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# The Role of Nonprofit Endowments

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Theories of nonprofit organizations have generally centered on the motivations of not-for-profit entrepreneurs.[1] Regardless of the motivations of the nonprofit's founder, however, a key connecting idea among these theories is the assumption of the nondistribution constraint as the defining characteristic of the nonprofit form (Hansmann 1996). In this paper, we take this definition of nonprofits as a point of departure, and discuss the implications for the financial structure and governance of nonprofit organizations, regardless of their underlying motivations. In a for-profit organization, shareholders act as the residual bearers of risk. Because nonprofits, by definition, have no residual claimants, there must be some other means of absorbing shocks that exist in a world of uncertain donations and uncertain needs for program expenditures. One possibility would be simply to allow for shocks to revenue streams to be passed on to program expenditures, thus effectively making the recipients of an organization's services bear the burden. However, a desire for "production smoothing" naturally leads to a search for an alternative buffer. Thus nonprofit organ-

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1. More precisely, most theories of nonprofits are based on one of two ideas: (a) a desire to provide a product at the low marginal cost of production, perhaps due to externalities created by the good (see, e.g., Weisbrod 1988), or (b) an interest in signaling the production of a high-quality good where quality is difficult to observe or verify (e.g., Hansmann 1996; Glaeser and Shleifer 2000).

izations will hold precautionary savings in the form of endowment fund balances, to protect against adverse revenue shocks.

In this paper, we take a preliminary step in analyzing empirically the role of the endowment in nonprofit organizations. We begin by describing, across industries, the endowment characteristics of nonprofit organizations. We further provide some preliminary regression results on endowment intensity that are suggestive of a precautionary saving motive for endowments. This need to maintain a fund balance to smooth the provision of services potentially leads to problems of governance and managerial discretion. This observation is obviously related to familiar themes in corporate finance, which has often focused on the agency problems created by giving managers access to discretionary funds in for-profit organizations (e.g., Jensen 1986). The problem is that, given the opportunity, for-profit managers will "steal" from the firm, by consuming perquisites in one form or another. A similar question arises for donors to nonprofit organizations. On the one hand, there is a need for a fund balance to smooth consumption. On the other hand, managers may take advantage of these funds to pursue pet projects or even pay themselves higher salaries. Two possible solutions exist: Donors may insist that funds be spent right away, thereby ensuring that their donations are put to good use at the expense of the production-smoothing ability of the organization.[2] Alternatively, donors may rely on monitoring technologies that guarantee that all funds, both present and future, are spent appropriately. We describe some of the modes of oversight and monitoring that might be used to curb malfeasance, and suggest some empirical implications of our framework for future work.

The rest of the paper is structured as follows: In section 7.1, we describe the process of endowment generation and donor behavior that we believe governs nonprofit organizations. Section 7.2 provides a discussion on potential measures of governance in nonprofits. In section 7.3, we provide details on the Internal Revenue Service (IRS) data that we use to examine organizations' endowments. Our results on patterns of endowments and precautionary savings are presented in section 7.4. In section 7.5, we undertake a preliminary investigation in the link between governance and endowment intensity; section 7.6 concludes.

## 7.1 Donations and Endowments in Nonprofit Organizations

Consider first the problem faced by a not-for-profit entrepreneur who derives utility from providing a good for which the equilibrium market price will not cover average cost. This entrepreneur must therefore raise

2. Note that this more commonly takes the form of donations of products (e.g., medicine to aid organizations, or books to a library) rather than cash donations that must be spent immediately. From a saving perspective, the effect is the same.

donations from like-minded donors, who similarly obtain utility from the provision of this good. By assumption, consumers and donors of the nonprofit's output are not identical.[3] Donors are therefore required to provide funds to the entrepreneur, with the assumption that he or she will use them to further the stated mission of the organization (i.e., by producing the good that the organization was established to provide).

Within this model, we introduce the following complication: Very often, an organization is faced with uncertain circumstances with regard to revenue and cost streams. This may be driven by uncertainty over future demand for the organization's services, future donations, or changes in input prices. For example, consider the circumstances of the Riverside Church Soup Kitchen, whose mission is to feed the homeless of upper Manhattan, following the stock market decline of 2000–2001. This simultaneously increased the demand for its services and reduced the capacity of its donor base to provide funding. Assuming that this is a temporary shock, the organization may be forced to cut back services exactly when the need is greatest. An alternative is for the entrepreneur to hold funds in reserve, as precautionary savings, for situations where the organization faces a shortfall. This is what is commonly referred to as an endowment, or fund balance. This may be used as a buffer in circumstances where there exists a gap between what donors provide and what is required for program services. Endowments are often described in these terms, as a fund to protect the organization from "rainy days."

