

Effects of organizational factors on donation sensitivity to an accounting efficiency measure

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ABSTRACT

This paper examines the effects of nonprofit organizational (NPO) factors on sensitivity of donations to price of giving, an accounting measure of NPO efficiency. This is the first paper to test a range of indicator variable thresholds for each factor to identify how effects vary as thresholds vary and to identify the threshold for each factor that maximizes the effect on sensitivity. Significantly lower sensitivity of donations to price is found for NPOs that are thirteen years or younger, are education or housing NPOs, rely on donations for less than 90% of total revenues, have total assets below the 20th percentile, do not have their financial statements audited, and report implausible financial information. The difference in sensitivity is maximized for NPOs that are eight year old or younger, rely on donations for less than 45% of total revenues, and have total assets below the 20th percentile. Reliance on donations has the largest effect: the “high” reliance subsample exhibits price sensitivity four times that of the “low” reliance subsample, even after controlling for unaudited financial statements and implausible data and taking into account size and age. Researchers on determinants of donations can incorporate this information in constructing samples and evaluating results. For example, they may want to remove NPOs with total assets below the 20th percentile, NPOs whose financial statements are not audited or who report implausible data, education and housing NPOs, or test separately samples of NPOs with high reliance and low reliance on donations.

Keywords: donations, price of giving, size

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INTRODUCTION

Numerous studies find a significant negative association between donations to NPOs at the organizational level and an accounting measure of organizational inefficiency – “price” of giving (total expenses / program expenses). NPOs may use estimates of the sensitivity of donations to price, in the literature, to assess how their operating decisions that impact price would affect donations. For example, an NPO may consider implementing a new financial system, which would increase the portion of total spending on administration, thereby increasing price and decreasing donations. In considering this decision, management would want to incorporate the expected decrease in donations and may look to results in the literature to estimate the expected decrease.

Papers in the literature report parameter estimates of the sensitivity of donations to price for full samples of NPOs, by NPO industry type (Posnett and Sandler, 1989; Khanna, Posnett, and Sandler, 1995; Khanna and Sandler, 2000; Marudas and Jacobs 2004, and Marudas, 2004) and for NPOs with “plausible” versus “implausible data” (Jacobs and Marudas, 2012 and Yetman and Yetman, 2013). Only one paper, Tinkelman (1999), tests the effects of these and other organizational factors on the sensitivity of donations to price. However, Tinkelman uses a database from New York State for 1993-94, which contains much smaller organizations than those in the SOI database available from the National Charitable Center for Statistics, used in many of the papers examining the relation between donations and price. Therefore, Tinkelman’s results may not apply to the organizations in the SOI database, and results from testing data over 20 years old may differ from testing more recent data. Furthermore, Tinkelman (1999) uses only one “arbitrarily” selected indicator variable threshold for each factor. The primary purpose of his paper was to provide evidence on which factors had a significant effect on the sensitivity of donations to price, not to report the varying effects of each factor as thresholds vary.¹

This paper advances the literature on determinants of donations by

1. Testing organizational factors from the literature found to affect sensitivity of donations to price of giving, using a range of indicator variable thresholds for each factor. This allows identification of the threshold that maximizes effect on sensitivity and the threshold at which there no longer is a significant effect. For example, Tinkelman (1999) tests only one threshold for NPO size: organizations below the 20th percentile of total assets and those equal to or greater than the 20th percentile and finds no significant difference in the sensitivity of donations to price between the two groups of NPOs. In this paper, thresholds of 5th, 10th, 15th, 20th, 25th, and 30th percentiles of total assets are tested.
2. Testing data from the very large SOI database for 2010 and 2011, the most recent data available. This data is much more recent than the data Tinkelman (1999) used and provides more relevant estimates of the effects of organizational factors on the sensitivity of donations to price.

