contributions with respect to fundraising expenditure is positive and significant at the 1% level¹⁶, when computed at the mean age of the charities. We include the age of the organization as an additional control since older organizations benefit from a reputation effect. We find that the interaction term of fundraising and age of the firm is positive, significant at the 1% level¹⁷. Again we believe that size of a charity would significantly affect the amount of contributions so we include lagged assets as a measure of size as an additional control. Price as defined by Okten and Weisbrod (2000) is the cost to the donor for an additional dollar contribution and as expected, is negatively correlated with contributions. Program service revenues are added as an additional control as in their study.

¹⁵ When the explanatory variable is continuous, then the coefficient represents the drop in contributions for a 1% drop in the explanatory variable. Since the dummy variable is not continuous, the coefficient represents the drop in the log contributions for a change in the dummy variable from 0 to 1. A drop of 17.4% in the log contributions translates to a discount of $\exp(-0.174) = 0.84$, or a 16% drop.

¹⁶ The elasticity of contributions to fundraising is the sum of the coefficient on fundraising and the interaction term of age and fundraising. To determine the significance we evaluate the interaction term at the mean level of age. The coefficient for fundraising is 8.39 and significant at the 1% level.

¹⁷ Results for the demeaned interaction term are similar.

B. Reverse Causality?

Next we investigate whether there is reverse causality in our previous result. If we do not find strong reverse causality then this would lend additional support to the premise that our results can be interpreted causally. What we explain in our previous analysis is how the current period ratings of charities affect their future contributions. Though the current contributions determine ratings to a certain extent, the actual ratings are determined by a combination of other aspects of the charities also. Now, if contributions in the current period determine ratings, then one possible counter argument might be that donors observe current contributions and determine their future contributions, thus our main results are driven by that and not ratings. Following this logic, to test for the presence of reverse causality, we rerun our main regression including current period's contributions as an additional control. The results are reported in Table III. We find that ratings still have a positive significant effect on contributions.

C. How do firms react?

Next we want to enquire as to whether firms react to ratings changes. In our theoretical model we had derived that the potential effect is ambiguous. In order to study that, we regress ratings of period t on fundraising expenditure in period $(t+1)$. As discussed before, firms can either increase (decrease) their fundraising expenditures next period if they receive a bad (good) rating this period to compensate on that or else they might also decrease (increase) their expenditure since the marginal benefit is now lower (higher). As shown in Table IV, we find that there is significant positive relation between the ratings in the current period and fundraising expenditure in the next period. The coefficient on the B grade dummy is positive and significant with a magnitude of 0.350. Charities that received B grades as compared to A grades

increased their fundraising expenditures by 41%. The mean level of fundraising expenditures in our sample is 3.32 million dollars which implies an absolute increase in fundraising of 1.32 million dollars.

7. Robustness Checks

We use different ordinal and logistic transformations for the ratings as a robustness check. We find results similar to that of our main results. In addition the notion that one source of charity revenue may crowd out another is related to the neutrality theorem, associated with the private provision of a pure public good. Now government grants are in fact a potential substitute for charity donations. Previous work on charities has also focused on this aspect since nonprofit charitable firms do provide public goods. Data on government grants is available only until 2003. We rerun our main regressions on the sample over the period 1999-2003 and find that government grants do not enter significantly and our main results still remain.

8. Conclusion

The ‘economics of charity’ literature for the last four decades has heavily focused on the “supply” side, leaving critical gaps on the “demand side” (Andreoni 2006). In response to this a burgeoning small literature has developed in the last few years, investigating the ‘demand side’ phenomena of charity. Karlan and List (2007) pushes the literature in a new direction by focusing on the price effects on the ‘demand side’ of the economics of charity. Our claim in this paper is to introduce another aspect of the market forces behind the economics of charity which has been hitherto unacknowledged in the literature, namely, ratings of charities. Ratings of for-

profit firms and their effect on firm performance has been a vibrant area of research throughout the last decade. The results of our paper suggest that ratings of non-profit firms are indeed getting importance from donors and influencing their contribution patterns. Similarly we find that charities also decide on their responses and soliciting behavior based on the ratings that they receive. Thus our aim in this paper has been a modest one- to investigate whether we should be taking ratings seriously in the economics of charity. Our results indicate that ratings can interact with both the supply and demand side factors in ways that we need to acknowledge and take into account in further studies of the economics of charity.