However, as noted in the introduction, providing managers with this precautionary savings device may allow them to "steal" from the organization, by pursuing interests that diverge from those of the donors, by consuming perquisites, or even potentially by taking inappropriate financial compensation. Having recognized this danger, donors and society more broadly may wish to impose conditions that restrain nonprofit management from taking inappropriate actions. This may include monitoring by the government or by donors; we consider some of the mechanisms in use in the following section, in some greater detail. Furthermore, if donors know that they will be expropriated by providing endowments to entrepreneurs they may choose to limit the discretionary funds available to managers in the first place.

Now, the preceding story is premised on two basic assumptions: (a) that it is easier for managers to pursue personal interests with endowment funds rather than with streams of revenue, and (b) that donors have some incentive to provide managers with endowments, rather than simply providing funding on an annual basis. We now provide some evidence in support of these assumptions.

3. See preceding references, such as Hansmann (1996) and Glaeser and Shleifer (2000), for reasons that this might be the case.

### 7.1.1 Expropriation of the Endowment

Application of our argument to endowment expropriation closely follows agency models, which emphasizes that providing managers with discretionary funds may lead to governance problems. In such a setting Jensen (1986) argues, for example, that an organization should hold a high level of debt, so that all cash inflows must be used to service this debt and stave off the bankruptcy that would cause the manager to lose his or her job. Analogously, in a nonprofit firm, if the organization has very little cushion in the form of an endowment, all cash inflows will be required to meet the organization's basic mission requirements, leaving relatively little scope for expropriation. Furthermore, to the extent that the organization faces binding constraints and that donations are made for particular purposes,[4] expropriation may be difficult.

The popular press is littered with examples that illustrate this distinction between endowment and revenue expropriation. For example, in a particularly high-profile case in 2000, three former officials of Alleghany Health Education were arrested and charged with diverting $52 million in charitable endowments, for "inappropriate and personal uses." The case of the Bishop Estate, a charitable trust created in 1884 by one of the last members of Hawaii's royal family, provides a particularly compelling illustration of these ideas. The Bishop Estate held an endowment, worth $10 billion in 1997, proved to be too much of a temptation for the estate's five trustees. Funds were diverted for purposes that furthered the financial interests of the stewards of the endowment, through such mechanisms as political donations and direct investment in trustee-owned companies.

### 7.1.2 Endowment Expropriation and Donors

Given this potential for expropriation, the question arises of why donors ever allow for endowments in the first place, rather than simply promising to make up for shortfalls in the future. One answer draws once again on an analogy from research in corporate finance. One of the difficulties with Jensen's arguments for constraining managers is that management may have preferential information on the nature of investment opportunities, so it will be useful to provide them with some discretionary resources. Similarly, nonprofit managers may have a better sense of the needs of their organizations, so it may be beneficial for them to have some discretionary funds available when needs arise. It may be costly for management to have to petition donors for additional funds whenever there are unexpected

4. For example, in a case related to one of the authors, a donor told of donating storm windows to his daughter's private school because he was sure that this would not be a fungible donation.

needs. More generally, the transactions costs associated with the "meeting the shortfall" could be substantial.

Another possibility comes from a closer consideration of what exactly the nonprofit is "selling" to its donors. Casual observation suggests that much donation revenue is motivated by a desire for fame in perpetuity. This factor could lead to endowments for two reasons: Nonprofit managers may thus be better positioned to extract endowment funds from donors, through techniques such as "naming rights"; and the willingness of others to give to a nonprofit may increase with the endowment of the nonprofit, which guarantees its permanence. Hence, any individual donor can get other donors to commit more if the first donor commits his or her own money, not only for current expenses but for future expenses as well. In either case, a discretionary fund results for the manager, which may allow for the aforementioned expropriation to occur. We then must consider what steps may be taken to limit the extent of this expropriation.

## 7.2 Modes of Governance

There are a number of potential watchdogs that could mitigate the endowment-expropriation potential described in the preceding section. We consider here three possibilities: government oversight, media oversight, and donor oversight.