NPOs should find the results of this paper to be useful. They would have estimates of the effect of price on donations more relevant to their particular type of organization. For example, if it is found that the relation between price and donations is much less for NPOs for which donations comprise less than 45% of total revenues, then management of such NPOs should expect a reduction in donations, from a given increase in price, that is far less than the reduction

¹ For example, Tinkelman (1999) finds that donations to NPOs with “low reliance on donations” are significantly less sensitive to price than NPOs with “high donor reliance” but arbitrarily sets the threshold for “low donor reliance” at 0.2 (donations / total revenues). He does not test the effect on sensitivity from varying the threshold.

expected for NPOs in general. Additionally, knowing the factors that have a large impact on the sensitivity of donations to price allows researchers to provide more targeted measures of the relation between donations and price and other measures of NPO inefficiency.

LITERATURE REVIEW

Tinkelman (1999) is the only paper to test the effects of age, reliance on donations, and reliance on indirect donations on the sensitivity of donations to the principal proxy for organizational efficiency, price of giving (total expenses / program expenses). Tinkelman also tests the factors of unaudited financial statements, implausible data, and size. He uses data from New York State for 1993-94. Based on the concept that information that is less reliable is less likely to affect users of such information, he “arbitrarily” selects one indicator variable threshold for each factor. Tinkelman finds that donations to the unaudited sample of NPOs are significantly less sensitive to price than donations to the audited sample of NPOs. However, he finds, inconsistent with his hypothesis, that donations to small NPOs (at or below the 30th percentile for total revenues) exhibit significantly greater price sensitivity than donations to large NPOs (above the 30th percentile for total revenues)². He finds that donations to “start up” NPOs, those less than four years old, exhibit significantly lower price sensitivity than do donations to “mature” NPOs and that NPOs with low dependence on donations, (donations < 20% of total revenues), exhibit significantly lower price sensitivity. However, he does not find a significant difference in price sensitivity of donations of NPOs with low reliance on indirect donations, (indirect donations / total donations < 0.33) and donations of NPOs with high reliance on indirect donations (indirect donations / total donations not < 0.33). He finds mixed results for whether donations to “local” NPOs are less price sensitive than donations to “non-local” NPOs defined as those with headquarters addresses outside of New York State. He also finds that donations to NPOs with implausible data (those reporting zero fundraising or administrative expense) are significantly less price sensitive than donations to NPOs without implausible data. Finally, he does not find significant differences in sensitivity of donations across different industry types of NPOs (e.g., philanthropic, scientific, arts) after controlling for dependence on donations and implausible data.

Tinkelman and Mankaney (2007) test the sensitivity of donations to two proxies of efficiency, administrative efficiency (administrative expenses / (administrative expenses + program expenses)), and fundraising efficiency (fundraising expenses / total expenses). They test a “restricted” subsample that includes only NPOs that have at least \$1,000 of administrative and \$1,000 of fundraising expenses, are at least four years old, have at least \$100,000 in donations, and for which donations are at least 10% of total revenues. They find mixed results. The sensitivity of donations to administrative efficiency in the restricted subsample is not significantly different from the sensitivity of donations in the non-restricted subsample, but the sensitivity to fundraising efficiency is significantly greater in the restricted sample than in the non-restricted sample.

Kitching (2009) finds that donations of NPOs that have an audit conducted by a Big 5 firm are significantly more sensitive to price than NPOs that have an audit conducted by a non-Big 5 firm. Kitching also tests size (total assets), as a continuous interactive variable with price and finds total assets to be significantly positively related to sensitivity of donations to price.

² However, when defining small NPOs as those with total assets below the 25th percentile, he finds no significant difference between the sensitivity of donations to price of small and large NPOs.

Yetman and Yetman (2013) find donations to NPOs that report implausible data (zero fundraising expenses) to be significantly less sensitive to price.

DATA

All data are from the National Center for Charitable Statistics (NCCS) SOI database for 2010 and 2011, the latest available data. Tinkelman (1999) uses a database from New York State for 1993-94. This is considerably different data than the NCCS database, which contains NPOs with much greater total revenues and total assets. As indicated in Table 1 (Appendix), mean total revenues and total assets for Tinkelman's sample are \$1.7 and \$4.5 million, respectively, whereas the comparative means in the NCCS sample are much larger: \$103.6 and \$199.3 million, respectively. The median total revenue in Tinkelman's sample, even after adjusting for inflation (by a factor of 1.52), is only at the 9th percentile of the NCCS sample, and median total assets, adjusted for inflation, is only at the 5th percentile. This suggests that results from testing the NCCS database using much more current data may differ from Tinkelman's results.

