

# Are Restricted Funds an Effective Governance Tool for Non-Profit Organizations?

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## Abstract

This paper studies the use of restricted funds as a monitoring tool for non-profit organizations. The paper examines a random sample of 600 non-profit organizations for evidence that restricted funds are a substitute for other forms of governance and that the use of restricted funds affects organizational behavior. The results provide evidence that restricted funds are used and are useful as a form of governance. Specifically, restricted funds and tax-exempt debts may act as substitute governance tools; the likelihood of reporting fundraising expenses is positively related to having restricted funds; and compensation for officers and directors is inversely related to the level of permanently restricted funds.

## I. Introduction

Charitable giving in the US totaled \$298 billion in 2011, with the majority of US households giving to some non-profit organization during the year (Giving USA, 2012). It is estimated that non-profit organizations (NPOs) generate 1/5<sup>th</sup> of all research and development, most of the health care services, and a significant portion of the growth in human capital and important cultural products and services in the United States (Malani, *et al.*, 2003). Despite the significant role that NPOs play in our economy, little research has been conducted on how NPOs finance their activities and the quality of oversight provided for their operations and management. In light of governance scandals and financial malfeasance on the part of for-profit organizations (POs) during the past decade that have resulted in significant blows to the credibility of markets and increased government oversight, it is important to also scrutinize a group of organizations that has such a tremendous impact on society.

Without active shareholder groups to monitor the organization and a lack of identifiable and measurable criteria on which to base performance, NPOs face a potential lack of governance resulting in greater agency problems. For this reason, it is important to identify if, and under what circumstances, agency problems occur in order to determine if existing governance mechanisms should be improved, replaced, or diminished in order to maximize the benefit of NPOs to society. This paper extends governance theories within the NPO literature to sources of financing and specifically to the use of restricted funds. This paper also extends existing work on agency theory and governance within the PO literature to NPOs.

Restricted funds are usually donations made to an NPO that are restricted to a specific purpose. Restricted funds fall into one of two categories: permanently restricted and temporarily restricted funds. Permanently restricted funds are funds that are usually part of an endowment fund which is used to fund an ongoing need for the NPO, such as providing scholarships. A well-managed endowment fund provides the needed funds from the income of invested restricted funds while maintaining the principal in the fund. Temporarily restricted funds are usually used to fund one-time projects or investments, such as constructing a new building. This paper examines whether restricted funds are used as a substitute for other external sources of

governance and if the use of restricted funds reduces agency problems that are documented in the existent PO and NPO literature.

The results of this paper provide evidence that restricted funds are used and are useful as a form of governance. Specifically, restricted funds and tax-exempt debts may act as substitute governance tools; the likelihood of NPOs reporting fundraising expenses is positively related to having restricted funds; and compensation as a percent of assets for officers and directors is inversely related to the level of permanently restricted funds.

## **II. Literature Review**

### **A. Sources of Financing for NPOs**

Investor-supplied sources of financing for POs are retained earnings from common stockholders, external equity from common and preferred stockholders, bank debt, and investor-supplied debt (bonds). Researchers in NPO finance equate donations with equity (Bowman, 2002), for which the donor does not receive tangible, personal returns, but rather *dividends-in-kind* from the operations of the NPO. NPOs also have at their disposal bank debt, tax exempt and non-tax exempt bonds, and income from endowments to meet their financing needs. Donations can be unrestricted, temporarily restricted, or permanently restricted to specific uses by the donor. While not specifically addressed in the existing literature, restricted donations are akin to preferred stock as they create an obligation on the operations of the firm, similar to debt, but are provided by donors who receive as their return dividends-in-kind.

Temporarily restricted funds are donations made to an NPO to fulfill a specific purpose, such as to construct a building, hold an event, or to be used for specific research. Upon completion of the designated purpose, the funds are no longer restricted. Permanently restricted funds are funds usually placed in an endowment. The investment returns that are provided by the endowed restricted funds are then used to fulfill a designated purpose, such as fund scholarships. For the purposes of governance, permanently restricted funds should present more long term monitoring on the part of the donors (FASB, 2008).

A spate of lawsuits in recent years provides evidence of the ability of donors to monitor and control the actions of NPOs using restricted funds (Miree and Smith, 2009). One notable case involved county music singer, Garth Brooks, winning \$1 million in a lawsuit against Canadian Valley Regional Hospital after the hospital did not use a \$500,000 restricted donation as directed by Brooks (Hall, 2012).

### **B. Theories of NPO Governance**

Existing theoretical PO literature on governance ties the connection between stockholders and managers together through a relationship in which the managers and stockholders both seek to maximize their own utility through a common vehicle—the firm. As the desires for both parties likely conflict with regard to the activities of the firm, mechanisms which include the board of directors, active shareholder groups, and government agencies exist that monitor the occurrence of managers extracting rents from shareholders through excessive compensation,

non-pecuniary compensation, shirking, and risk avoidance. Traditional tools used to deter rent extraction include performance-based pay and the threat of termination (Jensen and Meckling, 1976). This explanation for the relationship between managers and stockholders, their motivations, and the resulting tools to minimize rent extraction is commonly referred to as *agency theory*.

