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The Price of Doing Good:

Executive Compensation in Nonprofit Organizations

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Abstract

This article examines whether nonprofit executive pay patterns are consistent with the espoused social mission of these organizations. We find that nonprofit CEOs are paid a significant fixed component, and many CEOs also receive additional pay associated with managing larger-size organizations. Our analysis indicates that nonprofit executive compensation is not significantly related to CEO performance, as measured either by improved fund-raising results or better administrative efficiency. This weak pay-for-performance link may be due in part to nonprofits' concern about violating the non-distribution constraint in the sector, which prohibits the distribution of excess earnings. While nonprofits may not be breaching the letter of the law, some organizations appear to challenging its spirit: We present evidence that CEO compensation is significantly higher in organizations where free cash flows are present, as measured by commercial revenues, liquid assets and investment portfolios.

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Nonprofit organizations are an unmistakable part of the economy. Today, there are over 1.5 million nonprofit organizations in the United States, employing 10.2 million people or 6.9% of the U.S. workforce and representing $621.4 billion in revenues (Boris and Steuerle, 1999). In the past few years alone, a series of financial scandals have shaken several large nonprofits, including the NAACP, United Way, and Adelphi University. These high profile cases – along with the growing visibility of the sector – have generated calls for more accountability and oversight. At the center of the debate is the question of executive compensation in the nonprofit sector.

Appropriate compensation is central to the long-term viability and success of the nonprofit sector. Nonprofits are legally prohibited from paying excessive compensation. While corporations are designed to profit maximize and pass earnings on to shareholders, nonprofit organizations are legally prohibited from making distributions, particularly that "inure to the private benefit of any private shareholder or individual."[1] Hansmann (1980: 840) describes this requirement:

> A nonprofit organization is, in essence, an organization that is barred from distributing its net earnings, if any, to individuals who exercise control over it, such as members, officers, directors, or trustees…. Net earnings, if any, must be retained and devoted in their entirety to financing further production of services that the organization was formed to provide.

Ideally, the non-distribution requirement overcomes market failures arising from lack of trust, information asymmetries, and adverse selection (Hansmann 1980, Weisbrod

[1] U.S.C. §501(c)(3).

1988). By retaining annual surpluses, nonprofit organizations can, in theory, reassure clients and donors that their social mission takes precedence over the financial remuneration of any interested parties. In service industries, such as childcare and medical services, the non-distribution requirement may serve as a commitment and trust device, indicating to consumers that the service provider will not provide substandard services in order to benefit financially. In exchange for eschewing profit and distribution, nonprofit organizations receive subsidies in the form of tax exemptions and charitable donations that in principle permit them to offer more social services at lower cost. In practice, however, these tax subsidies combined with weak corporate governance systems and a lack of external monitoring can create problems around incentives and rewards.

In the for-profit setting, many of these problems are not present because clear financial incentives can be deployed based on the financial performance of the firm. Free to distribute excess earnings as rewards, business firms typically have a clearer set of objectives than do nonprofit organizations. Due to the non-distribution constraint, nonprofit compensation decisions have traditionally been thought to be connected to the difficult-to-measure notion of "progress toward mission," rather than based on growth in revenues or earnings, an approach that has been seen as improper for nonprofits (Kertz 1997, Frumkin and Andre-Clark 1999). The challenge for nonprofits is thus how to compensate executives to motivate performance yet retain their tax-exemption and focus on mission.

To better understand whether existing compensation practices respect or violate the principle of the non-distribution constraint, we conduct a set of tests to examine the determinants of CEO compensation. We consider three competing explanations for

compensation patterns. First, we test whether compensation is related to legitimacy, as measured by organizational size. Second, we see whether CEO compensation is in fact related to managerial performance. Finally, we investigate whether CEO compensation is a function of the availability of free cash flows within organizations. In carrying out the analysis, we adopt a pooled regression approach using a stratified panel of nonprofit organizations developed by the Internal Revenue Service (IRS) for the 1993-1996 period.

The paper proceeds in five steps. First, we begin by presenting background on the nonprofit sector and its unique organizational and legal characteristics that frame decision making about compensation. In Section II, we develop our research hypotheses based on prior theoretical and empirical work. Third, we describe the panel data, the variables, and our research design. Fourth, we present the results of the analysis and interpret their meaning. In the final section, we discuss the implications of the results for our understanding of nonprofit organizations.

I. Background and Literature Review

A. The Rationale for Tax-Exemption and the Non-Distribution Constraint

In principle, the nonprofit organizational form allows society to overcome market failures and to increase the output of certain goods and services, without moving to direct government provision or the provision of subsidies to for-profit firms. To achieve greater social welfare, nonprofits are provided tax exemptions and the ability to offer contributors tax deductions for their charitable gifts. In exchange, nonprofits consent to certain corporate governance requirements and external oversight.

Nonprofits generally operate in service areas characterized by externalities, uncertainty, information asymmetries, adverse selection, and consumer trust (Krashinsky

1986; Rose-Ackerman 1986; Weisbrod 1988). By using their resources to fulfill their missions rather than to benefit private parties, nonprofit organizations attempt to overcome market or "contract failures" (Hansmann 1980). The non-distribution constraint offers a contractual assurance that consumers will not be taken advantage of by nonprofits and that resources will be used to meet public needs rather than for personal gain. As a result, this commitment device fosters consumer trust and confidence that the transaction will result in a fair exchange.

The problem of market or contract failure often occurs when the funder and the recipient of the service are distanced from one another. In some charities, donors are unable to see the actual recipients of their money due to physical distance or privacy issues. For example, donors that respond to appeals for disaster relief do so because they trust the charities to use their donations responsibly. This trust is predicated on the non-distribution constraint and that the nonprofit employees adhere to it. For organizations that charge a fee directly to service recipients, the problem of contract failure is somewhat different. In fee-based nonprofits, the person paying the fee is the consumer of the service. Consumers select these services based on a set of assumptions regarding the costs and benefits of the service and the reputation of the nonprofit provider. Thus, for example, nonprofit day care centers enjoy broad popularity because many parents prefer to have their children's care governed by factors other than the bottom line. By removing the profit motive and operating subject to the non-distribution constraint, nonprofits can deliver services in a way that inspires confidence in the consumer.