METHODOLOGY

Following Tinkelman (1999), the sensitivity of donations of NPOs with various factors is tested using a model of donations to which an indicator variable is added for each factor. However, unlike Tinkelman, who tested dichotomous factors using only one threshold for each factor³, in this paper, numerous thresholds for each factor are tested. This is done to examine how the differences in sensitivity of donations to price between the NPOs above the threshold and the NPOs below the threshold varies by level of threshold, to identify at which level of threshold this difference is maximized, and at which level there no longer is a significant effect. For example, Tinkelman classifies small NPOs as those at less than the 20th percentile for total assets, setting an indicator variable equal to one if the NPO's total assets is less than the 20th percentile and zero otherwise to test whether the sensitivity of donations to price is statistically different between the two subsamples. In this paper, the threshold for small size is varied from the 5th percentile through the 30th percentile in five percentile increments.

The Tinkelman (1999) model is:

$$\ln \text{DON}_{i,t} = b_0 + b_1 \ln \text{FREXP}_{i,t-1} + b_2 \ln \text{PREV}_{i,t} + b_3 \ln \text{PRICE}_{i,t-1} + b_4 \ln \text{AGE}_{i,t} + b_5 \ln \text{TASSET}_{i,t} + b_6 \ln \text{GOV}_{i,t} + b_7 \ln \text{OTHREV}_{i,t} + u_{i,t}$$

where DON is direct donations, FREXP is fundraising expenses, PREV is program service revenue, PRICE is total expenses / program expenses, AGE is years since first filing a tax return, TASSET is total assets at the beginning of the year t, GOV is governmental support, OTHREV is other revenue (total revenue – (DON + GOV + PREV)), and u is the error term.

³ Tinkelman (1999) states that he "arbitrarily" selected the threshold for each factor. This is reasonable given that the purpose of his paper was to identify factors that had a significant effect on the sensitivity of donations to price and not to identify thresholds that have the largest effects on sensitivity.

To this model is added an indicator variable for each factor, except location, in Tinkelman (1999) as follows⁴:

$$\ln\text{DON}_{i,t} = b_0 + D_{n,m} + b_1\ln\text{FREXP}_{i,t-1} + b_2\ln\text{PREV}_{i,t} + b_3\ln\text{PRICE}_{i,t-1} + b_4D_{n,m}\ln\text{PRICE}_{i,t-1} + b_5\ln\text{AGE}_{i,t} + b_6\ln\text{TASSET}_{i,t} + b_7\ln\text{GOV}_{i,t} + b_8\ln\text{OTHREV}_{i,t} + u_{i,t}$$

where n is the factor tested and m is the specified threshold. $n=1$ for the factor size (total assets), $n=2$ for the factor size (total revenues), $n=3$ for the factor reliance on donations (donations / total revenues), $n=4$ for the factor reliance on indirect donations (indirect donations / total revenues), $n=5$ for the factor age of the NPO, $n=6$ for the factor implausible data (reporting zero fundraising or administrative expenses), and $n=7$ for the factor unaudited financial statements. m varies depending on the factor. For D1 (total assets), the threshold is varied from the 5th percentile to the 30th percentile in increments of 5 percentile points; that is, D1,1 is set equal to one if a NPO's total assets is at or below the 5th percentile of all NPOs in the sample, then D1,2 is set equal to one if a NPO's total assets is at or below the 10th percentile, then at or below the 15th percentile and so on until D1,6 for which total assets is at or below the 30th percentile. A similar procedure is followed for the other factors. The thresholds used are tabulated as indicated in Table 2 (Appendix). For the factors implausible data and unaudited financial statements, D6 and D7, respectively, there are no thresholds. For NPOs that report zero fundraising or administrative expenses, D6 is equal to one and zero otherwise and for NPOs whose financial statements were not audited, D7 equals one and equals zero otherwise.