Counter to agency theory, the predominant organizational theory for NPOs--*stewardship theory*--suggests that principals of the organization seek to fulfill the objectives of the organization and are effective monitors of its resources (Donaldson and Davis, 1991; and Muth and Donaldson, 1998). As a result, the role of the board is as a partner offering guidance on strategic planning and community contacts and the role of government monitoring is virtually non-existent.

Cornforth (2003) describes other organizational theories for NPOs: *resource dependence theory*, *democratic model*, *stakeholder theory*, and *managerial hegemony theory*. Each of these add detail to either the agency or stewardship theory, but for each the relationship between the donors of the organization and management lies within the range of being confrontational, as it is with the agency theory, to a partnership, as with the stewardship theory. An important point that comes out of these theories, however, is that the relationship between management and the constituents of NPOs is far more complex than the relationship between management and the stockholders of a PO. In the latter case, the primary role of management in the eyes of stockholders is to maximize the value of the organization. In the former, for most NPO organizations, no quantifiable measure exists to determine value and the desired output of the NPO does not often flow to the donors, but rather to a separate identifiable group of stakeholders. Donors accept this situation due to the *non-distribution constraint* which states that donors are willing to give with the understanding that neither the donors nor the management of NPO will receive pecuniary benefits from the NPO beyond a fair wage for work provided to the beneficiaries of the NPO.

As financing for NPOs usually requires external donors or lenders, the resource dependence theory is applicable when describing NPO management responses to financing needs and sources. Glaeser (2003) applies this theory to governance. Suggesting that boards play little role in governance, he contends that as NPOs become less beholden to their donors, they become captured by their elite workers and that worker control increases with the financial endowment of the NPO. Glaeser bases this argument on examples from museums, universities, hospitals, and churches. This line of thought is consistent with resource dependence theory, which states that organizations' actions are responses that are affected by the degree of dependence on the external environment (Hillman, *et al.*, 2009), and managerial hegemony theory, which states that boards cede control of the organization to its elite workers (Cornforth, 2003).

### **C. Empirical Literature**

Because of a general lack of quantifiable goals, the NPO structure allows for less external governance of mission achievement and greater autonomy for expert workers. Guo and Acar (2005) explore the idea of a desire for autonomy by examining collaboration among 95 charitable organizations in Los Angeles. They find that collaboration is more likely and more significant among NPOs that would lose less autonomy as a result of collaboration. Specifically,

they find that NPOs that have greater resource sufficiency and have been in existence longer engage in more formal collaboration than younger, less financially secure NPOs. Their results provide evidence that NPO managers do desire autonomy and react to dependence on external resources in such a way as to maintain autonomy. A lower level of monitoring and governance is a natural result of maintaining autonomy.

The literature on agency costs for POs effectively establishes significant evidence demonstrating a negative relation between firm performance and the extent of agency problems. For example, Core, Holthausen, and Larcker (1999) find a significant negative relation between excess executive compensation (a visible agency cost) and firm financial performance. Moreover, excess compensation is limited through effective governance by easily identifiable agents, specifically the board of directors and external institutional shareholders (Fahlenbranch, 2009). Contrasted with that is the weak governance provided by boards of NPOs (Chait, *et al.*, 2005) and a lack of any owners of NPOs.

Existing literature seeks to identify sources of effective governance for NPOs. Examining administrative compensation for NPOs, Fisman and Hubbard (2005) find that compensation-to-donation sensitivity is reduced in states that have less oversight of NPOs. Additionally, they find evidence that donors limit the accumulation of reserves in states that have less state oversight. Their conclusion is that donors should require that donations be used quickly if there is little oversight as unused donations may be added to the endowment of the NPO and reduce the sensitivity of the operations of NPO to the desires of its donors.

Yetman and Yetman (2008) examine whether NPOs report fundraising expenses. NPO managers avoid reporting, or underreport, fundraising expenses in an effort to increase donations and increase managerial compensation as donors prefer seeing their donations invested in social beneficence rather than additional fundraising. However, unless they have an association with a separate fundraising association or get most of the funds from services provided, most NPOs should have fundraising expenses to report. In examining determinants of the likelihood of reporting fundraising expenses, Yetman and Yetman find that having audited financial statements, being headquartered in a state that requires the annual submission of an IRS Form 990 each year, and, for large NPOs, having issued tax-exempt bonds, are all meaningful forms of governance.

### **III. Hypothesis Development and Variable Construction**

Acceptance of restricted donations by an NPO creates an obligation for the use of those funds for a specific purpose as designated by the donor. Donors may use these funds to accomplish specific goals through NPOs for which they feel the governance is weak, but believe that the specific NPO is the most appropriate vehicle through which to accomplish their goals. This study examines whether restricted funds are used as a substitute for other external sources of governance by interested stakeholders and if the use of restricted funds reduces agency problems that are found in the existent PO and NPO literature by testing the following two hypotheses.