To encourage them to respond to market failures, nonprofit organizations are offered unique tax opportunities that contribute to their economic success. First,

nonprofits are granted tax exemption from most income, sales, and property taxes at the federal, state, and local level. Second, nonprofit organizations can fund themselves through tax-free debt. Third, nonprofit organizations are not expected to generate an economic return for the residual claimants. The effect of these tax benefits and lack of profit motive can be depicted as in Figure 1. [2]

PLACE FIGURE 1 ABOUT HERE

Under competitive situations, a for-profit firm (f_p) will supply output of y_{fp} at the break-even price of $p_{fp.}$ Due to tax exemption and lower cost of capital, nonprofit organizations (n_p) can generate greater output (y_{np}) at a lower price (p_{np}). By selling their services at a lower price, nonprofits are able to serve a population that would have been excluded under the market solution.

Since the benefits of tax exemption could enable nonprofits to outcompete taxed for-profit firms, exemption from taxation is only granted for certain activities. To be eligible for these tax concessions, an organization must be organized and operated "for charitable, religious, educational, scientific, or other purposes" as forth in §501(c) of the IRS code.[3] Essentially, this tax policy is designed to increase social welfare (increasing it from the area defined by ABC to ABD) by expanding the production of socially beneficial goods and services. The tax exemption makes it difficult for for-profit firms to operate profitably in certain social service activities. Nonprofits, in contrast, can earn tax-free program service revenue as long as their services are consistent with their charitable mission.

[2] This discussion draws upon Lakdawalla and Philipson (1999) and Philipson and Posner (2000).

[3] In addition, nonprofit organizations are required to pay an unrelated business income tax (UBIT) on any unrelated trade or businesses that is regularly carried on and is not substantially related to the organization's exempt purpose.

Many nonprofits also benefit from a second advantage: tax-deductible charitable contributions. Individual and corporate donors receive a tax deduction for their charitable gifts to nonprofit organizations that are public, not member, serving. Nonprofits can use this subsidy to offer services to persons that cannot afford to pay even the lower nonprofit price for services. Contributions shift the nonprofit supply further away from the for-profit supply to a new equilibrium output (y_{npc}) at an even lower price (p_{npc}). By selling services to some clients at p_{npc}, nonprofits can use donations to provide free or below-cost services to other clients. As long as this decision is consistent with their mission, nonprofits can price discriminate. Through contributions, social welfare can be increased even further from ABD to AEF as seen in Figure 2.

PLACE FIGURE 2 ABOUT HERE

While tax exemptions can increase social welfare, they can foster agency problems that undercut the long-term value of nonprofits. Free of taxes and bolstered by charitable contributions, nonprofit organizations can increase output and lower price to the nonprofit competitive equilibrium point ($y_{npc,}$ p_{npc}). The nonprofit managers, however, can collude to lower outcomes and raise prices from this equilibrium. As long as the output (y_a) is higher and price (p_a) is lower than the for-profit competitive equilibrium ($y_{fp,}$ p_{fp}), nonprofits will not face competition from for-profit firms. The collusion imposes a deadweight loss to society (equal to the reduction in social welfare) and provides the nonprofit with excess profits. The collusion can persist since the outcomes (y) generated by nonprofit organizations are intangible and long-term in nature, making them difficult to measure, verify, or control.

Based on this economic analysis of how excess profits can be generated in a nonprofit setting, the paper proceeds to explore whether and why these profits might be distributed to employees rather than invested in future service provision.

B. The Challenges of Nonprofit Compensation

To fulfill their missions, the nonprofits need to select and motivate employees by paying reasonable but not excessive compensation. Given that nonprofits often operate in noncompetitive environments and benefit from tax exemption and charitable contributions, managers have the opportunity to be paid excessively, work inefficiently, or divert resources from fulfilling their organizations' missions. If revealed, these activities can undermine public trust. We discuss the legal mechanisms available to regulate managerial compensation and behavior.

Reasonable but not Excessive Compensation. Numerous compensation studies indicate that the standard compensation for nonprofit workers and executives is lower than their employees in comparable positions in for-profit firms (Preston 1989, Steinberg 1990, Handy and Katz 1998, and Ruhm and Borkoski 2000). Several theories could explain this finding: Many who choose to work in the nonprofit sector engage in "labor donations," preferring altruistic and other nonpecuniary benefits to monetary rewards (Rose-Ackerman 1986, Preston 1989). Wages may be lower in nonprofit jobs as a screening device, attracting only those managers willing to restrain their desire for profit (Young 1977; Hansmann 1980). These theories suggest that paying nonprofit executive salaries that rival those in business would be highly problematic given expressive character and social orientation of these organizations (Mason 1996).

Other management researchers have argued that nonprofits must pay their best workers wages that are competitive with those of business firms in order to attract and retain the most talented and capable people (Pappas 1995; Drucker 1992). Those backing "comparable pay" generally argue that the success of nonprofit organizations relies on good managers precisely because of the difficulty in assessing a true bottom line in nonprofits. Given the service-oriented nature of the industry, the uncertainty of funding, and difficult-to-measures outcomes, nonprofit organizations must be willing to spend aggressively to attract and retain top quality human capital. Because the work of many nonprofits is growing ever more complex and demanding, personnel with strong management and leadership skills are needed to ensure organizational growth (Letts, Ryan, and Grossman 1999).