The effects of certain factors are then tested while controlling for the effects of other factors found to affect sensitivity (based on the results of the tests described above). Because unaudited financial statements and implausible data are found to have a significant negative effect on sensitivity of donations, the effects of reliance on donations and size are tested while controlling for unaudited financial statements and implausible data. This is done by testing, in the same manner as described above, a subsample of NPOs whose financial statements are audited and which report only plausible data.

Since type of NPO industry, as indicated by NTEE code, such as education, health, international, etc. may also affect the sensitivity of donations to price, following Tinkelman (1999), an indicator variable is added for each industry type while controlling for unaudited financial statements, implausible data, and reliance on donations. For reliance on donations, the threshold is set at 0.45, which is the threshold empirically found to maximize the difference in sensitivity of donations to price.

RESULTS

Tinkelman (1999) asserts that donations to small NPOs should have lower sensitivity to price because of lower access by donors to their financial information and lower reliability of financial reporting. However, in specifying small NPOs as those at or below the 30th percentile of total revenue (\$143,000, which is \$214,500 in 2011 dollars), he finds evidence to the contrary – that donations to smaller NPOs were significantly more sensitive to price. Furthermore, when specifying small NPOs as those at or below the 20th percentile of total assets (\$70,000, which is

⁴ Location is not tested because it is not applicable to the data in the NCCS database, since the data contains organizations located throughout the U.S.

\$106,400 in 2011 dollars), he finds no significant difference in the sensitivity of donations to small and large NPOs.

The results of this paper support Tinkelman's assertion: donations to small NPOs are less price sensitive. Donations to NPOs at or below the 5th percentile of total revenues in our sample are significantly less price sensitive (0.326) as indicated in column 2 of Table 3 (Appendix) for D1. Interestingly, the 5th percentile of revenues in the sample used in this paper, \$304,800, is not substantially greater than the \$214,500 (in 2011 dollars), which is the 30th percentile threshold that Tinkelman used. Furthermore, donations to NPOs at or below the 20th percentile of total assets (\$6.8 million) in our sample are significantly less price sensitive (0.306) as indicated in column 1 of Table 3 (Appendix) for D4.

As indicated in column 3 of Table 3 (Appendix), donations to NPOs with low reliance on donations, specified as donations / total revenues at or below 0.10 (row D2), are significantly less sensitive (0.502) to price. The degree to which donations are less sensitive increases nearly monotonically from 0.502 to 0.642 (row D9) as the threshold for low reliance on donations increases from 0.10 (row D1) through 0.45 (row D9). As indicated in row D18, even donations to NPOs with reliance on donations at or below 0.90 are significantly less price sensitive (0.360). Tinkelman tests only one threshold for low reliance on donations of at or below 0.20 and reports lower sensitivity of donations of 0.68. As indicated in row D4, donations to NPOs with reliance on donations of at or below 0.20 are significantly less sensitive to price (0.544), consistent with Tinkelman's results.

Results for reliance on indirect donations, as indicated in column 4 of Table 3 (Appendix), are mixed. Tinkelman (1999) proposes that donations to NPOs with high reliance on indirect donations are less sensitive to price, but he does not find evidence of this. Results, shown for D6 column 4, indicate that donations to NPOs with reliance on indirect donations of greater than 0.23 (indirect donations / total donations) are significantly less sensitive (.560) to price than donations to NPOs with reliance on indirect donations of less than or equal to 0.23. The difference in sensitivity is even greater (.627) for NPOs with reliance on indirect donations greater than 0.28, as shown for D5 column 4. However, no significant difference in sensitivity is found at higher thresholds of reliance on indirect donations, as shown in rows D4 through D1 of column 4. One would expect a continued significant difference in sensitivity as the threshold for reliance on indirect donations increases. Therefore, whether reliance on indirect donations affects the sensitivity of donations to price is considered to be inconclusive. Results for the threshold of 0.33, the only threshold Tinkelman (1999) tested, as shown for D4 column 4, are consistent with his results of no significant difference in sensitivity.

As indicated in column 5 of Table 3 (Appendix) donations to young NPOs are significantly less sensitive to price, when young is specified as NPOs that are 13,11,10, 9, 8, 7 and 4 years old or younger, respectively, with the greatest difference in sensitivity for NPOs that are 8 years old or younger (row D8).