## A. Hypotheses

H<sub>1</sub>: Restricted funds as a percent of assets are negatively related to the existence of other sources of external governance.

If donors see that governance is weak in an organization, they may be less willing to donate. In order to provide a form of monitoring, donors may provide restricted donations or the management of the NPO may seek out restricted donations through use of endowment campaigns or pledge drives for specific projects.

H<sub>2</sub>: Controlling for other sources of monitoring, measures for agency problems will be negatively related to the level of restricted funds as a percent of assets.

If restricted funds are an effective source of governance, we would expect to see fewer agency problems if an organization takes in restricted donations.

## B. Variable Construction

### Restricted Funds Variables

Total Restricted                      Temporarily restricted funds plus permanently restricted funds scaled by total assets.

Permanently Restricted              Permanently restricted funds scaled by total assets.

Temporarily Restricted              Temporarily restricted funds scaled by total assets.

As discussed in Section 2.1, the different classifications of restricted funds may indicate different types or levels of governance on the part of the donor. As a result, the categories of restricted funds are tested together and individually. Binary variables are also used to indicate whether an NPO uses each as a form of financing

### Agency Variables

Compens                                  The natural log of compensation to officers and directors.

Fundraise                                A variable equal to 1 if the firm reports fundraising expenses and 0 otherwise.

Fisman and Hubbard (2005) use compensation as a measure of agency problems. Alternatively, Yetman and Yetman (2008) use the lack of reporting fundraising expenses as a measure of agency problems as this is often a tool to inappropriately increase managerial compensation within NPOs.

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Governance Variables

Form 990      A dummy variable equal to 1 if the state in which the NPO is headquartered requires filing an IRS Form 990 statement.

Audited      A variable equal to 1 if the firm is audited as determined by examining Part IV-A of the IRS 990 statement and 0 otherwise.

Acc. Fees      A variable equal to 1 if the firm reports accounting fees on their IRS 990 statement and 0 otherwise.

Tax Exempt      A variable equal to 1 if the firm has tax-exempt bonds outstanding at the end of the fiscal year 2007.

The use of external forms of monitoring (i.e. state oversight laws) as a measure of governance avoids the issue of endogeneity. Yetman and Yetman (2008) state that audited financial statements are a “sticky” measure of governance. That is, it is one that usually does not change from year to year. Additionally, for large NPOs, Yetman and Yetman find that outstanding tax-exempt bonds provides for monitoring of the NPO.

Control Variables

Cash      The sum of net income plus non-cash expenses scaled by assets.

Fixed      Depreciated value of non-investment land, building, and equipment scaled by total assets.

Age	Time between the ruling date from the IRS recognizing the tax exempt status of the NPO and January 1 <sup>st</sup> 2007.
Size	Natural log of assets in 2007.
Independent	A dummy variable equal to one if the NPO is not an affiliate of a larger organization.

Jegers and Verschuren (2006) find that the cash flows for NPOs and whether or not they are an affiliate of a larger organization are significant in determining the sources of financing. Wedig, Hassan, and Morrissey (1996) find that the level of fixed assets and firm size are significant in determining financing sources for NPOs. Additionally, Kostiuk (1990) demonstrates a significant relationship between firm size and executive compensation that is stable over time. Guo and Acar (2005) find that the age of the organization affects the willingness of management to engage in collaboration (external monitoring). The year 2007 was chosen as it predated the most recent recession and so the results don't include the effects of the recession.

Dummy variables for the different National Taxonomy of Exempt Entities (NTEE) classifications.

- AR Arts, culture, and humanities
- BH Education, higher
- ED Education
- EH Hospitals
- EN Environment
- HE Health
- HU Human services
- IN International
- MU Mutual benefit
- PU Public and societal benefit
- RE Religion
- UN Unknown

#### IV. Methodology

To test the first hypothesis, the determinants of total, permanent, and temporary restricted funds were estimated using the governance and control variables presented in the previous section. As many NPOs do not use restricted funds in their capital structure, the methodology used should reflect the limiting of the dependent variables. The correct model for a continuous dependent variable that is limited is a sample selection model (SSM). The two types of SSM models are Heckman and Tobit Models. The Heckman model assumes that the dependent variable is a *truncated* variable. That is, the value of the variable is limited to some minimum or maximum value (or both), which results in clustering around that value. The Tobit model assumes that the values of the dependent value are *censored* at minimum and/or maximum values. That is, values may exist beyond the observed points, but due to some constraint in the

data or behavior, these observations are unobservable, resulting in truncating around the minimum or maximum values. (Sigelman and Zeng, 1999).

