

# UNIVERSITY BOARDS AND PERFORMANCE

---

A Dissertation  
Submitted to  
the Temple University Graduate Board

---

in Partial Fulfillment  
of the Requirements for the Degree  
DOCTOR OF PHILOSOPHY

---

by  
Erica E. Harris  
August, 2011

## **Examining Committee Members:**

Steven Balsam, Advisory Chair, Accounting  
Elizabeth Gordon, Accounting  
Lalitha Naveen, Finance  
Angela Gore, George Washington University, Accounting

*Copyright notification*

Copyright by Erica E. Harris

August, 2011

All rights reserved.

## ABSTRACT

This dissertation examines the impact of board of director characteristics and policies on nonprofit performance. Using data collected through a survey of nonprofit colleges and universities, I provide evidence that specific board member characteristics and board monitoring policies are vital in shaping both the financial and nonfinancial success of nonprofit institutions of higher education.

Results indicate that bigger boards with more major donors are consistently associated with better performing organizations, confirming my board contribution hypothesis. These results are in addition to noteworthy relationships between nonprofit success and the number of meetings held by an organization as well as the impact of recruiting board members who serve on other nonprofit boards. Findings also confirm regulatory and advisory recommendations that the use of a conflict of interest policy, disclosure of business relationships, nominating and compensation committees are important aspects of board development in addition to longer board terms. These relationships confirm all three monitoring hypotheses, suggesting that board disclosures, organization, and independence all have an important impact on success when it is measured as organizational efficiency, one of the most studied and relied upon measures of performance in the nonprofit sector.

This work makes important, initial forays into the relationships between board of director qualities and nonprofit performance. Although limited by the relatively small sample of colleges and universities, given the lack of public data available related to nonprofit boards, this study is unique in the ability to analyze nonprofit boards with both financial and nonfinancial performance measures.

## ACKNOWLEDGEMENTS

I would like to acknowledge my dissertation committee members: Steven Balsam (chair), Elizabeth Gordon, Lalitha Naveen, and Angela Gore (outside reader) for their endless support and guidance throughout the dissertation process. This work would not have been possible without the steadfast guidance of my dissertation committee chair and advisor, Dr. Steven Balsam. For his unwavering support, I am forever grateful.

I would also like to thank Julie Fessimier in the Fox School of Business for her expertise in the creation of my survey instrument. Pho Palmer at the National Council for Charitable Statistics was instrumental in the acquisition and use of the Statistics of Income database. EunYoung Whang, Paige Gee, and Fang Sun also provided thoughtful comments. Additionally, I would like to thank participants at the following workshops for their input in developing my project: American Accounting Association 2008 Mid-Atlantic meeting, Temple University, Villanova University, Rutgers University – New Brunswick Campus, La Salle University, St. Joe’s University, and Rutgers University – Camden Campus.

Finally, I am indebted to my husband for his patience, understanding and encouragement throughout my doctoral studies. His love and support have been essential ingredients in my success.

## TABLE OF CONTENTS

ABSTRACT.....	III
ACKNOWLEDGEMENTS.....	IV
LIST OF TABLES.....	VII
CHAPTER	
1. EXECUTIVE SUMMARY.....	1
2. INTRODUCTION AND MOTIVATION.....	15
3. THE IMPACT OF BOARD CHARACTERISTICS ON NONPROFIT PERFORMANCE.....	24
3.1 Introduction.....	24
3.2 Literature review.....	24
3.2.1 Nonprofit boards and member characteristics.....	24
3.2.2 For-profit board member characteristics.....	28
3.3 Research Hypotheses.....	30
3.3.1 Diversity.....	31
3.3.2 Expertise.....	33
3.3.3 Contribution.....	35
3.4 Research Methodology.....	37
3.4.1 Data Collection and Survey Procedures.....	37
3.4.1.1 Electronic surveys.....	38
3.4.1.2 Paper surveys.....	39
3.4.2 Sample description.....	41
3.4.3 Measurement of dependent variables.....	42
3.4.3.1 Financial measures of performance.....	43
3.4.3.2 Nonfinancial measures of performance.....	44
3.4.4 Measurement of test variables.....	46
3.4.4.1 Diversity.....	46
3.4.4.2 Expertise.....	47
3.4.4.3 Contribution.....	48
3.4.5 Empirical Models.....	50
3.4.5.1 Ordinary Least Squares Regression Analysis.....	51
3.4.5.2 Instrumental Variable Analysis.....	57
3.5 Results.....	59
3.5.1 Diversity.....	60
3.5.2 Expertise.....	62
3.5.3 Contribution.....	65
3.5.4 Control variables.....	67
3.5.5 Instrumental Variable Analysis.....	68
3.6 Chapter conclusions.....	69
4. THE IMPACT OF BOARD MONITORING ON NONPROFIT EFFICIENCY.....	71
4.1 Introduction.....	71
4.2 Literature Review.....	71
4.2.1 Nonprofit board of director literature.....	72
4.2.2 For-profit governance literature.....	74

4.3 Research Hypotheses .....	80
4.3.1 Disclosure .....	81
4.3.2 Board organization.....	83
4.3.3 Independence .....	87
4.4 Research Methodology .....	90
4.4.1 Data Collection and Survey Procedures .....	90
4.4.2 Sample description.....	90
4.4.3 Measurement of dependent variables.....	90
4.4.4 Measurement of test variables .....	93
4.4.4.1 Disclosure.....	93
4.4.4.2 Board organization .....	94
4.4.4.3 Independence.....	96
4.4.5 Empirical Models.....	98
4.4.5.1 Ordinary Least Squares Regression Analysis.....	99
4.4.5.2 Instrumental Variable Analysis .....	100
4.5 Results.....	102
4.5.1 Disclosure .....	103
4.5.2 Board Organization.....	103
4.5.3 Independence .....	104
4.5.4 Control variables.....	105
4.5.5 Instrumental Variable Analysis .....	105
4.6 Chapter conclusions .....	106
5. FINAL CONCLUSIONS .....	107
REFERENCES CITED .....	109
APPENDIXES.....	125
Appendix A: Nonprofit Fraud Examples .....	125
Appendix B: Email Request for Survey Participation .....	127
Appendix C: Electronic Survey Instrument .....	128
Appendix D: Survey design choice findings.....	132
Appendix E: Paper Survey Cover Letters .....	134
Version A: Signed by Erica Harris .....	134
Version B: Signed by Dr. Steven Balsam.....	135
Version C: Offer for results .....	136
Appendix F: Paper Survey Instrument.....	137
Appendix G: Survey Results Provided to Survey Participants .....	139
Appendix H: U.S. News and World Report University Ranking Methodology.....	145
Appendix I: Summary of Predicated Relationships .....	146

## LIST OF TABLES

### TABLES

Table 1: Electronic Survey Response Descriptive Statistics by Question .....	147
Table 2: Complete Sample Selection Procedures .....	150
Table 3: Paper Survey Pilot Survey Responses by Design Choice.....	151
Table 4: Paper Survey Response Descriptive Statistics by Question.....	152
Table 5: Descriptive Statistics .....	154
Table 6: Full Sample Descriptive Statistics by Question.....	155
Table 7: Univariate Regression Results – Board Characteristics (Chapter 3) .....	158
Table 8: Multivariate Regression Results – Board Characteristics (Chapter 3) .....	159
Table 9: Instrumental Variable Regression Results – Board Characteristics (Chapter 3) .....	160
Table 10: Summary of Findings – Board Characteristics (Chapter 3).....	161
Table 11: Univariate Regression Results – Board Monitoring (Chapter 4).....	162
Table 12: Multivariate Regression Results – Board Monitoring (Chapter 4).....	163
Table 13: Instrumental Variable Analysis Results – Board Monitoring (Chapter 4).....	164

## ***CHAPTER 1: EXECUTIVE SUMMARY***

This dissertation examines the impact of board of director characteristics and policies on nonprofit performance. Using data collected through a survey of nonprofit colleges and universities, I provide evidence that specific board member characteristics and board monitoring policies are vital in shaping both the financial and nonfinancial success of nonprofit institutions of higher education.

It is important to study nonprofit board governance for at least four reasons. First, because of the important role nonprofit organizations play in the US economy. Approximately two hundred and fifty thousand 501(c)3 nonprofit organizations were registered with the Internal Revenue Service (IRS) in 2007<sup>1</sup>, and these entities are growing faster than the economy as a whole. While the nation's gross domestic product grew by an unadjusted 69% from 1997 to 2007<sup>2</sup>, the nonprofit sector's 501(c)3 tax exempt organizations total revenues increased by 92% and assets increased by 87% over the same ten year period.

The study of board governance is also vital to the nonprofit literature stream due to the scarcity of empirical research in the area. Stone and Ostrower (2007) report that “there is a noticeable absence of connections between board characteristics and practices and objective measures of organizational performance”. They further conclude that “we are still unable to say whether or how boards make a difference to the organizations they govern or the wider public environment in which they are embedded” (Stone and Ostrower 2007).

---

<sup>1</sup> The last year for which complete information is available. <http://www.irs.gov/taxstats/charitablestats>.

<sup>2</sup> U.S. Department of Commerce – Bureau of Economic Analysis

It is also important to study nonprofit board governance because it differs considerably from board governance in the for-profit setting. Several distinctions exist between for-profit and nonprofit organizations, starting with the fundamental reasons for their existence. For-profit corporations exist to make a profit, with a focus on customer, employee, and shareholder interests.<sup>3</sup> Nonprofit organizations, however, have a broader mission<sup>4</sup> and a larger constituency to serve; nonprofit organizations are accountable not only to donors and clients, but to the general public as well. Consequently, their activities are under more scrutiny than their for-profit counterparts (MacKillop 2010).

Nonprofit organizations also differ from for-profit firms in the legal interpretations of director fiduciary duties, as well as the monitoring environments within which they operate. Although both sectors rely on a nearly identical definition of directors' fiduciary duty of care<sup>5</sup>, however, the judicial interpretation of what this duty of care entails results in nonprofit directors being held to a higher standard of care than their for-profit equivalent.<sup>6</sup> Nonprofit organizations also differ from their for-profit counterparts in the monitoring roles of watchdog groups and donors. Websites such as CharityNavigator and the Better Business Bureau's Wise Giving Alliance guide donors toward organizations that meet certain financial and program standards. Although analysts<sup>7</sup> in the for-profit sector fill a similar role, limited public information in the nonprofit sector leads

---

<sup>3</sup> For example General Motors mission states: "G.M. is a multinational corporation engaged in socially responsible operations, worldwide. It is dedicated to provide products and services of such quality that our customers will receive superior value while our employees and business partners will share in our success and our stock-holders will receive a sustained superior return on their investment."

<sup>4</sup> For example the first line of Temple University's mission states: "Temple University is a national center of excellence in teaching and research with an international presence."

<sup>5</sup> Not-For-Profit Corporation Law § 717(a)) states that directors are required to: "discharge the duties of their respective positions in good faith and with the degree of diligence, care and skill which ordinarily prudent men would exercise under similar circumstances in like positions".

<sup>6</sup> Attorney Gen. v. Olson, Graham Bros. v. Galloway Woman's College, Nixon v. Lichtenstein, Samarkand of Santa Barbara, Inc. v. County of Santa Barbara.

<sup>7</sup> In addition to proxy advisory service firms such as Glass Lewis & Co., Proxy Governance, Inc., RiskMetrics/Institutional Shareholder Services, etc.

contributors to be heavily guided by these watchdog sites (Gordon et al. 2009). Nonprofit organizations are also unique in that without outside contributions, the majority of nonprofit institutions would be significantly limited or even forced to discontinue their operations, whereas there is no corresponding way for shareholders to deprive a for-profit organization of resources<sup>8</sup>.

Finally, nonprofit board governance has received a great deal of attention from the media and regulatory agencies. Media coverage (Gibelman et al. 1997, Eaton and Akers 2007) has centered on managerial malfeasance, embezzlement, and other questionable management practices leading to increased demand for monitoring across the nonprofit sector<sup>9</sup>. Regulatory bodies calling for strengthening transparency and accountability include the Senate Finance Committee, the Panel on the Nonprofit Sector, and several state charity regulators. The IRS has also been focused on nonprofit board governance. In 2008 the service revamped their informational tax form (990) required of 501(c)3 nonprofit organizations. The new form includes section VI entitled: *Governance, Management, and Disclosure* (IRS 2008b).

To address these issues I ask two research questions. First, do characteristics such as director diversity, expertise, and contribution impact the performance of nonprofit organizations? Second, do the monitoring policies adopted by nonprofit boards such as disclosures, organization, and independence play a role in the efficiency of the institution?

---

<sup>8</sup> For example Temple University received 32% of their 2009 total revenues in the form of contributions.

<sup>9</sup> Examples of this abuse are scandals such as those uncovered at the United Way, Adelphia University, Arizona Baptist Foundation, World Bank, the Nature Conservatory, American University, the American Red Cross and others (see Appendix A for details).

To answer these questions I survey the chief financial officers at some of the largest, most complex organizations in the tax-exempt sector: colleges and universities (IRS 2010), and collect information related to director characteristics and practices for 554 nonprofit universities and colleges.

My analysis of this survey data is organized into two parts. In the first essay, presented in chapter 3, I relate board of director characteristics to two financial (total contributions and revenues) and four nonfinancial (enrollment growth, university ranking, student retention rate, and SAT scores) measures of successful nonprofit colleges and universities. Chapter 3 groups ten board characteristics into three hypotheses related to boards: diversity, expertise, and contribution. My second essay, offered in chapter 4, tackles the impact of board monitoring practices on the organizational efficiency of sample organizations. Chapter 4 groups ten board monitoring facets into three hypotheses: disclosure practices, board committees, and independence. The following discusses the results of my six hypotheses<sup>10</sup>.

### *Diversity*

To proxy for board diversity I survey nonprofit colleges to determine the number of female and minority<sup>11</sup> board members sitting on their boards. Prior research finds that more diverse boards are associated with better performing firms (Wright et al. 1995, Richard 2000, Keys et al. 2002, Brown et al. 2002, Fields and Keys 2003, and Carter et al. 2003, Farrell and Hersch 2005, Terjesen et al. 2009, Adams and Ferreira 2009).

Consistent with these prior studies, I find that boards with more diversified gender and

---

<sup>10</sup> While my final sample consists of 554 responses, not all respondents answered all questions. Consequently the number of observations in my multivariate analysis can be substantially less than 554. As a result I also conduct univariate tests of each hypothesis and report the results herein.

<sup>11</sup> For the purposes of my study, minority board members are defined as African American, Hispanic, or Native American following the definition adopted by the US Department of Education.

racial composition are better able to understand the needs of their clientele, and perform better. Specifically, in multivariate analysis, the presence of female directors is positively associated with student retention and university enrollment growth; and minority board member presence is related to four of my six performance response variables. In both univariate and multivariate analysis, the percentage of minority board members is positively associated with total contributions. This is consistent with literature which documents that firms announcing cultural diversity at their organizations are associated with excess returns (Wright et al. 1995, Richard 2000, Keys et al. 2002, Fields and Keys 2003, and Carter et al. 2003). Additionally, univariate results show that board diversity is related to higher university rank. However, univariate results indicate negative relationships between board diversity and student retention and SAT scores. While these univariate results do not hold in the multivariate setting, there may be some explanation for them. Prior literature (Fields and Keys 2003, Ostrower 2007) finds that board diversity is related to constituent diversity - in this case, student diversity<sup>12</sup>. Further, minority students, as a group, have lower SAT scores<sup>13</sup> and are less likely to complete their degree (Carey 2008). Therefore, increased board diversity which is related to student diversity may decrease student SAT scores and retention rates.

### *Expertise*

To proxy for board expertise I survey the colleges and universities in my sample regarding the financial and industry expertise of directors, as well as their participation on other for-profit and nonprofit boards. The topic of financial expertise has received much attention in the corporate sector in recent years. Section 407 of the Sarbanes-Oxley Act

---

<sup>12</sup> I confirm a significant correlation between the percentage of minority board members and the percentage of minority students at the colleges and universities in my sample.

<sup>13</sup> <http://fairtest.org/2010-collegebound-seniors-average-sat-scores>

(SOX) requires public companies to disclose whether the audit committee has at least one financial expert, and the NYSE has also added the requirement that at least one director have accounting or financial management expertise. Related to industry expertise, Lublin and Stoll (2009) report that directors with industry experience are better able to address industry specific obstacles. Further, with regard to other board memberships, Ostrower (2007) suggests that for-profit directors cross-pollinate “SOX-like” governance practices to their nonprofit posts, while nonprofit directors share best practices related to fundraising with other nonprofit boards. I find results which support prior literature and my expertise hypothesis: directors with more financial expertise are associated with better performing organizations.

In particular, I find positive univariate relationships between financial expertise and total contributions, retention rate, and SAT scores, in addition to an inverse relationship with university rank. These associations are consistent with several for-profit studies (Agrawal and Chadha 2005, Defond et al. 2005, Guner et al. 2008) that report positive associations between board member financial expertise and better performing organizations. Further, total contribution results also support nonprofit evidence documented by Forgione et al. (2006) which finds that nonprofit organizations receive more government grants<sup>14</sup> when their audit committee contains a financial expert.

I also find univariate results which indicate a positive relationship between for-profit board participation and both total contributions and revenue. This finding is consistent with prior literature, discussed above, which suggests that for-profit directors carry over best practices to their nonprofit posts (Ostrower 2007). Findings related to directors who sit on additional nonprofit boards are significant in both univariate and multivariate

---

<sup>14</sup> Total contributions are comprised of: direct donations, indirect donations, and government grants.

settings; however, the direction of the relationship is unclear. I find positive univariate relationships between outside charity directors and total contributions, total revenues, rank, and SAT scores, as well as positive multivariate results for SAT scores. However, multivariate results for total contributions indicate an inverse relationship between directors who participate on other nonprofit boards and total contributions. This inverse relationship is in contrast to univariate findings as well as posited relationships; however, is consistent with for-profit governance literature which finds that busy directors are associated with a decrease in firm performance (Fich and Shivdasani 2006 and Jiraporn et al. 2008). Perhaps given that nonprofit board members are often encouraged or even required to make donations to the organizations with which they are involved, additional board memberships potentially decrease the amount of personal contributions a director is able to make to each organization with which he/she is engaged.

Directors employed in higher education are found to be associated with higher total contributions (univariate results) as well as increased student retention rates (both univariate and multivariate results). These findings are in agreement with my hypothesis and experts in the area who suggest that directors working in the industry have more institutional knowledge (Lublin and Stoll 2009). I also conjecture that directors who are familiar with fundraising in the university setting are best able to increase contributions to these nonprofits, given unique alumni giving patterns, different from other nonprofit industries. University directors working in higher education may also be considered experts in the retention of students, as this measure of success is focused on cultivating

existing students, while my other nonfinancial performance measures primarily relate to new students.<sup>15</sup>

### *Contribution*

I measure board contribution as both the monetary and nonmonetary contributions of directors, including: major donors on the board, director attendance patterns at regularly scheduled meetings, the number of board meetings, and board size. My results find support for prior studies and the hypothesis that directors who contribute more are associated with organizations that are better-performing.

Specifically, meeting attendance is positively related to both student retention and SAT scores in univariate analysis. These relationships are consistent with Plambeck (1985), who finds a positive relation between meeting attendance and firm performance. However, contrary to posited relationships and literature in the area, I find a negative relationship between director meeting attendance and enrollment growth. I propose that this relationship is due in part to the reactive nature of nonprofit boards, as discussed in prior literature (Jensen 1993), as well as to the way study variables are defined. Given that my enrollment growth variable measures 2007 to 2008 student enrollment growth, directors reacting to 2007/2008 enrollment decreases would likely increase their 2008 meeting attendance.

Turning to board size, I find consistent positive univariate associations between board size and total contribution, total revenue, retention rate, and SAT scores, as well as a significant positive relationship between board size and student retention rate in the multivariate setting. Although for-profit studies find mixed associations, evidence from

---

<sup>15</sup> SAT scores are for entering freshman, enrollment growth measures the increase in new students, and university rank is primarily used by students comparing schools during the application process.

the nonprofit sector (Olson 2000, O'Regan and Oster 2005, Aggarwal et al. 2006) consistently suggests that larger boards provide more resources to nonprofit agencies. As a result, my findings are in line with prior nonprofit literature (Olson 2000, Aggarwal et al. 2006), citing that bigger boards appear to be better in the nonprofit sector where charity organizations not only rely on volunteers to help manage their organizations, but to provide contributions as well. I speculate that board size has a positive effect on financial performance measures following Olson (2000) who offers a resource dependency theory consistent with additional nonprofit directors providing new external sources of income. Related to nonfinancial measures found to be related to board size, I conjecture that SAT scores and retention rates are affected by board size, based on findings of Aggarwal et al. (2006), who document that nonprofit organizations that pursue more objectives (such as increasing SAT scores and student retention rates) have larger boards.

In terms of major donors, results indicate consistent positive relationships between major donors and both financial and nonfinancial measures of nonprofit performance. Specifically, I find univariate results to support positive relationships between major donors and total contributions, revenues, retention rate, and SAT scores. Multivariate results show positive associations between major donors and retention rate, SAT scores, and enrollment growth. All findings are in agreement with posited relationships and prior literature in the area, which documents a positive relationship between major donors and firm performance (Callen et al. 2003).

The number of board meetings held by the nonprofit organizations in my sample is found to be related to five of the six response variables under review, however, the

relationship is inconsistent. I find univariate results which support increased total contributions and university rank, as well as a positive multivariate association between the number of meetings held by a nonprofit university board and the total revenues of the organization. These relationships are consistent with my contribution hypothesis and Ostrower (2007), who finds a positive relation between the number of board meetings and firm performance. However, univariate findings for total revenues are negative. I also find inverse multivariate associations between board meetings and student retention and SAT scores. While these relationships are in opposition to my contribution hypothesis, Vafeas (1999) finds an inverse relationship between the frequency of board meetings and financial performance. I speculate that better functioning schools (with higher student retention rates and SAT scores) need to meet less frequently, consistent with literature (Jensen 1993) that suggests that nonprofit boards are often characterized as being reactive rather than proactive.

#### *Disclosure*

My study focuses on the disclosure of: business relationships between board members and the organization, relationships that yield goods below market value to the agency, and the existence of a conflict of interest policy between board members and the nonprofit agency. While little empirical evidence exists in the nonprofit literature base, several for-profit accounting studies find disclosure to be positively associated with firm value (Healy et al. 1999, Jog and McConomy 2003, Lajili and Zeghal 2006). In agreement with regulatory recommendations and for-profit disclosure studies, I find support for a positive relationship between board disclosures and nonprofit performance.