### 7.2.1 Government Oversight

Society, broadly defined, may choose to monitor nonprofits to prevent expropriation. Just as the Securities and Exchange Commission was established to prevent the expropriation of investors in for-profit firms, several governmental organizations exist to mitigate expropriation in nonprofits. Both federal and state-level bodies exist to oversee nonprofits. These bodies essentially enforce laws that are meant to ensure that the organization's resources are used to pursue the organization's stated mission, and to prevent the expropriation of value by insiders.[5] For example, the IRS regulations passed in 1998 provide specific guidance to charitable organizations on what constitutes appropriate financial compensation of executives, and further provides for penalties if these regulations are not followed.

Primary responsibility for the legal oversight of nonprofits, however, devolves to the level of the state.[6] While IRS oversight may be uniform across

5. More details on regulations from Minnesota may be downloaded from the website of the Minnesota Attorney General: http://www.ag.state.mn.us/charities/Default.htm. The website also contains links to the sites of other attorneys general. Internal Revenue Service regulations may be downloaded from http://www.irs.gov/exempt/display/0,,i1%3D3%26genericId%3D15048,00.html.

6. Most legal actions are initiated by state attorney general offices (private communication, Marion Fremont-Smith, Harvard University).

the country, there exist vast differences across the states in the extent of local oversight. The Office of the Ohio Attorney General carefully documented these differences in a report in 1974. As the authors of the report emphasize, there remain dramatic differences in the resources allocated to oversight of nonprofits, as well as the scope for actions against nonprofits by the state attorneys general.[7] The report emphasized eight possible powers, spelled out in appendix A of this paper; each state's score is listed in appendix B. These figures are based on the regulation of nonprofits in 1974, which is the most recent information available. There have been almost no changes since then in state-level nonprofit statutes (personal communication, Marion Fremont-Smith, Harvard University).

There is considerable variation in the extent of state-level oversight, and this variation does not seem to be easily explained by income, or by simple geographic proximity. We consider below how some measures of governance vary across states with different levels of oversight.

### 7.2.2 Media Oversight

While the state attorney general are the primary enforcing bodies for nonprofits, very often cases come to light because of the activities of the media. This may be in the form of traditional investigative reporting; for example, the Bishop Estate case described above was originally brought to light through the work of a journalist. Furthermore, the media may play a disciplinary role in managerial discretion that is inappropriate, although not strictly illegal.

This element to oversight has increased in visibility recently, as several watchdog organizations have taken advantage of the Internet to disseminate information about the quality of nonprofit governance. The most prominent among these include the Better Business Bureau and Guidestar. Generally, these organizations provide basic accounting information on charitable organizations, and also attempt to evaluate their governance structures. This includes information on program spending (relative to fund-raising) ratios, executive compensation, and the structure of the board, which may also be relevant for the extent of expropriation.

We have not yet compiled data that might be used to examine the media as a source of oversight. Numerous possibilities exist, however, including

7. One may be concerned that nonprofit regulation is of limited relevance, unless states devote significant resources to enforcing these regulations. In the same report cited above, the Office of the Ohio Attorney General also collected data on the human resources devoted to the enforcement of nonprofit regulation. The number of full-time employees devoted to enforcement, deflated by state population, is highly correlated with the extent of regulation, as measured in our study. Moreover, when we use this as a measure of governance, it yields similar (although slightly weaker) results to our law-based definition. Alternatively, examining actual convictions for misconduct is unlikely to be revealing, because effective enforcement will increase the proportion of illegal acts that are uncovered but will reduce the number of such acts that are committed.

media penetration, by city or state; coverage by media watchdogs; and ratings from these watchdog organizations.

### 7.2.3 Board and Donor Oversight

Underlying much of the discussion on donor oversight is the role of the board of directors, who are owners of the organization in the sense that they are given ultimate decision-making rights over the organization's assets. Thus, just as the board of a for-profit organization acts on behalf of shareholders, nonprofit boards may act on behalf of donors. Furthermore, just as large shareholders may demand representation on for-profit boards, large donors may demand representation on nonprofit boards.

The analogy between for-profit and nonprofit boards further allows us to develop some hypotheses as to the characteristics that may promote good governance. These include representation of large donors on the board ("shareholder representation"); the presence of large donors that may be expected to monitor on behalf of the broader donor community, thereby overcoming the free-rider problem in monitoring ("ownership concentration"); outside representation on the board; noncompensation of board members; and so on. Many of the latter examples are spelled out in the governance guidelines for boards given by the Better Business Bureau. We therefore expect to be able to collect information on these dimensions of governance in the future. At this point, we can only loosely say that there appears to be considerable variation among organizations in the choice of governance structures.