The nature of restricted funds is such that the restricted asset variables are truncated, not censored (there are no ‘negative’ restricted funds), so the Heckman two-step model was used. The first step is the selection step (Stage 1) which models the probability of a firm having restricted funds, permanently restricted funds, and temporarily restricted funds using probit models. The control variables used in this step were Age, Independent, and the NTEE dummy variables. Age was included in the selection step because newly formed NPOs may not have as much desire to attract restricted funds as they will be less likely to give up autonomy and independent was included as NPOs that belong to national organizations may be required to accept restricted funds if they are solicited as part of a national campaign. There were no NPOs in the sample that fell into the international (IN), religion (RE), or unknown (UN) designations because all NPOs in the sample had to be headquartered in a state and religious organizations (churches) are not required to file IRS Form 990s. Additionally, there were no higher education (BH) organizations that did not have restricted funds and there were no mutual benefit (MU) organizations that did, so these dummy variables were not included in the estimations. The remaining NTEE dummy variables were used in the selection model. Stage 2 is the estimation model and includes all of the governance variables and the other control variables with the exception of the Age and Independent variables.

To test the second hypothesis, the two agency variables mentioned previously—the natural log of compensation of officers and directors (Compens) and a dummy variable to indicate whether the NPO reports fundraising expenses (Fundraise)—were regressed on the different restricted asset variables along with the governance and control variables. A logit model was used to estimate the equation for the Fundraise variable.

Like the restricted asset variables, the salary variable is also a truncated variable. The variables used in the selection step (Stage 1) were chosen based on whether they affect complexity for the organization that would require hiring professional officers and possibly paying directors. These variables were: Total Restricted Dummy, Audited, Acc. Fees, Tax Exempt, Fixed, Age, Size, and Independent. Additionally, NTEE dummy variables were included in the selection step. In addition to the restricted asset variables, the governance variables and variables that affect the need for financing—Size, Cash, and Fixed—were used in the estimation step (Stage 2).

## **V. Sample Selection and Results**

### **A. Sample Selection**

The initial sample was drawn from the National Center for Charitable Statistics (NCCS) Core database for NPOs that had fiscal year ends between 7/1/2007 and 6/30/2008 resulting in 210,334 observations. Consistent with Bowman (2002), organizations that had less than \$10 million in assets were eliminated as smaller firms have less access to capital sources than larger NPOs, which resulted in 10,778 remaining NPOs. To allow for the organizations to have access to external funds, NPOs needed to have a non-zero return on assets for the years 2004-

2007; this requirement reduced the number of observations to 6,482. Eliminating NPOs that are headquartered outside of the US resulted in 6,413 observations from which to draw a sample. Because several of the variables needed to be hand collected, 600 observations were randomly chosen from the remaining observations.

## B. Descriptive Statistics

Table 1 provides the descriptive statistics for the sample. 407 (67.8%) of the organizations have some type of restricted funds on the balance sheet. Of these, 277 (46.2%) have permanently restricted funds, and 383 (63.8%) have temporarily restricted funds. The agency variables have sufficient variability for testing purposes, with officer and director compensation ranging from \$0 to \$15,010,989, and 54% of the organizations reporting fundraising expenses.

The governance variables also generally provide sufficient variability for analysis. 357 organizations (59.5%) have audited financial statements; 483 (80.5%) are headquartered in a state that requires IRS 990 forms be submitted to the state; and 138 (23%) utilize tax-exempt financing.

The negative minimum Cash value is due to expenses exceeding profits for some of the NPOs. Depreciated property, plant, and equipment ranges from 0% to 99.4% of total assets. The time since the IRS determination letter ranges from 2 months to 82 years and 6 months. Please note that this frequently used measure of age is somewhat flawed since the date of the determination letter reported is the date of the *most recent* determination letter. A 501c(3) can request a new determination letter if it has lost the existing one or if it has had a name change. The NPOs in the sample range in size from \$10,029,963 to \$8,433,957,052 in total assets. Ninety five percent of the firms in the sample are not an affiliate of a national organization.

**Table 1. Summary Sample Statistics**

Variable	N	Proportion	Mean	Minimum	Median	Maximum	Standard Deviation
<i>Dependent Variables</i>							
Total Restricted Dummy	600	0.68					
Permanently Restricted Dummy	600	0.46					
Temporarily Restricted Dummy	600	0.64					
<i>Agency Variables</i>							
Compens	463		12.6	7.31	12.6	16.5	1.21
Compens Dummy	600	0.77					
Fundraise	600	0.54					
<i>Governance Variables</i>							
Audited	600	0.60					
Form 990	600	0.81					
Acc. Fees	600	0.71					
Tax Exempt	600	0.23					
<i>Control Variables</i>							
Cash	600		0.08	-0.74	0.07	2.02	0.14
Fixed	600		0.31	0.00	0.28	0.99	0.24
Age	600		32.3	0.17	28.6	82.6	19.6

Size	600		17.3	16.1	16.9	22.6	1.13
Independent	600	0.95					

Table 2 provides the sample statistics for firms that reported restricted funds in FY 2007 and those that did not. Differences in proportions and means were tested between the two groups for statistical significance. The difference in the proportion of firms that reported fundraising expenses between the two groups was statistically significant with 72.2% of NPOs with restricted funds reporting fundraising expenses compared to 15.5% of those without restricted funds reporting. The average (median) size in assets of NPOs reporting restricted funds was significantly larger at \$35.3 (\$23.8) million in assets compared to \$29.5(\$19.6) million for NPOs with no restricted funds.