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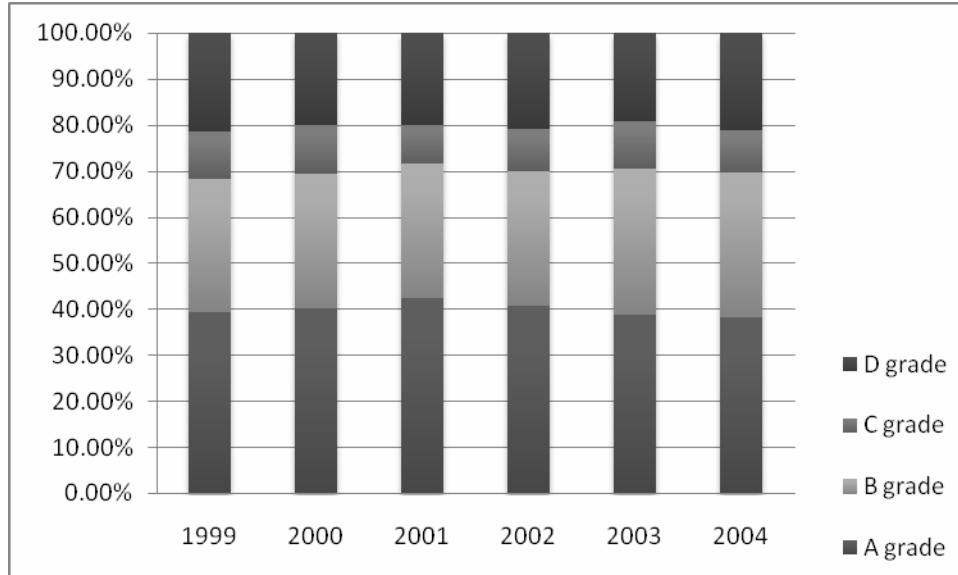
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Figure 1: Distribution of AIP Ratings

The table shows the distribution of ratings of the sample nonprofit organizations over the period 1999-2004. A grade is a dummy variable that takes a value one if the firm receives grade A+, A or A- and 0 otherwise. We create similar dummy variables for B and C grades. D grade is a dummy variable that takes a value one if the firm receives grade D, “E or F and 0 otherwise.



	1999	2000	2001	2002	2003	2004
A grade	39.39%	40.29%	42.49%	40.79%	38.92%	38.35%
B grade	28.79%	29.12%	29.19%	29.31%	31.65%	31.27%
C grade	10.30%	10.59%	8.38%	9.06%	10.13%	9.14%
D grade	21.52%	20.00%	19.94%	20.85%	19.30%	21.24%

Table I: Summary Statistics on Non Profit Organizations

The table shows the summary statistics of the sample nonprofit organizations over the period 1999-2004. The sample consists of 1831 charities for which have financial information from the NCCS core data files and ratings data from the American Institute of Philanthropy. The table reports mean and median (in italics) figures for our main variables for the period 1999-2004. Contributions (in millions) are the amount of money raised by the charity. Assets (in millions) are the end of year assets for each charity. Fund raising expenditure (in millions) is the amount of resources spent to raise contributions. Age is the number of years the organization has existed. All financial variables are expressed as of 2001 constant dollars.

	1999	2000	2001	2002	2003	2004
Contributions (\$ in millions)	66.50 <i>(17.40)</i>	75.10 <i>(21.00)</i>	89.20 <i>(22.90)</i>	99.40 <i>(23.70)</i>	112.00 <i>(26.60)</i>	124.00 <i>(28.30)</i>
Fund Raising Expenditure (\$ in millions)	23.39 <i>(6.40)</i>	28.12 <i>(7.34)</i>	30.46 <i>(7.92)</i>	34.44 <i>(7.72)</i>	34.62 <i>(8.46)</i>	37.00 <i>(10.67)</i>
Assets (\$ in millions)	626.00 <i>(77.85)</i>	689.00 <i>(97.19)</i>	862.00 <i>(98.89)</i>	860.00 <i>(104.00)</i>	993.00 <i>(115.00)</i>	1120.00 <i>(132.00)</i>
Age	39 <i>(24)</i>	39 <i>(24)</i>	40 <i>(25)</i>	35 <i>(26)</i>	36 <i>(27)</i>	37 <i>(28)</i>

Table II: Effect of AIP Ratings on Charitable Giving

The table shows the results of panel regressions, where the dependent variable is the natural log of total contributions in time (t+1). The sample consists of an unbalanced panel of 1831 charities that exist in NCCS core data and have AIP ratings. A grade is a dummy variable that takes a value one if the firm receives grade A+, A or A- and 0 otherwise. Similar dummy variables are created for B and C grades. D grade is a dummy variable that takes a value one if the firm receives grade D, E or F and 0 otherwise. The A grade dummy is excluded in the regressions. Log Fund raising is the natural log of fund raising expenditures. We use soliciting expenditure of a charity as a proxy for fund raising expenditure. Log Assets are the natural log of end of the year assets. Age is the number of years the organization has been in operation. Log price is defined as the cost contributing a dollar of output to the charity. Price is formulated as the log (1-T)/(1-F(t-1)) where F(t-1) is the share of donation revenue spent by the charity on fundraising in the previous year. Program service revenue is the natural log of program revenues and government grants received—all measured in (t). State year and organization fixed effects are included. All variables are adjusted for inflation using 2001 as the base year. The numbers in parentheses are robust standard errors, clustered at the firm-period level. *, **, *** indicates significance at the 10%, 5%, and 1% levels, respectively.