I find positive univariate associations between efficiency and the existence of a conflict of interest policy, as well as reported business relationships between directors and the organization. That is, colleges and universities in my sample who maintain a conflict of interest policy, which requires board members to divulge and testify to conflicts of interest between themselves and the nonprofit organization, or who report business relationships between directors and the organization, are associated with more efficient operations. These findings are consistent with my disclosure hypothesis and follow recommendations from several studies and regulatory agencies (BoardSource 2004, Aranoff 2003, Griesmann 2003, IRS 2007, IRS 2008b, IRS 2008c, Senate Finance Committee 2004, Panel on Nonprofit Sector 2005).

#### *Board organization*

Board organization refers to the use of committees to segregate the board into smaller groups focused on specific board tasks. To proxy for board organization I survey the colleges and universities in my sample for the use of nominating, compensation, and audit/finance committees. Consistent with prior for-profit and nonprofit studies, I hypothesize that additional board committees assist charity organizations in terms of more stringent compensation oversight (Petra and Dorata 2008, Sun et al. 2009, McDermott et al. 2004, Gadaleta 2008, Smith 2009, De Jong and Peregrine 2009), enhanced board member selection procedures (Nizankiewicz 2005, King 2008), as well as increased financial monitoring (Farber 2005, Forgione et al. 2006), which in turn align these organizations with better performance. Results support this hypothesis.

I find positive univariate associations between nonprofits that maintain compensation committees and more efficient operations. These results are consistent with literature and

best practices in the nonprofit sector (McDermott et al. 2004, Gadaleta 2008, Smith 2009, De Jong and Peregrine 2009). My results also support the recommendation that nonprofit organizations create and foster a strong nominating committee (Nizankiewicz 2005 and King 2008). I speculate this result is consistent with reduced expenses (which would be classified as administrative and lead to less efficient operations) related to board recruitment and training.

### *Independence*

I focus on four board characteristics related to board member independence: CEO duality, percentage of employees on the board, board terms, and board member election policies. CEO duality refers to when an organization's CEO (or President) is also the chairman of the board. Agency theory asserts that CEO duality reduces the monitoring effect of the board (Boone et al. 2007). Organizations with employees who sit on the board of directors, boards without election procedures, and those with unlimited board terms also reduce the independent nature of the board. Election procedures refer to the act of board members voting to add new members to the board (as opposed to new members being appointed to their positions), creating an added level of board independence. I find some evidence to support an overall positive relationship between organizations with more independent boards (lack of CEO duality, fewer employee directors, shorter board terms, and elected directors) and agency success.

Univariate results indicate an inverse relationship between organizational efficiency and the number of employees also serving as directors. This is consistent with employees or insiders of the organization being focused on personal preferences or perquisites related to working conditions, ease of workload, or other self-motivated objectives

(Williamson 1983, Fama and Jensen 1983, Callen and Falk 1993). However, contrary to entrenchment theory, which suggests that board members lose independence when their relationships with management and the organization become too familiar and less objective (Morck et al. 1988), I find consistent univariate and multivariate results which indicate a positive relationship between board term and organizational efficiency. That is, organizations that reported having longer board terms are also organizations that are most efficient in their operations. This unexpected finding may simply be the result of longer tenured directors having the institutional knowledge and background to guide the colleges and universities in my sample more efficiently.

### *Conclusions*

All told, this work makes initial forays into the relationships between board of director qualities and nonprofit performance. Although limited by the relatively small sample of colleges and universities, given the lack of public data available related to nonprofit boards<sup>16</sup>, this study is unique in the ability to analyze nonprofit boards with both financial and nonfinancial performance measures.

Related to board characteristics, results indicate that bigger boards with more major donors are consistently associated with better performing organizations, confirming my board contribution hypothesis. These results are in addition to noteworthy relationships between nonprofit success and the number of meetings held by an organization as well as the impact of recruiting board members who serve on other nonprofit boards.

---

<sup>16</sup> The new Form 990 does include several new board governance questions, including whether the organization requires directors to sign a conflict of interest policy and how the organization establishes CEO compensation (which may include the use of a compensation committee), however, these are the only two board variables I study which will now potentially be available through the revised Form 990.

In terms of board monitoring, findings confirm regulatory and advisory recommendations that the use of a conflict of interest policy, disclosure of business relationships, nominating and compensation committees are important aspects of board development in addition to longer board terms. As a result, these relationships provide moderate support for all three monitoring hypotheses, suggesting that board disclosures, organization, and independence all play a role in nonprofit organizational efficiency, one of the most studied and relied upon measures of performance in the nonprofit sector.

I believe this study makes valuable contributions to both the nonprofit performance and board governance literature streams. In terms of the nonprofit performance literature, I believe this is the first study to relate nonprofit performance to board qualities, particularly board characteristics and policies unavailable to researchers through public data sources. Related to board governance studies, this paper responds to the numerous regulatory calls for increased governance in the nonprofit sector, providing some support for recommendations such as increased diversity, board size, conflict of interest policies, board terms, and required board committees.

## ***CHAPTER 2: INTRODUCTION AND MOTIVATION***

This study investigates the relationship between board governance and nonprofit firm performance. I conduct a survey on the largest, most complex organizations in the tax-exempt sector: colleges and universities (IRS 2010), and collect information related to board characteristics (diversity, expertise, contribution) and monitoring practices (committees, disclosure, independence). I relate these variables to both financial and nonfinancial measures of successful nonprofit colleges and universities as well as the organizational efficiency of sample organizations.

The nonprofit sector is a rich setting for the study of board governance, given: 1) the important role nonprofit organizations play in the US economy, 2) the scarcity of empirical research in the area, 3) the notable differences between nonprofit and for-profit boards and operating environments, and 4) the attention nonprofit board governance has received from the media and regulatory agencies.

### *1) Role in US economy*

Nonprofits are a large part of the American economy. Approximately two hundred and fifty thousand 501(c)3 nonprofit organizations were registered with the Internal Revenue Service (IRS) in 2007<sup>17</sup>, the latest year for which complete data is available. These entities recorded \$1.4 trillion in revenues, and had assets of \$2.7 trillion. Further, nonprofits are growing faster than the economy as a whole. While the nation's gross domestic product grew by an unadjusted 69% from 1997 to 2007<sup>18</sup>, the nonprofit sector's 501(c)3 tax exempt organizations total revenues increased by 92% while assets increased by 87% over the same ten year period. Further, specific to my sample, in a 2010 IRS

---

<sup>17</sup> <http://www.irs.gov/taxstats/charitablestats>

<sup>18</sup> U.S. Department of Commerce – Bureau of Economic Analysis

report the service states that: “Colleges and universities represent one of the largest nonprofit segments in terms of revenue and asset size”.

## *2) Scarcity of empirical research*

My intention is to provide nonprofit leaders with applicable, systematic, empirical evidence to aid in the development of their boards of directors. In doing so, I respond to the paucity of research relating nonprofit boards to success. In a survey of nonprofit literature Stone et al. (1999) confirm the lack of empirical work relating nonprofit governance and performance. More recently, Stone and Ostrower (2007) report that “there is a noticeable absence of connections between board characteristics and practices and objective measures of organizational performance.” Concluding that “we are still unable to say whether or how boards make a difference to the organizations they govern or the wider public environment in which they are embedded” (Stone and Ostrower 2007).

## *3) Differences between nonprofit and for-profit boards and operating environments*

Several distinctions exist between for-profit and nonprofit organizations and their boards, starting with their fundamental reasons for existing. For-profit corporations exist to make a profit. Nonprofit organizations, however, have a broader mission<sup>19</sup>. These agencies serve the general public and have missions such as to provide education, health services, art preservation, or one of thousands of other charitable purposes. As a result, nonprofit directors are accountable to a larger constituency, and their activities are under more scrutiny than their for-profit counterparts (MacKillop 2010).

---

<sup>19</sup> For example Temple University’s mission states: “Temple University is a national center of excellence in teaching and research with an international presence.”

Nonprofit boards (with members who are unpaid volunteers) have been characterized as being more engaged than for-profit boards (with members who are richly compensated) (Drucker 1989, Judge and Zeithaml 1992). In a study comparing for-profit and nonprofit hospital boards, Judge and Zeithaml (1992) find that nonprofit hospital boards are more involved in the strategic decision process of the agency than for-profit directors. Drucker (1989) also observes that “nonprofit board members are, in general, more committed to the organization than their for-profit counterparts”. Dedicated directors may be the result of a special link or passion for a particular nonprofit cause, a facet of director behavior unique to the nonprofit environment.

#### *Legal differences*

Both sectors rely on the monitoring duties of the board. Delaware state law (DGCL §141(a)) defines corporate director fiduciary responsibilities as the duties of care and loyalty. Case law has expanded for-profit director responsibilities to include duties of: good faith, disclosure, and monitoring. Nonprofit fiduciary responsibilities include the duties of care, loyalty, and obedience (Atkinson 1998). The added nonprofit duty of obedience is the “obligation of a director to keep the organization within the stated bounds of its mission” (Horikawa and Hempill 2010). Directors’ actions and decisions must therefore be in accordance with, and in furtherance of, the organization’s specific mission.

Both sectors rely on a nearly identical definition for their fiduciary duty of care which requires directors to: “discharge the duties of their respective positions in good faith and with the degree of diligence, care and skill which ordinarily prudent men would exercise under similar circumstances in like positions” (Not-For-Profit Corporation Law §

717(a)). However, the judicial interpretation of what this duty of care entails results in nonprofit directors being held to a higher standard of care than their for-profit equivalent<sup>20</sup>.

In the past, charities were typically created in the form of charitable trusts, where directors were defined as trustees with stricter standards of care. Specifically, trustees are required to “exercise reasonable care and skill whereby findings of ordinary negligence result in personal liability” (Restatement (Second) of Trusts 174 (1959)). Corporate directors, on the other hand, are protected by the business judgment rule, seldom resulting in personal liability and allowing for a more lenient standard for the corporate duty of care than that of a trustee. At its core, the business judgment rule only punishes instances of gross negligence, as opposed to the trustee standard, which attaches liability for ordinary negligence.

Today most nonprofit organizations are incorporated (75% in 2007<sup>21</sup>). As a result, this has led the courts to apply a more stringent version of the for-profit corporate standard of care for nonprofit directors (*Scheuer Family Foundation, Inc. v. 61 Associates*). Specifically in the case of the *Scheuer Family Foundation, Inc. v. 61 Associates*, Judge Ellerin of the Supreme Court of New York Appellate division, ruled that the business judgment rule protecting for-profit directors was inappropriate for nonprofit directors who: “did not act prudently and mismanaged the corporation's assets”. Also related to the *Scheuer Family Foundation* case and nonprofit director conduct is the following statement by Supreme Court Justice Cardozo: “Many forms of conduct permissible in a workaday world for those acting at arm's length, are forbidden to those

---

<sup>20</sup> *Attorney Gen. v. Olson, Graham Bros. v. Galloway Woman's College, Nixon v. Lichtenstein, Samarkand of Santa Barbara, Inc. v. County of Santa Barbara.*

<sup>21</sup> <http://www.irs.gov/taxstats/charitablestats>

bound by fiduciary ties. A trustee is held to something stricter than the morals of the market place. Not honesty alone, but the punctilio of an honor the most sensitive, is then the standard of behavior.”

In sum, while directors are closely monitored by shareholders in the for-profit sector, nonprofit directors serve the general public where few have a sufficiently large enough stake to monitor directors closely. As a result, our legal system creates heightened levels of responsibility for corporate nonprofit directors, consistent with more stringent trustee duties, as a means of ensuring that public interests are served (Lee 2003)<sup>22</sup>.

#### *Monitoring environment*

Another notable difference between nonprofit organizations and their for-profit equivalents is the inability to distribute earnings (Hansmann 1980). This non-distribution constraint is a provision which inhibits nonprofit organizations from distributing their net earnings to those in control of the organization (Oster 1995). As a result, nonprofit organizations have an essential need for external monitoring, specifically to reduce expenses related to obtaining and distributing donations (Williamson 1983, Core et al. 2006). Given this lack of accountability (Bolton and Mehran 2006), and profit-maximizing motivation (Hansmann 1980), nonprofit organizations are often considered to be inefficiently supervised (Frumkin and Keating 2003, Krishnan et al. 2008, Core et al. 2006).

---

<sup>22</sup> Although the courts have placed added responsibilities on nonprofit directors, the Volunteer Protection Act of 1997 has indemnified nonprofit board members from personal liability as a result of their service. While the act does not prohibit suits from being filed against volunteers, it provides a specific defense for volunteers acting “within the scope of the volunteer’s responsibilities” (Public Law 105-19). As a result, nonprofit organizations are still encouraged to carry adequate levels of liability and directors and officers insurance ([www.npcny.org](http://www.npcny.org)).

Nonprofit organizations also differ from their for-profit counterparts in the monitoring roles of watchdog groups and donors. Watchdog groups include websites such as CharityNavigator and the Better Business Bureau's Wise Giving Alliance that guide donors toward organizations that meet certain financial and program standards. Although analysts<sup>23</sup> in the for-profit sector fill a similar role, limited public information in the nonprofit sector lead contributions to be heavily guided by such information sources (Gordon et al. 2009). Nonprofit donors are also unique in that without outside contributions, the majority of nonprofit organizations would be significantly limited or even forced to discontinue their operations, whereas there is no corresponding way for shareholders to deprive a for-profit organization of resources<sup>24</sup>.

#### *4) Attention from media and regulatory agencies*

##### *Media attention*

The nonprofit sector has received a great deal of media coverage (Gibelman et al. 1997, Eaton and Akers 2007) centered on managerial malfeasance, embezzlement, and other questionable management practices. Such abuses have increased the demand for monitoring across the nonprofit sector (Eaton and Akers 2007). Examples of this abuse are scandals such as those uncovered at the United Way, Adelphia University, Arizona Baptist Foundation, World Bank, the Nature Conservatory, American University, the American Red Cross and others (see [Appendix A](#) for details).

##### *Regulatory agencies*

---

<sup>23</sup> In addition to proxy advisory service firms such as Glass Lewis & Co., Proxy Governance, Inc., RiskMetrics/Institutional Shareholder Services, etc.

<sup>24</sup> For example Temple University received 32% of their 2009 total revenues in the form of contributions.

In the wake of these and other scandals, nonprofit authoritative bodies are pressing for reform. In 2004, the Senate Finance Committee issued a staff discussion draft<sup>25</sup> which called for strengthening transparency and accountability in the charitable sector. Several state charity regulators and the Panel on the Nonprofit Sector<sup>26</sup> have considered adopting Sarbanes-Oxley (SOX)-like procedures, and the IRS has recently revised their informational Tax Form 990 with a focus on governance.

The Senate Finance Committee staff discussion draft issued on June 22, 2004 laid out multiple reforms focused on transparency and accountability at nonprofit organizations. In particular, the committee proposed funding to aid in the availability of nonprofit informational tax returns (Form 990), as well as funding for state enforcement and nonprofit oversight. Several additional nonprofit reforms were proposed and segregated into nine sections (with multiple sub-sections), including part G entitled: Encourage Strong Governance and Best Practices for Exempt Organizations.

Whether the board of director requirements mandated by SOX for public companies should also be applied in the nonprofit sector has been an issue of debate (Bobowick and Ostrower 2006, Jackson 2006, BoardSource 2006, Iyer and Watkins 2008). The states of New York and California have proposed or passed regulations that extend a number of board related SOX provisions to nonprofit organizations<sup>27</sup>. For example, the California

---

<sup>25</sup> <http://finance.senate.gov/press/Bpress/2004press/prb062204.pdf>

<sup>26</sup> The Panel on the Nonprofit Sector is “an independent effort by charities and foundations to ensure that the nonprofit community remains a vibrant and healthy part of American society. Formed by Independent Sector in October 2004 at the encouragement of the U.S. Senate Finance Committee, the Panel is comprised of 24 nonprofit and philanthropic leaders whose organizations encompass great diversity in location, mission, perspective, and scope of work” (<http://www.nonprofitpanel.org/about/Index.html>).

<sup>27</sup> Two provisions of SOX already apply to nonprofit organizations: whistle blower protection and document destruction policies.

Nonprofit Integrity Act of 2004<sup>28</sup> requires charities with gross revenues of \$2 million or more to have an audit committee; and although New York state legislators ultimately failed to pass them, New York legislation also proposed several bills<sup>29</sup> requiring that SOX be applied more broadly to nonprofit organizations. Finally, The Panel on the Nonprofit Sector has also recommended regulation similar to SOX for the nonprofit sector. In their final report, the panel included over 75 recommendations directed at Congress, the IRS, and nonprofit leaders (Panel on the Nonprofit Sector 2005).

Most recently, the IRS has incorporated numerous governance related items into the revised Informational Tax Form 990 required of 501(c)3 nonprofit organizations as of fiscal year 2008 (IRS 2008b). The new form includes section VI entitled: *Governance, Management, and Disclosure*. The IRS explains that this section asks for disclosures not required by federal tax law, however, the watchdog group CommonFund<sup>30</sup> describes the revised nonprofit tax form as “an opportunity for the board of trustees to more fully understand and give needed direction to the organization they serve”.

Although more stringent board governance appears to be recommended by many, the value of additional provisions is unknown in the nonprofit sector. For-profit research has shown that the implementation of SOX regulation has been costly (Information Management Journal 2006, Zhang 2007, Krishnan et al. 2008, Information Management Journal 2008), but beneficial (Levinsohn 2005, Marhsall and Heffes 2006, Dodwell 2008). Prior nonprofit research has also documented the costs of increased monitoring

---

<sup>28</sup> Signed into law September 29, 2004; focuses on financial reporting, governance, independence, and fund-raising provisions (Silk and Fei 2005).

<sup>29</sup> For example, the Nonprofit Accountability Bill includes five major elements of the corporate SOX legislation: audit and executive committee requirements, revisions related to interested party transaction rules, verification of financial information (tiered for organization size), and reduced scope for indemnification of officers and directors in the event of litigation related to inappropriate conduct (Office of New York State Attorney General 2003).

<sup>30</sup> [www.commonfund.org](http://www.commonfund.org)

and governance (Irvin 2005, Mulligan 2007), but failed to document the benefits. As a result, I aim to investigate the performance implications of several governance related board characteristics to begin the process of understanding the benefits of implementing these practices in the nonprofit community.

In sum, given the notable role of the nonprofit sector in our economy, regulatory and media attention, as well as the important governance function of nonprofit boards, this dissertation intends to fill the gap in existing research which relates board governance and the performance of nonprofit organizations. In this two part study I examine both the association between nonprofit board characteristics and nonprofit performance, as well as board monitoring and organizational efficiency.

Chapter 3 analyzes ten board member characteristics which proxy for board diversity, expertise, and contribution in an effort to understand the associations between these attributes and successful nonprofit organizations. I employ two measures of nonprofit financial accomplishment: total contributions and total revenues; as well as four nonfinancial gauges specific to the nonprofit higher education industry: enrollment growth, university ranking, student retention rate, and SAT scores. Chapter 4 focuses on the relationship between board monitoring (board committees, disclosure practices, and independence) and organizational efficiency. Here I define organizational efficiency using an adjusted version of the traditional PRICE ratio developed by Weisbrod and Dominguez (1986).

## ***CHAPTER 3: THE IMPACT OF BOARD CHARACTERISTICS ON NONPROFIT PERFORMANCE***

### ***3.1 Introduction***

Motivated by the role of the nonprofit sector in our economy, regulatory and media attention, as well as the important governance function of nonprofit boards laid out in chapter 2, this chapter intends to fill the gap in existing research which relates board characteristics and the performance of nonprofit organizations. Specifically, I study three groupings of board member characteristics: diversity, expertise, and contribution (monetary and nonmonetary); and analyze the relationships between these board member attributes and six measures of nonprofit performance. I employ two measures of nonprofit financial accomplishment: total contributions and total revenues; as well as four nonfinancial gauges specific to the nonprofit higher education industry: enrollment growth, university ranking, student retention rate, and SAT scores.

My analysis will proceed as follows. Section two will discuss the literature in the area; section three will develop hypotheses, and section four sets forth research variables and empirical models. These sections are followed by results presented in section five, as well as chapter conclusions in section six.

### ***3.2 Literature review***

#### ***3.2.1 Nonprofit boards and member characteristics***

##### *Nonprofit boards*

Two acronyms from practitioner nonprofit literature have simplified director duties to either three W's or three G's (Ingram 2003). The three W's define a director's need to bring wealth, wisdom and work to a nonprofit board. The three G's are known as a

nonprofit director's responsibility to "give, get, or get off" a nonprofit board with which he or she is affiliated. In both cases, nonprofit board members are asked to play an integral role in the fundraising efforts of the agency. That is, in addition to the monitoring duties required of for-profit corporate directors, nonprofit directors have the added responsibility of either personally donating or securing outside donations. These dual director roles are supported by Oster (1995), who suggests that effective boards play both monitoring and operational roles; as well as by Olson (2000), who documents that nonprofit boards often fill both monitoring and resource acquisition roles within the nonprofit structure.

While little empirical work has been done in the field, a plethora of descriptive manuscripts and books have been written on nonprofit boards (for example: Harris 1989, Herman and Van Til 1989, Zander 1993, Abzug 1996, Brudney and Murray 1997, Brudney and Murray 1998, Herman and Renz 2000, Light 2000, Holland 2002, Miller 2002, Callen et al. 2003, Miller-Millesen 2003, Glaeser 2003, McCambridge 2004, Herman and Renz 2004, Bolton and Mehran 2006, Ostrower and Stone 2006, Carver 2006a, Carver 2006b, Powell and Steinberg 2006, Stone and Ostrower 2007, Laughlin and Andringa 2007, Herman 2009, BoardSource 2010). These studies are widely characterized as documenting *ideal* board performance and composition (Jackson and Holland 1998). Herman (1989) concludes that many of the prescriptive standards that he believes to be widely supported in the nonprofit literature are considered to be a "heroic model" of nonprofit boards.

*Nonprofit board member characteristics*

A limited number of specific board characteristics have been researched in the context of organizational performance in the nonprofit sector. While for-profit studies are more plentiful in these areas, a handful of studies have been conducted in the areas of: tenure, multiple board memberships, major donors, member diversity, attendance patterns, number of board member meetings, and board size.