**Table 2. Bivariate Statistics for NPOs With and Without Restricted Funds**

<i>Dependent Variables</i>	Has Restricted Funds			Does Not Have Restricted Funds		
	<i>N</i>	<i>Proportion</i>	<i>Mean</i>	<i>N</i>	<i>Proportion</i>	<i>Mean</i>
Total Restricted	407		0.24	193		
Permanent Restricted Dummy	407	0.68		193		
Temporary Restricted Dummy	407	0.94		193		
<i>Agency Variables</i>						
Compens	334		12.7	129		12.5
Compens Dummy	407	0.82 <sup>a</sup>		193	0.67 <sup>a</sup>	
Fundraise	407	0.72 <sup>a</sup>		193	0.15 <sup>a</sup>	
<i>Governance Variables</i>						
Audited	407	0.58		193	0.62	
Form 990	407	0.82		193	0.78	
Acc. Fees	407	0.70		193	0.74	
Tax Exempt	407	0.22		193	0.25	
<i>Control Variables</i>						
Cash	407		0.08	193		0.09
Fixed	407		0.30	193		0.33
Age	407		35.2 <sup>a</sup>	193		26.0 <sup>a</sup>
Size	407		17.4 <sup>b</sup>	193		17.2 <sup>b</sup>
Independent	407	0.94		193	0.96	

**Notes:** <sup>a</sup>, <sup>b</sup>, and <sup>c</sup> indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Proportions of the subsample are reported for binary variables. A two-tailed difference in proportions z-test was used to test the differences in proportions. Satterthwaite standard errors are used for testing differences in means if the variances of the two samples for the variable are unequal.

The results for the differences in the agency and control variables for NPOs that reported permanently restricted funds and those that did not, provided in Table 3, are generally consistent with the results from Table 2. For NPOs that reported permanently restricted funds, 91.3% also reported having temporarily restricted funds in FY 2007, compared to 40.2% for NPOs that did not report having permanently restricted funds. One difference between the two subsamples that was not reported in Table 2 is that NPOs with permanently restricted funds had a lower mean (median) value of fixed assets as a percent of total assets at 27.6% (25.5%) compared to 33.8% (28.9%) for firms that did not have permanently restricted funds.

**Table 3. Bivariate Statistics for NPOs with and without Permanently Restricted Funds**

<i>Dependent Variables</i>	Has Permanently Restricted Funds			Does Not Have Permanently Restricted Funds		
	<i>N</i>	<i>Proportion</i>	<i>Mean</i>	<i>N</i>	<i>Proportion</i>	<i>Mean</i>
Permanent Restricted	277		0.16	323		
Temporary Restricted Dummy	277	0.91 <sup>a</sup>		323	0.40 <sup>a</sup>	
<i>Agency Variables</i>						
Salary	223		12.7 <sup>c</sup>	240		12.5 <sup>c</sup>
Salary Dummy	277	0.81 <sup>b</sup>		323	0.74 <sup>b</sup>	
Fundraise	277	0.77 <sup>a</sup>		323	0.34 <sup>a</sup>	
<i>Governance Variables</i>						
Audited	277	0.58		323	0.60	
Form 990	277	0.81		323	0.80	
Acc. Fees	277	0.71		323	0.72	
Tax Exempt	277	0.25		323	0.22	
<i>Control Variables</i>						
Cash	277		0.08	323		0.08
Fixed	277		0.28 <sup>b</sup>	323		0.34 <sup>b</sup>
Age	277		38.3 <sup>a</sup>	323		27.1 <sup>a</sup>
Size	277		17.5 <sup>a</sup>	323		17.2 <sup>a</sup>
Independent	277	0.94		323	0.96	

**Notes:** <sup>a,b,</sup> and <sup>c</sup> indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Proportions of the subsample are reported for binary variables. A two-tailed difference in proportions z-test was used to test the differences in proportions. Satterthwaite standard errors are used for testing differences in means if the variances of the two samples for the variable are unequal.

Table 4 presents the results for the differences in proportions, means, and medians between NPOs that report having temporarily restricted funds in 2007 and those that did not. The results are generally consistent with those reported in Table 2. 66.1% of NPOs that reported having temporarily restricted funds also reported having permanently restricted funds, compared to 11.1% for NPOs that did not report having temporarily restricted funds. Consistent with the two prior tables, NPOs that have temporarily restricted funds are more likely to report fundraising expenses. Additionally, compensation for officers and directors for NPOs with temporarily restricted funds higher than that of NPOs that don't have temporarily restricted funds. The median value of cash flow to assets is higher for NPOs that report temporarily restricted funds (7.3%) than that of NPOs that do not report restricted funds (5.5%). The mean value of fixed assets as a percent of total assets is lower for firms that reported temporarily restricted funds (29.2%) compared to NPOs that did not report temporarily restricted funds (34.0%).