Examining the various dimensions of oversight and governance described above is an important avenue for research. For example, do varying degrees of state oversight lead to different levels of monitoring by other bodies—that is, are boards more active in the absence of strong government pressure? Alternatively, one could easily imagine that different oversight mechanisms act as complements (e.g., the media is effective in bringing about change only if accompanied by strong legal enforcement).

## 7.3 Data

For this paper, we concentrate on charitable nonprofit organizations (so-called 501[c][3] organizations, named for the section of the U.S. federal income tax code that gives them tax-exempt status), making use of the IRS Statistics of Income files. This is a data set compiled by the National Center for Charitable Statistics (NCCS) at the Urban Institute and derived from data taken from the Form 990 that tax-exempt organizations must file with the IRS. These data contain all 501(c)(3) organizations with more than $10 million in assets, plus a random sample of approximately 4,000 smaller organizations. Most financial variables on the Form 990 are included, and the data are considered to be more reliable than the data in

the IRS's unedited files because of the substantial error-checking by the NCCS.[8]

Our measure of the endowment, or net assets, is from the Form 990; this is simply total assets less total liabilities (ENDOWMENT).[9] Research on nonprofit organizations generally uses the term "endowment" to refer to a restricted fund for which, at least in theory, the principal cannot be spent. They are therefore careful to make a distinction between restricted (endowment) and unrestricted (fund balance) funds. We do not believe that such a distinction is necessary here: Restricted (endowment) funds are held primarily by large educational institutions and hospitals. These organizations are generally able to borrow against the value of their endowments, and may furthermore use the interest generated by the endowments to make interest payments on their loans. Particularly given that these organizations are generally able to issue tax-exempt bonds, it would appear that the restriction on endowment payout is not binding.

We require some means of scaling endowment size; we deflate by annual total expenses (EXPENSES), which lends itself to a natural interpretation: ENDOWMENT/EXPENSES reflects the number of years that the organization may continue to operate at its current scale, finance solely by the endowment.

In examining the determinants of endowment size, we require variables that are related to an organization's ability to cope with financial shocks, other than using the endowment as a buffer. We focus on labor intensity and access to alternative financing. We measure labor intensity by the ratio of total wages to total expenses (LABIN).[10] To proxy for access to financing, we use a dummy variable that takes on a value of 1 if the organization obtained a loan during the decade 1987–1996 (DEBT). Obviously, there is an offsetting effect here: Organizations with large endowments may borrow against their endowments, thereby generating a positive relationship between DEBT and endowment intensity. Hence, in this case, there is a bias against finding a negative relation.

The Statistics of Income files contain annual observations on 10,000 to 12,000 organizations per year, varying by year, for 1987–1996, with approximately 18,000 organizations filing in at least one year. Prior to 1987, the data were collected on a much smaller sample of organizations. We

8. For more details, see the NCCS Web site at http://nccs.urban.org/index.htm.

9. An alternative, and perhaps more direct, measure of the endowment is the organization's holdings that could potentially be used to finance program expenditure. More precisely, we may use the following equation: ENDOWMENT = CASH + BANK DEPOSITS + SECURITIES + REAL ESTATE INVESTMENT. This measure is very highly correlated with reported fund balance ($\rho = 0.96$), and using it as an alternative yields virtually identical results (available from the authors).

10. An alternative measure of labor intensity would be to deflate by physical capital. However, because physical capital is a significant part of the endowment, it would be almost tautological to have such a variable on the right-hand side of the regression.

**Table 7.1 Summary Statistics**

| | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|
| ENDOWMENT ($1,000) | 39,736.24 | 159,664.90 | 0 | 5,207,517 |
| Endowment/Expenses | 3.17 | 6.75 | 0 | 98.62 |
| Log(Endowment/Expenses) | 1.00 | 0.77 | 0 | 4.60 |
| Expenses ($1,000) | 33,436.97 | 101,734.80 | 9.671 | 4,039,460 |
| Revenues ($1,000) | 36,431.88 | 108,203.10 | 6.608 | 4,108,413 |
| Private donations/Revenues | 0.14 | 0.21 | 0 | 1 |
| (Labor costs)/(Total expenses) | 0.41 | 0.20 | 0 | 0.89 |
| Loan dummy | 0.67 | 0.47 | 0 | 1 |
| Private donations ($1,000) | 2,642.20 | 14,095.07 | 0 | 667,663 |
| Observations | 4,546 | | | |

*Source:* Authors' calculations.

limit our analyses to the approximately 5,300 organizations that filed with the IRS every year during this period. After removing mutual organizations (dominated by TIAA-CREF), grant-making foundations and trusts, and organizations whose industry is "unknown," the sample is reduced to 5,007 organizations. We also limit the sample to organizations that consistently report sensible values for the variables that are central to our analyses. We remove organizations with negative reported revenues or expenses, a 1987 endowment rate of greater than 100, and a negative ratio of private donations to revenues. These omissions result in a further reduction of 461 firms, leaving a total of 4,546 organizations.