While many nonprofit executives' pay may be relatively low, especially at smaller agencies, a series of recent scandals has led the government to investigate the financial management and compensation practices in the sector. As part of its oversight of tax-exempt organizations, the IRS is responsible for defining excess compensation and for pursuing enforcement actions. Compensation has been deemed to be excessive if it "exceeds what is reasonable under all the circumstances." In contrast, compensation is reasonable "if it is only such amount as would ordinarily be paid for like services by like enterprises under like circumstances."[4] Historically, and during our sample period, the IRS had only one penalty available to sanction nonprofits that paid excessive compensation. The IRS could revoke the tax exemption of such an organization. Given

[4] Failure by Certain Charitable Organizations to Meet Certain Qualification Requirements; Taxes on Excess Benefit Transactions, 63 Fed. Reg. 41, 486, 41,501 (1988).

the difficulty of determining if excess compensation was being paid and the draconian nature of the sanction, enforcement actions were extremely rare.[5]

Recently enacted legislation permits the IRS to impose an alternative penalty, an excise tax, on nonprofits that pay staff excessive compensation. Enforcement actions may become more prevalent due to public pressure and the ability of the IRS to impose a more moderate penalty. One aspect of the legislation has been questioned: The principal test to determine if an executive is overcompensated is to look at salaries at comparable institutions. Nonprofits can protect themselves from IRS sanction by establishing "rebuttable presumptions" that their compensation decisions are reasonable by compiling research demonstrating that comparable organizations pay their executives similar salaries.

Non-distribution Constraint. A lingering concern associated with nonprofit compensation is that management may divert excess earnings away from providing future services. Traditional agency theory recommends that principals should offer agents incentives to encourage effort and reduce perquisite behavior (Jensen and Meckling 1979, Fama 1980). However, paying incentives based on excess earnings directly conflicts with the non-distribution requirement, since revenues or cost savings are converted into higher salaries and benefits for staff rather than services for clients.[6] For this reason, non-profits have traditionally sought to avoid paying employees compensation based on the financial performance of the organization.

[5] Occasionally, the IRS would enter into closing agreements with charities to resolve conflicts over excessive compensation, but this too was also seen as a stringent measure.

[6] For example, Tax Court found in *People of G-d Community vs. Commissioner* that the payment of a percentage of gross receipts to a pastor violated the non-distribution constraint (75 T. C. 127, 132 (1980).

Recently, limited incentive compensation has begun to be used in the nonprofit industry. Compensation consultants argue that pay-for-performance results in improved employee productivity and retention, which translates into increased revenues and efficiencies (Barbeito and Bowman 1998). This view assumes that nonprofit organizations operate comparably to for-profit firms. In for-profit businesses, the principal or owner can induce better performance by providing incentives to a risk-bearing manager, and the incentives can be structured to maximize the principal's utility. In a nonprofit firm, the agent is the manager, but there is no legal residual claimant to serve as the principal (although, in some organizations, boards operate as an effective surrogate). In addition, the appropriate objective function is difficult to define and associated programmatic outputs are hard to observe and measure (Alchian and Demsetz 1972; Borjas, Frech III, and Ginsburg 1983). In such circumstances, seeking to shape managers' performance by linking pay with financial results is problematic.

II. Research Hypotheses

Against the complex backdrop of conditions and constraints in the nonprofit sector, we examine the determinants of nonprofit compensation. In particular, we focus on two threats to public trust: excess compensation and violation of the non-distribution constraint. This approach is different from the recent literature. Some research has explored the differences between nonprofit and for-profit compensation levels (Borjas, Frech III, and Ginsburg 1983; Frank 1996; Goddeeris 1988; Johnson and Rudney 1987; Mocan and Viola 1997; Preston 1989). Several studies have examined a related topic — the pay-performance link — but have a more restricted scope. Roomkin and Weisbrod (1999) and Brickley and Van Horn (2000) focus on profit and non-profit hospitals, while

others concentrate on variations in executive pay (Oster 1998; Baber, Daniel, and Roberts 1999; Hallock 2000). We explore the robustness of non-distribution constraint by constructing three hypotheses about the determinants of nonprofit compensation.

A. Legitimacy: Organizational Size

Extensive for-profit research indicates that corporate executive compensation is a function of organizational size.[7] Murphy (1998) argues that size is a proxy for managerial skill requirements, job complexity, and span of control. Nonprofit compensation studies (Salamon 1982, Hallock 2000) indicate that size is an important determinant of CEO compensation. Size or organizational scale may be a more significant determinant of compensation in nonprofit than for-profit organization since inputs such as program expenses and tangible assets are the most visible and measurable element of the organization's production process.

Organizational size may also be an important factor in pay because governing boards often determine compensation by benchmarking against senior executives in nonprofits that are comparable in size and industry focus (Barbeito and Bowman 1998). A growing number of professional associations across fields of nonprofit activity now actively collect and disseminate compensation studies, which report average salaries and benefits for executives at organizations across different categories of budget. Boards are able to rely on this data to guide their compensation decisions.

Finally, organizational size provides legitimacy (Meyer and Rowan 1977; Scott 1995; Zucker 1988). Large institutions typically garner more publicity, have higher prestige, and are viewed as more effective by virtue of the scope of their activities.

[7] See Murphy (1998) for summary of research.

Moreover, boards at large institutions are typically made up of leaders from the community, whose judgment is less likely to be subject to questioning and critical scrutiny. Managers can and do receive larger compensation packages at these larger institutions because they are simply perceived as deserving and entitled to earn more. We posit as a first hypothesis:

> *H1: The larger the size of a nonprofit organization, the higher the CEO compensation.*

B. Performance: Incentive Pay

As nonprofit boards deliberate over the question of how much to compensate their CEOs, one compelling criterion is managerial performance. Nonprofit management has become increasingly understood as a legitimate profession, with its own body of expert knowledge and a set of best practices (Light 2000). Leaders of major nonprofit organizations have come to adopt a more business like approach to their work, adopting concepts such as quality management, process reengineering, and benchmarking from the world of corporate strategy. As outlined in the prior section, pay-for-performance in the nonprofit sector is challenging due to the difficulties in measuring performance and the risk of violating the non-distribution constraint. Two forms of performance have been the focus of most incentive plans: fundraising and cost efficiencies.