As indicated in D1 of column 6, donations to NPOs with implausible data (fundraising or administrative expenses of zero) are significantly less sensitive to price (0.407), consistent with results of Tinkelman (1999) and Yetman and Yetman (2013). Finally, as indicated in D1 of column 7 of Table 3 (Appendix), donations to NPOs whose financial statements are not audited are significantly less sensitive to price (0.450), consistent with Kitching (2009) and Tinkelman (1999).

Since the effect of reliance on donations is so strong and pervasive, the sensitivity of donations to price is estimated for a subsample of NPOs with donor reliance less than .45 and a

subsample with donor reliance equal to or greater than .45, for a subsample with reliance on donations less than 0.60 and for a subsample equal to or greater than .60, and for a subsample with donor reliance less than 0.90 and for a subsample equal to or greater than .90. Results are shown in Table 4. The coefficient for PRICE for the subsample of NPOs with reliance on donations equal or greater than .45 is nearly four times that of the coefficient for the subsample with donor reliance less than .45. This is a profound difference. Similar differences are noted between NPOs with reliance on donations equal to or greater than .60 and less than .60. Even at the very high threshold of .90, the coefficient for PRICE for the high reliance on donations subsample of NPOs is over double that of the low reliance on donations subsample. To determine whether these results are driven by size, which was identified as a factor that affects the sensitivity of donations to price, the portion of each subsample (“high” reliance on donations and “low” reliance on donations) that is above and below the 20th percentile of size for the full sample, the threshold identified in Table 3 that maximizes the difference in sensitivity of donations to price, is examined. Interestingly, the high reliance subsamples (using thresholds of .45, .60, and .90) actually have a higher portion of “small” NPOs, whose donations would be expected to be less sensitive to price, than the respective “low” reliance on donations subsamples. Furthermore, the high reliance subsamples have a slightly higher proportion of “young” NPOs (6.9%) than the low dependence sample (6.7%), suggesting that the higher sensitivity of donations to price among high donation dependent NPOs is not greater because there are fewer “young” NPOs in the high reliance subsample than in the low reliance subsample.

Following Tinkelman (1999), the effect of industry type is tested after controlling for implausible data, being audited, and reliance on donations. Results are shown in Table 5. For the “high reliance” subsample (donations / total revenue >.45), sensitivity of donations to education NPOs and to housing NPOs are significantly lower and sensitivity of donations to international and philanthropic NPOs are significantly higher. Results for the “low reliance” subsample, as shown in Table 6, indicate that sensitivity of donations to health NPO is significantly lower and to philanthropic NPOs is significantly greater. Collectively, these results differ from those of Tinkelman (1999), who found no significant industry effects after controlling for implausible data, being audited, and reliance on donations.

CONCLUSION AND LIMITATIONS

Donations to NPOs that report implausible data, do not have audits of their financial statements, are smaller (at the 20th percentile or lower with respect to total assets or at the 5th percentile or lower with respect to total revenues), are younger (13 years old or younger), or whose reliance on donations (donations / total revenues) is below 90 percent, are significantly found to be less sensitive to an accounting measure of efficiency, price, defined as total expenses / program expenses. Furthermore, after controlling for the factors with the largest effects (implausible data, not being audited, and low reliance on donations), NPO industry type (education, housing, international, and philanthropic) does significantly impact the sensitivity of donations to such types of NPOs.

These results suggest that the estimates, in the literature, of the effects of price on donations may be misleading for NPOs that have certain characteristics identified in this paper as having a significant effect on the sensitivity of donations to price. For example, donations to an NPO that does not have its financial statements audited, has low reliance on donations, is small

and/or is young would be significantly less sensitive to price than an NPO without such characteristics. Furthermore, researchers investigating the determinants of donations should consider that their results may be affected by the portion of NPOs in their samples that have characteristics that affect sensitivity of donations to price. Testing samples that contain a relatively high portion of NPOs with low reliance on donations, small size, implausible data or unaudited financial statements, or young NPOs could significantly affect results.