O'Regan and Oster (2005) use survey data from a set of New York City nonprofit organizations to study the effect of nonprofit board characteristics on board performance. They focus on member behaviors (personal giving, time spent, and monitoring) as indicators of board performance and find that board size, tenure, and multiple board memberships are associated with successful (in terms of personal giving, time spent, and monitoring) New York City nonprofit boards.

Callen et al. (2003) find a positive association between major donors who sit on the board of nonprofit organizations and nonprofit organizational efficiency. While the authors cannot confirm the causality of their findings, they do support earlier suggestions by Fama and Jensen (1983). Fama and Jensen (1983) speculate that increased monitoring by major donors in the nonprofit sector parallels monitoring by large shareholders in the for-profit sector.

Media attention has made board diversity especially sensitive in the nonprofit sector (Gardyn 2003). However, the effects on nonprofit organizational performance are still unknown. One study, Siliciano (1996), finds mixed results related to the number of females serving on the boards of directors at a sample of nonprofit YMCA organizations. She finds female board members to be positively associated with the agency's ability to

fulfill its mission<sup>31</sup>, but a negative relationship between female board members and fundraising efforts.

Plambeck (1985) investigates board member attendance patterns in his study of four United Way organizations in the mid-west. He finds that attendance at board meetings is positively related to an organization's ability to fundraise. Ostrower (2007) also finds a positive relationship between the number of times a board meets in a year and the ability of the board to fundraise and cultivate community relations.

Relating board size and performance in the nonprofit sector, Olson (2000) finds a positive relationship between board size and gifts to the colleges in his sample, offering that a larger board may feel stronger and more independent of management, and therefore better able to monitor management and increase agency performance. Olson (2000) also offers a resource dependency theory for his results. This theory is based on the notion that organizations are dependent on external resources to survive and thrive, and that additional board members provide new sources of external income. This is consistent with larger boards providing greater access to new resources and additional gifts. Aggarwal et al. (2006) find evidence consistent with Olson's (2000) conjecture relating larger boards with a stronger ability to raise funds. They also find evidence to support the conclusion that nonprofit organizations that pursue more objectives (in terms of program activities) have larger boards.

---

<sup>31</sup> "Fulfillment of this mission takes many forms in YMCAs. For example, some provide free health club memberships to lower income community residents; others offer specialized programs for senior citizens, teens and/or young children. To assess the organization's effectiveness in achieving its social mission, a staff consultant provided rankings [ranging from poor (1) to excellent (5)] for his/her organization(s) in the region. Each YMCA had one staff consultant who monitored its yearly progress and maintained contact throughout the year with that organization but still could provide an outsider's perspective of the organization's effectiveness in this area." (Siciliano 1996)

### ***3.2.2 For-profit board member characteristics***

The for-profit literature base is more developed in terms of studies which examine board member characteristics. For-profit studies reviewed below include those that intersect with my study variables: member diversity, frequency of board meetings, and board size.

The judgments and perspectives that women and members of minority groups bring to the board of directors are thought to improve the quality of board decision making and enhance business performance by enabling a company to respond more effectively to the needs of their clientele (Wright et al. 1995, Richard 2000, Keys et al. 2002, Brown et al. 2002, Fields and Keys 2003, and Carter et al. 2003, Farrell and Hersch 2005, Terjesen et al. 2009, Adams and Ferreira 2009). Brown et al. (2002), Carter et al. (2003), and Farrell and Hersch (2005) all find positive associations between female directors and for-profit firm performance. Related to governance, in a survey of for-profit literature related to female board membership, Terjesen et al. (2009) conclude that: “The evidence shows that gender diversity on corporate boards contributes to more effective corporate governance”. Adams and Ferreira (2009) find similar results which suggest that gender-diverse boards allocate more effort to monitoring and are associated with higher board effectiveness.

Specific to ethnic diversity, Fields and Keys (2003) survey the literature and conclude that firms announcing cultural diversity at their organizations are consistently found to be associated with excess returns. Their work is based on earlier studies by Wright et al. (1995) and Keys et al. (2002) who both find significant wealth effects accruing to for-profit firms announcing diversity accolades. Additionally, Carter et al. (2003) present empirical evidence which confirms a positive relationship between the percentage of

minorities and firm value (measured by Tobin's Q). Finally, Richard (2000) finds a positive relationship between diversity and organizational effectiveness defined as: employee productivity, financial performance, and market performance.

Vafeas (1999) documents results which indicate an inverse relationship between the frequency of board meetings and financial performance. Data confirms that increased board activity follows poor performance, consistent with the notion that boards are reactive, rather than proactive (Jensen 1993).

Yermack (1996) documents an inverse relationship between board size and firm value. Looking at firm efficiency, Huther (1997) also documents an inverse relationship between board size and firm efficiency in his study of the rural electric cooperative industry. Eisenberg et al. (1998) finds the same inverse relation in a sample of small and midsized Finnish firms, using industry-adjusted return on assets as their firm performance measure; therefore confirming board size effect in smaller firms. Conyon and Peck (1998) further confirm this negative relationship in their study of board size in five European countries. More recently, Cheng (2008) shows that board size and Tobin's Q are negatively correlated for all types of firms, while Coles et al. (2008) find a U-shaped relationship between board size and Tobin's Q. Specifically Coles et al. (2008) find that firms with smaller and larger boards are indeed more profitable, but that these relationships are driven by firm complexity. Firms with greater complexity and advising needs are found to have larger boards with more outsiders, while the opposite is true for firms with less complexity. Anderson et al. (2004) find that cost of debt is inversely related to board size. Additionally, Raheja (2005) finds that smaller boards are optimal when the incentives of insiders are better aligned with shareholders; and that larger, older

and more complex firms will require larger boards with a greater number of non-executive directors due to the greater skill and informational requirements necessary for running such companies.

Boone et al. (2007) also document that board size increases as firms grow in size and diversity over time. Linck et al. (2008) find that high-information-asymmetry firms have smaller, less independent boards, concluding that economic considerations and firm characteristics drive corporate board size and composition. Harris and Raviv (2008) model the trade-off between the benefits of greater expertise that additional outside directors bring to the board versus the costs related to additional free-riders on the board. They conclude that their model is therefore able to explain the correlation (negative or otherwise) between firm profits and board size. Finally, Lehn et al. (2009) conclude that after treating board size and composition as endogenous variables, “no robust relation exists between firm performance and these board characteristics”, supporting the Coles et al. (2008) notion that there is no one-size-fits-all solution to corporate boards. In sum, while early studies consistently support an inverse relationship between board size and firm performance (Yermack 1996, Huther 1997, Eisenberg et al. 1998, Conyon and Peck 1998), more recent studies find that this relationship is not necessarily inverse; but that a contextual association exists (Raheja 2005, Linck et al. 2008, Boone et al. 2007, Coles et al. 2008, Lehn et al. 2009).

### ***3.3 Research Hypotheses***

Building on prior research both in the for-profit and nonprofit sectors, I analyze the relationships between three groupings of nonprofit board characteristics (diversity, expertise, and contribution) and both financial (total contributions and total revenues) and

nonfinancial (enrollment growth, university ranking, student retention rate, and SAT scores) measures of nonprofit success.

### ***3.3.1 Diversity***

Prior research finds a positive relation between diversity and nonprofit firm performance. BoardSource (1999) shows that heterogeneity in groups promotes creativity and innovation, noting that the need for diversity is an essential part of making effective decisions and delivering appropriate services to minority clients. Additionally, The Greenlining Institute (a multi-ethnic public policy research and advocacy group) also provides evidence indicating the need for ethnic diversity<sup>32</sup> on foundation boards in an effort to be responsive to the grant making needs of our culturally diverse nation (González-Rivera 2009). In the for-profit sector, several studies (Wright et al. 1995, Richard 2000, Keys et al. 2002, Fields and Keys 2003, and Carter et al. 2003) document a positive relationship between cultural diversity and excess returns; and a 2009 report by the California Public Employees' Retirement System's (CALPERS) finds that for-profit firms with gender and ethnic diversity<sup>33</sup> on their boards are found to outperform those lacking board diversity. I focus on board diversity defined as racial and gender diversity.

Historically, nonprofit boards have been comprised largely of white, upper and middle class citizens. Specifically, Ostrower (2007) surveyed over 5,100 nonprofit organizations and found that 86% of her sample board members are white, non-Hispanic; 7% are African-American; and 3.5% are Hispanic/Latino (the balance is from other ethnic groups). She also finds that among nonprofits whose clientele is over 50%

---

<sup>32</sup> The Greenlining Institute defines ethnic as “communities of color and other disadvantaged groups” ([www.greenlining.org](http://www.greenlining.org)).

<sup>33</sup> CALPERS defines ethnic diversity as “historically under-represented groups... including women and minorities” (CALPERS 2009).

African-American, 18% include no African-American board members. Ostrower (2007) further finds that less diverse boards have a more difficult time responding to the varied needs of the populations they serve, making the need for diversity an important aspect of director recruitment. Boards with more ethnic/racial diversity are more likely to have increased accountability measures in place (such as an outside audit, separate audit committee, and conflict of interest and whistleblower policies), further strengthening the grounds for a diverse board makeup (Ostrower 2007). I will expand this finding to address the relationship between racial heterogeneity and nonprofit performance. Based on studies discussed above (BoardSource 1999, Wright et al. 1995, Richard 2000, Keys et al. 2002, Fields and Keys 2003, and Carter et al. 2003, Ostrower 2007, González-Rivera 2009, CalPERS 2009), I expect to find that boards with more diversified racial composition are better able to understand the needs of their clientele, and perform better.

Ostrower (2007) also includes results related to gender mix on nonprofit boards. In particular, she finds several factors that are positively associated with the percentage of female directors on the board, including: funding sources, geographic focus, placing importance on willingness to give time, knowledge of the organization's mission area, as well as other organizational characteristics. Siliciano (1996), however, finds mixed results in her study of YMCA boards, while for-profit studies (Carter et al. 2003, Farrell and Hersch 2005, Adams and Ferreira 2009, and Terjesen et al. 2009) consistently find that female directors enhance for-profit boards. As a result, based on the majority of findings in this area, I anticipate a positive relationship between female directors and measures of nonprofit success.

I, therefore, posit a positive association between board member diversity, in terms of gender and racially diverse membership, and agency success, which leads to my first hypothesis:

*H1: Nonprofit organizations with more diverse board members are associated with better performance.*

### **3.3.2 Expertise**

I define expertise as board members who: are employed in the organization's industry, are considered financial experts (defined as having an understanding of generally accepted accounting principles and financial statements), and serve on other nonprofit and for-profit boards.

Board members who work in higher education, I expect to possess expertise above and beyond those members who do not have specific industry knowledge. Directors who are familiar with the industry provide better monitoring in terms of the kinds of obstacles and governance weaknesses the organization might encounter. In a recent report of board expertise at General Motors, governance experts consider GM's board to be: "fairly weak because it lacks individuals with auto-industry expertise" (Lublin and Stoll 2009). I, therefore, anticipate a positive relationship between directors who are working in the higher education industry and nonprofit performance.

The topic of financial expertise has received much attention in the corporate sector in recent years (Agrawal and Chadha 2005, Defond et al. 2005, Guner et al. 2008). Agrawal and Chadha (2005) find that the probability of financial accounting restatement is lower in companies that have independent directors with financial expertise, while Defond et al. (2005) find a positive market reaction to the appointment of accounting financial experts

on the audit committee, but no reaction to non-accounting financial experts. Guner et al. (2008) study how director financial expertise impacts corporate decisions. They find that directors with financial expertise do exert significant influence over corporate decision making, though conflicts of interest may arise. Section 407 of the Sarbanes-Oxley Act (SOX) requires public companies to disclose whether the audit committee of the board of directors has at least one financial expert, and explain the reason for the absence of such expertise. The New York Stock Exchange (NYSE) also has the following requirement: “Each NYSE listed-company audit committee member must be financially literate or become financially literate within a reasonable period of time after his or her appointment to the audit committee. Additionally, the NYSE requires one member to have accounting or related financial management expertise” (NYSE 2004). Finally, in their study of nonprofit organizations, Forgione et al. (2006) indicate that nonprofit organizations that receive more government grants and have an internal audit function are more likely to have a financial expert on the audit committee. Based on these findings, I expect to find a positive relationship between financial experts and successful nonprofit organizations.

Nonprofit research finds a positive relationship between the existence of for-profit corporate board members on nonprofit boards and financial oversight (Ostrower 2007). Specifically Ostrower (2007) finds a positive relationship between for-profit corporate board members and the adoption of “SOX-like” practices such as maintaining an audit committee, having an annual audit, and adopting conflict of interest and whistleblower policies. Ostrower finds that for-profit corporate board members carry over norms and practices from the corporate sector (such as SOX procedures), strengthening governance at their nonprofit posts. Ostrower (2007) also reports a positive relationship between prior

volunteer work and fundraising and monitoring in her study of charity organizations. This indicates an increase in accountability as a result of both outside board expertise, as well as nonprofit best practices. Based on these nonprofit sector findings, I argue that nonprofit board members who serve on other nonprofit or for-profit boards bring more expertise in the form of business knowledge and networking to charity organizations. Therefore, I predict a positive relationship between outside for-profit and nonprofit board membership and organizational success.

Taken together, I anticipate a positive relationship between board characteristics related to board member expertise and agency success, which leads to my second hypothesis:

*H2: Nonprofit organizations with more board member expertise are associated with better performance.*

### **3.3.3 Contribution**

Board member contribution relates to both the monetary (donations) and nonmonetary (time) contributions of nonprofit board members. I measure contribution as: the existence of major donors on the board, director attendance patterns at regularly scheduled meetings, the number of board meetings, and board size.

Fama and Jensen (1983) draw the parallel between major donors on nonprofit boards to large shareholders on corporate boards, as their large investments promote increased monitoring. Callen et al. (2003) document a positive association between major donors and nonprofit organizational efficiency. They also find that the presence of major donors on the finance committee to be negatively associated with the administrative expense ratio, indicating scrutiny over administrative expenses. As a result, I posit a positive

relationship between large donors and nonprofit performance, as major donors provide increased financial scrutiny and monitoring in the nonprofit setting.

Plambeck (1985) and Ostrower (2007) tell us that more active boards will be better able to foster fundraising efforts at their nonprofit organizations. Ostrower (2007) finds a positive relationship between the number of times a board meets in a year and the ability of the board to fundraise and cultivate community relations. Plambeck (1985) finds that attendance at board meetings is positively related to an organization's overall ability to fundraise. Therefore, I anticipate that boards with members who attend a greater percentage of regularly scheduled board meetings, and agencies that hold a greater number of meetings, will be associated with more successful organizations.

Although for-profit studies find mixed associations, evidence from the nonprofit sector (Olson 2000, O'Regan and Oster 2005, Aggarwal et al. 2006) consistently suggests that larger boards provide more resources to nonprofit agencies. Olson (2000) finds that larger boards are associated with increased total gifts, numbers of gifts, and endowment gifts. O'Regan and Oster (2005) find a positive relationship between board size and successful (in terms of personal giving, time spent, and monitoring) New York City nonprofit boards. And, Aggarwal et al. (2006) support the conjecture that larger boards are better able to raise funds, in addition to finding that larger boards are associated with nonprofit organizations engaged in more activities.

Consequently, I propose that board members who contribute more in terms of donations, time, and overall willingness to serve will promote the performance of nonprofit firms. I therefore posit a positive relationship between board contribution and nonprofit success, which forms my third and final hypothesis:

*H3: Nonprofit organizations with board members who contribute more are associated with better performance.*

### **3.4 Research Methodology**

#### **3.4.1 Data Collection and Survey Procedures**

I use a survey instrument to collect information from nonprofit boards in the higher education industry. According to Adams (2008): “survey-based research of directors may effectively complement research using publicly-available data.” Consistent with this viewpoint, I believe that survey information provides access to understanding specific board member qualities unavailable through any other data sources. This information is particularly important given the attention board of director qualities have received both in the for-profit (SOX) and nonprofit sectors (Senate Finance Committee, IRS). Further, the ability to link survey-based data with financial and institutional data gives my study a unique capacity to analyze the associations between board characteristics and both financial and nonfinancial measures of nonprofit performance.

I restrict my survey to nonprofit organizations in the higher education industry. The IRS has named this industry as the largest and most complex in the tax-exempt sector, and two data collection benefits surfaced. First, the ease of electronic survey distribution; a comprehensive list of website hyperlinks to American colleges and universities is publically available through the University of Texas at Austin (<http://www.utexas.edu/world/univ/state>) and university president’s email addresses were relatively uncomplicated to collect from these websites. Second, because I hoped and

generally found<sup>34</sup> that US university administrators would be sympathetic to the research mission of my project. An added benefit of looking at one type of nonprofit is that I implicitly control for industry.

In gathering survey responses, two separate requests were made. The first was an electronic request sent to the office of the university president via electronic mail. The second was a paper survey addressed to the attention of the university Chief Financial Officer (CFO) sent via US mail<sup>35</sup>. Both requests were sent out twice (first and second requests) and although the survey instruments varied slightly, results are based on the intersection of these survey inquiries.

#### ***3.4.1.1 Electronic surveys***

The process for gathering electronic survey responses was as follows. First, the website hyperlink was followed to a university's official website. From here, an email address<sup>36</sup> for the university President, Provost, or Chancellor was sought out. Once valid<sup>37</sup> email addresses were collected for each institution, an email request for the President to forward the survey link to the university CFO<sup>38</sup> (or equivalent) was sent to the email addresses acquired in step one. I elected to solicit the university CFO through

---

<sup>34</sup>I experienced a response rate equal to approximately 13% for electronic surveys and 45% for paper surveys, for an average response rate of 29%. These rates are in-line or higher than response rates found in prior studies that employ paper surveys. For example Callen et al. (2003) report a 23% response rate, and Forgione et al. (2006) indicate a response rate of 14.4%. Refer to Table 2 for complete sample selection procedures and response rates.

<sup>35</sup>Note that paper surveys were not sent to organizations that had already completed an electronic survey as discussed further in section 2.4.1.2 and outlined in Table 2.

<sup>36</sup>Note that in approximately 4% of the cases, a web form was utilized to make contact with the institution rather than an email message.

<sup>37</sup>Valid email addresses were found for approximately 81% of the colleges and universities which make up the listing of American Universities found on the University of Texas at Austin website. Approximately 2% of the email addresses identified failed to be delivered. Refer to Table 2 for complete sample selection procedures.

<sup>38</sup>The university CFO was selected as the subject of my survey given their familiarity with board members and practices, as well as their access to the information requested.

the university President's office following suggestions from Temple University's CFO who indicated that he would be more apt to respond to a survey provided to him from the university President's office, than sent to him directly. Refer to [Appendix B](#) for a reproduction of the email request utilized to solicit the office of the university President.

The survey link directed university CFOs to my electronic survey which was created and hosted through SurveyMonkey.com. Refer to [Appendix C](#) for a copy of this survey instrument. The questionnaire includes 33 questions related to the organization's board of directors in addition to six demographic inquiries. [Table 1](#) includes a breakdown of the response rates received for each of the 39 questions included in this electronic survey.

Three hundred and forty-four electronic survey responses were received in total; however, several were unusable for my study. Thirty-four responses were found to be duplicate<sup>39</sup> responses from the same college or university. I believe this may have occurred because either both the CFO's office as well as the President's office followed the link to my survey, or because the President's office forwarded my request to more than one person in the CFO's office. Seventy-three responses did not provide enough information for the university's identity to be determined. Seventeen organizations were not 501(c)3 nonprofit organizations, and 14 did not have IRS Form 990 financial information available through the National Council for Charitable Statistics (NCCS). The final sample of electronic survey responses is 204 nonprofit colleges and universities for an overall electronic survey response rate of 13%. Refer to [Table 2](#) for complete sample selection procedures in tabular format.

#### ***3.4.1.2 Paper surveys***

---

<sup>39</sup> Duplicate survey responses were averaged if responses were not identical.

The process for collecting paper survey responses was as follows. First, a list of nonprofit colleges and universities was obtained from the National Council on Charitable Statistics (NCCS) statistics of income (SOI) database. Specifically, organizations designated as 501(c)3 public charities with industry code BH, institutions of higher education, were identified (919 organizations). From this list I removed organizations for which surveys had already been received electronically (132), as well as institutions with foreign addresses (13). Seven hundred and seventy-four US colleges and universities remained. The first batch of 255 paper surveys acted as a test group for three survey administration preferences; refer to [Appendix D](#) for detailed results of these survey design choices. Refer to [Appendix E](#) for the cover letters used to solicit schools, and Appendix F for a copy of the paper survey instrument.

In addition to the survey design choices described in [Appendix D](#), a final version of the cover letter sent out with my survey instrument included an offer for participants to receive summary results of the study. I included this offer starting with the second request letters for batch one of my paper survey requests. Please see [Appendix E, version C](#) for a copy of this expanded cover letter. Thirty-nine respondents requested a copy of my summary results either via email or by including their business cards with their survey response (as directed in my offer). Please see [Appendix G](#) for a copy of the summary results sent out to respondent organizations in May, 2009.

A total of 362 paper survey responses were received (from both first and second requests). Of these, eight responses were received in duplicate, and four responses indicated that the institution would not participate in the study. The total paper survey response rate calculates at approximately 45%; refer to [Table 2](#) for complete sample

selection procedures and response rates. Additionally, response rates by question for the paper survey instrument are presented in [Table 4](#).

The 204 completed electronic surveys were then merged with the 350 paper survey responses for a total response pool of 554 participating nonprofit US colleges and universities. Survey data was then matched with financial information from the NCCS as well as institutional data from the Integrated Postsecondary Education System (IPEDS).

### ***3.4.2 Sample description***

As noted above, the final sample of survey respondents include 554 nonprofit universities and colleges. Refer to [Table 5](#) for descriptive statistics including minimum, maximum, mean, and standard deviations for net assets, total contributions, and total revenues for fiscal year 2007. Mean sample total assets are approximately 38% smaller than the population of 919 nonprofit universities and colleges in the NCCS database (industry code BH). This suggests that respondent organizations are somewhat smaller than the population of all institutions of higher education. I speculate that smaller universities and colleges may have been more inclined to respond to my survey given that relatively less bureaucracy exists in those organizations and therefore the chance of my survey (either electronically or in paper form) reaching the university CFO was substantially higher. It should be noted that universities and colleges included in the NCCS database are those required to prepare an IRS form 990 and therefore are primarily private universities and colleges.

Related to total contributions, sample firms report contributions that are approximately 31% lower than the mean of all other institutions of higher education, and

with respect to total revenues, sample organizations report approximately 36% less revenues than other colleges and universities in the NCCS database.