Table 7.1 presents summary statistics for the entire sample, while table 7.2 presents the distribution of median values by industry for a subset of variables. As table 7.2 makes clear, the sample is dominated by health care organizations, which are primarily hospitals. Because hospitals tend to be larger than other nonprofits, health care is even more dominant in the revenue-weighted distribution of organizations (see column [1]). However, the representation of hospitals does not increase, relative to the simple headcount measure, when organizations are weighted by their endowments (see column [2]); rather, the endowment weighting shifts the focus to educational institutions. This is a reflection of educational institutions' large organizational size as well as their relative endowment intensiveness.

## 7.4 Endowment Intensity and Precautionary Savings

In the estimates presented in table 7.3 and 7.4, we move from examining the distribution of organizations across industries to looking at organizational characteristics, by industry. We begin by looking at the variable of primary interest: endowment intensity (Endowment/Expenses). Not surprisingly, given the results from table 7.2, endowment intensity is by far the

**Table 7.2 Distribution of Organizations, Weighted by Size (%)**

| | Total Revenue | Total Value of Endowment | Total Organizations |
|---|---|---|---|
| Arts | 2.25 | 4.17 | 6.03 |
| Education | 26.67 | 49.32 | 29.45 |
| Environment | 0.11 | 0.26 | 0.86 |
| Animal-related | 0.21 | 0.38 | 0.81 |
| Health | 61.89 | 34.53 | 37.62 |
| Mental health | 0.31 | 0.23 | 1.36 |
| Diseases | 0.76 | 0.51 | 1.08 |
| Medical research | 0.53 | 3.43 | 0.97 |
| Crime, legal-related | 0.12 | 0.08 | 0.37 |
| Employment, job-related | 0.07 | 0.07 | 0.66 |
| Food, agriculture, and nutrition | 0.01 | 0.01 | 0.09 |
| Housing, shelter | 0.06 | 0.06 | 1.21 |
| Public safety | 0.04 | 0.02 | 0.24 |
| Recreation/sports | 0.18 | 0.23 | 0.79 |
| Youth development | 0.16 | 0.25 | 1.19 |
| Human services | 2.76 | 3.66 | 11.92 |
| International/foreign affairs | 1.11 | 0.65 | 0.99 |
| Civil rights/social action | 0.04 | 0.03 | 0.15 |
| Community improvement | 0.18 | 0.28 | 1.12 |
| Science research | 1.86 | 1.06 | 1.32 |
| Social science research | 0.15 | 0.18 | 0.33 |
| Society benefit | 0.27 | 0.29 | 0.48 |
| Religious | 0.26 | 0.28 | 0.92 |

lowest among hospitals. Of the other categories, we observe a particularly high rate of endowment intensity among arts organizations. The second column in Table 7.3 suggests one element to this pattern: A much larger proportion of revenues comes from donations (rather than generated income) in arts organizations, relative to hospitals. However, health care appears to be systematically different from other nonprofit activities; in particular, the median donation rate is significantly below that of other sectors. In general, as numerous scholars have noted (see, e.g., Weisbrod 1998), hospitals behave increasingly like for-profit organizations; accordingly, we also report empirical results for nonprofit organization samples including and excluding hospitals, where appropriate.

The data in table 7.2 and 7.3 are suggestive of relatively high endowment-to-expense ratios in many industries; moreover, there is considerable variation across industries. We may tentatively examine whether there may be systematic industry differences that could possibly lead to differences in endowment intensity, by comparing industries' (a) potential to take on debt, (b) ability to maintain a labor-intensive production process, and (c) level of cash flow volatility (proxied by standard deviation of revenues). Table 7.4 reports these patterns. Again, we focus on the three largest in-