While many large organizations have development staffs that manage the fund-raising process, the CEO is ultimately responsible for the financial position of the organization. The ability to raise large amounts of money is also frequently taken as a sign that the organization is performing well. The logic is that donors reward organizations that are doing good work and punish those are not by withholding

contributions. As a proxy for mission fulfillment, fundraising results at least provide an easily measured metric that can be tracked from year to year. To the extent that nonprofits pay their executives based on their performance, successful fundraising thus turns out to be a central component of any judgment about managerial success or failure.

The other way that managerial performance can be judged is related to how resources are used. Because the nonprofit sector is governed by a culture of service, few organizations tolerate the wasting of resources. Frugality is a virtue in nonprofits. Cost cutting in nonprofits is often an organizational necessity, especially when revenues are flat or lag or when the public need met by the nonprofit is extremely pressing, making waste unacceptable. By driving down administrative expenses, some nonprofit managers believe they are at the same time increasing their ability to execute their mission. Some funders and watchdog organizations interpret low ratios of administrative to total expenses as a sign that a nonprofit is well run and mission-focused. We hypothesize therefore:

H2: The better the managerial performance, the higher the CEO compensation.

C. Cash Availability: Free Cash Flows

Beyond organizational size and performance, nonprofit compensation decisions can also be shaped by the presence of excess funds within the organization and the amount of oversight that is directed at the organization. Unrestricted funds within organizations give nonprofit boards the ability to use “free cash” for nonessential and nonbudget items, including increased salaries and benefits for senior staff. There are at least three major sources of unrestricted funds: First, nonprofits may have commercial or earned revenues that are not subject to oversight by donors. Nonprofits that receive large

amounts of earned income from the charging of fees typically have substantially more freedom than their charitably supported counterparts when it comes to the allocation of resources. Users and clients tend to focus more on the convenience and cost of the services rendered than on the underlying financial practices of the nonprofit organization. Earned income rarely requires program or financial reporting to outside parties, but instead relies on customer satisfaction. Few service consumers review financial statements or monitor organizational decision making. If the paying clients are satisfied and if fee income generates surpluses, nonprofits end up having considerable discretion in making operating and compensation decisions.

Second, nonprofits may have high levels of liquidity that give them some flexibility in spending. Since many nonprofits operate with an annual budget, existing and expected cash flows are committed to program services, purchasing tangible assets, or investing in the endowment. However, nonprofits regularly receive unexpected cash in the form of unrestricted contributions. Often these contributions are small and come from a broad base of supporters. Sometimes these unconditional gifts are solicited through direct mail campaigns, other times they are the product of loyalty and years of support from donors who have come to trust the nonprofit. Unlike restricted grants, these funds do not trigger monitoring and oversight. These unexpected funds are frequently held as liquid assets and can be used to justify one-time or permanent increases in salaries or benefits.

Finally, some organizations may have endowments. A portion or all of the interest from these funds is used annually to support the general budget or some restricted purpose. Endowments decrease pressure on managers to raise funds through

annual appeals and reduce the monitoring that may accompany new donations. Given the favorable stock market performance in the 1990s, some nonprofits have been able to use capital gains to cover increases in operating costs. Thus, organizations with endowments will tend to have more discretionary cash available than organizations operating without the cushion and protection that endowments provide.

Although the non-distribution constraint is legally violated by distributing "excess earnings," the payment of free cash flows to executives can be viewed as breaking "the spirit" of the contract. Our third research hypothesis is:

> *H3: The greater the cash availability or free cash flows, the higher the CEO compensation.*

In carrying out our analysis, we are interested in isolating the main determinants of nonprofit compensation and their implications for the strength and meaning of the non-distribution constraint. While any link between resources growth and compensation might appear questionable and potentially problematic, only a strong link between fund-raising results and increased executive compensation would present clear evidence of diversion of the excess revenues to nonmission-related purposes. The potential implications of a significant relationship between organizational size and free cash are more subtle and complex.

III. Research Design

A. Data and Sample Selection

The sample data used in our analysis originates from the annual Form 990 non-profit tax filings. The sample population is drawn from the nonprofit organizations contained in the panel data prepared by the Statistics on Income (SOI) office of the IRS.

The annual data is repackaged and disseminated to academic researchers by the National Center on Charitable Statistics (NCCS), which is part of the Urban Institute. The annual data files were combined into a single database. Due to inaccuracies in the fiscal year field, tests were conducted to remove duplicate observations initially marked as being from different fiscal years and to relabel fiscal years to ensure that ending total assets for one year equaled the opening assets for the subsequent one. The final sample totals 6,590 non-profit organizations drawn from 1993-1995 SOI panel, for a total of 15,350 observations as shown in Table 1. The 1992 SOI panel is used to help develop lagged variables for estimation.

Our analysis begins with a consideration of the correlations between the variables (see Table 2). As expected, there is a high degree of correlation between executive salary and total executive compensation (0.99), but the relationship between executive benefits and total compensation was considerably weaker (0.29). The explanatory variables the most strongly correlated with total compensation are total fixed assets (0.13), total program expenses (0.10), and commercial revenue share (0.09). Among the other independent variables, many of the highest correlations are to total fixed assets. Total program expenses, dollar growth in contributions, and commercial revenue share have correlations to total fixed assets of 0.58, 0.14, and 0.14, respectively.