#### *Sample selection bias*

Univariate results suggest that significant differences exist between sample organizations and the population of nonprofit universities and colleges in the NCCS database, with respect to organizational size (total assets), total contributions, and total revenues. However, multivariate results do not find that these variables are significant predictors of the choice to complete the survey instrument. As a result, I do not believe sample selection is biasing the results of this study.

#### ***3.4.3 Measurement of dependent variables***

Both the for-profit and nonprofit literature has struggled with defining performance. The for-profit literature uses indicators such as: ROE, ROA, the ratio of sales to assets, Tobin's Q, and market adjusted stock price returns. The nonprofit literature often employs donor contributions, revenues, government grants, organizational efficiency, effectiveness, and service effort and accomplishment (SEA) reporting. Crutchfield and Grant (2008) conclude that: "...the nonprofit sector has no accepted universal measure of success. Rather, outcomes vary according to the organization's mission, model, and issue area."

I define nonprofit success in terms of two financial performance measures and four nonfinancial aspects of achievement specific to the higher education industry. To proxy for financial performance, I employ total contributions and total revenues. Related to university quality, I utilize enrollment growth, school ranking, student retention rates, and SAT scores.

Theoretically, I would expect to find that board member characteristics in place at nonprofit colleges and universities to contemporaneously impact firm performance (Callen et al. 2003). As a result, both financial (total contributions, total revenues) and nonfinancial measures of success (university ranking, enrollment growth, student retention rate, and SAT scores) are drawn from fiscal year 2008 data which is contemporaneous to my 2008 survey data.

#### ***3.4.3.1 Financial measures of performance***

##### *Total contributions*

Contributions made to nonprofit organizations are reported on four separate line items of IRS Form 990: donor advised funds (2% of mean sample total contributions), direct public support (75% of mean sample total contributions), indirect public support (2% of mean sample total contributions), and government grants (21% of mean sample total contributions). Donor advised funds are a charitable fund maintained by a third party, which collects charitable contributions then distributes them as directed by donors (GuideStar.org). Direct public support has been defined by the IRS as: “amounts of contributions, gifts, grants, and bequests that the organization received directly from the public”, while indirect public support is defined as: “total contributions received indirectly from the public through solicitation campaigns conducted by federated fundraising agencies and similar fundraising organizations (such as a United Way organization...)”. Given that I aim to understand the impact board characteristics have on overall donor contributions, I conduct my analysis using total contributions.

##### *Total revenues*

Total revenues are measured as the sum of contributions (as defined above, representing 23% of mean sample total revenues), program service revenues 62% of mean sample total revenues), as well as all other income sources including interest income, special event income, sales income and other income as reported on IRS Form 990 (15% of mean sample total revenues). Reported on line 12, total revenues, has been selected for study based on the sweeping impact I believe board characteristics play on both public supporters as well as program participants, government grant awarding agencies, special event supporters, and others. Research by Burnett et al. (2007) also explore the impact of total nonprofit revenues in an attempt to understand the relationship between electronic disclosures and nonprofit success.

#### ***3.4.3.2 Nonfinancial measures of performance***

##### *Enrollment growth*

The US Department of Education maintains both the National Center for Educational Statistics and the Institute for Educational Science<sup>40</sup>. Together a repository called the Integrated Postsecondary Education System (IPEDS) was created as the primary source for data on colleges, universities, and technical and vocational postsecondary institutions in the US. IPEDS maintains enrollment data for over 6,700 institutions of higher education, including 412 of the 554 colleges and universities in my sample<sup>41</sup>. Estimated Fall 2008 data is available as of the date of this writing, which will be compared to Fall

---

<sup>40</sup> The Institute for Education Science has a mission to: “provide rigorous and relevant evidence on which to ground education practice and policy and share this information broadly. By identifying what works, what doesn't, and why, we aim to improve educational outcomes for all students, particularly those at risk of failure. We are the research arm of the U.S. Department of Education, and by law our activities must be free of partisan political influence.” (<http://ies.ed.gov/aboutus>)

<sup>41</sup> Although IPEDS collects data for over 6,700 institutions of higher education, financial information (from IRS Form 990) is only available through the NCCS database. Given the essential need for financial performance data in my analysis, I survey the 919 organizations classified as institutions of higher education included in the NCCS database.

2007 enrollment statistics to develop an enrollment growth figure for each organization. Specifically, I create a percentage growth variable which represents the percentage growth in student enrollment between Fall 2007 and 2008.

#### *University ranking*

Rankings for the universities and colleges in my sample were collected from the US News and World Report listing for 2008. These university rankings are calculated as a compilation of 15 factors, grouped into six categories: student selectivity, faculty resources, graduation and retention rates, financial resources, alumni giving, and graduation rate performance. Refer to [Appendix H](#) for a detailed listing of the factors and weights used to determine these rankings. Although the US News and World Report rankings have been acknowledged as the “best known, longest running, and most controversial” (Buss et al. 2004), Dichev (1999) finds a “puzzling lack of correlation” between US News and World Report rankings and those published by Business Week. She concludes that these rankings are at best noisy measures of university quality and should be interpreted with caution. I assign US News and World Report Rankings based on the five tiers reported for 2008 where 1 = top tier schools, and 5 = lowest tier schools.

#### *Student retention rate*

Student retention rate (or Graduation Rate) is collected from the IPEDS database discussed above, for the most recent year available, 2008. Specifically IPEDS has defined this variable as: “the total number of completers within 150% of normal time divided by the revised cohort minus any allowable exclusions<sup>42</sup>”. IPEDS defines normal time as 4 years; therefore 150% of normal time is 6 years.

---

<sup>42</sup> Schools are permitted to remove from the denominator of this ratio, according to the Student Right-to-Know legislation, students who: died or were totally and permanently disabled; those who left school to

### *SAT scores*

Student SAT scores are collected from the IPEDS database for the Fall 2008 semester. Following Banker et al. (2009), I calculate average SAT scores using the 25th and 75th percentile scores for verbal and math sections of the SAT exam. Average SAT scores are calculated in this way given the data limitations of the IPEDS database which only reports the 25th and 75th percentile scores (and not mean SAT scores) for participating colleges and universities.

#### ***3.4.4 Measurement of test variables***

Test variables include ten survey items, grouped into three categories: diversity, expertise, and contribution (Refer to [Appendix I](#) for a summary of the variables used to proxy for these three dimensions of board composition). Refer to [Table 6](#) for descriptive statistics by survey question; highlights from these responses are referenced below.

##### ***3.4.4.1 Diversity***

Diversity has become an important aspect of board composition, particularly in the nonprofit sector, given the attention it has gained in the media (BoardSource 1999, Gardyn 2003, Allan 2007) and the importance of reaching nonprofit constituent groups. For the purposes of my study, minority board members are defined as African American, Hispanic, or Native American following the definition adopted by the US Department of Education. Boards in the respondent pool are made up of approximately 14% minority members. These responses closely follow the findings of the Urban Institute (Ostrower

---

serve in the armed forces; those who left to serve with a foreign aid service of the federal government, such as the Peace Corps; and those who left to serve on official church mission. ([www.ipeds.gov](http://www.ipeds.gov))

2007) which reports average boards are comprised of 11% (African American, Hispanic, or Native American) minority members<sup>43</sup>.

Participating universities reported approximately 29% female members. In comparison, industry diverse studies report 48% (Ostrower 2007) and 43% (2007 BoardSource Nonprofit Governance Index) female directors. Further, the Department of Education tallies a nation-wide student population containing 57% female students, and 42% female faculty members ([www.ipeds.gov](http://www.ipeds.gov)). As a result, it appears females are underrepresented in my sample of university directors.

#### ***3.4.4.2 Expertise***

With respect to board member expertise, I survey the organizations in my sample to determine the number of board members who are: working in the organization's industry, considered financial experts, and serving on other nonprofit and for-profit boards; where each variable is measured in terms of the percentage of total board members.

Respondent organizations report that 16% of their board members are currently or were previously employed in the higher education industry. Anecdotally, based on conversations with Temple University's CFO, I anticipate that insiders such as the university President and/or CFO commonly sit on the board<sup>44</sup>. Other potential industry experts are retirees of the university, for example, past university Presidents, Provosts, or Deans.

Related to financial expertise, Forgione et al. (2006) survey nonprofit chief financial officers to gain insights about the existence and composition of nonprofit audit

---

<sup>43</sup> The Urban Institute's study finds that 7% of respondent boards were African-American or black, 3% were Hispanic/Latino, 1% American Indian/Native Alaskan, 2% Asian, and 1% two or more races.

<sup>44</sup> I also find that an average of 1.33 board members are employees of the University consistent with this conjecture.

committees. They find that 88% of nonprofit organizations in their sample have at least one financial expert on the audit committee, and report that agencies that receive government grants and have an internal audit function are more likely to have a financial expert on the audit committee. Average boards in my sample report having 7.5 financial experts<sup>45</sup> on their board, representing 27% of mean board size. Almost all boards (98.8% or 494 out of 500 respondents) report having at least one financial expert on the board, signaling a fair amount of sophistication related to financial expertise in my sample of nonprofit organizations.

With respect to serving on other boards, average boards in my sample report that 64% of their board members serve on other nonprofit boards, while only 33% of board members also serve on for-profit boards.

#### ***3.4.4.3 Contribution***

Board contribution relates to both monetary and time related contributions from board members. I focus my attention on: major donors, attendance patterns at regularly scheduled board meetings, the number of regularly scheduled board meetings, and board size.

I study major donors following literature which indicates that major donors have an increased monitoring effect on nonprofit boards, similar to large investors on for-profit boards (Fama and Jensen 1983). I defined major donors as those included among the top 25 largest contributors to the organization, in an effort to study those individuals that have the most influence over the nonprofit institution. Respondents indicated an average of 8.06 major donors on their boards, equal to 28% of the average board in my sample.

---

<sup>45</sup> Based on response to the following survey question: How many board members are considered to be financial experts (understanding of generally accepted accounting principles and financial statements)?

This compares to nonprofit organizations studied by Callen et al. (2003) with a mean of 7.2 major donors<sup>46</sup>, or 26% of the average board of directors in their sample.

Director attendance patterns were measured using four separate categorical responses representing the percentage of board meetings attended by directors (100-76%, 75- 51%, 50- 26%, and 25-0%). It is believed that increased attendance at regularly scheduled board meetings increases board monitoring (Ostrower 2007). Seventy-eight percent of respondents indicated that their board members attend between 76-100% of regularly scheduled board meetings<sup>47</sup>. Twenty percent report attendance rates between 51-75%, 1.5% indicated attendance between 26-50%, and the final .5% logged attendance in the lowest range. These results compare to respondents in the Urban Institute's study (Ostrower 2007), where average attendance patterns for uncompensated and compensated directors tallied at 77 and 81%, respectively<sup>48</sup>.

Respondent organizations were also asked to indicate the number of regularly scheduled board meetings held in a typical fiscal year as an additional measure of board contribution. Sample organizations average 3.9 meetings per fiscal year, with a median of 3.0 meetings per fiscal year. This compares to Callen et al. (2003), who report an average of three to five board meetings per year (their study used ranges rather than integers).

Average board size for survey respondents was 28.16 members, with a median size of 29 members. This respondent board size appears large with respect to three nonprofit benchmarks. First, in their 2004 white paper, the Senate Finance Committee proposed

---

<sup>46</sup> Callen et al. (2003) allowed survey respondents to define what constituted a "major donor" at their organization.

<sup>47</sup> This is in response to the following survey question: What are the attendance patterns of your board of directors at regularly scheduled board meetings? 76 - 100% attendance, 51 - 75% attendance, 26 - 50% attendance, 0 - 25% attendance.

<sup>48</sup> 99.9% (or 552 out of 554) survey respondents reported uncompensated directors. As a result of the lack of variation in this variable, it was not included in my analysis.

limiting board size to no less than three and no more than fifteen members. Second, the National Center for Nonprofit Boards (BoardSource) reports an average board size of 16 (with a median of 15) in their 2007 Nonprofit Governance Index. Finally, boards reported on by the Urban Institute (Center on Nonprofits and Philanthropy) in their 2007 study of over 5,000 nonprofit organizations in varied industries, calculated a mean of 11 (median of 13) board members. However, average board size appears in-line with at least two empirical studies in the nonprofit sector. Olson (2000) reports a mean board size of 28.92 and Callen et al. (2003) document a mean (median) board size of 28.1 (25). In sum, while the university boards in my sample appear to be larger than boards in a comparative pool of industry diverse nonprofit organizations, they are similar to average board sizes in a pool of Independent Colleges (Olson 2000) and New York City nonprofits (Callen et al. 2003).

#### ***3.4.5 Empirical Models***

Given the diverse size of the organizations in the respondent pool (refer to [Table 5](#) for sample statistics) I employ natural logarithmic transformations of all financial variables (dependent and control variables), as noted in the models presented below. Log specification and ratio analysis (for student enrollment growth) aid in the cross-sectional comparability of my sample and lessen the potential problems of heteroskedasticity relative to the linear form. I have also winsorized (top and bottom 1%) all variables to reduce the impact of extreme observations.

In addition to variables included to control for known factors related to the response variables tested, I also include several variables to control for variations in school setting and type. The first is an indicator for public/private colleges and universities. Given that

state colleges receive significant funding from state appropriations, I anticipate that contributions and other performance measures will vary drastically between state funded institutions and those that are privately supported and operated. Documented differences between state and private colleges include: a) size, public schools tend to be larger b) larger graduate enrollment at state schools c) larger portion of faculty doing research at state schools and d) more scholarship money at private schools to help offset higher tuition ([www.careersandcolleges.com](http://www.careersandcolleges.com)). Given these differences, I expect to find that state schools are more reliant on state and federal (grant) funding, while private schools depend more heavily on tuition and donation income. I also expect that these schools vary in the import placed on the nonfinancial measures under review (student enrollment growth, school ranking, student retention rate, and SAT scores).

I also control for elite/ivy league school classifications, schools with large sports programs, as well as those affiliated with hospital/health systems and religious orders. Related to my survey instrument, I also control for the type of survey completed by the organization (electronic or paper). Finally, following Gow et al. (2010), I cluster the standard errors in my model by state (rather than including fixed effects), to alleviate differences in wide-ranging economic conditions or shocks specific to individual states or regions.

#### ***3.4.5.1 Ordinary Least Squares Regression Analysis***

##### *Total contributions model*

Prior nonprofit literature has studied the determinants of contributions and found several variables to be significant predictors (Weisbrod and Dominguez 1986, Posnett and Sandler 1989, Chang and Tuckman 1991, Greenlee and Brown 1999, Baber et al.

2001, Parsons 2003, Tinkelman 2004, Tinkelman and Mankaney 2007, Parsons and Trussel 2008). Following Parsons and Trussel (2008), I organize these control variable by the four constructs found to be significantly associated with nonprofit donor contributions: efficiency, stability, information quantity, and information quality. Additionally, several papers have included the notion of donations being “crowded out” by other sources of revenue (Weisbrod and Dominguez 1986, Posnett and Sandler 1989, Callen 1994, Okten and Weisbrod 1999, Emanuele and Simmons 2004).

To control for the effect of organizational efficiency on nonprofit contributions, I include lagged PRICE following the findings of Weisbrod and Dominguez (1986) as well as subsequent studies which confirm this relationship (Posnett and Sandler 1989, Greenlee and Brown 1999, Baber et al. 2001, Parsons 2003, Tinkelman 2004, Parsons and Trussel 2008, Tinkelman and Mankaney 2007). PRICE is defined by Weisbrod and Dominguez (1986) as the donors’ cost to provide one dollar of charitable purchasing power. This measure, which assumes equal marginal tax rates among donors (Tinkelman 1998), is specifically defined as:

$$\text{PRICE} = (1 - T) / (1 - \text{FE}\% - \text{AE}\%)$$

where T = marginal tax rate, FE% = total fundraising expenses as a percentage of total expenses, and AE% = administrative expenses as a percentage of total expenses.

However, given equal marginal tax rates (Tinkelman 1998), the following simplification will be used:

$$\text{Adjusted PRICE} = 1 - \text{FE}\% - \text{AE}\%$$

This adjusted PRICE model is the inverse of the traditional PRICE model introduced by Weisbrod and Dominguez (1986), and is similar to the PROG ratio developed by

Baber et al. (2001). PROG is defined as the percentage of total expenses dedicated to program services and operationalized as a simple ratio of program service expenses to total expenses.

The ability of an organization to continue operations into the future, also referred to as the stability of the organization, is proxied for using Operating Margin (OM). Chang and Tuckman (1991) define operating margin as total revenues (IRS Form 990, line 12) less total expenses (IRS Form 990, line 17) divided by total revenues.

Information quantity represents the amount of financial information displayed to potential contributors, typically in the form of advertising or other means of making the mission of a nonprofit organization public. The fundraising expenses (FE) of an organization are typically used to proxy for the amount of information made available to contributors (Weisbrod and Dominguez 1986, Tinkelman 1999). Total fundraising expenses are obtained from IRS Form 990, line 15.

Information quality is considered paramount in the decision to contribute to a nonprofit firm. Parsons and Trussel (2008) identify two variables which are found to be related to the decision to donate: age and size. Weisbrod and Dominguez (1986) suggest that a nonprofit's reputation, proxied by age, plays a role in the volume of contributions secured by an organization. Weisbrod and Dominguez operationalize reputation as the number of years since the initial 501(c)3 filing for tax exempt status and predict that increased age represents superior effectiveness. The effect of organization size has been controlled for in a multitude of related nonprofit and for-profit studies. Nonprofit sector studies employing total assets as a proxy for organizational size include: Siliciano

(1996), Callen et al. (2003), and Aggarwal et al. (2006). As a result, my study models will include total assets (IRS Form 990, line 59) to proxy for organizational size.

Several papers have included the notion of donors refraining from making donations to organizations who receive high levels of government grants, program service revenues, and other revenues, which “crowd out” donations (Weisbrod and Dominguez 1986, Posnett and Sandler 1989, Callen 1994, Okten and Weisbrod 1999, Emanuele and Simmons 2004). Given that government grants are included in the calculation of contributions, I control only for the effects of program service and other revenues in my model.

Finally, Harris and Krishnan (2011) as well as Kitching (2009) find that auditor reputation pays a role in the magnitude of contributions received by nonprofit organizations. However, given that digitized auditor information is not available for my sample of colleges and universities, I am unable to include this control variable in my model.

As a result, I propose the following OLS model to test performance defined as nonprofit contributions:

$$\begin{aligned} \log Contributions_t = & \beta_0 + \beta_{1-2} Diversity_t + \beta_{3-6} Expertise_t + \beta_{7-10} Contribution_t \\ & + \beta_{11} \log Adjusted\ PRICE_{t-1} + \beta_{12} \log OM_{t-1} + \beta_{13} \log FE_{t-1} + \beta_{14} \log Age_t \\ & + \beta_{15} \log Total\ Assets_{t-1} + \beta_{16} \log Program\ Service\ Revenues_{t-1} \\ & + \beta_{17} \log Other\ Revenues_{t-1} + \beta_{18} Public/private_t + \beta_{19} Ivy\ league_t + \beta_{20} Big\ sports \\ & program_t + \beta_{21} Health\ system_t + \beta_{22} Religious_t + \beta_{23} Survey\ type + \varepsilon \end{aligned}$$

where total contributions are discussed in section [2.4.3.1](#), diversity, expertise, and contribution represent the set of test variables in each hypothesis group as defined in

sections [2.4.4.1](#) through [2.4.4.3](#), respectively, control variables are outlined above, and standard errors have been clustered by state.

*Total revenues model*

While the variables discussed above are well studied in the nonprofit literature, the majority are not appropriate for an analysis of total revenues. For example, my proxy for stability includes total revenues in the calculation of operating margin. Further, government grants, program revenue, and other revenue are all included in the summation of total revenues and would therefore be redundant in this model. Control variables that do appear to be appropriate for predicting total revenues are the age and size of the organization, as well as organizational efficiency. As such, I propose the following model to test for the relationship between the ten board characteristics under review and total revenues:

$$\begin{aligned} \log Total\ Revenues_t = & \beta_0 + \beta_{1-2} Diversity_t + \beta_{3-6} Expertise_t + \beta_{7-10} Contribution_t \\ & + \beta_{11} \log Adjusted\ PRICE_{t-1} + \beta_{12} \log Age_t + \beta_{13} \log Total\ Assets_{t-1} + \beta_{14} Public/private_t \\ & + \beta_{15} Ivy\ league_t + \beta_{16} Big\ sports\ program_t + \beta_{17} Health\ system_t + \beta_{18} Religious_t \\ & + \beta_{19} Survey\ type + \varepsilon \end{aligned}$$

where total revenues is discussed in section [2.4.3.1](#), diversity, expertise, and contribution represent the set of test variables in each hypothesis group as defined in sections [2.4.4.1](#) through [2.4.4.3](#), respectively, control variables are outlined above, and standard errors have been clustered by state.

*Nonfinancial measures of performance*

To test the associations between board characteristics and nonfinancial measures of university performance (enrollment growth, university ranking, student retention rate, and

SAT scores), factors known to relate to university quality are controlled for following prior literature in the area. Specifically, reputation (Chapman 1981, Seneca and Taussig 1987, Curs and Singell 2002), and tuition (Seneca and Taussig 1987, Parker and Summers 1993) have been consistently found to correlate with quality measures at institutions of higher education. Data restrictions prohibit me from including a third control factor also discussed in the university literature: financial aid offering (Moore et al. 1991, van der Klaauw 2002). That is, both Moore et al. (1991) and van der Klaauw (2002) use detailed financial aid information to study the effect of financial aid offerings on student enrollment, private data which are unavailable for my sample.

Reputation is proxied using the age of the institution, following the intuition provided by Weisbrod and Dominguez (1986) and discussed above. Tuition is operationalized by the program service revenues of the organization, given that the colleges and universities in my sample derive their primary mission-related income from providing educational services for tuition fees. Therefore, the following model is used to examine associations between board attributes and nonfinancial performance:

$$\begin{aligned}
 \text{Nonfinancial measure}_t = & \beta_0 + \beta_{1-2} \text{Diversity}_t + \beta_{3-6} \text{Expertise}_t + \beta_{7-10} \text{Contribution}_t \\
 & + \beta_{11} \log \text{Age}_t + \beta_{12} \log \text{Program Service Revenues}_{t-1} + \beta_{13} \text{Public/private}_t \\
 & + \beta_{14} \text{Ivy league}_t + \beta_{15} \text{Big sports program}_t + \beta_{16} \text{Health system}_t + \beta_{17} \text{Religious}_t \\
 & + \beta_{18} \text{Survey type} + \varepsilon
 \end{aligned}$$

where the four nonfinancial measures under review are: student enrollment growth, school ranking, student retention rate, and SAT scores, as discussed in section [2.4.3.2](#).