Overall, the bivariate results provide evidence that restricted funds do increase the reporting of fundraising expenses and limited evidence that restricted funds result in higher compensation for officers and directors. The former is consistent with expectations, while the latter is inconsistent with expectations. The bivariate results provide no support for relationships between the existence of restricted funds and other governance measures.

**Table 4. Bivariate Statistics for NPOs With and Without Temporarily Restricted Funds**

<i>Dependent Variables</i>	Has Temporarily Restricted funds			Does Not Have Temporarily Restricted Funds		
	<i>N</i>	<i>Proportion</i>	<i>Mean</i>	<i>N</i>	<i>Proportion</i>	<i>Mean</i>
Temporary Restricted	383		0.14	217		
Permanent Restricted Dummy	383	0.66 <sup>a</sup>		217	0.11 <sup>a</sup>	
<i>Agency Variables</i>						
Salary	319		12.7	144		12.5
Salary Dummy	383	0.83 <sup>a</sup>		217	0.66 <sup>a</sup>	
Fundraise	383	0.75 <sup>a</sup>		217	0.18 <sup>a</sup>	
<i>Governance Variables</i>						
Audited	383	0.58		217	0.61	
Form 990	383	0.82		217	0.78	
Acc. Fees	383	0.70		217	0.73	
Tax Exempt	383	0.22		217	0.25	
<i>Control Variables</i>						
Cash	383		0.08	217		0.08
Fixed	383		0.29	217		0.34
Age	383		35.1 <sup>a</sup>	217		27.3 <sup>a</sup>
Size	383		17.4 <sup>b</sup>	217		17.2 <sup>b</sup>
Independent	383	0.94		217	0.96	

**Notes:** <sup>a,b,c</sup> indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Proportions of the subsample are reported for binary variables. A two-tailed difference in proportions z-test was used to test the differences in proportions. Satterthwaite standard errors are used for testing differences in means if the variances of the two samples for the variable are unequal.

### C. Multivariate Results

Table 5 provides the results for the Heckman two-stage estimates of the determinants of the restricted funds. Stage one is the selection equation. For each restricted asset type, the likelihood of it being utilized increases with the age of the NPO. Rho was significant for the total restricted and permanently restricted asset types. Rho is the results of a test for correlation between the errors in the selection and estimation models. A statistically significant Rho indicates the need for using an SSM. For the sake of consistency, the Heckman model was also used to model the temporarily restricted funds. An OLS estimate for the temporarily restricted funds model was completed for robustness. The results (unreported) provided consistent results.

Stage Two is the observation model and shows the relationship between the amount of restricted funds (scaled by total assets) and the independent variables. The negative relation between size and the amount of restricted funds is driven by that relation for the permanently restricted funds. The use of tax-exempt financing is negatively related to the amount of restricted funds. That relation is driven by the relation between temporarily restricted funds and the use of tax exempt debt. This provides evidence of a substitution effect between the two for the use of completing projects. As the use of tax exempt debt results in greater external monitoring, this finding provides evidence in support of the Hypothesis 1. The levels of the

total restricted funds and temporarily restricted funds are positively related to the cash flows scaled by assets and the level of permanently restricted funds is negatively related to the same variable. The level of each category of restricted funds is negatively related to the level of fixed assets scaled by total assets.

**Table 5. Heckman Two-Stage Estimates of Restricted Asset Determinants**

	N	Total Restricted 407	Permanently Restricted 277	Temporarily Restricted 383
<b>Stage 1. Probit Model Results</b>				
Intercept		0.41 [.36]	-0.34 [.32]	0.35 [.36]
Age		0.01 <sup>a</sup> [.00]	0.02 <sup>a</sup> [.00]	0.01 <sup>a</sup> [.00]
Independent		-0.09 [.25]	-0.32 [.23]	-0.13 [.25]
AR		0.93 <sup>b</sup> [.42]	1.35 <sup>a</sup> [.36]	0.56 [.38]
ED		-0.12 [.33]	0.17 [.29]	-0.25 [.32]
EH		-0.59 <sup>b</sup> [.29]	-0.29 [.26]	-0.39 [.29]
EN		0.58 [.47]	0.64 <sup>c</sup> [.39]	0.69 [.47]
HE		-0.49 <sup>c</sup> [.28]	-0.21 [.26]	-0.50 <sup>c</sup> [.27]
HU		-0.34 [.27]	-0.14 [.24]	-0.23 [.27]
PU		-0.47 [.29]	-0.11 [.27]	-0.40 [.29]
RE		-0.77 <sup>c</sup> [.46]	-0.90 <sup>c</sup> [.49]	-0.64 [.47]
Rho		-0.43 <sup>a</sup> [.12]	-0.42 <sup>a</sup> [.11]	-0.05 [.33]
<b>Stage 2. OLS Model Results</b>				
Intercept		0.92 <sup>a</sup> [.22]	0.84 <sup>a</sup> [.19]	0.43 <sup>b</sup> [.17]
Audited		-0.00 [.03]	-0.01 [.02]	0.00 [.02]
Form 990		-0.01 [.03]	-0.03 [.03]	0.02 [.03]
Acc. Fees		-0.04 [.03]	-0.03 [.03]	-0.02 [.02]
Tax Exempt		-0.09 <sup>a</sup> [.03]	-0.05 [.03]	-0.07 <sup>a</sup> [.03]
Cash		0.27 <sup>b</sup> [.12]	-0.30 <sup>b</sup> [.12]	0.37 <sup>a</sup> [.03]
Fixed		-0.31 <sup>a</sup> [.05]	-0.19 <sup>a</sup> [.05]	-0.17 <sup>a</sup> [.04]
Size		-0.03 <sup>b</sup> [.01]	-0.03 <sup>a</sup> [.01]	-0.01 [.01]
Sigma		0.26 <sup>a</sup> [.01]	0.20 <sup>a</sup> [.01]	0.19 <sup>a</sup> [.01]
Log Likelihood		-354.1	-297.8	-269.6