B. Model Development

We adopt a pooled specification is follows:

$$\begin{aligned}\text{Compensation}_{it} &= \alpha + \beta_1 \text{Total Fixed Assets}_{\text{it-1}} + \beta_2 \text{Total Program Expenses}_{\text{it-1}} + \\ &\beta_3 \text{Administrative Efficiency}_{\text{it-1}} + \beta_4 \text{Contribution Growth}_{\text{it}} + \\ &\beta_5 \text{Commercial Revenue Share}_{\text{it-1}} + \beta_6 \text{Expenses} - \text{to} - \text{Liquid Assets}_{\text{it-1}} \\ &+ \beta_7 \text{Investment Portfolio - to - Total Assets}_{\text{it-1}} + \varepsilon\end{aligned} \quad (1)$$

The model is employed at the industry-wide level and for each of six major subsector classifications based on the National Taxonomy of Exempt Entities: Arts, Education, Health, Human Services, Religious and Other (which is primarily public and societal benefit organizations). We assess the statistical significance of individual variables using a t-test that controls for firm dependence.[8] To assess the relative explanatory power of groups of variables, we use the Vuong test (1989) *z*-statistic.

For our dependent variables, we use three different measures of compensation: *CEO salary*, *CEO benefits,* and *total CEO compensation*. The last variable simply combines executive salary and benefits. The compensation data is drawn from the salary and benefits of the officers, directors, and key employees reported on Part V of the IRS 990 Form. Since the coded data does not indicate the job title, we assume that the highest paid individual is the CEO or Executive Director. With the potential exception of hospitals and some universities, practitioner compensation studies generally support this assumption. (Barbeito and Bowman 1998).[9] We included both executive pension plan and expense account expenditures in our measure of benefits.

To test our first hypothesis, we rely on two variables: lagged *total fixed assets* and lagged *total program expenses*. Prior studies have generally used total assets or log of total assets to proxy for size (Hallock 2000). Our field experience with nonprofits leads us to believe that boards set the CEO compensation base on annual budgets and scale of

[8] The robust estimator of variance assumes the observations are not independent but that they are divided in M groups (i.e., firms) G_1, G_2, ..., G_M that are independent. The estimator becomes $\hat{V}\left(\sum_{k=1}^{M} u^{(G)'}u^{(G)}\right)\hat{V}$, where $\hat{V} = (\partial^2 \ln L/\partial\beta^2)^{-1}$ and $u_k^{(G)}$ is the contribution of the kth group to the score $\partial \ln L/\partial\beta$ (Huber 1967; Rogers 1993).

[9] In future drafts, we plan to exclude hospitals from the analysis since so few of the highest paid individuals at hospitals are the CEOs.

operations in comparison to industry peers. We chose total fixed assets (which includes land, building, and equipment) as a proxy for scale of operations and total program expenses as a measure of the annual budget. In nonprofits, total program expenses include costs of program services, but exclude administrative and fundraising expenses. We expect CEO compensation to be positively associated with both fixed assets and program expenses.

We developed two variables associated with our pay-for-performance hypothesis. Due to the non-distribution constraint, boards have difficulty rewarding CEOs directly for cost savings. The ratio of administrative expenses to total expenses is a standard measure of overhead in the nonprofit industry. Boards view that the lower this ratio, the higher the efficiency of operations. To measure administrative efficiency, we take one minus the overhead ratio to construct the *ratio of non-administrative expenses to total expenses*. Hence, we expect CEO compensation to be positively associated with the ratio of non-administrative expenses to total expenses.[10]

To supplement this variable, we include a second measure of CEO performance: *dollar growth in contributed revenue.* A critical part of the work of most nonprofit CEOs is raising money for the organization. The increase in contributed revenue is a particularly observable measure that boards may correlate with CEO effort. Other revenue sources, such as program service revenue, investment income, and special event revenue, may not be as closely tied to CEO performance. If nonprofits are adopting a more performance-based compensation approach, then we expect that growth in

[10] Due to accounting flexibility, some nonprofits may allocate a disproportionate share of joint costs to program rather than administrative activities. Hence, our variable measures reported rather than actual administrative efficiency. The variable may be biased of we have omitted a variable correlated with this misallocation.

contributed revenue will be positively associated with compensation. However, since some incentive pay may be interpreted as a violation of the non-distribution constraint, boards elect not to reward CEOs directly for increasing contributions. A second reason that we may fail to find a significant relation is that restricted contributions bear donor-imposed restrictions, which often include limitations on the funds spent on personnel services.[11]

To test our third hypothesis, we selected three variables that determine whether an organization is cash constrained or has free cash flows. First, we considered lagged *commercial revenue as a share of total revenue*. Commercial revenues are composed of proceeds from sales of goods as well as program service fees and charges generally paid by clients, insurance companies, or some government agencies. Often, these funds are relatively free of donor oversight or outside imposed restrictions. We expect CEO compensation to be higher in organizations that have a greater reliance on commercial revenues. Second, we create a measure of *liquid assets to expenses*.[12] Liquid assets are computed using cash plus receivables less payables. This ratio indicates the proportion of annual expenses that can be paid out of liquid assets and provides a sense of the organization's debt-paying ability. We anticipate that CEO compensation will be positively related to this ratio. Third, we expect that CEO compensation is positively associated with endowments that help pay for general and administrative costs and reduce the scrutiny associated with new donations. We use *the investment portfolio to total assets ratio* as this proxy.

[11] Due to data limitations, we are unable to distinguish between growth in unrestricted and restricted contributions.
[12] In future drafts, we plan to invert this measure to make a more understandable variable.

IV. Results

A. Industry-Wide Regressions

To commence our analysis, we ran industry-wide regressions to understand the overall relation between compensation and the explanatory variables. Table 3 provides the results using three different dependent variables (total CEO compensation, CEO salary, and CEO benefits). For all three models, we find a significant fixed component to pay (as measured by the constant) with each CEO receiving almost $97,000 in annual salary and over $12,000 in benefits.