Diversity, expertise, and contribution represent the set of test variables in each hypothesis

group as defined in sections [2.4.4.1](#) through [2.4.4.3](#), respectively, control variables are outlined above, and standard errors have been clustered by state.

#### ***3.4.5.2 Instrumental Variable Analysis***

The endogeneity of board characteristics is an important issue to consider in my analysis. I argue that better performance of nonprofit organizations is the result of specific board characteristics. It is possible, however, that directors with specific characteristics are drawn to better performing firms. In this case, the better performance of the firm is the cause, and not the result, of particular board characteristics. To address this issue, I also estimate instrumental variable (IV) regressions. Specifically, I use the location of the university as an instrument for higher ability and better governed boards. I believe that those universities situated in more urban locations have larger, more diverse, and potentially expert pools of available directors, while rural areas are inherently more limited in their ability to attract high quality board members. Further, I do not believe that reverse causality exists between performance and location, making the location of the university an acceptable instrumental variable for my analysis.

To facilitate my IV analysis, I construct an index variable (INDEX) to reduce my ten board member test variables into one composite measure. This is necessary because at least one instrumental variable is required for each test variable included in an IV model (Wooldridge 2009 pg 524). Therefore, lacking specific instrumental variables for each of the ten board member characteristics in my model; I employ an index of all variables to reduce my model from ten test variables to one test variable allowing the use of a single instrumental variable.

To calculate INDEX, I rank my ten board member characteristics into deciles following Anderson et al. (2009). Organizations with board characteristics posited to increase organizational performance take on values closer to ten. Nonprofits with fewer influential board characteristics assume values closer to 1. The ten rankings are then summed and scaled by a factor of 100 (total possible points) creating an index from 0.1 to 1.0. Higher values indicate colleges and universities that have board members with more characteristics believed to increase performance. Lower values indicate fewer board member characteristics considered to increase performance. This index provides a good proxy for the impact of board characteristics on firm performance because it averages across ten board characteristics and includes inputs related to diversity, expertise, and contribution.

For my IV analysis, I construct variations of the following model for each of the six dependent variables in my study:

$$\begin{aligned}
 \text{Performance measure}_t = & \beta_0 + \beta_1 \text{INDEX [instrumented]}_t + \beta_2 \log \text{Adjusted PRICE}_{t-1} \\
 & + \beta_3 \log \text{OM}_{t-1} + \beta_4 \log \text{FE}_{t-1} + \beta_5 \log \text{Age}_t + \beta_6 \log \text{Total Assets}_{t-1} \\
 & + \beta_7 \log \text{Program Service Revenues}_{t-1} + \beta_8 \log \text{Other Revenues}_{t-1} + \beta_9 \text{Public/private}_t \\
 & + \beta_{10} \text{Ivy league}_t + \beta_{11} \text{Big sports program}_t + \beta_{12} \text{Health system}_t + \beta_{13} \text{Religious}_t \\
 & + \beta_{14} \text{Survey type} + \varepsilon
 \end{aligned}$$

where the six performance measures under review are: total contributions, total revenues, student enrollment growth, school ranking, student retention rate, and SAT scores, as discussed in section [2.4.3](#). INDEX is the ten variable index measure of all board

characteristics defined above, and control variables<sup>49</sup> are those outlined in the previous section.

I employ a two stage least squares regression (2 SLS) analysis to test my instrumented INDEX variable. My first stage model includes all the control variables included in my main model (above) with the addition of my IV variable, URBAN. URBAN is a dummy variable equal to 1 for educational organizations in the sample classified as a city, suburb, or town<sup>50</sup>.

### ***3.5 Results***

Results for univariate and multivariate regressions are tabulated in [Tables 7](#) and [8](#), respectively. Each table includes six columns for the two financial and four nonfinancial performance response variables defined in the previous section. Table rows present my ten board test variables. [Table 9](#) offers results for my instrumental variable analysis, and [Table 10](#) summarizes the findings of all three analyses. As a means of organizing the discussion of the results presented in these tables, the next section reviews results for each test variable, grouped by hypothesis: board diversity, board expertise, and board contribution.

Given that multivariate models require that survey participants responded to all nine<sup>51</sup> test variables, the number of sample organizations included in any one model is at most

---

<sup>49</sup> Control variables: logOM, logFE, and logOther Revenues only apply to the dependent variable Contributions. Control variables: logTotal Assets, and logPRICE apply to Contributions and Total Revenues models. Control variable: logProgram Service Revenues applies to Contributions and Nonfinancial measure models.

<sup>50</sup> IPEDS defines each one of these categories with three sub-categories, therefore my URBAN variable is equal to 1 for any of the 9 sub-categories (11,12,13,21,22,23,31,32,33) defined as urban by IPEDS. In sensitivity analysis I restrict my URBAN variable to organizations defined as cities and suburbs and my results are unchanged.

<sup>51</sup> On account of the few number of responses received related to the number of board members serving on other for-profit boards (84 total responses) this test variable has been dropped from my multivariate

144 (or 26% of total respondents). For this reason, I rely on univariate analysis which maximizes sample size, in addition to multivariate analysis which controls for known covariates.

According to Bartlett et al. (2001) an appropriate sample size for multivariate regression models is approximately ten observations for each independent model variable. This recommendation is drawn from early work by Miller and Kunce (1973) and Halinski and Feldt (1970) who warn of model over fitting with fewer than five observations per model variable. Bartlett et al. (2001) recommend a more conservative ratio of ten to one in order to assure more generalizability in test results. Given this parameter, my sample size would ideally be 230 observations for my financial response variables and 180 for my nonfinancial response variables. I am able to include at most 138 observations in my financial performance models and 144 in nonfinancial models. As a result of this considerable reduction in model power, as well as the impact of control variables, I document fewer significant relationships in the multivariate setting than in univariate analysis.

However, all six multivariate models are significant (at the 1% level) with adjusted R-squared statistics ranging from 0.119 to 0.851; while, many, but not all univariate models are significant. Further it should be noted that due to the large number of both dependent and test variables, as well as both univariate and multivariate analyses; I only discuss significant results below.

### ***3.5.1 Diversity***

---

analysis. I conjecture that responding to this survey question may have been difficult for the survey respondent, which may explain why it was left blank.

Two variables proxy for board member diversity in my sample of universities and colleges: female and minority board members. Beginning with the percentage of female directors to total directors on the board, I document two significant relationships in multivariate analysis. Female directors are positively associated with student retention and university enrollment growth. These relationships are consistent with my diversity hypothesis and for-profit studies which document positive relationships between female directors and firm performance (Carter et al. 2003, Farrell and Hersch 2005). They also exemplify the nonprofit sector findings of Siliciano (1996) who found that female directors are less focused on financial outcomes (consistent with the lack of results for my total contribution and revenue response variables), and more focused on the mission of the nonprofit organization. Given that student retention and enrollment growth are more closely tied to the mission of most colleges and universities, I believe these results support earlier findings and expand our understanding of female directors in the nonprofit sector.

Minority board members are related to four of the six performance response variables in my analysis. In both univariate and multivariate analysis, the percentage of minority board members is positively associated with total contributions. That is, boards with a larger proportion of minority board members are associated with organizations accumulating more direct donations, indirect donations, and government grants (the three components of total contribution). This is in step with literature which documents that firms announcing cultural diversity at their organizations are consistently found to be associated with excess returns (Wright et al. 1995, Richard 2000, Keys et al. 2002, Fields and Keys 2003, and Carter et al. 2003). Additionally, univariate results show that board

diversity improves university rank. However, univariate results indicate negative relationships between board diversity and student retention and SAT scores. While these univariate results do not hold in the multivariate setting, there may be some explanation for them. Prior literature (Fields and Keys 2003, Ostrower 2007) finds that board diversity is related to constituent diversity, in this case student diversity<sup>52</sup>. Further, minority students, as a group, have lower SAT scores<sup>53</sup> and are less likely to complete their degree (Carey 2008). Therefore, increased board diversity which is related to student diversity may decrease student SAT scores and retention rates.

### ***3.5.2 Expertise***

Four board characteristics proxy for director expertise: financial expertise, serving on other for-profit or nonprofit boards, and working in the higher education industry. Looking first at financial expertise, results indicate four significant univariate relationships. Specifically, I find positive relationships between financial expertise and total contributions, retention rate, and SAT scores, in addition to an inverse relationship with university rank. These associations are consistent with hypothesis two and several for-profit studies (Agrawal and Chadha 2005, Defond et al. 2005, Guner et al. 2008) that report positive associations between board member financial expertise and better performing organizations. In particular, based on the findings of Guner et al. (2008) who study how director financial expertise impacts corporate decisions, I conjecture that nonprofit directors who are considered financial experts are able to exert significant influence over decision making related to attracting and retaining students with high SAT

---

<sup>52</sup> I confirm a significant correlation between the percentage of minority board members and the percentage of minority students at the colleges and universities in my sample.

<sup>53</sup> <http://fairtest.org/2010-collegebound-seniors-average-sat-scores>

scores, as well as important decisions ultimately leading to higher institutional ranking. This is especially true for university rank, where three of the seven factors leading to university rank are related to the resources of the institution<sup>54</sup>. Further, total contribution results also support nonprofit evidence documented by Forgione et al. (2006) which finds that nonprofit organizations receive more government grants<sup>55</sup> when they are found to have a financial expert on their audit committee.

Related to directors sitting on other for-profit boards, results indicate a positive relationship between for-profit board participation and both total contributions and revenue. That is, directors who also sit on a for-profit board are associated with colleges and universities that have higher levels of contributions and revenues. This finding is consistent with hypothesis two and prior literature which suggests that for-profit directors cross-pollinate best practices to their nonprofit posts (Ostrower 2007). I also speculate that the reason for my lack of results related to nonfinancial performance measures is related to the fact that for-profit directors are less knowledgeable in university specific performance outcomes (rank, retention, SAT scores, and enrollment growth) than pure financial outcomes such as total contributions and revenues where my results are significant.

Findings related to directors who sit on additional nonprofit boards are significant in both univariate and multivariate settings; however, the direction of the relationship is unclear. I find positive univariate relationships between outside charity directors and total contributions, total revenues, and SAT scores. SAT score findings are supported by multivariate analysis. However, multivariate results for total contributions indicate an

---

<sup>54</sup> See appendix H for details of the U.S. News and World Report University Ranking Methodology.

<sup>55</sup> Total contributions are made up of: direct donations, indirect donations, and government grants.

inverse relationship between directors who participate on other nonprofit boards and total contributions. Rank results also indicate an inverse relationship, however this is anticipated, given that lower rankings are an indication of better performance. Positive relationships follow hypothesis two and studies which find that additional volunteer assignments increase nonprofit success (Ostrower 2007). However, the inverse relationship between board members who serve on other nonprofit boards and total contributions comes in contrast to univariate findings as well as posited relationships. This finding is consistent, however, with for-profit governance literature which finds that busy directors are associated with a decrease in firm performance (Fich and Shivdasani 2006 and Jiraporn et al. 2008). Perhaps given that nonprofit board members are often encouraged or even required to make donations to the organizations with which they are involved, additional board memberships potentially decrease the amount of personal contributions a director is able to make to each organization he/she is engaged with.

Finally, directors working in the higher education industry are found to be associated with higher total contributions (univariate results) as well as increased student retention rates (both univariate and multivariate results). These finds are in agreement with my second hypothesis and experts in the area who suggest that directors working in the industry have better institutional knowledge (Lublin and Stoll 2009). I also conjecture that directors who are familiar with fundraising in the university setting are best able to increase contributions to these nonprofits, given unique alumni giving patterns, different from other nonprofit industries. University directors working in the higher education industry may also be considered experts in the retention of students, as this measure of

success is focused on cultivating existing students where my other nonfinancial performance measures primarily relate to new students<sup>56</sup>.

### ***3.5.3 Contribution***

Four test variables proxy for director contribution: meeting attendance, board size, major donors, and the number of meetings held by the nonprofit organization. Meeting attendance is found to be positively related to both student retention and SAT scores in univariate analysis. These relationships are consistent with my third hypothesis and Plambeck (1985) who finds a positive relation between meeting attendance and firm performance. However, contrary to posited relationships and literature in the area, I find a negative relationship between director meeting attendance and enrollment growth. I propose that this relationship is due in part to the reactive nature of nonprofit boards, as discussed in prior literature (Jensen 1993), as well as to the way study variables are defined. Given that my enrollment growth variable measures 2007 to 2008 student enrollment growth, directors reacting to 2007/2008 enrollment decreases would likely increase their 2008 meeting attendance.

Turning to board size, I find consistent positive univariate associations between board size and total contribution, total revenue, retention rate, and SAT scores as well as a significant positive relationship between board size and student retention rate in the multivariate setting. These findings are in line with prior nonprofit literature (Olson 2000, Aggarwal et al. 2006), citing that bigger boards appear to be better in the nonprofit sector where charity organizations not only rely on volunteers to help manage their organizations, but to provide contributions as well. I speculate that board size has a

---

<sup>56</sup> SAT scores are for entering freshman, enrollment growth measures the increase in new students, and university rank is primarily used by students comparing schools during the application process.

positive effect on financial performance measures following Olson (2000) who offers a resource dependency theory consistent with additional nonprofit directors providing new external sources of income. Related to nonfinancial measures found to be associated with board size, I conjecture that SAT scores and retention rates are effected by board size based on findings of Aggarwal et al. (2006) who document that nonprofit organizations that pursue more objectives (such as increasing SAT scores and student retention rates) have larger boards.

In terms of major donors, results indicate consistent positive relationships between major donors and both financial and nonfinancial measures of nonprofit performance. Specifically, I find univariate results to support positive relationships between major donors and total contributions, revenues, retention rate, and SAT scores. Multivariate results show positive associations between major donors and retention rate, SAT scores, and enrollment growth. All findings are in agreement with posited relationships and prior literature in the area which documents a positive relationship between major donors and firm performance (Callen et al. 2003). I suspect that financial measures are increased as a result of major donors participating as directors following early work by Fama and Jensen (1983) that parallels major donors to large shareholders who provide increased monitoring. Further, nonfinancial measures may be impacted by similar monitoring mechanisms, in addition to scholarships and other funding made available to students via major donors which may explain increased student retention<sup>57</sup> and enrollment growth.

The number of board meetings held by the nonprofit organizations in my sample is found to be related to five of the six response variables under review, however, the

---

<sup>57</sup> According to the National Center for Educational Statistics ([www.nces.ed.gov](http://www.nces.ed.gov)) one of the largest factors affecting student retention at US colleges and universities is tuition funding.

relationship is inconsistent. I find a positive univariate relationship between meetings and total contributions, as well as a positive multivariate association between the number of meetings held by a nonprofit university board and the total revenues of the organization. These relationships are consistent with hypothesis three and Ostrower (2007) who finds a positive relation between the number of board meetings and firm performance. However, univariate findings for total revenues are negative. I also find inverse multivariate associations between board meetings and student retention and SAT scores. While these relationships are in opposition to my contribution hypothesis, Vafeas (1999) does find an inverse relationship between the frequency of board meetings and financial performance. I speculate that perhaps better functioning schools (with higher student retention rates and SAT scores) need to meet less frequently, consistent with literature (Jensen 1993) that suggests that nonprofit boards are often characterized as being reactive rather than proactive. Finally, the relationship between university rank and board meetings is also significantly negative in univariate analysis, however; once again given that lower rankings actually indicate better performance, this result is in agreement with my hypothesis and prior literature.

#### ***3.5.4 Control variables***

Related to model control variables in my multivariate models, I find consistent positive associations between total assets and my two financial performance measures, total contributions and total revenues. I also find expected associations between total contributions and operating margin, as well as other revenues. As predicted total revenue is also positively related to organizational efficiency (adjusted PRICE), however, organizational age appears to have an inverse relationship with total organizational

revenue, contrary to prior literature. Significant covariates in my nonfinancial models include positive associations between program service revenues and both retention rate and SAT scores, as well as a positive relationship between schools with conference sports programs and student enrollment growth. Finally, I document inverse relationships between university rank and respondents to my electronic survey as well as a negative association between schools with a religious affiliation and SAT scores. Three variables related to the institutional characteristics of my sample organizations were omitted from all six of my models due to lack of variation or collinearity. These variables include the control for public/private schools<sup>58</sup>, Ivy League schools<sup>59</sup>, and organizations with affiliations to a hospital system<sup>60</sup>.

### ***3.5.5 Instrumental Variable Analysis***

Results of my instrumental variable analysis (2 SLS) are presented in [Table 9](#). This model differs from the multiple regression models presented in [Table 8](#) in terms of the definition of my test variable(s). Multiple regression models presented in [Table 8](#) include individual test variables for each of the board characteristics under review, while my instrumental variable analysis ([Table 9](#)) utilizes an index of these variables (INDEX<sup>61</sup>). INDEX is then instrumented using my instrumental variable Urban, discussed in detail in section 2.4.5.2. Although all six performance models are statistically significant as a whole (chi-squared values of .0000), my test variable, INDEX, is statistically insignificant in all models. This indicates that when instrumented by university location,

---

<sup>58</sup> The control variable for public/private schools was available for 416 organizations in my sample from the IPEDS database. Of these institutions, 410 were classified as private schools, with the remaining 6 identified as public.

<sup>59</sup> Only one of the eight Ivy League schools responded to my study survey and is therefore the only organization coded as 1, in the sample.

<sup>60</sup> Three organizations in the sample were identified by IPEDS as having an affiliated hospital system.

<sup>61</sup> See section 2.4.5.2 for a discussion of INDEX.

and in indexed form, my ten board characteristics do not have any significant effect on university performance, when performance is defined as total contributions, total revenues, rank, retention, SAT scores, and student enrollment growth. I conjecture that the lack of significance is related to the relative lack of power in my models due to small sample size discussed above.

### ***3.6 Chapter conclusions***

This chapter finds some evidence to support the impact of board characteristics on university performance. In particular, I find that board size appears to have a relatively consistent, positive effect on nonprofit university success. I also document that nonprofit boards with major donors on their boards appear to be among better performing institutions. Additionally, I find some evidence that directors who serve on other nonprofit boards as well as the number of meetings held by the board impact organizational performance, however, the direction of these relationships are inconsistent across performance measures.

That is, organizations with larger boards are associated with colleges and universities that have higher total contributions, total revenues, student retention rates, and SAT scores. Organizations with more major donors on the board are associated with schools having higher total contributions, total revenues, student retention rates, SAT scores, and enrollment growth. Boards with more directors who sit on other nonprofit boards are associated with institutions that have lower contributions, higher total revenues, better rank, and higher SAT scores. And boards who meet more often are affiliated with organizations that have higher total contributions, revenue, and rank, and lower student retention and SAT scores.

In terms of my financial and nonfinancial performance indicators, it appears that when nonprofit performance is defined as total contributions and total revenues, the board characteristics in my study have more of an ability to explain the variation in sample organizations (higher adjusted R-squared values). However, when I define university success as student retention rate I find the greatest number of significant relationships between my response and test variables.

## ***CHAPTER 4: THE IMPACT OF BOARD MONITORING ON NONPROFIT EFFICIENCY***

### ***4.1 Introduction***

Based on the notable role of the nonprofit sector in our economy, regulatory and media attention, as well as the important governance function of nonprofit boards laid out in chapter 2, this chapter intends to fill the gap in existing research which relates board policies to the organizational efficiency of nonprofit organizations. Specifically, I analyze the relationships between three groupings of nonprofit board monitoring activities and nonprofit efficiency. I test the existence and extent of board disclosure policies, board organization (use of committees), and board independence and their effect on organizational efficiency.

My analysis will proceed as follows. Section two will discuss the literature in the area; section three will develop hypotheses, and section four sets forth research variables and empirical models. These sections are followed by results presented in section five, as well as chapter conclusions in section six.

### ***4.2 Literature Review***

The role of the board of directors in mitigating the separation between ownership and management is well documented in the economics, management, and accounting literature. Fama and Jensen (1983) define this role for the nonprofit sector in the context of agency costs related to the separation of decision and risk-bearing functions. O'Regan and Oster (2005) suggest that the role of nonprofit directors is far less clear-cut than the responsibilities of corporate directors. In a review of both U.S. and European board governance, Hopt (2009) defines the five principal duties of nonprofit directors as:

obedience, loyalty, care, proper use and administration of the assets and correct accounting and reporting. In sum, nonprofit director duties appear to be more complex than that of for-profit directors.

The following section reviews literature related to the governance role played by the board of directors at both for-profit and nonprofit organizations, with specific attention to the impact of governance on performance. Following this discussion, I examine empirical research in both the for-profit and nonprofit areas specific to the board attributes of interest: disclosure practices, board committees, and independence.

#### ***4.2.1 Nonprofit board of director literature***

Nonprofit governance is defined as financial oversight and accountability; requiring board members to not only mitigate fraud but to ensure that nonprofit organizations have sufficient financial resources to fulfill their mission both in the present and the future (Keating et al. 2005). Additionally, two acronyms from pragmatic nonprofit literature have simplified director duties to either three W's or three G's (Ingram 2003). The three W's define a director's need to bring wealth, wisdom and work to a nonprofit board. The three G's are known as a nonprofit director's responsibility to "give, get, or get off" a nonprofit board with which he or she is affiliated. In both cases, nonprofit board members are asked to play an integral role in the fundraising efforts of the agency. That is, in addition to the monitoring duties required of for-profit corporate directors, nonprofit directors have the added responsibility of either personally donating or securing outside donations. These dual director roles are supported by Oster (1995) who suggests that effective boards play both monitoring and operational roles; as well as by Olson (2000) who documents that nonprofit boards often fill both monitoring and resource acquisition roles within the nonprofit structure.

While little empirical work has been done in the field, a plethora of descriptive manuscripts and books have been written on nonprofit boards (for example: Harris 1989, Herman and Van Til 1989, Zander 1993, Abzug 1996, Brudney and Murray 1997, Brudney and Murray 1998, Herman and Renz 2000, Light 2000, Holland 2002, Miller 2002, Callen et al. 2003, Miller-Millesen 2003, Glaeser 2003, McCambridge 2004, Herman and Renz 2004, Bolton and Mehran 2006, Ostrower and Stone 2006, Carver 2006a, Carver 2006b, Powell and Steinberg 2006, Stone and Ostrower 2007, Laughlin and Andringa 2007, and Herman 2009). These studies are widely characterized as documenting *ideal* board performance and composition (Jackson and Holland 1998). Herman (1989) concludes that many of the prescriptive standards that he believes to be widely supported in the nonprofit literature are considered to be a “heroic model” of nonprofit boards.