**Notes:** N is the number of positive observations for the restricted asset type. All 600 observations were used for each estimation. <sup>a,b,</sup> and <sup>c</sup> indicate statistical significance at the 1%, 5%, and 10% levels, respectively. The standard errors are provided in parentheses.

Table 6 provides the results of the logistic regressions to estimate the likelihood of an NPO providing an amount for fundraising. The results show that the likelihood of reporting fundraising expenses increases with the amount of restricted funds that the firm has for both types of restricted funds. Similar models (unreported) were estimated using dummy variables for whether the firm reported having restricted funds with consistent results. Surprisingly, the other governance variables were insignificant in explaining the likelihood of a firm reporting

fundraising expenses. However, each of the variables was generally evenly distributed between the two fundraising subsamples. These results provide evidence in support of Hypothesis 2.

**Table 6. Logit Estimates of Determinants of Likelihood that Fundraising is Reported**

	(1)	(2)	(3)
N	324	324	324
Intercept	-4.45 <sup>b</sup> [1.92]	-3.87 <sup>b</sup> [1.85]	-4.14 <sup>a</sup> [1.91]
Total Restricted	3.73 <sup>a</sup> [.57]		
Permanently Restricted		3.36 <sup>a</sup> [.89]	
Temporarily Restricted			5.13 <sup>a</sup> [.93]
Audited	-0.03 [.21]	-0.08 [.21]	-0.00 [.21]
Form 990	-0.11 [.26]	0.01 [.25]	-0.12 [.25]
Acc. Fees	-0.12 [.22]	-0.21 [.21]	-0.19 [.21]
Tax Exempt	-0.28 [.27]	-0.42 [.27]	-0.28 [.27]
Cash	-0.42 [.33]	-0.22 [.31]	-0.59 <sup>c</sup> [.34]
Fixed	0.32 [.36]	-0.00 [.34]	0.12 [.35]
Age	0.03 <sup>a</sup> [.01]	0.03 <sup>a</sup> [.01]	0.03 <sup>a</sup> [.01]
Size	0.22 <sup>b</sup> [.10]	0.22 <sup>b</sup> [.10]	0.20 <sup>b</sup> [.10]
Independent	0.08 [.44]	0.08 [.44]	-0.03 [.43]
AR	0.57 [.79]	0.85 [.73]	1.13 [.74]
BH	0.52 [1.02]	0.46 [.97]	0.56 [.99]
ED	-0.29 [.68]	-0.28 [.61]	0.02 [.63]
EH	-1.83 <sup>a</sup> [.68]	-2.03 <sup>a</sup> [.60]	-1.67 <sup>a</sup> [.62]
EN	1.03 [.93]	1.00 [.87]	1.41 [.90]
HE	-0.81 [.61]	-0.83 [.54]	-0.62 [.56]
HU	-0.19 [.60]	-0.32 [.53]	0.02 [.55]
PU	-0.33 [.57]	-0.51 [.55]	-0.08 [.58]
RE	0.52 [.89]	0.27 [.86]	0.59 [.90]
R <sup>2</sup>	.3424	.2734	.3258

**Notes:** N is the number of observations for which Fundraise is equal to 1. All 600 observations were used for each estimation. <sup>a,b,</sup> and <sup>c</sup> indicate statistical significance at the 1%, 5%, and 10% levels, respectively. The standard errors are provided in parentheses. The Nagelkerke R<sup>2</sup> is reported.

Of the 600 NPOs in the sample, 463 reported compensating officers and directors. Table 7 provides the results of the Heckman estimations of the salary variables. For the restricted asset variables, only the permanently restricted funds were statistically related to the level of compensation to directors and officers scaled by assets. The inconsistent finding between the multivariate test and the bivariate test reported in Table 3 is due to a higher proportion of firms with permanent restricted funds reporting compensating officers and directors compared to the NPOs that do not have permanent restricted funds and controlling for NPO size. This result provides support for Hypothesis 2, with regard to permanent restricted funds. The positive relation in the selection step (Stage 1) is likely based on the need to hire (and compensate) professionals due to the added complexity of the organization.