CEO compensation is positively related to the measures of organizational size. For every thousand dollars of fixed assets or program expenses, a CEO's total compensation increases $0.25 and $0.07, respectively. In these industry-wide regressions, we find less support for the incentive pay hypothesis. While total CEO compensation is not significantly related to either incentive/performance measure, administrative efficiency is significantly and positively related to CEO benefits.

The free cash flow measures are significantly associated with compensation. A one percent increase in the commercial revenue share increases CEO compensation by just over $600. In addition, CEO compensation is positively related to the relative size of the investment portfolio. Finally, we find that CEO benefits are significantly associated with the size of the investment portfolio.

In the total compensation and salary regressions, no one hypothesis accounts for significantly more of the variance in compensation (Table 5, Panel A). When free cash flow variables are not taken into consideration, then the pay-for-performance variables explain substantially more than the size variables. However, the Vuong test reveals that

free cash flow explains substantially more of the variance in CEO benefits than the other two hypotheses individually and combined (*z*-stat= -2.15).

B. Industry-Specific Regressions

Since the nonprofit industry is quite heterogeneous, we explore the compensation relation in the major subsectors. In Table 4, we provide the results of industry-specific regressions examining total CEO compensation. With the exception of the health sector, each of the subsector regressions has substantially higher explanatory power (as measured by R^2). In five of the six subsectors receive a significant fixed portion to their compensation, receiving a base of $80,000 or more. Only in the religious sector is the constant relatively low ($23,750) and insignificant.

The examination of the arts sector reveals that CEO compensation is significantly related to total fixed assets, commercial revenue share, and the investment portfolio as a percentage of total assets. The arts organizations included in the SOI panel are composed primarily of performing arts organizations and museums. In contrast to other subsectors, the compensation of CEOs increases the most strongly with total fixed assets ($1.29 increase in pay for each $1,000 in fixed assets), commercial revenue share (over $780 raise for a one percent higher commercial revenue share), and investment portfolio-to-total assets (almost $300 for a 1 percent higher investment portfolio). Relatively, the free cash flow variables explain a substantially greater proportion of the variation in compensation for arts CEOs than the other two hypotheses combined (*z*-stat= -3.48) (Table 5, Panel B).

While arts executive pay is closely related to fixed assets, CEOs at educational institutions receive compensation that is significantly associated with total program

expenses. These organizations include primary and secondary schools as well as colleges and universities. Similar to arts CEOs, educational leaders are better compensated when the organizations have a relatively larger commercial revenue share. In the education sector as in the arts area, the set of free cash flow variables have a significantly higher explanatory power than the other variables.

In the health sector, the only significant determinants of CEO compensation are the commercial revenue share and the liquid asset-to-expense ratio. A one percent gain in commercial revenues relative to total revenues translates into a $260 rise in CEO compensation, and a similar increase in liquid assets to expenses results in $11 in additional pay. No one group of variables dominates in explaining total compensation but, in untabulated results, the free cash flow variables outweigh the two other hypotheses in explaining CEO benefits. Given that often the highest paid employee at hospitals are not the CEO, we reran the health sector regression excluding hospitals. We find that both size variables are significant along with administrative efficiency and the liquid assets-to-expense ratio. For this subgroup, the set of free cash flow variables dominates the other explanatory factors (z-stat = -1.95).

The compensation of human services CEOs is closely related to variables associated with all three hypotheses. Both organizational size variables, total fixed assets and total program services were significant as was one incentive variable, dollar growth in contributions, and two free cash flow variables, liquid assets-to-expenses, and investment portfolio-to-total assets. The human services area is the only sector that exhibited a significant relation between compensation and dollar growth in contributions. Not only is this component of pay incentive related, but also it could be potentially

interpreted as a violation of the non-distribution constraint. The human service sector is the only segment of the nonprofit industry in which the free cash flow hypothesis is significantly outweighed by the other two hypotheses (*z*-stat= 6.81).

Compensation for religious leaders differs substantially from pay in the other sectors. First, the fixed component of pay is much lower and is not significant. In addition, none of the explanatory variables are significant. One potential interpretation is that religious leaders make substantial altruistic labor donations. These executives' pay does not seem to increase in response to greater size, cash availability, or performance. The religious nature of the organizations may mean that other omitted factors are the key drivers of compensation.

Finally, compensation at public benefit and other organizations is significantly shaped by four of the seven explanatory variables. Executives in this category are the only ones whose compensation is significantly related to the administrative efficiency ratio. A one percent increase in the administrative efficiency ratio equates to a $485 increase in compensation. No one hypothesis has relatively higher explanatory power than the others for these organizations.

V. Conclusions

Nonprofits operate to provide a public benefit, and most rely upon donations and trust to carry out their work. Excessive nonprofit salaries or diversions of resources away from services to outside parties or employees can undermine public confidence, hurting not only nonprofit organizations and their clients, but also the sector as a whole. The non-distribution constraint bearing on nonprofit organizations provides a contractual assurance that the consumer will not be taken advantage of or betrayed by producers for

personal gains. Bound by this promise to use resources to advance their missions rather than to benefit private parties, nonprofit organizations emerge as a solution to market or "contract failures." People seek out nonprofits in areas where they cannot penetrate and police services using ordinary contractual devices, in situations where trust and information are scarce, and where assessing the value of the services they receive for their money is difficult.

To better understand whether excessive compensation or violations of the distribution constraint are frequent in the sector, we examined the factors associated with CEO compensation. We found that nonprofit CEOs are paid a significant fixed component, and many CEOs also receive additional pay associated with larger organizational size. Our results indicate that nonprofit executive compensation is not significantly related to CEO performance. While our analysis suggests that nonprofits may not literally be violating the non-distribution constraint, we did find evidence that CEO compensation is significantly higher in the presence of free cash flows. In three of the six industry subsectors, CEO compensation is determined by free cash flows rather than organizational size or CEO performance.