In addition to governance, specific board characteristics have also been researched in the context of organizational performance in the nonprofit sector. While for-profit studies are more plentiful in these areas, a handful of studies have been conducted in the areas of disclosures and board independence.

Parsons (2007) uses a field-based experimental approach to determine what effect accounting information or voluntary disclosures have on a donor’s likelihood of contribution. Her results indicate that some donors find financial accounting information (such as efficiency measures) useful when making a donation decision. Results are inconclusive related to whether donors use nonfinancial service efforts and accomplishments (SEA) disclosures to determine whether and how much to give. However, in her follow-up lab experiment she did find that potential donors believe that

SEA disclosures provide important information for evaluating nonprofit organizations in the context of making a donation decision.

With respect to the effect of independent directors, Callen and Falk (1993) confirm theoretical arguments concurrently presented by Fama and Jensen (1983) and Williamson (1983) that suggest that nonprofit organizations operate more efficiently in the presence of a greater percentage of outside directors on the board.

#### ***4.2.2 For-profit governance literature***

While nonprofit governance literature is relatively limited, for-profit research on the topic is more developed. The following review will be limited to the impact board governance has on firm performance. The general study of board governance in the for-profit sector is copious; please see Shleifer and Vishny (1997), Bhagat and Black (1999), Bushman and Smith (2001), Hermalin and Weisbach (2003), and Bosner (2007) for surveys of this literature. Additionally, I review the for-profit external financing literature to draw a comparison between firms which depend on external financing and nonprofit firms dependent on outside donations.

As a means of organizing the literature in this area, studies are grouped by board governance proxy variables. Core et al. (1999), Gompers et al. (2003), Bebchuk and Cohen (2005), Brown and Caylor (2006), Larcker et al. (2007), and Aggarwal et al. (2009) incorporate an assortment of proxies for board governance. However, the majority of research in this area focuses solely on board independence (Baysinger and Butler 1985, Hermalin and Weisbach 1991, Mehran 1995, Klein 1998, Heracleous 2001, and Bhagat and Black 2002), and board ownership (Morck et al. 1988, and Bagnani et al. 1994). In addition to governance proxies, I will also incorporate literature which looks at

the relationships between the specific board characteristics under review (disclosures, board committees, and independence) and firm performance.

*Multiple proxies for board governance*

In a compilation of 24 separate board governance items (dubbed the Governance or “G-Index”), Gompers et al. (2003) find that firms with the strongest shareholder rights (lowest G Index ratings) were associated with higher firm value, higher profits, higher sales growth, lower capital expenditures, and fewer corporate acquisitions. However, Bebchuk and Cohen (2005) examine the components of the G-index and find that staggered boards (where only one class of directors go up for vote each year) have the greatest impact on firm value, arguing that this one board characteristic is driving the results found by Gompers et al. (2003). Bebchuk and Cohen (2005) also find evidence to support the hypothesis that insulating directors from removal substantially reduces firm value.

Core et al. (1999) use eight measures of board governance and find that firms with weaker governance, and therefore greater agency problems, have lower performance when firm success is measured by operating and stock return performance. Brown and Caylor (2006) create the “Gov-Score” which measures 51 firm-specific provisions representing both internal and external governance. The authors find that an index based on seven of the provisions underlying the Gov-Score (poison pill, staggered board, option re-pricing, options granted, director attendance, board guidelines in proxy, and stock ownership guidelines) fully drives the relation between Gov-Score and firm value (Tobin’s Q). Most recently, Larcker et al. (2007) find 14 dimensions of corporate governance from 39 separate board characteristics and practices using principal

component analysis. They document that their 14 indices have a moderate ability to describe future operating performance and excess stock returns.

Aggarwal et al. (2009) study the effect of institutional investors using an index of 41 governance variables in 23 countries during the period 2003-2008. They find that: “institutional investors promote good governance practices around the world”. Specifically, firms in countries with strong shareholder protection do a better job advancing good governance than institutions from weak shareholder protection countries. And firms with higher institutional ownership were found to be better able to terminate poorly performing CEOs and make improvements in valuation, suggesting that institutional ownership not only promotes good governance, but is able to affect firm value and encourage good board decisions.

#### *Board independence*

A number of studies have focused on inside and outside directors, with varied results. Baysinger and Butler (1985) report a positive relationship between independent board members and firm performance, where firm performance is measured by a relative performance index of firm Return on Equity (ROE) divided by average ROE for the firm’s primary industry. However, several subsequent studies fail to find a relationship between the proportion of outside directors and various forms of firm performance. Hermalin and Weisbach (1991) find no relation between outside directors and firm performance, measuring firm performance as earnings before interest and taxes, as well as Tobin’s Q. They offer an explanation consistent with inside directors providing benefits such as aiding in the succession process and providing inside information about day to day operations. Bhagat and Black (2002) also fail to find evidence of a relationship

between firm performance and board composition in their study of large US corporations using four separate measures of firm success: Tobin's Q, Return on Assets (ROA), ratio of sales to assets, and market adjusted stock price returns. Mehran (1995) similarly finds no relationship between firm performance (measured by Tobin's Q and ROA) and board composition, where board composition is defined as the percentage of outside directors on the board. Finally, Dalton et al. (1998) conclude that "board composition has virtually no effect on firm performance".

Klein (1998) extends the board independence literature beyond the full board, explaining the impact of independence on individual board committees. She confirms insignificant associations between firm performance and board composition as a whole, but observes significant relationships between finance and long-term investment committees and firm performance. By defining firm performance as ROA, productivity, and market returns, she finds positive relationships between firm performance and insiders on the finance and long-term investment committees of the board. In sum, while board composition appears to have played a minor role in the overall performance of corporate boards, it does seem to impact firm performance when insiders are strategically placed on specific board committees.

Related to CEO duality, Coles et al. (2001) calculate that 78.5% of the corporate boards in their sample from 1984-1994 (pre-SOX period) report having a single executive serving as the CEO and board chairman. Further, in contrast to their hypothesis, they find a positive relationship between CEO duality and firm performance measured by EVA (Economic Value Added). However, in a meta-analysis of 63 studies relating board composition to firm performance, Dalton et al. (1998) do not find evidence that CEO

duality has an impact on financial performance in the corporate sector. The authors conclude that “there is no relationship between board leadership structure and firm performance”.

#### *Board ownership*

Morck et al. (1988) investigate the relationship between board ownership and firm performance (measured by Tobin’s Q). They find that as board ownership increases, firm performance also increases, representing the alignment of director and owner interests. However, as ownership grows, a point is reached (approximately 5% ownership) where directors no longer act in the best interests of shareholders, and firm performance declines. This change in behavior, referred to as entrenchment effect, is argued to be as a result of managers who no longer fear dismissal and are therefore considered to be “free from checks” on their control (Morck et al. 1988). Bagnani et al. (1994) examine the relationship between board ownership and bond return premia. They find varied results at different levels of board ownership. When board ownership is between 5 and 25% they find their most significant result, indicating a positive relationship between director and officer ownership and bond return premia. That is, when directors and officers of the organization own between 5 and 25% of a for-profit firm’s stock, a strong positive relation exists between the amount of shares owned by board members and the amount of interest the firm pays to bond holders. This relationship represents rational premiums paid to bondholders for taking on risks associated with managers and officers not acting in the best interests of bondholders.

#### *External financing*

Chen et al. (2010) study the relationship between firms' need for external financing and their corporate governance practices. They find that the need for outside financing provides an incentive for firms to improve overall corporate governance. Chen et al. (2010) employ the governance index compiled by Gompers et al. (2003) to proxy for the corporate governance characteristics in their sample of for-profit firms from 1990 – 2005. I argue that donors in the nonprofit sector are akin to external financiers in the for-profit sector, and therefore create the need for better corporate governance practices in nonprofit organizations.

### *Disclosure*

The for-profit literature on the impact of voluntary disclosure on performance includes Healy et al. (1999), Jog and McConomy (2003), and Lajili and Zeghal (2006). Healy et al. (1999) study changes in capital market factors associated with increases in analyst disclosure ratings and find that expanded voluntary disclosures are associated with improved stock performance, as well as increased institutional ownership, analyst following, and stock liquidity. Jog and McConomy (2003) study a sample of Canadian IPOs making voluntary disclosures related to management earnings forecast information in their prospectuses. Their results indicate a positive impact of voluntary disclosure on the degree of under pricing and the post-issue return performance for the IPOs in their sample. Lajili and Zeghal (2006) construct human capital productivity and efficiency indicators as a means of testing the informational content and value relevance of human capital disclosures on firm performance. They follow a portfolio performance approach<sup>62</sup>

---

<sup>62</sup> The authors use a portfolio performance approach similar to Fama and French (1995). Specifically they examine portfolios containing all stocks (or firms) for the study's sample sorted based on a three study selection criteria (disclosure status regarding labor and related expenses, size, and human capital indicators).

and find results consistent with a positive relationship between human capital information disclosures and higher abnormal returns.

#### *Board committees*

For-profit studies argue that the relationship between CEO stock compensation and firm performance is affected by the use and quality of a board compensation committee (Petra and Dorata 2008, Sun et al. 2009). Sun et al. (2009) find that future firm performance is more closely correlated with CEO stock option grants when the quality of the compensation committee increases. Petra and Dorata (2008) study CEO performance-based incentives and the composition of the full board as well as the compensation committee. Their findings are consistent with CEOs receiving lower levels of performance-based incentives when the compensation committee is of better quality (defined as members who serve on less than three other boards). In sum, increased board monitoring offsets the need for incentive compensation.

Farber (2005) studies firms identified by the SEC as fraudulently manipulating their financial statements and finds that fraud firms exceed control firms in the number of audit committee meetings (three years after the fraud), indicating that the use of an audit committee is considered an important aspect of corporate governance. Further, Farber (2005) also documents that firms that take actions to improve governance (such as increasing the number of audit committee meetings) have improved stock price performance, even after controlling for earnings performance.

### ***4.3 Research Hypotheses***

Building on prior research both in the for-profit and nonprofit sectors, I analyze the relationships between three groupings of nonprofit board monitoring activities and

nonprofit efficiency. Specifically, I test the existence and extent of board disclosure policies, board organization (use of committees), and board independence.

#### ***4.3.1 Disclosure***

Three disclosure practices related to nonprofit boards of directors are of interest in my study. Specifically, I examine the following: 1) disclosure of business relationships between board members and the organization, 2) disclosure of relationships that yield goods below market value to the agency, and 3) existence of a conflict of interest policy between board members and the nonprofit agency. While prescriptive literature offers best practices to nonprofit managers related to disclosures (BoardSource 2004, Aranoff 2003, Griesmann 2003), I am unaware of any nonprofit sector empirical evidence in this area. The topic of nonprofit transparency, however, has been the subject of several regulatory recommendations (IRS 2008c, Senate Finance Committee 2004).

The IRS Good Governance guidelines for 501(c)3 organizations (IRS 2008c) encourages: “organizations to require its directors, trustees, officers and others covered by the policy to disclose, in writing, on a periodic basis any known financial interest that the individual, or a member of the individual’s family, has in any business entity that transacts business with the charity”. Further, the 2008 revised IRS Form 990 includes a specific section (section VI: *Governance, Management, and Disclosure*) dedicated to the disclosure of governance related policies such as business relationships with board members and the existence of a written conflict of interest policy. The 2004 Senate Finance Committee white paper also includes a provision to limit “self-dealing” transactions which significantly curtail directors from conducting business with the organizations on whose board they serve. However, regulation such as that proposed by

the Senate Finance Committee has been met with opposition from small and mid-sized nonprofit organizations. While some business relationships may be found to be in the interests of board members, opponents argue that many actually provide benefit to the charity organization<sup>63</sup>. Such transactions may provide goods or services below market value to the agency and are therefore considered to be advantageous to the nonprofit organization. However, regardless of the disagreement between if business relationships are in the best interest of charity organizations or not, all parties agree that transparency is of the utmost concern with regard to such transactions.

The use of a conflict of interest policy between board members and nonprofit organizations has been a practice recommended by both regulatory (IRS 2007, IRS 2008b, IRS 2008c, Senate Finance Committee 2004, Panel on Nonprofit Sector 2005) and nonprofit advisors (Grant Thornton 2008a, Grunewald 2008) alike. In particular, the IRS has included Section B, line 12a on the new Form 990 which requires nonprofit organizations to specifically confirm the existence of a conflict of interest policy as of fiscal year end. Related to this new disclosure, instructions for the new Form 990 (IRS 2008a) also include line 12c which requires nonprofit organizations to describe the “organization’s practices for monitoring proposed or ongoing transactions for conflicts of interest and dealing with potential or actual conflicts, whether discovered before or after the transaction has occurred”. Additional efforts to increase nonprofit transparency include added funding for Form 990 disclosures provided by the Senate Finance

---

<sup>63</sup> The president and CEO of Independent Sector argued that prohibiting such business transactions : “could be extremely detrimental to a number of charities. . . . Public charities, particularly smaller charities, frequently receive from board members and other disqualified parties goods, services, or the use of property at substantially below market rates.” A similar protest was expressed by the National Council of Nonprofit Associations, which is composed primarily of smaller and mid-size nonprofits (Ostrower 2007).

Committee in 2004. This funding has made PDF versions of Form 990s available through the National Council for Charitable Statistics (NCCS) website ([www.nccs.urban.org](http://www.nccs.urban.org)).

To my knowledge only one study has investigated the relationship between the implementation of such policies and agency characteristics. Ostrower (2007) looks at the characteristics of organizations reporting a conflict of interest policy, and similar “Sarbanes Oxley Type Practices”, and finds these policies to be significantly related to: attributes of the board itself (size, corporate board members, percent minority, percent female, CEO duality), organizational characteristics (paid CEO, organizational size), and elements of the organization’s environment (culture and education industries, government funding).

Consistent with for-profit accounting literature, which finds disclosure to be positively associated with firm value (Healy et al. 1999, Jog and McConomy 2003, Lajili and Zeghal 2006), as well as nonprofit research (Parsons 2007) that finds a noteworthy connection between disclosures and contributions, I believe nonprofit disclosure is an important ingredient in nonprofit governance and transparency. Therefore, based on this regulatory attention and the nonprofit and for-profit studies in this area, I argue that a positive relationship exists between increased disclosures and nonprofit performance.

This lends itself to my first hypothesis:

*H1: Nonprofit organizations that disclose more related to their board of directors are associated with better performance.*

#### **4.3.2 Board organization**

Board organization refers to the use of committees to segregate the board into smaller groups focused on specific board tasks. The SEC has defined the need for board

committees in an effort to increase corporate accountability and focus directors on specific tasks (SEC 1980). Harrison (1987) argues that board committees help to define director roles and responsibilities. Zahra and Pearce (1989) find that committees enhance the speed and quality of director decision making. Hopt (2009) highlights that modern minimum standards for good corporate governance on the board consist of three committees: a nominating committee, a remuneration (compensation) committee, and an auditing committee. I study the impact of maintaining a nominating, compensation, and/or audit/finance committee. I expand the definition of the audit committee to include a finance committee, because many nonprofit organizations require that one committee (usually referred to as the finance committee) handle both the investing and audit functions of the board. While all three committees are thought to provide enhanced governance within an organizational structure, the majority of attention (specifically SOX regulation) is aimed at the audit/finance committee.

The role of a nonprofit compensation committee is “to assist the Board in setting executive compensation and to review and make recommendations regarding compensation plans, policies and programs of the organization” (Nonprofit Good Practice Guide 2009). While not all charity boards utilize a compensation committee, nonprofit compensation specialists have promoted the added governance that comes with the use of a compensation committee (McDermott et al. 2004, Gadaleta 2008, Smith 2009, De Jong and Peregrine 2009). McDermott et al. (2004) suggest that one of the most valuable outcomes of SOX is the best practices developed by self-regulatory agencies, professional groups, and business leaders. Their article compiles best practices and provides nonprofit managers with a set of guidelines for adopting these governance

policies. Included in their recommendations are several specific suggestions related to the formation and operation of a successful compensation committee. Gadaleta (2008) studies nonprofit hospitals and recommends fully independent compensation committees. Smith (2009) speaks to larger nonprofit organizations in his recommended practices, which include a compensation committee that is fully independent and meets at least three times a year. Finally, De Jong and Peregrine (2009) also offer that the added layer of a fully independent compensation committee will reduce the likelihood of new regulatory intervention aimed at reducing excessive compensation in the nonprofit sector. Therefore, based on the recommendations and findings of Petra and Dorata (2008) and Sun et al. (2009) in the for-profit sector and McDermott et al. (2004), Gadaleta (2008), Smith (2009), and De Jong and Peregrine (2009) in the nonprofit sector, I posit a positive relationship between the use of a compensation committee and thriving charity agencies.

Nizankiewicz begins his 2005 article with the notion that: “arguably the most important committee in any nonprofit organization is the nominating committee”. He bases his conjecture on the idea that the nominating committee can either ensure the successful growth of the board or the mismanagement of their duties leading to the demise of the organization. He continues this sentiment by encouraging all nonprofit boards to cultivate an active nominating committee in an effort to attract and retain members with the necessary competencies to steer the agency toward success. King (2008) echoes this recommendation and encourages increasing the activity of the nominating committee. He argues that the ability of a board to raise money during a tight economy (currently one of the biggest challenges facing the nonprofit community) depends significantly on the quality of its members and the ability of the nominating

committee to develop a strong board. Therefore, based on the work of Nizankiewicz (2005) and King (2008) I expect to find that charity organizations that maintain a nominating committee to be those who are also the most successful organizations.

In terms of the audit/finance committee, both the new IRS form 990 and the 2007 discussion draft of *Good Governance Practices for 501(c)3 Organizations* prepared by the IRS, as well as the 2004 Senate Finance Committee discussion draft include strong recommendations that nonprofit organizations maintain an audit or finance committee. Additionally, California state legislations specifically include language requiring not only that charities have an audit/finance committee, but that a certain percentage of committee members be independent directors (California Nonprofit Integrity Act of 2004). The Panel on the Nonprofit Sector reiterates the recommendations from state and government agencies and also encourages nonprofit organizations to include members who are considered to be “financially literate” on the audit/finance committee.

Forgione et al. (2006) investigate the characteristics of nonprofit organizations with audit committees and find that 75% of their sample organizations maintain an audit committee. Further they find that organizations that are larger, receive government grants, and use a Big 4 auditor are more likely to have audit committees with solely independent directors. Therefore, consistent with regulatory recommendations and the findings of Forgione et al. (2006) in the nonprofit sector, and Farber (2005) in the for-profit sector, I posit a positive relationship between organizations who maintain an audit/finance committee and those who report successful operations.

In sum, based on both for-profit (Farber 2005, Petra and Dorata 2008, and Sun et al. 2009) and nonprofit (McDermott et al. 2004, Forgione et al. 2006, Gadaleta 2008, King

2008, Smith 2009, De Jong and Peregrine 2009, Nizankiewicz 2005) studies in these areas, I believe that high quality nonprofit organizations make good use of board committees to coordinate the efforts of their board members. Further, I hypothesize that additional board committees assist charity organizations in terms of more stringent compensation oversight, enhanced board member selection procedures, as well as increased financial monitoring, which in turn align these organizations with better performance. This brings me to my second hypothesis:

*H2: Nonprofit organizations that have more board committees are associated with better performance.*

#### **4.3.3 Independence**

Board independence has been, and continues to be a highly scrutinized topic in both for-profit and nonprofit governance. John and Senbet (1998) document that board independence is one of the most important board characteristics in the relationship between board governance and board effectiveness. I center my study on four board characteristics related to board member independence (or lack of independence): CEO duality, percentage of employees on the board, board terms, and board member election policies.

When an organization's CEO (or President) is also the chairman of the board, this dual role is referred to as CEO duality. According to agency theory, CEO duality reduces the monitoring effect of the board. In the for-profit arena, the role of the board chairman is that of a vigilante, whose role is to protect the interests of investors. Similarly, the function of the nonprofit chairman is often regarded as a watchdog for the community, providing safeguard for donor's investments. Combining the role of the CEO and

chairman therefore appears to yield a conflict of interests between the personal success of the CEO and the community interests of the organization. Moreover, Boone et al. (2007) find that board independence is negatively related to managerial influence (such as CEO duality) in the for-profit sector. Therefore, I look to determine the impact of duality on nonprofit success, and based on Boone et al. (2007), I expect to find an inverse relationship between CEO duality (lack of independence) and organizational effectiveness.

Employees of the organization who sit on the board of directors also reduce the independent nature of the board. That is, employees or “insiders” of the organization may be focused on personal preferences or perquisites related to working conditions, ease of workload, or other self-motivated objectives. Callen and Falk (1993) confirm theoretical arguments by Fama and Jensen (1983) and Williamson (1983) that suggest that nonprofit organizations operate more efficiently in the presence of a greater percentage of outside directors on the board. Given this background, I anticipate that more successful charities are associated with a higher percentage of outside board members.

Board terms are defined, for the purposes of my study, as the number of years a board member is permitted to serve on an agency’s board. Based on entrenchment theory (Morck et al. 1988), board members may lose independence when their relationships with management and the organization become too familiar, and less objective. Governance experts in the nonprofit field (for example Wyland 2003) have suggested that term limits are an essential ingredient to a vigilant board of directors. Additionally, a 2008 article from the Nonprofit Times suggests that: “Regular rotations of board members allow the

influx of new ideas and help avoid the... board aligning itself too closely with the management” (O’Reiley 2008). As such, I posit an inverse relationship between board term limits and agency success. That is, shorter board terms, which encourage member rotation and limit entrenchment affects provide better governance and, in turn, more successful nonprofit organizations.

Board election procedures are also an important governance practice in the nonprofit sector. Election procedures refer to the act of board members voting to add new members to the board (as opposed to new members being appointed to their positions). This process is sometimes referred to as a “self-perpetuating” feature of the board, and is considered to enhance corporate governance on the grounds that the CEO or executive director is restricted from appointing individuals to the board that meet his/her own best interests. That is, prospective board members must win a majority of votes from active board members before being placed on the board. As such, I predict a positive association between board member election procedures and agency success, rewarding organizations who employ more stringent governance procedures in requiring their members to be voted into place.