**Table 7. Heckman Two-Stage Estimates of Officer and Director Compensation**

	(1)	(2)	(3)
<b>Stage 1. Probit Model Results</b>			
Intercept	-0.76 [1.21]	-0.78 [1.21]	-0.78 [1.21]
Total Restricted Dummy	0.30 <sup>b</sup> [.12]	0.30 <sup>b</sup> [.12]	0.27 <sup>b</sup> [.12]
Audited	0.14 [.12]	0.14 [.12]	0.14 [.12]
Acc. Fees	0.31 <sup>b</sup> [.13]	0.31 <sup>b</sup> [.13]	0.31 <sup>b</sup> [.13]
Tax Exempt	-0.11 [.18]	-0.12 [.18]	-0.11 [.18]
Fixed	0.24 [.23]	0.23 [.23]	0.23 [.23]
Age	0.01 <sup>a</sup> [.00]	0.01 <sup>a</sup> [.00]	0.01 <sup>a</sup> [.00]
Size	0.08 [.06]	0.08 [.07]	0.08 [.07]
Independent	0.05 [.27]	0.04 [.27]	0.05 [.27]
AR	-0.68 [.44]	-0.61 [.44]	-0.71 [.44]
BH	-0.38 [.61]	-0.33 [.61]	-0.39 [.61]
ED	-0.92 <sup>b</sup> [.41]	-0.87 <sup>b</sup> [.41]	-0.93 <sup>b</sup> [.41]
EH	-0.64 [.42]	-0.59 [.42]	-0.63 [.42]
EN	0.03 [.60]	0.07 [.59]	0.03 [.60]
HE	-0.68 <sup>c</sup> [.39]	-0.64 <sup>c</sup> [.39]	-0.68 <sup>c</sup> [.39]
HU	-0.64 [.39]	-0.59 [.39]	-0.62 [.39]
PU	-1.03 <sup>a</sup> [.39]	-0.99 <sup>b</sup> [.39]	-1.03 <sup>a</sup> [.39]
RE	-1.03 <sup>c</sup> [.54]	-0.99 <sup>c</sup> [.54]	-1.01 <sup>c</sup> [.54]
Rho	-0.68 <sup>a</sup> [.10]	-0.69 <sup>a</sup> [.09]	-0.67 <sup>a</sup> [.11]
<b>Stage 2. OLS Model Results</b>			
Intercept	3.95 <sup>a</sup> [.86]	4.02 <sup>a</sup> [.85]	3.74 <sup>a</sup> [.86]
Total Restricted	-0.36 <sup>c</sup> [.21]		
Permanently Restricted		-0.96 <sup>a</sup> [.32]	
Temporarily Restricted			0.04 [.29]
Audited	0.17 [.11]	0.16 [.11]	0.17 [.11]
Form990	-0.08 [.14]	-0.09 [.14]	-0.08 [.14]
Acc. Fees	-0.09 [.11]	-0.10 [.11]	-0.08 [.11]
Tax Exempt	0.14 [.13]	0.15 [.13]	0.18 [.13]
Cash	1.17 <sup>b</sup> [.46]	1.02 <sup>b</sup> [.46]	1.04 <sup>b</sup> [.47]
Fixed	-0.15 [.19]	-0.17 [.19]	-0.07 [.19]
Size	0.51 <sup>a</sup> [.05]	0.51 <sup>a</sup> [.05]	0.52 <sup>a</sup> [.05]
Sigma	1.10 <sup>a</sup> [.05]	1.10 <sup>a</sup> [.05]	1.10 <sup>a</sup> [.05]
Log Likelihood	-949.0	-946.2	-950.5

**Notes:** All 600 observations were used for the Stage 1 estimations and the 463 positive observations for the Compens variable were used for the Stage 2 estimations. <sup>a</sup>, <sup>b</sup>, and <sup>c</sup> indicate statistical significance at the 1%, 5%, and 10% levels, respectively. The standard errors are provided in parentheses.

## **VI. Conclusion**

This paper provides a first step in addressing the lack of effective governance tools for NPOs by considering the use of financing options as a source of monitoring. Restricted funds are a tool that donors can directly use to provide governance for the NPO by creating a legal obligation for the NPO to act in a specific manner with regard to the use of that funding. Additionally NPOs, can initiate the monitoring by fundraising in such a manner that creates the restriction, thereby offering to be monitored in exchange for the ability to raise capital.

The results of this study provide evidence that restricted funds are used as a form of governance as the amount of restricted funds as a percent of assets is inversely related to another source of capital that results in additional monitoring and spending discipline—tax-exempt financing. The use of all forms of restricted funds increases the likelihood of reporting fundraising expenses, which suggests that the monitoring is effective. Finally, the amount of restricted funds as a percent of total assets is negatively related to the amount of officer and director compensation after controlling for economic and other governance factors. This result is driven by the use of permanently restricted funds and is evidence of effective governance. While it is possible that other economic factors, such as constraints on financing sources, could explain the results of the paper, every effort was made to control for these factors.

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