New intermediate sanction regulations have recently been put in place to penalize nonprofits that excessively compensated executives. These regulations determine the reasonableness of executive compensation based on benchmarking against comparable organizations. Our analysis suggests strong industry-specific similarities in pay that are related free cash flows and to a lesser extent on organizational size rather than firm performance. Hence, the new regulations may not be particularly effective in identifying

either absolute levels of compensation that are too high or organizations that are violating the spirit of the non-distribution constraint.

One final implication of our analysis bears on the enduring performance measurement quandary that confronts so many nonprofit organizations. We believe that nonprofit organizations may be relying on organizational size to make compensation decisions and drawing on free cash flows when available rather than addressing the challenge of defining, quantifying, and measuring the social benefits that nonprofits produce. Nonprofit organizations typically produce services that are complex and that produce not only direct outputs but also indirect, long-term societal benefits. These types of services make developing effective outcome measurements difficult and establishing causality between program and client effects difficult. In the absence of effective assessment of social performance and mission accomplishment, many organizations may rely on size as a determinant of compensation. Presently, a number of organizations, such as the United Way, are encouraging nonprofits to develop input and output measurements related to an organization mission. Perhaps, once such measures are developed and actively used, nonprofits will be able to structure CEO compensation that provides meaningful incentives to managers, while respecting the spirit of the non-distribution constraint.

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Figure 1

Non-profit vs. For-Profit Supply-Demand Diagram

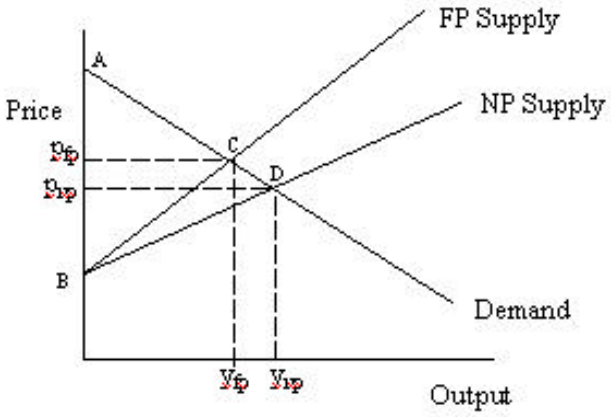

Figure 2

Non-profit Supply-Demand Diagram including Contributions

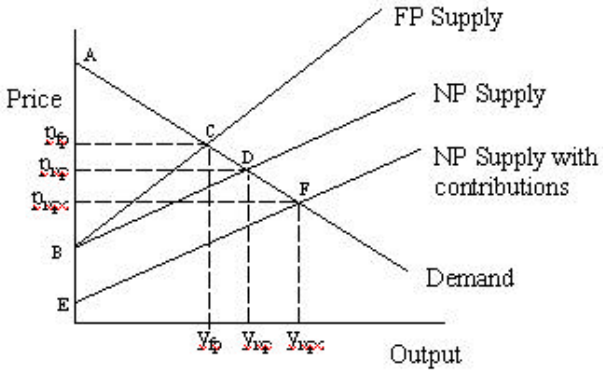

Table 1
Descriptive Statistics

Panel A: Observations by SOI Panel Year

Year	Observations
1993	4,914
1994	5,036
1995	5,400
Total	15,350

Panel B: Observations by Industry Classification

Classification	Observations	Firms
Arts	862	353
Education	3,539	1,399
Health	5,736	2,394
Human Services	2,120	933
Religious	108	45
Other	2,985	1,466
Total	15,350	6,590

Panel C: Characteristics by Industry Classification

	Arts	Education	Health	Human Services	Religious	Other
Total Fixed Assets						
Mean	12,600	38,000	41,800	11,900	3,573	13,400
Median	4,800	11,400	17,900	6,375	165	1,665
St. Deviation	22,600	114,000	118,000	22,100	6,978	38,200
Total Program Expenses						
Mean	14,300	43,900	80,600	12,200	5,129	37,300
Median	4,168	13,000	34,600	5,609	1,526	6,679
St. Deviation	37,600	134,000	256,000	43,700	9,134	336,000
Administrative Efficiency						
Mean	76.1%	83.1%	84.5%	84.5%	84.6%	83.5%
Median	81.8%	86.9%	87.6%	88.0%	90.1%	88.1%
St. Deviation	81.2%	85.8%	85.6%	86.2%	82.3%	83.5%
Dollar Growth in Contributions						
Mean	110.3	921.3	211.8	182.0	189.2	470.6
Median	23.1	27.1	0.0	1.0	0.9	0.0
St. Deviation	10,800.0	8,905.0	7,451.1	4,731.3	1,132.1	7,662.9
Commercial Revenue Share						
Mean	25.0%	58.2%	79.8%	55.5%	26.8%	37.2%
Median	15.4%	68.5%	95.6%	66.2%	1.3%	13.8%
St. Deviation	26.0%	30.1%	32.8%	38.2%	34.7%	41.0%
Liquid Assets/Expenses						
Mean	70.0%	27.3%	48.1%	90.9%	-1.9%	79.8%
Median	25.8%	12.6%	12.9%	12.2%	20.6%	21.5%
St. Deviation	272.3%	160.8%	663.4%	2783.1%	658.4%	423.3%
Investment Portfolio/Total Assets						
Mean	33.6%	35.5%	16.3%	17.9%	38.4%	32.5%
Median	25.9%	32.8%	1.8%	2.4%	16.5%	15.5%
St. Deviation	41.1%	28.7%	27.1%	27.8%	41.7%	36.4%