As a result, I posit an overall positive relationship between organizations with more independent boards (lack of CEO duality, fewer employee directors, shorter board terms, and elected directors) and agency success, which leads to my third and final hypothesis:

*H3: Nonprofit organizations with more independent board members are associated with better performance.*

The next section will lay out my research methodology, data collection procedures, as well as define study variables and present empirical models.

## ***4.4 Research Methodology***

### ***4.4.1 Data Collection and Survey Procedures***

Please refer to section 2.4.1 for detailed data collection and survey procedures.

### ***4.4.2 Sample description***

Please refer to section 2.4.2 for sample description information.

### ***4.4.3 Measurement of dependent variables***

Both the for-profit and nonprofit literature has struggled with defining performance. The for-profit literature uses indicators such as: ROE, ROA, the ratio of sales to assets, Tobin's Q, and market adjusted stock price returns. The nonprofit literature employs donor contributions, revenues, government grants, organizational efficiency, effectiveness, and service effort and accomplishment (SEA) reporting. Crutchfield and Grant (2008) conclude that: "...the nonprofit sector has no accepted universal measure of success. Rather, outcomes vary according to the organization's mission, model, and issue area."

This study focuses on the organizational efficiency of the nonprofit colleges and universities sampled. Nonprofit efficiency has come under intense scrutiny both in the media (Barrett for *Forbes Magazine* 2004, Urban Institute and the Center on Philanthropy at Indiana University 2004) and academic research (Krishnan et al. 2006, Tinkelman and Mankaney 2007). Organizations such as the Better Business Bureau Wise Giving Alliance, Charity Navigator, and GuideStar keep ongoing tabs on the efficiency of nonprofit organizations in an effort to provide donors with information essential for giving (Gordon et al. 2009). Further, nonprofit research has established a clear link between organizational efficiency and nonprofit contributions (Weisbrod and Dominguez

1986, Posnett and Sandler 1989, Callen 1994, Frumkin and Kim 2001, Baber et al. 2001, Baber et al. 2002, Parsons 2003). As a result, organizational efficiency is an important aspect of nonprofit success, well studied and relied upon in the nonprofit sector.

The most common measure (Okten and Weisbrod 1999, Parsons 2003, Parsons and Trussel 2008) of efficiency, PRICE, is defined by Weisbrod and Dominguez (1986) as the donors' cost to provide one dollar of charitable purchasing power. This measure, which assumes equal marginal tax rates among donors (Tinkelman 1998), is specifically defined as:

$$\text{PRICE} = (1 - T) / (1 - \text{FE}\% - \text{AE}\%)$$

where T = marginal tax rate, FE% = total fundraising expenses as a percentage of total expenses, and AE% = administrative expenses as a percentage of total expenses.

However, given equal marginal tax rates (Tinkelman 1998), the following simplification will be used:

$$\text{Adjusted PRICE} = 1 - \text{FE}\% - \text{AE}\%$$

This adjusted PRICE model is the inverse of the traditional PRICE model introduced by Weisbrod and Dominguez (1986), and is similar to the PROG ratio developed by Baber et al. (2001). PROG is defined as the percentage of total expenses dedicated to program services and operationalized as a simple ratio of program service expenses to total expenses.

To illustrate the difference between these three efficiency measures (PRICE, adjusted PRICE, and PROG) consider a charity organization with \$1,500 in fundraising expenses, \$2,000 in administrative expenses, \$10,000 in program service expenses, and \$1,000 in payments to affiliates for total expenses of \$14,500. Following Weisbrod and Dominguez

(1986) PRICE for this sample organization equals \$1.32. In other words, a donor must donate \$1.32 to provide the example organization with \$1.00 toward program services. The Baber et al. (2001) PROG ratio equals .69 which is interpreted as for every \$1.00 donated, \$.69 is used to provide services related to the charity's mission. Finally, according to the adjusted PRICE ratio defined in equation (2), \$.76 out of every \$1.00 donated is used to provide program services. The difference between adjusted PRICE and the PROG ratio is the inclusion of expenses categorized as payments to affiliates. The IRS has defined these expenses as: "Dues paid by a local organization to its affiliated state or national (parent) organization are reported on line 21. Report on this line predetermined quota support and dues... by local agencies to their state or national organizations for unspecified purposes; that is, general use of funds for the national organizations own program and support services." I argue that parent organization expenses relate to providing services to constituents and should therefore be included as program expenses in the determination of the efficiency rating for the organizations under review. However, please note, for the purposes of the university sample under review, less than 1% of the organizations in my final sample report payments to affiliates, rendering the adjusted PRICE and PROG ratios identical for the remaining 99% of institutions in my sample.

Theoretically, I would expect to find that board attributes in place at nonprofit colleges and universities to contemporaneously impact firm performance (Callen et al. 2003). As a result, efficiency variables are calculated from financial information drawn from IRS Form 990 data for fiscal year end 2008 which is contemporaneous to my 2008 survey data.

In addition to organizational efficiency, Mensah et al. (2008) have presented the notion of relative effectiveness (“defined as the degree of success with which organizational goals are achieved”). They demonstrate that relative effectiveness is a product of efficiency, however, that in addition to efficiency, nonprofit organizations must also excel in efficacy (capacity to produce an effect) in order to be successful in their mission. Mensah et al. (2008) confirm their measure of organizational effectiveness using a sample of private colleges. Their results indicate that while a positive relationship exists between relative effectiveness and efficiency, the association between efficacy and efficiency is negative. Therefore, both measures (efficacy and efficiency) are required to gauge true effectiveness in a nonprofit organization, relative to peer organizations. Given the data necessary to calculate the efficacy portion of organizational effectiveness, my study will not include a measure of effectiveness, however, it should be noted that such measures exist and provide an interesting avenue for further research.

#### ***4.4.4 Measurement of test variables***

Test variables include ten survey items, grouped into three categories. See [Appendix I](#) for a summary of these groupings and variables. Also see [Table 6](#) for descriptive statistics by survey question. Highlights from these responses are referenced below.

##### ***4.4.4.1 Disclosure***

I consider three separate board disclosure policies: disclosure of business relationships between board members and the institution, disclosure of relationships that yield goods below market value to the agency, and existence of a conflict of interest policy between board members and the nonprofit organization.

In terms of governance and disclosure, both the new IRS form 990 and the 2007 discussion draft of *Good Governance Practices for 501(c)3 Organizations* prepared by the IRS, as well as the Senate Finance Committee discussion draft of 2004, include several governance and disclosure recommendations for charity organizations, in an effort to enhance transparency. Maintaining a conflict of interest policy is of particular interest, but other less explicit recommendations relate to the disclosure of business relationships, including those that provide reductions in pricing to the organization.

Ninety-five percent of respondents indicated that board members are required to disclose business relationships with the organization, and 10% indicated that their institution receives goods or services below market value, as a result of these business relationships. Ninety-five percent of responding institutions also report that their organization has a conflict of interest policy in place. In comparison, the 2007 Urban Institute study (Ostrower 2007) reported that only half of their respondent's reported the use of a conflict of interest policy, while the 2007 Nonprofit Governance Index indicates that 88% of charities in their study have an established conflict of interest policy. Finally, the IRS 2010 Colleges and Universities Compliance Project Interim Report (IRS 2010) also noted that more than 80% of organizations reported having conflict of interest policies covering members of the ruling body and top management officials. When analyzed together, it appears that respondent organizations have more stringent disclosure practices than broader groups of nonprofit agencies, based on the use of a conflict of interest policy.

#### ***4.4.4.2 Board organization***

I study the impact of maintaining a nominating, compensation, and/or audit/finance committee. All three committees are thought to provide enhanced governance within an organizational structure (McDermott et al. 2004, Nizankiewicz 2005, Forgione et al. 2006, Gadaleta 2008, King 2008, Smith 2009, De Jong and Peregrine 2009), with the majority of attention (specifically SOX regulation) aimed at the necessity of an audit/finance committee (Forgione et al. 2006).

Eighty-six percent of sample organizations indicated that their board includes a nominating committee. This compares with 68% of participating organizations in the 2007 Nonprofit Governance Index, and 58% reported in the 2009 Grant Thornton National Board Governance Survey for Not-for-Profit Organizations (Grant Thornton 2009). Further, Callen et al. (2003) documents that 71.5% of their sample boards include a nominating committee, altogether indicating that boards in my sample are slightly ahead of the curve in terms of maintaining a nominating committee to seek out and elect new directors.

Fifty percent of nonprofits in my sample report the use of a compensation committee. This comes in slightly higher than the 36% of nonprofits reporting the use of a compensation committee by Callen et al. (2003) and the 35% of survey respondents in the 2009 Grant Thornton National Board Governance Survey for Not-for-Profit Organizations. However, given the addition of schedule J to the new IRS Form 990, I expect this percentage to be rising. Question 9 of schedule J requires nonprofit organizations to disclose the means for establishing their CEO/Executive Director compensation, including the use of a compensation committee.

Included in the discussion from the IRS (IRS 2007) as well as the report from the Panel on the Nonprofit Sector (The Panel on the Nonprofit Sector 2005) is the recommendation to maintain an audit or finance committee. Nearly all (97%) of respondents indicated that their board maintains a finance or audit committee, compared to 80% of boards documented in the 2004 Nonprofit Governance Index, 75% reported by Forgione et al. (2006), and 83% documented by the 2009 Grant Thornton National Board Governance Survey for Not-for-Profit Organizations. This indicates that my sample of nonprofit colleges and universities are better equipped to handle the fiscal needs of their organizations than other samples of more diverse nonprofit industries.

#### ***4.4.4.3 Independence***

Board independence has been, and continues to be a highly scrutinized topic in both for-profit and nonprofit governance (Fama and Jensen 1983, Williamson 1983, Morck et al. 1988, Callen and Falk 1993, Wyland 2003, Ostrower 2007, CalPERS 2009, BoardSource 2009). To proxy for board independence, I study four board characteristics related to board member independence (or lack of independence): CEO duality, percentage of employees on the board, board terms, and board member election policies.

CEO duality refers to the practice of the CEO acting in a dual role as both the CEO and board chairman. Specifically, survey participants were asked: “Does the President also act as the Chairman of the board?” While for-profit studies (Coles et al. 2001) report that a majority of corporate boards (78.5%) maintain a sole leader, only 2% of my sample of nonprofit colleges and universities indicate that the University president or CEO also serves as the chairman of the board. This practice is consistent with the nonprofit sector’s focus on transparency (IRS 2008c, Senate Finance Committee 2004).

The number of employees on the board of directors represents the number of inside directors on the board. Based on corporate definitions, these directors are presumed to act in the best interests of management insofar as their actions serve to improve working conditions or other self-motivated objectives. Approximately 1.06 employees are found to sit on the nonprofit boards included in my sample. Based on antidotal evidence collected during the survey coding process, I have reason to believe that the University president or chief administrator is often the one employee included on university boards.

Board terms refer to the act of setting a limit on the number of years a director can serve on an organization's board. Twenty-seven percent of my sample indicated that their board members have unlimited terms, indicating a position for life. The remaining 73% of nonprofit respondents report average board terms of 9.1 years. This compares closely to recommended term limits which call for three terms of three years each (Gifford 2008); however, comes in slightly longer than data from the 2008 National Board Governance Survey for Not-for-Profit Organizations conducted by Grant Thornton LLP (Grant Thornton 2008b). Their data reports that 80% of organizations have enacted term limits, with 57% allowing board members to serve between two to four years and another 26% allowing five to seven years. The 2004 Nonprofit Governance Index also reports that 58% of their respondent organizations report using terms limits, indicating that my sample is slightly more stringent in its application of term limits than industry diverse nonprofit samples.

Finally, election policies relate to the process of board members voting to adopt new directors into their positions, as opposed to new members being appointed by the CEO. This process is often times referred to as "self-perpetuating" boards, and has been

highlighted as an important governance procedure in that board selection plays an important role in shaping the future of the nonprofit organization (BoardSource 2004). Seventy-nine percent of survey respondents report having self-perpetuating boards. This compares to 68% of boards in the 2004 BoardSource Governance Index and 72% for the same study in 2007.

#### ***4.4.5 Empirical Models***

Given the diverse size of the organizations in the respondent pool (refer to [Table 5](#) for sample statistics) I employ natural logarithmic transformations of all financial variables (dependent and control variables), as noted in the models presented below. Log specification and ratio analysis aid in the cross-sectional comparability of my sample and lessen the potential problems of heteroskedasticity relative to the linear form. I have also winsorized (1%) all variables to reduce the impact of extreme observations.

To control for variations in school setting and type, I include six variables specific to my setting of US colleges and universities. The first is an indicator for public/private colleges and universities. Given that state colleges receive significant funding from state appropriations, I anticipate that efficiency measures may vary between state funded institutions and those that are privately supported and operated. I also control for elite/ivy league school classifications, schools with big sports programs, as well as those affiliated with hospital/health systems and religious orders. Related to my survey instrument, I also control for the type of survey completed by the organization (electronic or paper). Finally, following Gow et al. (2010) I cluster the standard errors in my model by state (rather than including fixed effects), to alleviate differences in wide-ranging economic conditions or shocks specific to individual states or regions.

#### ***4.4.5.1 Ordinary Least Squares Regression Analysis***

Mensah and Werner (2003) find that lack of donor imposed contribution restrictions (or financial flexibility) are associated with more cost inefficiencies at institutions of higher education. The authors conclude that “contrary to common belief, enhanced financial flexibility appears to lead to higher cost inefficiency. Conversely, greater financial restrictions appear to lead to more cost efficiency”. Mensah and Werner (2003) measure financial flexibility as the ratio of unrestricted net assets to total net assets at nonprofit organizations. Specifically, total year end unrestricted net assets as reported on Form 990 line 67 divided by total year end assets as reported on Form 990, line 59.

Weisbrod and Dominguez (1986) suggest that a nonprofit’s reputation, proxied by age, plays a role in the success of the organization. Weisbrod and Dominguez operationalize reputation as the number of years since the initial 501(c)3 filing for tax exempt status and predict that increased age represents superior effectiveness. The effect of organization size has also been controlled for in a multitude of related nonprofit and for-profit studies. Nonprofit sector studies employing total assets as a proxy for organizational size include: Siliciano (1996), Callen et al. (2003), and Aggarwal et al. (2006). As a result, my study model will include total assets (IRS Form 990, line 59) to proxy for organizational size.

Consequently, I model the following to test the impact of board governance on organizational efficiency:

$$\begin{aligned} \log Adjusted\ PRICE_t = & \beta_0 + \beta_{1-3} Disclosure_t + \beta_{4-6} Board\ organization_t \\ & + \beta_{7-10} Independence_t + \beta_{11} \log Financial\ Flexibility_{t-1} + \beta_{12} \log Age_t \\ & + \beta_{13} \log Total\ Assets_{t-1} + \beta_{14} Public/private_t + \beta_{15} Ivy\ league_t + \beta_{16} Big\ sports\ program_t \\ & + \beta_{17} Health\ system_t + \beta_{18} Religious_t + \beta_{19} Survey\ type + \varepsilon \end{aligned}$$

where efficiency (adjusted PRICE) is defined and discussed in section [3.4.3.3](#).

Disclosure, board organization, and independence represent the set of test variables in each group as defined in sections [3.4.4.1](#) through [3.4.4.3](#), respectively, control variables are outlined above, and standard errors have been clustered by state.

#### ***4.4.5.2 Instrumental Variable Analysis***

The endogeneity of board characteristics is an important issue to consider in my analysis. I argue that better performance of nonprofit organizations is the result of specific board policies and attributes. It is possible, however, that better boards are drawn to better performing firms. In this case, the better performance of the firm is the cause, and not the result, of particular board policies. To address this issue, I also estimate instrumental variable (IV) regressions. Specifically, I use the location of the university as an instrument for higher ability and better governed boards. I believe that those universities situated in more urban locations have larger, more diverse, and potentially expert pools of available directors, while rural areas are inherently more limited in their ability to attract high quality board members. Further, I do not believe that reverse causality exists between performance and location, making the location of the university an acceptable instrumental variable for my analysis.

To facilitate my IV analysis, I construct an index variable (INDEX) to reduce my ten board test variables into one composite measure. This is necessary because at least one instrumental variable is required for each test variable included in an IV model (Wooldridge 2009 pg 524). Therefore, lacking specific instrumental variables for each of the ten board policies in my model; I employ an index of all variables to reduce my

model from ten test variables to one test variable allowing the use of a single instrumental variable.

To calculate INDEX, I rank my ten board characteristics into deciles following Anderson et al. (2009). Organizations with board policies posited to increase organizational performance take on values closer to ten. Nonprofits with fewer influential board characteristics assume values closer to one. The ten rankings are then summed and scaled by a factor of 100 (total possible points) creating an index from 0.1 to 1.0. Higher values indicate colleges and universities that have board attributes believed to increase performance. Lower values indicate fewer board attributes considered to increase performance. This index provides a good proxy for the impact of board policies on nonprofit efficiency because it averages across ten board characteristics and includes inputs related to disclosure, organization, and independence.

For my IV analysis, I construct the following model:

$$\begin{aligned} \log Adjusted\ PRICE_t = & \beta_0 + \beta_1 INDEX [instrumented]_t + \\ & \beta_2 \log Financial\ Flexibility_t + \beta_3 \log Age_t + \beta_4 \log Total\ Assets_t + \beta_5 Public/private_t \\ & + \beta_6 Ivy\ league_t + \beta_7 Big\ sports\ program_t + \beta_8 Health\ system_t + \beta_9 Religious_t \\ & + \beta_{10} Survey\ type + \varepsilon \end{aligned}$$

where efficiency (adjusted PRICE) is defined and discussed in section [3.4.3.3](#). INDEX is the ten variable index measure of all board attributes defined above, and control variables are outlined in section [3.4.5.1](#).

I employ a two stage least squares regression (2 SLS) analysis to test my instrumented INDEX variable. My first stage model includes all the control variables included in my main model (above) with the addition of my IV variable, URBAN.

URBAN is a dummy variable equal to 1 for educational organizations in the sample classified as a city, suburb, or town<sup>64</sup>.

#### ***4.5 Results***

Results for univariate and multivariate regressions are tabulated in [Tables 11](#) and [12](#), respectively. [Table 13](#) presents the results of my instrumental variable analysis. As a means of organizing the discussion of the results presented in these tables, the next section reviews results for each of my ten test variables, grouped by hypotheses: board disclosure, board organization, and board independence.

Given that multivariate models require that survey participants responded to all ten test variables, the number of sample organizations included in any one model is at most 154 (or 28% of total respondents). For this reason, I rely on univariate analysis which maximizes sample size, in addition to multivariate analysis which controls for known covariates.

According to Bartlett et al. (2001) an appropriate sample size for multivariate regression models is approximately ten observations for each independent model variable. This recommendation is drawn from early work by Miller and Kunce (1973) and Halinski and Feldt (1970) who warn of model over fitting with fewer than five observations per model variable. Bartlett et al. (2001) recommend a more conservative ratio of ten to one in order to assure more generalizability in test results. Given this parameter, my sample size would ideally be at least 190 observations. I am able to include at most 154 observations in my model. As a result of this considerable reduction

---

<sup>64</sup> IPEDS defines each one of these categories with three sub-categories, therefore my URBAN variable is equal to 1 for any of the 9 sub-categories (11,12,13,21,22,23,31,32,33) defined as urban by IPEDS. In sensitivity analysis I restrict my URBAN variable to organizations defined as cities and suburbs and my results are unchanged.

in model power, as well as the impact of control variables, I document fewer significant relationships in the multivariate setting than in univariate analysis.

However, my multivariate model is significant (at the 1% level) with an adjusted R-squared statistic of 0.175; while, many, but not all univariate models are significant. Further it should be noted that due to the large number of both dependent and test variables, as well as both univariate and multivariate analyses; I only discuss significant results below.

#### ***4.5.1 Disclosure***

Starting first with my disclosure variables, I find positive univariate associations between efficiency and the existence of a conflict of interest policy, as well as reported business relationships between directors and the organization. That is, colleges and universities in my sample who maintain a conflict of interest policy, which requires board members to divulge and testify to conflicts of interest between themselves and the nonprofit organization, or who report business relationships between directors and the organization are associated with more efficient operations. These findings are consistent with my disclosure hypothesis and follow recommendations from several studies and regulatory agencies (BoardSource 2004, Aranoff 2003, Griesmann 2003, IRS 2007, IRS 2008b, IRS 2008c, Senate Finance Committee 2004, Panel on Nonprofit Sector 2005); thereby confirming that the use of a conflict of interest policy, as well as disclosing business relationships are in a nonprofit organization's best interest.

#### ***4.5.2 Board Organization***

Turning to my board organization test variables, I find positive univariate associations between nonprofits that maintain compensation and nominating committees and more

efficient operations. These results are consistent with hypothesis two and prior literature in the area. Specifically, several nonprofit studies (McDermott et al. 2004, Gadaleta 2008, Smith 2009, De Jong and Peregrine 2009) have promoted the use of a compensation committee in the nonprofit sector, and these results, therefore, provide support for this recommendation. Further, Nizankiewicz (2005) and King (2008) recommend that nonprofit organizations create and foster a strong nominating committee. My results also support this guidance, insofar as nonprofit organizations reporting the use of a nominating committee are associated with more efficient organizations. I speculate this result is consistent with reduced expenses (which would be classified as administrative and lead to less efficient operations) related to board recruitment and training.

#### ***4.5.3 Independence***

Related to test variables which look at the independence of the board, as expected, univariate results indicate an inverse relationship between organizational efficiency and the number of employees also serving as directors. This is consistent with employees or insiders of the organization being focused on personal preferences or perquisites related to working conditions, ease of workload, or other self-motivated objectives (Callen and Falk 1993). However, contrary to entrenchment theory, where board members lose independence when their relationships with management and the organization become too familiar (Morck et al. 1988), I find consistent univariate and multivariate results which indicate a positive relationship between board term and organizational efficiency. That is, organizations that report having longer board terms are also organizations that are most efficient in their operations. This unexpected finding may simply be the result of

longer tenured directors having the institutional knowledge and background to guide the colleges and universities in my sample more efficiently.

#### ***4.5.4 Control variables***

Related to the control variables in my multivariate model, I find two significant relationships. The first is a negative relationship between the financial flexibility of the organization and adjusted PRICE. This is consistent with Mensah and Werner (2003) who document that greater financial flexibility is associated with cost inefficiencies at institutions of higher education. The second is a positive relationship between organizational efficiency and big sports programs. Results indicate that schools with large sports programs (defined by IPEDS as being a part of a National Athletic Association) are associated with more efficient operations. Three variables were omitted due to lack of variation or collinearity. These variables include the audit/finance committee<sup>65</sup> test variable, as well as controls for Ivy League schools<sup>66</sup>, and organizations with affiliations to a hospital system<sup>67</sup>.