**Table 7.3 Median Endowment Intensity and Donation Intensity, by Industry**

| | Endowment Expenses | Donations Revenues |
|---|---|---|
| Arts | 3.56 | 0.345 |
| Education | 2.41 | 0.196 |
| Environment | 3.54 | 0.404 |
| Animal-related | 4.06 | 0.323 |
| Health | 0.63 | 0.033 |
| Mental health | 0.68 | 0.079 |
| Diseases | 0.83 | 0.188 |
| Medical research | 2.43 | 0.297 |
| Crime, legal-related | 0.66 | 0.284 |
| Employment, job-related | 0.82 | 0.037 |
| Food, agriculture, and nutrition | 2.24 | 0.421 |
| Housing, shelter | 0.92 | 0.108 |
| Public safety | 2.83 | 0.159 |
| Recreation/sports | 1.86 | 0.235 |
| Youth development | 2.01 | 0.264 |
| Human services | 1.38 | 0.149 |
| International/foreign affairs | 0.83 | 0.380 |
| Civil rights/social action | 0.94 | 0.664 |
| Community improvement | 1.82 | 0.128 |
| Science research | 1.08 | 0.102 |
| Social science research | 2.32 | 0.277 |
| Society benefit | 0.99 | 0.216 |
| Religious | 2.50 | 0.440 |

dustries: arts, education, and health care. Systematically, arts and education organizations appear to have a greater need for endowments, relative to health care organizations: They have less labor-intensive expense ratios, are less likely to have taken a loan, and have more volatile revenue streams.

Table 7.5 presents results describing industry median endowment intensity and the effects of the three aspects of precautionary savings described above. Each measure of endowment need enters with the expected sign; however, when all measures are included simultaneously, the loan dummy variable is no longer significant.

## 7.5 Endowment Intensity and Governance: Preliminary Results

The extent to which an organization has precautionary savings requirements will depend upon its specific circumstances. However, as a rough guide for examining the summary statistics, we take the National Center for Nonprofit Boards guidelines that "not more than two years' expenses" should be held as an endowment. By this measure, the median organization in many industries in our sample already exceeds the suggested level of endowment intensity. Furthermore, the distributions within each industry suggest that there are relatively fat tails in the range of endowment in-

**Table 7.4 Organizational Characteristics that Affect Endowment Intensity: Medians**

| | Received Loan | Labor Intensity | Volatility |
|---|---|---|---|
| Arts | 0.38 | 0.40 | 0.24 |
| Education | 0.67 | 0.45 | 0.14 |
| Environment | 0.41 | 0.41 | 0.30 |
| Animal-related | 0.24 | 0.44 | 0.19 |
| Health | 0.81 | 0.48 | 0.15 |
| Mental health | 0.65 | 0.55 | 0.18 |
| Diseases | 0.39 | 0.31 | 0.12 |
| Medical research | 0.27 | 0.43 | 0.21 |
| Crime, legal-related | 0.18 | 0.39 | 0.17 |
| Employment, job-related | 0.53 | 0.59 | 0.19 |
| Food, agriculture, and nutrition | 0.00 | 0.38 | 0.28 |
| Housing, shelter | 0.87 | 0.17 | 0.19 |
| Public safety | 0.73 | 0.10 | 0.14 |
| Recreation/sports | 0.22 | 0.20 | 0.20 |
| Youth development | 0.37 | 0.48 | 0.21 |
| Human services | 0.64 | 0.51 | 0.15 |
| International/foreign affairs | 0.36 | 0.25 | 0.23 |
| Civil rights/social action | 0.43 | 0.47 | 0.20 |
| Community improvement | 0.35 | 0.22 | 0.25 |
| Science research | 0.42 | 0.30 | 0.18 |
| Social science research | 0.27 | 0.36 | 0.19 |
| Society benefit | 0.41 | 0.35 | 0.19 |
| Religious | 0.50 | 0.24 | 0.23 |

**Table 7.5 Determinants of Endowment Intensity**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Volatility | 28.81 | | | 23.41 |
| | (5.54) | | | (7.45) |
| Loan dummy | | –3.14 | | –0.77 |
| | | (1.19) | | (1.48) |
| Labor intensity | | | –7.73 | –5.10 |
| | | | (2.69) | (2.68) |
| CONSTANT | –1.64 | 5.09 | 6.46 | 1.51 |
| | (1.00) | (0.75) | (1.06) | (1.99) |
| $R^2$ | 0.36 | 0.14 | 0.15 | 0.43 |
| $N$ | 23 | 23 | 23 | 23 |

*Notes:* Standard errors in parentheses. All regressions use robust standard errors. Volatility is the standard deviation of revenues for each organization during 1987–1996. Loan dummy reflects whether an organization received a loan during 1987–1996. Labor intensity is the ratio of labor expenses to total expenses in 1987. In all cases, the dependent variable is the 1987 ratio of endowment to total expenses.