Table 2
Means, Standard Deviations, and Correlations

	Mean	St. Dev	1	2	3	4	5	6	7	8	9	10
1. Total CEO Compensation	157,061	311,343	1.00									
2. CEO Salary	138,886	301,337	0.99	1.00								
3. CEO Benefits	18,175	45,848	0.29	0.15	1.00							
4. Total Fixed Assets (per $1,000)	28,300	91,900	0.11	0.10	0.12	1.00						
5. Total Program Expenses (per $1,000)	47,800	21,700	0.10	0.09	0.09	0.59	1.00					
6.Administrative Efficiency	83.5%	84.8%	0.02	0.02	0.04	0.07	0.09	1.00				
7. Dollar Growth in Contributions (per $1,000)	3,425	7,386	0.01	0.01	0.00	0.14	0.06	0.02	1.00			
8. Commercial Revenue Share	59.0%	39.2%	0.09	0.08	0.07	0.14	0.11	0.11	-0.01	1.00		
9. Liquid Assets / Expenses	26.54	2,331	0.00	0.00	0.00	-0.01	-0.01	-0.07	-0.01	-0.05	1.00	
10. Investment Portfolio / Total Assets	25.0%	30.1%	-0.03	-0.03	0.00	-0.04	-0.03	0.00	0.04	-0.42	-0.01	1.00

Table 3
Compensation Analysis by Type of Compensation

	Directional Prediction	Total CEO Compensation	CEO Salary	CEO Benefits
Constant	+	109,159.60***	96,902.94***	12,256.62***
Total Fixed Assets (per $1,000)	+	0.25***	0.19***	0.05**
Total Program Expenses (per $1,000)	+	0.07**	0.07***	0.00
Administrative Efficiency	+	7,404.19	-627.62	8,031.81***
Dollar Growth in Contributions (per $1,000)	+	-0.32	-0.23	-0.08
Commercial Revenue Share	+	60,011.33***	52,681.56***	7,329.77***
Liquid Assets/ Expenses	+	94.13	60.25	33.88
Investment Portfolio/ Total Assets	+	10,380.49*	5,716.28	4,664.21***
Adjusted R^2		0.02	0.02	0.02
Observations		15,350	15,350	15,350
Number of Firms		6,590	6,590	6,590

* p-value (two-sided) ** p-value (two-sided) *** p-value (two-sided)

The p-values are computed using White's robust standard errors (White [1980]). In addition, the estimator of variance used assumes the observations are not independent but that they are divided in M groups (i.e., firms) G_1, G_2, ..., G_M that are independent. Specifically, the estimator is $\hat{V}\left(\sum_{k=1}^{M} u^{(G)'}u^{(G)}\right)\hat{V}$, where $\hat{V} = (\partial^2 \ln L/\partial\beta^2)^{-1}$ and $u_k^{(G)}$ is the contribution of the kth group to the scores $\partial \ln L/\partial\beta$ (Huber [1967] and Rogers[1993]).

Table 4
Compensation Analysis by Major Industry Classifications

	Arts	Education	Health	Human Services	Religious	Other
Constant	81,139.98***	100,773.20***	151,477.30***	81,362.49***	23,749.76	120,596.80***
Total Fixed Assets (per $1,000)	1.29***	0.14	0.29	0.58***	2.01	0.50**
Total Program Expenses (per $1,000)	0.23	0.14*	0.02	0.32***	1.83	0.07***
Administrative Efficiency	7,886.84	-51,537.79	7,872.52	11,291.98	-27,441.96	48,484.03**
Dollar Growth in Contributions (per $1,000)	0.23	-0.29	-0.44	1.53*	-2.75	-0.34
Commercial Revenue Share	78,690.43***	30,864.63**	44,218.61***	4,130.96	20,022.87	51,849.11***
Liquid Assets / Expenses	2,450.82**	1,527.57	1,059.01***	-50.22***	213.40	-697.16
Investment Portfolio / Total Assets	29,890.95**	6,332.53	15,083.73	26,736.62***	38,772.59	3,701.65
Adjusted R^2	0.19	0.07	0.01	0.12	0.20	0.06
Observations	862	3,539	5,736	2,120	108	2,985
Number of Firms	353	1,399	2,394	933	45	1,466

* p-value (two-sided) < .10 ** p-value (two-sided) < .05 *** p-value (two-sided) < .01

The p-values are computed using White's robust standard errors (White [1980]). In addition, the estimator of variance used assumes the observations are no independent but that they are divided in M groups (i.e., firms) G_1, G_2, ..., G_M that are independent. Specifically, the estimator is $\hat{V}\left(\sum_{k=1}^{M} u^{(G)'}u^{(G)}\right)\hat{V}$, where $\hat{V} = (\partial^2 \ln L / \partial\beta^2)^{-1}$ and $u_k^{(G)}$ is the contribution of the kth group to the scores $\partial \ln L / \partial\beta$ (Huber [1967] and Rogers[1993]).

Table 5
Relative Explanatory Power of the Three Hypotheses

z-statistics resulting from Vuong Test (1989). Negative/(positive) values indicate that the first/(second) group of variables explains significantly more of the variance in compensation.

The variables are grouped according to the following hypotheses:

H1: Total Fixed Assets, Total Program Expenses

H2: Administrative Efficiency, Dollar Growth in Contributions

H3: Commercial Revenue Share, Expenses / Liquid Assets, and Investment Portfolio / Total Assets

Panel A: Vuong Tests on Full Sample Regressions Reported in Table 3:

	H1 vs. H2 & H3	H2 vs. H1 & H3	H3 vs. H1 & H2
Total CEO Compensation	0.57	0.31	-0.57
CEO Salary	0.53	0.32	-0.53
CEO Benefits	2.11**	1.62	-2.15**

Panel B: Vuong Tests on Full Sample Regressions Reported in Table 4:

	H1 vs. H2 & H3	H2 vs. H1 & H3	H3 vs. H1 & H2
Arts	3.35***	-1.62	-3.48***
Education	1.70*	0.07	-1.75*
Health	0.56	0.32	-0.57
Human Services	-7.11***	-8.13***	6.81***
Religious	1.34	-1.00	-1.46
Other	1.24	0.53	-1.29

* p-value (two-sided) < .10
** p-value (two-sided) < .05
*** p-value (two-sided) < .01