This study has certain limitations. Because various discrete thresholds are tested for each factor, comprehensive evidence on the correlation of factors across all levels of threshold cannot be provided. One would have to test all possible combinations of thresholds for all variables. Instead, descriptive statistics regarding the factors in each subsample being tested were examined. In addition, in specifying the size factor as a percentile for total assets and total revenues, results may be specific to the particular data tested.

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APPENDIX Table 1 - Descriptive Statistics

	Mean	Standard deviation
DIRDON	13.46	2.66
INDIRDON	3.23	5.60
FR	8.02	6.26
PRICE	2.21	71.95
GOV	6.52	6.96
PREV	13.00	6.68
OTHREV	13.07	3.05
AGE	3.66	.90
TASSET	17.36	2.14
TOTREV	16.55	2.10
N	9255	

DIRDON is direct donations

INDIRDON is indirect donations

FR is fundraising expense

PRICE is price of giving defined as total expenses / program spending expenses

GOV is government support

PREV is program service revenue

OTHREV is other revenue defined as $TOTREV - (GOV + PREV + DIRDON + INDIRDON)$

AGE is age since first filing a tax form

TASSET is total assets at beginning of the year

TOTREV is total revenue

Table 2 - Thresholds for Each Factor

	Total Assets factor 1 (percentile)	Total Revenue factor 2 (percentile)	Reliance on Donations factor 3	Reliance on Indirect Donations factor 4	Age factor 5 (years)	Implausible Data factor 6	Not Audited factor 7
D1	5 th	5 th	.05	.48	1	n/a	n/a
D2	10 th	10 th	.10	.43	2		
D3	15 th	15 th	.15	.38	3		
D4	20 th	20 th	.20	.33	4		
D5	25 th	25 th	.25	.28	5		
D6	30 th	30 th	.30	.23	6		
D7			.35	.18	7		
D8			.40	.13	8		
D9			.45		9		
D10			.50		10		
D11			.55		11		
D12			.60		12		
D13			.65		13		
D14			.70		14		
D15			.75		15		
D16			.80				
D17			.85				
D18			.90				
D19			.95				

Reliance on Donations is defined as donations / total revenues.

Reliance on Indirect Donations is defined as indirect donations / total revenues.

Implausible Data describes an NPO that reports zero fundraising or administrative expenses.

Not Audited describes an NPOs that reports on its Form 990 as not having its financial statements audited.

Table 3 - Effects of Various Factors on the Sensitivity of Donations to Price

This table shows the effect, as indicated by the parameter estimates on the interaction term Dn*PRICE, of various thresholds for various factors on the sensitivity of donations to price. The values of the thresholds for each factor are as indicated in Table 2 (Appendix).

	Total Assets factor 1	Total Revenue factor 2	Reliance on Donations factor 3	Reliance on Indirect Donations factor 4	Age factor 5	Implausible Data factor 6	Not Audited factor 7
D1	.889***	-.614***	-2.738***	-1.902***	.897***	3.389***	-.345***
D1*PRICE	.196	.326**	.247	.405	.031	.407***	.450***
PRICE	-.433***	-.471***	-.520***	-.372***	-.373***	-.550***	-.678***
D2	.366***	-.631***	-2.548***	-1.751***	1.072***		
D2*PRICE	.260*	.167	.502***	.253	-.851		
PRICE	-.478***	-.419***	-.619***	-.373***	-.366***		
D3	.139	-.668***	-2.448***	-1.722***	.706***		
D3*PRICE	.283*	.186	.509***	.423	.152		
PRICE	-.498***	-.436***	-.654***	-.379***	-.398***		
D4	.088	-.646***	-2.404***	-1.646***	.691***		
D4*PRICE	.306**	-.013	.544***	.433	.368*		
PRICE	-.531***	-.305**	-.675***	-.384***	-.448***		
D5	-.059	-.736***	-2.358***	-1.566***	.631***		
D5*PRICE	.212	-.066	.545***	.627**	.266		
PRICE	-.488***	-.258*	-.673***	-.400***	-.429***		
D6	-.066	-.703***	-2.315***	-1.325***	.588***		
D6*PRICE	.213	.039	.606***	.560**	.278		
PRICE	-.489***	-.336**	-.698***	-.404***	-.459***		
D7			-2.216***	-1.047***	.536***		
D7*PRICE			.598***	.410	.313*		
PRICE			-.707***	-.406***	-.464***		
D8			-2.239***	-.826***	.517***		
D8*PRICE			.617***	.134	.420**		
PRICE			-.715***	-.386***	-.502***		
D9			-2.225***		.433***		
D9*PRICE			.642***		.375**		
PRICE			-.732***		-.491***		