**Table 7.6 Endowment Intensity, 10th and 90th Percentiles**

| | 10th percentile | 90th percentile |
|---|---|---|
| Arts | 0.66 | 12.70 |
| Education | 0.91 | 7.46 |
| Environment | 0.35 | 12.19 |
| Animal-related | 1.15 | 16.61 |
| Health | 0.29 | 2.88 |
| Mental health | 0.11 | 2.56 |
| Diseases | 0.15 | 4.42 |
| Medical research | 0.55 | 13.78 |
| Crime, legal-related | 0.09 | 6.87 |
| Employment, job-related | 0.19 | 5.04 |
| Food, agriculture, and nutrition | 0.26 | 15.75 |
| Housing, shelter | 0.19 | 5.97 |
| Public safety | 0.14 | 18.42 |
| Recreation/sports | 0.38 | 10.88 |
| Youth development | 0.75 | 7.80 |
| Human services | 0.20 | 6.23 |
| International/foreign affairs | 0.09 | 10.13 |
| Civil rights/social action | 0.58 | 4.38 |
| Community improvement | 0.32 | 26.56 |
| Science research | 0.23 | 8.05 |
| Social science research | 1.05 | 6.11 |
| Society benefit | 0.27 | 10.39 |
| Religious | 0.41 | 14.24 |

tensities. This point is illustrated in table 7.6, which lists the 10th and 90th percentiles of endowment intensity, by industry. In particular, among both arts and educational organizations, the top 10 percent of organizations by endowment ratio have more than ten years' expenses in endowment.

Our measure of the extent of oversight comes from variation in oversight across states, as described in section 7.3 above.[11] Table 7.7 presents results relating endowment intensities by level of oversight, where "oversight" is measured by the number of powers accorded to the state attorney general in monitoring and punishing nonprofits.

Somewhat surprisingly, there are no systematic differences across states in terms of a relationship between oversight and endowment intensity. This finding likely reflects a differential composition of industries across states; the role of substitute modes of governance in low-oversight states; donors' reaction to poor governance by "starving" nonprofits so that they are unable to grow to have sizeable expenses (the denominator of the dependent

11. Unfortunately, collecting appropriate information on board oversight is not feasible at this time. We obtained measures of media presence, by state, such as newspaper circulation per capita, and number of newspapers, by city. We do not believe that these are reliable indicators of the *quality* of media presence, and leave each of these areas as possible avenues for further research.

**Table 7.7** **Median Endowment and Donation Intensities, According to Oversight by State Attorney General**

| Level of Oversight | Endowment Intensity | Donation Intensity | Observations |
|---|---|---|---|
| 0 | 1.05 | 0.01 | 125 |
| 1 | 1.17 | 0.03 | 349 |
| 2 | 1.03 | 0.02 | 1,029 |
| 3 | 1.41 | 0.08 | 635 |
| 4 | 1.67 | 0.06 | 193 |
| 5 | 1.00 | 0.01 | 150 |
| 6 | 1.23 | 0.05 | 1,478 |
| 7 | 1.00 | 0.05 | 493 |
| 8 | 1.05 | 0.01 | 125 |

*Notes:* Oversight is defined by the number of powers accorded to the state attorney general in overseeing nonprofits; see appendix A for further details. Endowment Intensity is the 1987 ratio of endowment to total expenses. Donation Intensity is the 1987 ratio of donation revenue to total revenue.

variable); and the result of the endogenous development of state oversight (i.e., enforcement is strongest where self-dealing by nonprofits is most likely). The first of these factors does not seem to explain this nonresult; oversight is still insignificant in a regression that controls for industry affects. Better data on other modes of governance are necessary to differentiate among the various other competing explanations.

In table 7.7, we also examine a related margin—donation intensity, defined as the ratio of an organization's donations to total revenues. The summary statistics again do not show a clear pattern. However, in table 7.8, in which we control for industry effects, a systematic relationship emerges. While the simple binary regression does not suggest a significant relationship between state-level oversight and donation intensity, after we add basic controls, the estimated coefficient on Oversight is statistically significantly different from zero at the 5 percent level, allowing for state-level clustering of standard errors. Thus, in states with higher oversight, we observe more donation-intensive organizations. This is at least suggestive that better oversight by the state encourages donors to provide resources to nonprofits.

Unfortunately, data availability constrains our ability to estimate the relationship between governance and the endowment. We are now collecting the data described in section 7.2, but we intend to examine the endowment-governance link more closely in future research.