Dependent Variable : Log Contributions (t+1)	
Contributions (t)	
B grade (t)	-0.026 (0.028)
C grade (t)	0.029 (0.056)
D grade (t)	-0.174 * (0.102)
Assets (t)	0.131 ** (0.054)
Fund Raising Expenditure (t)	-0.181 (0.114)
Age (t)	-0.022 *** (0.007)
Age* Fund Raising Expenditure (t)	0.299 *** (0.102)
Price (t)	-0.294 ** (0.123)
Program Service Revenue (t)	0.006 (0.006)
General Time Trend	+
Charity Fixed Effect	+
Year Fixed Effect	+
State Fixed Effect	+
N	1831
R ²	0.08

Table III: Reverse Causality

The table shows the results of panel regressions, where the dependent variable is the natural log of total contributions in time (t+1). The sample consists of an unbalanced panel of 1831 charities that exist in NCCS core data and have AIP ratings. Contributions the natural log of contributions in period t. A grade is a dummy variable that takes a value one if the firm receives grade A+, A or A- and 0 otherwise. Similar dummy variables are created for B and C grades. D grade is a dummy variable that takes a value one if the firm receives grade D, E or F and 0 otherwise. The A grade dummy is excluded in the regressions. Log Fund raising is the natural log of fund raising expenditures. We use soliciting expenditure of a charity as a proxy for fund raising expenditure. Log Assets are the natural log of end of the year assets. Age is the number of years the organization has been in operation. Log price is defined as the cost contributing a dollar of output to the charity. Price is formulated as the log (1-T)/(1-F(t-1)) where F(t-1) is the share of donation revenue spent by the charity on fundraising in the previous year. Program service revenue is the natural log of program revenues and government grants received—all measured in (t). State year and organization fixed effects are included. All variables are adjusted for inflation using 2001 as the base year. The numbers in parentheses are robust standard errors, clustered at the firm-period level. *, **, *** indicates significance at the 10%, 5%, and 1% levels, respectively.

Dependent Variable : Log Contributions (t+1)	
Contributions (t)	0.167 (0.131)
B grade (t)	-0.032 (0.031)
C grade (t)	0.028 (0.05)
D grade (t)	-0.158 * (0.095)
Assets (t)	0.117 ** (0.051)
Fund Raising Expenditure (t)	-0.101 (0.114)
Age (t)	-0.016 *** (0.006)
Age* Fund Raising Expenditure (t)	0.200 * (0.11)
Price (t)	-0.237 ** (0.107)
Program Service Revenue (t)	0.006 (0.005)
General Time Trend	+
Charity Fixed Effect	+
Year Fixed Effect	+
State Fixed Effect	+
N	1831
R ²	0.16

Table IV: Effect of AIP Ratings on Fund Raising Expenditure

The table shows the results of panel regressions, where the dependent variable is the natural log of total fund raising expenditure in time (t+1). The sample consists of an unbalanced panel of 1831 charities that exist in NCCS core data and have AIP ratings. The AIP ratings are collapsed into 4 dummy variables based on the grades assigned to the charities. A grade is a dummy variable that takes a value one if the firm receives grade A+, A or A- and 0 otherwise. Similar dummy variables are created for B and C grades. D grade is a dummy variable that takes a value one if the firm receives grade D, E or F and 0 otherwise. The A grade dummy is excluded in the regressions. Log assets are the natural log of end of the year assets. Age is the number of years the organization has been in operation. . Program service revenue is the natural log of program revenues and government grants received—all measured in (t). State year and organization fixed effects are included. All variables are adjusted for inflation using 2001 as the base year. The numbers in parentheses are robust standard errors, clustered at the firm-period level. *, **, *** indicates significance at the 10%, 5%, and 1% levels, respectively.

Dependent Variable : Log Fund Raising Expenditure (t+1)	
B grade (t)	0.350 * (0.206)
C grade (t)	0.177 (0.176)
D grade (t)	0.357 (0.245)
Assets (t)	0.506 *** (0.224)
Age (t)	0.001 (0.004)
Program Service Revenue (t)	0.012 (0.018)
General Time Trend	+
Charity Fixed Effect	+
Year Fixed Effect	+
State Fixed Effect	+
N	1831
R ²	0.17