D10			-2.200***		.502***		
D10*PRICE			.604***		.280*		
PRICE			-.717***		-.466***		
D11			-2.171***		.454***		
D11*PRICE			.591***		.274*		
PRICE			-.710***		-.463***		
D12			-2.129***		.378***		
D12*PRICE			.543***		.240		
PRICE			-.681***		-.463***		
D13			-2.114***		.308***		
D13*PRICE			.534***		.265*		
PRICE			-.683***		-.472***		
D14			-2.075***		.280***		
D14*PRICE			.520***		.149		
PRICE			-.652***		-.429***		
D15			-2.054***		.177**		
D15*PRICE			.490***		.230		
PRICE			-.656***		-.465***		
D16			-1.963***				
D16*PRICE			.432***				
PRICE			-.635***				
D17			-1.922***				
D17*PRICE			.393**				
PRICE			-.610***				
D18			-1.951***				
D18*PRICE			.360**				
PRICE			-.608***				
D19			-1.979***				
D19*PRICE			.177				
PRICE			-.519***				

Reliance on Donations is defined as donations / total revenues.

Reliance on Indirect Donations is defined as indirect donations / total revenues.

Implausible Data describes an NPO that reports zero fundraising or administrative expenses.

Not Audited describes an NPOs that reports on its Form 990 as not having its financial statements audited.

Table 4 - Effect, on Sensitivity of Donations to Price, of Reliance on Donations Controlling for Unaudited and Implausible NPOs*

Test of the basic model with only “audited” and “plausible” NPOs and different thresholds of reliance on donations.

Reliance on Donations	Coefficient for PRICE
>=.45	-1.560***
<.45	-.420**
>=.60	-1.546***
<.60	-.371***
>=.90	-1.272***
<.90	-.604***

Table 5 - Effect, on Sensitivity of Donations to Price, of Industry Type Controlling for Unaudited and Implausible NPOs and Reliance on Donations

Test of the basic model with only “audited” and “plausible” NPOs with reliance on donations equal to or greater than .45.

	Arts	Health	Environ- ment	Education	Mental Health	Housing	Recreation
D1	-.535***	-.038	-.293	-.531***	.538	-1.522***	.280
D1*PRICE	.361	.037	.278	1.032***	-.444	5.366***	-1.619
PRICE	-1.224***	-1.603***	-1.593***	-1.713***	-1.591***	-1.641***	-1.764***
	Youth	Human Services	Inter- national	Commun. Develop.	Philan- thropic	Religious	
D1	-.292	-.035	1.062***	.685	.414***	.146	
D1*PRICE	.062	-.125	-2.641*	-2.509	-1.455**	1.073	
PRICE	-1.778***	-1.756***	-1.725***	-1.808***	-1.669***	-1.816***	

Table 6 - Effect, on Sensitivity of Donations to Price, of Industry Type Controlling for Unaudited and Implausible NPOs and Reliance on Donations

Test of the basic model with only “audited” and “plausible” NPOs with reliance on donations less than .45.

	Arts	Health	Environ- ment	Education	Mental Health	Housing	Recreation
PRICE	-.611***	-.803***	-.592***	-.221	-.616***	-.620***	-.563**
D1	.541	.529***	1.126	-1.065***	.335	-.351	1.048*
D1*PRICE	-.438	1.009*	-6.236	-.504	.937	.818	-2.758
	Youth	Human	Inter- national	Commun. Develop.	Philan- thropic	Religious	
PRICE	-.587***	-.587**	-.604***	-.604***	-.552**	-.593***	
D1	.649	.069	.430	-.158	1.523**	.466	
D1*PRICE	1.827	-.036	.192	3.627	-5.626*	-1.325	