## 7.6 Conclusion

Nonprofit organizations constitute an extremely important part of the U.S. economy. It is therefore surprising how little attention economists have paid to the behavior of such organizations. In this paper, we examine some fundamental issues of governance in nonprofits that stem directly

**Table 7.8 Determinants of Donation Intensity**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Oversight | 0.0037 | 0.0047 | 0.0053 | 0.0036 |
| | (0.0025) | (0.0023) | (0.0023) | (0.0016) |
| Log(per capita income) | | | –0.027 | –0.084 |
| | | | (0.039) | (0.024) |
| Log(revenues) | | –0.040 | –0.040 | –0.024 |
| | | (0.0020) | (0.0020) | (0.0026) |
| CONSTANT | 0.12 | 0.77 | 1.03 | |
| | (0.015) | (0.041) | (0.39) | |
| Industry fixed effects? | No | No | No | Yes |
| $R^2$ | 0.002 | 0.11 | 0.011 | 0.30 |
| $N$ | 4,456 | | | |

*Notes:* Standard errors in parentheses. All regressions use robust standard errors, allowing for state-level clustering. Oversight is defined by the number of powers accorded to the state attorney general in overseeing nonprofits, and takes on values from 0 to 8. See appendix A for further details. Log(per capita income) in state per capita income in 1987. Log(revenues) is the log of total revenues in 1987. The dependent variable in all cases is Donation Intensity, the 1987 ratio of donation revenue to total revenue.

from the nondistribution constraint that defines the nonprofit form. A precautionary-savings model of the endowment is supported by the data. We further examine the possibility that endowments may be the source of potential governance problems in nonprofit organizations. In particular, we draw parallels between the functioning of for-profit and nonprofit organizations, and on this basis, lay out a framework for examining governance concerns raised by nonprofit endowments. We discuss steps that governments and donors may take to mitigate these concerns, and discuss potential data sources for work in this area.

## Appendix A

### *Powers of the State Attorneys General in Nonprofit Oversight*

Thanks to the United States' common-law heritage, most regulation of nonprofits devolved to the states, which exhibit a very large amount of variation in their extent of oversight. Almost uniformly, the power to monitor and prosecute nonprofits has been allocated to the state attorneys general. The Office of the Ohio Attorney General has documented the basic legislative enactments that allow the state attorneys general to oversee nonprofit organizations, and how these basic enactments vary across states. The eight statutes covered by the report are listed below; for further details, see Office of Ohio Attorney General (1977).

1. Is the attorney general the enforcing authority?
2. It is the attorney general a necessary party for enforcement?
3. Does the attorney general have the power to institute suits to enforce the charitable trust?
4. Is registration with the attorney general required?
5. Are periodic reports to the attorney general required?
6. Does the enforcing authority have subpoena power?
7. Does the enforcing agency have rulemaking authority?
8. Are probate judges required to notify the enforcing authority whenever a will containing a charitable bequest is admitted?

## Appendix B

### *State-Level Oversight by Attorneys General*

| State | Score | State | Score |
|---|---|---|---|
| Alabama | 0 | Montana | 0 |
| Alaska | 0 | Nebraska | 1 |
| Arizona | 0 | Nevada | 8 |
| Arkansas | 1 | New Hampshire | 2 |
| California | 8 | New Jersey | 2 |
| Colorado | 2 | New Mexico | 2 |
| Connecticut | 3 | New York | 7 |
| Delaware | 1 | North Carolina | 3 |
| Florida | 1 | North Dakota | 2 |
| Georgia | 7 | Ohio | 7 |
| Hawaii | 2 | Oklahoma | 1 |
| Idaho | 3 | Oregon | 7 |
| Illinois | 7 | Pennsylvania | 2 |
| Indiana | 2 | Rhode Island | 8 |
| Iowa | 4 | South Carolina | 5 |
| Kansas | 1 | South Dakota | 3 |
| Kentucky | 3 | Tennessee | 2 |
| Louisiana | 0 | Texas | 3 |
| Maine | 3 | Utah | 1 |
| Maryland | 2 | Vermont | 2 |
| Massachusetts | 7 | Virginia | 4 |
| Michigan | 7 | Washington | 8 |
| Minnesota | 3 | West Virginia | 1 |
| Mississippi | 1 | Wisconsin | 5 |
| Missouri | 2 | Wyoming | 1 |

*Source:* Office of Ohio Attorney General (1977).

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