#### ***4.5.5 Instrumental Variable Analysis***

Results of my instrumental variable analysis are presented in [Table 13](#). Although, the model is significant as a whole (chi-squared value of .0000), my test variable, INDEX<sup>68</sup>, is not. This indicates that when instrumented by university location, and in indexed form, my ten board monitoring test variables do not have any significant effect on university performance, when performance is defined as organizational efficiency.

---

<sup>65</sup> Only 15 schools indicated that they did not maintain an audit or finance committee.

<sup>66</sup> Only one of the eight Ivy League schools responded to my study survey and is therefore the only organization coded as 1, in the sample.

<sup>67</sup> Three organizations in the sample were identified by IPEDS as having an affiliated hospital system.

<sup>68</sup> See section 3.4.5.2 for a discussion of INDEX.

#### ***4.6 Chapter conclusions***

This chapter finds evidence to confirm that board monitoring policies have some impact on nonprofit performance. In particular, I find support for the notion that disclosure, board organization, and independence all play important roles in nonprofit organizational efficiency. Significant proxies for disclosure include the use of a conflict of interest policy and disclosure of business relationships between directors and the organization. That is, universities that require board members to sign a conflict of interest policy, and who disclose director business relationships are associated with more successful operations in terms of organizational efficiency. I also document a relationship between board organization and efficiency. Results indicate that sample boards who maintain compensation and nominating committees are associated with more efficient operations. Finally, independence also appears to play a role in sample organizational efficiency. Fewer employees on the board translate into more efficient operations, while shorter tenure members seem to produce more inefficiency.

## ***CHAPTER 5: FINAL CONCLUSIONS***

Nonprofit boards are at the heart of charity organizations in terms of financial wellbeing, as well as monitoring. Board governance is an especially important area for research given several important aspects of the nonprofit sector. First, the important role nonprofit organizations play in the US economy. Second the scarcity of empirical research in the area. Third, on account of the notable differences between nonprofit and for-profit boards and operating environments. Finally, given the attention nonprofit board governance has received from the media and regulatory agencies.

This study examined two important questions related to nonprofit board governance. First, do characteristics such as director diversity, expertise, and contribution impact the performance of nonprofit organizations? Second, do the monitoring policies adopted by nonprofit boards such as board disclosures, board organization, and board independence play a role in the efficiency of the institution?

To answer these questions I conduct a survey on the largest, most complex organizations in the tax-exempt sector: colleges and universities (IRS 2010), and collect information related to ten board characteristics and ten monitoring practices. I relate these variables to both financial and nonfinancial measures of successful nonprofit colleges and universities as well as the organizational efficiency of sample organizations.

This study documents several interesting findings. Related to board characteristics, results indicate that bigger boards with more major donors are consistently associated with better performing organizations. In addition to noteworthy relationships between nonprofit success and the number of meetings held by an organization as well as the impact of recruiting board members who serve on other nonprofit boards. In terms of board monitoring, findings confirm recommendations that the use of a conflict of interest

policy, disclosure of business relationships, nominating and compensation committees are important aspects of board development in addition to longer board terms.

All told, this work makes important, initial forays into the relationships between board of director qualities and nonprofit performance. Although limited by the relatively small sample of colleges and universities, given the lack of data related to nonprofit boards, this study is unique in the ability to analyze nonprofit boards with both financial and nonfinancial performance measures.

I believe this study makes important contributions to both the nonprofit performance and board governance literature streams. In terms of nonprofit performance literature, I believe this is the first study to relate nonprofit performance to board qualities, especially board characteristics and policies unavailable to researchers through public data sources<sup>69</sup>. Related to board governance studies, this paper responds to the numerous regulatory calls for increased governance in the nonprofit sector, providing support for several recommendations such as increased diversity, board size, conflict of interest policies, board terms, and required board committees.

---

<sup>69</sup> The new Form 990 does include several new board governance questions, including whether the organization requires directors to sign a conflict of interest policy and how the organization establishes CEO compensation (which may include the use of a compensation committee), however, these are the only two board variables I study which will now potentially be available through the revised Form 990.

## **REFERENCES CITED**

- Abzug, R. 1996. The Evolution of Trusteeship in the United States: A Roundup of Findings from Six Cities. *Nonprofit Management & Leadership* 7 (1):101-111.
- Adams, R. B., and D. Ferreira. 2009. Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics* 94 (2):291-309.
- Adams, R. 2008. Communication in the boardroom. *Working paper*.
- Agrawal, A., and S. Chadha. 2005. Corporate Governance and Accounting Scandals. *Journal of Law & Economics* 48 (2):371-406.
- Aggarwal, R., I. Erel, M. Ferreira, and P. Matos. 2009. Does Governance Travel Around the World? Evidence from Institutional Investors. *Working paper*.
- Aggarwal, R. K., M. E. Evans, and D. Nanda. 2006. Access, Board Size, and Incentives in Non-Profit Firms. *Working paper, SSRN eLibrary*.
- Allan, K. 2007. The Give/Get: A Stumbling Block to Board Diversity? *onPhilanthropy* [http://www.onphilanthropy.com/site/News2?page=NewsArticle&id=6625&printer\\_friend](http://www.onphilanthropy.com/site/News2?page=NewsArticle&id=6625&printer_friend).
- Anderson, R. C., A. Duru, and D. M. Reeb. 2009. Founders, heirs, and corporate opacity in the United States. *Journal of Financial Economics* 92 (2):205-222.
- Anderson, R. C., S. A. Mansi, and D. M. Reeb. 2004. Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting & Economics* 37 (3):315-342.
- Aranoff, G. 2003. Improving Disclosure and Transparency in Nonprofit Accounting. *Management Accounting Quarterly* 4 (3):15-23.
- Atkinson, R. 1998. Unsettled Standing: Who (Else) Should Enforce the Duties of Charitable Fiduciaries? *The Journal of Corporation Law* Summer: 655-699.
- Baber, W. R., P. L. Daniel, and A. A. Roberts. 2002. Compensation to Managers of Charitable Organizations: An Empirical Study of the Role of Accounting Measures of Program Activities. *The Accounting Review* 77 (3):679-693.
- Baber, W. R., A. A. Roberts, and G. Visvanathan. 2001. Charitable Organizations' Strategies and Program-Spending Ratios. *Accounting Horizons* 15 (4):329-343.
- Bagnani, E. S., N. T. Milonas, A. Saunders, and N. G. Travlos. 1994. Managers, Owners, and The Pricing of Risky Debt: An Empirical Analysis. *Journal of Finance* 49 (2):453-477.

- Banker, R. D., J. M. Plehn-Dujowich, and C. Xian. 2009. Organizational Complexity and Executive Compensation: Evidence on the Compensation of University Presidents. *Working paper, Temple University*.
- Bartlett, J. E., J. W. Kotrlik, and C. C. Higgins. 2001. Organizational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning, and Performance Journal* 19 (1):43-50.
- Barrett, W. 2004. America's Most (And Least) Efficient Charities. *Forbes Magazine* November 11, 2004.
- Baysinger, B. D., and H. N. Butler. 1985. Corporate Governance and the Board of Directors: Performance Effects of Changes in Board Composition. *Journal of Law, Economics & Organization* 1 (1):101.
- Bebchuk, L. A., and A. Cohen. 2005. The costs of entrenched boards. *Journal of Financial Economics* 78 (2):409-433.
- Bhagat, S., and B. Black. 1999. The Uncertain Relationship Between Board Composition and Firm Performance. *Business Lawyer* 54 (3):921.
- \_\_\_\_\_. 2002. The Non-Correlation Between Board Independence and Long-Term Firm Performance. *Journal of Corporation Law* 27 (2):231.
- BoardSource. 1999. Perspectives on Nonprofit Board Diversity. [http://www.boardsource.org/dl.asp?document\\_id=511](http://www.boardsource.org/dl.asp?document_id=511)
- \_\_\_\_\_. 2004. The Nonprofit Governance Index. [http://www.boardsource.org/dl.asp?document\\_id=424](http://www.boardsource.org/dl.asp?document_id=424)
- \_\_\_\_\_. 2006. The Sarbanes-Oxley Act and Implications for Nonprofit Organizations. <http://www.independentsector.org/PDFs/sarbanesoxley.pdf>.
- \_\_\_\_\_. 2007. The Nonprofit Governance Index. <http://www.boardsource.org/UserFiles/File/Research/GovIndex-2007.pdf>
- \_\_\_\_\_. 2009. Board Election Procedures. <http://www.boardsource.org/Knowledge.asp?ID=3.187>
- \_\_\_\_\_. 2010. *The Handbook of Nonprofit Governance*. 1st edition: Jossey-Bass.
- Bobowick, M., and F. Ostrower. 2006. Nonprofit Governance and the Sarbanes-Oxley Act. *Urban Institute Center on Nonprofits & Philanthropy*.
- Bolton, P., and H. Mehran. 2006. An introduction to the governance and taxation of not-for-profit organizations. *Journal of Accounting & Economics* 41 (3):293-305.

- Boone, A. L., L. C. Field, J. M. Karpoff, and C. G. Raheja. 2007. The determinants of corporate board size and composition: An empirical analysis. *Journal of Financial Economics* 85 (1):66-101.
- Bosner, K. 2007. Board Composition, Structure, And Financial Performance: An Update. *Journal of Applied Business Research* 23 (4):27-36.
- Boudreau, J., and E. Nalder. 2003. Debate Over Trustee, Director Compensation Roils Nonprofit Sector. *San Jose Mercury News*  
<http://foundationcenter.org/pnd/news/story.jhtml?id=39800016>.
- Brown, D., D. Brown, and V. Anastasopoulos. 2002. Women on Boards: Not just the Right Thing . . . But the “Bright” Thing. *The Conference Board of Canada* (Report 341-02).
- Brown, L. D., and M. L. Caylor. 2006. Corporate governance and firm valuation. *Journal of Accounting & Public Policy* 25 (4):409-434.
- Brudney, J. L., and V. Murray. 1997. Improving Nonprofit Boards: What Works and What Doesn't? *Nonprofit World* 15 (3):11-17.
- . 1998. Do Intentional Efforts to Improve Boards Really Work? The Views of Nonprofit CEOs. *Nonprofit Management & Leadership* 8 (4):333.
- Burnett, Hunter, and Takaringwa. 2007. Does Electronic Disclosure Affect Contributions to Nonprofit Organizations? *Working paper*.
- Bushman, R. M., and A. J. Smith. 2001. Financial accounting information and corporate governance. *Journal of Accounting & Economics* 32 (1-3):237-333.
- Buss, C., J. Parker, and J. Rivenburg. 2004. Cost, quality and enrollment demand at liberal arts colleges. *Economics of Education Review* 23 (1):57-65.
- Callen, J. L. 1994. Money Donations, Volunteering and Organizational Efficiency. *The Journal of Productivity Analysis* 5 (October): 215-228.
- Callen, J. L., A. Klein, and D. Tinkelman. 2003. Board Composition, Committees and Organizational Efficiency: The Case of Nonprofits. *Nonprofit and Voluntary Sector Quarterly* 32:1-28.
- Callen, J. L., and H. Falk. 1993. Agency and Efficiency in Nonprofit Organizations: The Case of "Specific Health Focus" Charities. *Accounting Review* 68 (1):48-65.
- CalPERS. 2009. Global Principles of Accountable Corporate Governance. *California Public Employees' Retirement System*.

- Carey, K. 2008. Graduation Rate Watch: Making Minority Student Success a Priority. *Education Sector Reports* April, 2008.
- Carter, D. A., B. J. Simkins, and W. G. Simpson. 2003. Corporate Governance, Board Diversity, and Firm Value. *Financial Review* 38 (1):33-53.
- Carver, J. 2006a. *Boards That Make A Difference: A New Design for Leadership in Nonprofit and Public Organizations*. 2nd edition: Jossey-Bass.
- . 2006b. Why Nonprofit Boards Should Not Learn Accountability from Corporate Boards. *Board Leadership* 2006 (85):6-8.
- Cheng, S. 2008. Board size and the variability of corporate performance. *Journal of Financial Economics* 87 (1):157-176.
- Chang, C. F., and H. P. Tuckman. 1991. Financial Vulnerability and Attrition as Measures of Nonprofit Performance. *Annals of Public & Cooperative Economics* 62 (4):655.
- Chapman, D. W. 1981. A Model of Student College Choice. *The Journal of Higher Education* 52 (5):490-505.
- Chen, W.-P., H. Chung, T.-L. Hsu, and S. Wu. 2010. External Financing Needs, Corporate Governance, and Firm Value. *Corporate Governance: An International Review* 18 (3):234-249.
- Coles, J. L., N. D. Daniel, and L. Naveen. 2008. Boards: Does one size fit all. *Journal of Financial Economics* 87 (2):329-356.
- Coles, J. W., V. B. McWilliams, and N. Sen. 2001. An examination of the relationship of governance mechanisms to performance. *Journal of Management* 27 (1):23.
- Conyon, M. J., and S. I. Peck. 1998. Board size and corporate performance: evidence from European countries. *European Journal of Finance* 4 (3):291-304.
- Core, J. E., W. R. Guay, and R. S. Verdi. 2006. Agency problems of excess endowment holdings in not-for-profit firms. *Journal of Accounting & Economics* 41 (3):307-333.
- Core, J. E., R. W. Holthausen, and D. F. Larcker. 1999. Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics* 51 (3):371-406.
- Crutchfield, L., and H. M. Grant. 2008. *Forces for Good*. Jossey-Bass.

- Curs, B., and L. D. Singell. 2002. An analysis of the application and enrollment processes for in-state and out-of-state students at a large public university. *Economics of Education Review* 21 (2):111-124.
- Dalton, D. R., C. M. Daily, A. E. Ellstrand, and J. L. Johnson. 1998. Meta-analytic reviews of board composition, leadership structure, and financial performance. *Strategic Management Journal* 19 (3):269.
- Defond, M. L., R. N. Hann, and H. U. Xuesong. 2005. Does the Market Value Financial Expertise on Audit Committees of Boards of Directors? *Journal of Accounting Research* 43 (2):153-193.
- De Jong, R., and M. Peregrine. 2009. A Common-Sense Approach to Executive Pay. *Trustee* 62 (7):25-26.
- Dichev, I. D. 1999. How Good Are Business School Rankings? *Journal of Business* 72 (2):201-213.
- Dodwell, W. J. 2008. Six Years of the Sarbanes-Oxley Act. *CPA Journal* 78 (8):38-43.
- Drucker, P. F. 1989. What Business Can Learn from Nonprofits. *Harvard Business Review of Accounting Studies* July/August:88-93.
- Eaton, T. V., and M. D. Akers. 2007. Whistleblowing and Good Governance. *CPA Journal* 77 (6):66-71.
- Eisenberg, T., S. Sundgren, and M. T. Wells. 1998. Larger Board Size and Decreasing Firm Value in Small Firms. *Journal of Financial Economics* 48 (1):35-54.
- Emanuele, R., and W. O. Simmons. 2004. Does Government Spending Crowd Out Donations Of Time and Money? *Public Finance Review* 32 (5):498-511.
- Fama, E. F., and M. C. Jensen. 1983. Separation of Ownership and Control. *Journal of Law and Economics* 26 (2):301-325.
- Fama, E. F., and K. F. French. 1995. Size and Book-to-Market Factors in Earnings and Returns. *Journal of Finance* 50 (1):131-155.
- Farber, D. B. 2005. Restoring Trust after Fraud: Does Corporate Governance Matter? *Accounting Review* 80 (2):539-561.
- Farrell, K. A., and P. L. Hersch. 2005. Additions to corporate boards: the effect of gender. *Journal of Corporate Finance* 11 (1/2):85-106.

- Fields, M. A., and P. Y. Keys. 2003. The Emergence of Corporate Governance from Wall St. to Main St.: Outside Directors, Board Diversity, Earnings Management, and Managerial Incentives to Bear Risk. *Financial Review* 38 (1):1-24.
- Fich, E. M., and A. Shivdasani. 2006. Are Busy Boards Effective Monitors? *Journal of Finance* 61 (2):689-724.
- Forgione, D., T. Vermeer, and K. Raghunandan. 2006. The Composition of Nonprofit Audit Committees. *Accounting Horizons* 20.
- Frumkin, P., and E. K. Keating. 2003. Reengineering Nonprofit Financial Accountability: Toward a More Reliable Foundation for Regulation. *Public Administration Review* 63 (1):3-15.
- Frumkin, P., and M. T. Kim. 2001. Strategic Positioning and the Financing of Nonprofit Organizations: Is Efficiency Rewarded in the Contributions Marketplace? *Public Administration Review* 61 (3):266-275.
- Gadaleta, R. 2008. The Crisis in Healthcare Boardrooms. *Directorship* 34 (3):74-74.
- Gallo, D. D. 1996. Paying in stock: A board blueprint. *Corporate Board* 17 (97):11.
- Gallo, D. D. 1996. Paying in stock: A board blueprint. *Corporate Board* 17 (97):11.
- Gardyn, R. 2003. Building Board Diversity. *The Chronical of Philanthropy* <http://philanthropy.com/free/articles/v16/i05/05002501.htm>.
- Gibelman, M., S. R. Gelman, and D. Pollack. 1997. The credibility of nonprofit boards: a view from the 1990s and beyond. *Administration in Social Work* 21 (2):21-40.
- Gifford, G. 2008. Lions and Longevity. Cause & Effect, Inc. <http://www.ceffect.com/blog/tag/term-limits>
- Glaeser, E. L. 2003. *The governance of not-for-profit organizations*: The University of Chicago Press.
- Gompers, P., J. Ishii, and A. Metrick. 2003. Corporate Governance and Equity Prices. *Quarterly Journal of Economics* 118 (1):107.
- González-Rivera, C. 2009. Diversity on Foundation Boards of Directors. *The Greenlining Institute* <http://greenlining.org/resources/pdfs/foundationboarddiversityreport2009.pdf>.
- Gordon, T. P., C. L. Knock, and D. G. Neely. 2009. The role of rating agencies in the market for charitable contributions: An empirical test. *Journal of Accounting & Public Policy* 28 (6):469-484.

- Gow, I. D., G. Ormazabal, and D. J. Taylor. 2010. Correcting for Cross-Sectional and Time-Series Dependence in Accounting Research. *Accounting Review* 85 (2):483-512.
- Grant Thornton. 2008a. Nonprofits Adopt Governing Policies. *Journal of Accountancy* 205 (2):21-21.
- Grant Thornton. 2008b. National Board Governance Survey for Not-for-Profit Organizations. <http://www.gt.com/staticfiles//GTCom/files/Industries/NotForProfit/08%20NatI%20Board%20Gov%20Survey.pdf>
- Grant Thornton. 2009. National Board Governance Survey for Not-for-Profit Organizations. <http://www.gt.com/staticfiles/GTCom/Not-for-profit%20organizations/NFP%20Board%20Governance%20Survey%202009.pdf>
- Greenlee, J. and K. Brown. 1999. The impact of accounting information on contributions to charitable organizations. *Research in Accounting Regulation* 13: 111-125.
- Griesmann, D. A. 2003. What Must We, What Can We Disclose to the Public, Staff, Board and Clients? Nonprofit Good Practice Guide <http://www.idealists.org/idealists/en/FAQ/QuestionViewer/default?category-id=1&item=1505&sid=40057025-157-xBkAU>.
- Grunewald, D. 2008. The Sarbanes-Oxley Act Will Change the Governance of Non Profit Organizations. *Journal of Business Ethics* 80 (3):399-401.
- Guner, B., U. Malmendier, and G. Tate. 2008. Financial expertise of directors. *Journal of Financial Economics* 88 (2):323-354.
- Halinski, R. S. & Feldt, L. S. 1970. The selection of variables in multiple regression analyses. *Journal of Educational Measurement*, 7(3), 151-158.
- Hansmann, H. B. 1980. The Role of Nonprofit Enterprise. *Yale Law Journal* 89 (5):835-901.
- Harris, M. 1989. The Governing Body Role: Problems and Perceptions in Implementation. *Nonprofit and Voluntary Sector Quarterly* 18 (4):317-333.
- Harris, M., and A. Raviv. 2008. A Theory of Board Control and Size. *Review of Financial Studies* 21 (4):1797-1831.
- Harris, E. E. and J. Krishnan. 2011. The Impact of Tarnished Auditor Reputation on Nonprofit Income. *Working Paper, Temple University*.

- Harrison, J. R. 1987. The Strategic Use of Corporate Board Committees. *California Management Review* 30 (1):109-125.
- Healy, P. M., A. P. Hutton, and K. G. Palepu. 1999. Stock Performance and Intermediation Changes Surrounding Sustained Increases in Disclosure. *Contemporary Accounting Research* 16 (3):485-520.
- Heracleous, L. 2001. What is the Impact of Corporate Governance on Organisational Performance? *Corporate Governance: An International Review* 9 (3):165.
- Hermalin, B. E., and M. S. Weisbach. 1991. The Effects of Board Composition and Direct Incentives on Firm Performance. *Financial Management* 20 (4):101-112.
- . 2003. Boards of Directors As an Endogenously Determined Institution: A Survey of the Economic Literature. *Federal Reserve Bank of New York Economic Policy Review* 9 (1):7-26.
- Herman, R. D. 1989. Concluding Thoughts on Closing the Board Gap in *Nonprofit boards of directors: Analyses and applications*. Transaction Books, 193-199.
- . 2009. Are Public Service Nonprofit Boards Meeting Their Responsibilities? *Public Administration Review* 69 (3):387-390.
- Herman, R. D., and D. O. Renz. 2000. Board Practices Of Especially Effective and Less Effective Local Nonprofit Organizations. *American Review of Public Administration* 30 (2):146.
- . 2004. Doing Things Right: Effectiveness in Local Nonprofit Organizations, A Panel Study. *Public Administration Review* 64 (6):694-704.
- Herman, R. D., and J. Van Til. 1989. *Nonprofit boards of directors: Analyses and applications*. Transaction Books.
- Holland, T. P. 2002. Board Accountability. *Nonprofit Management & Leadership* 12 (4):409.
- Hopt, K. J. 2009. The Board of Nonprofit Organizations: Some Corporate Governance Thoughts from Europe. *SSRN Law Working Paper N°.125/2009*.
- Horikawa, S., and J. Hempill. 2010. Serving on a Nonprofit Board in the Post-Enron World. *Corporate Pro Bono* <http://www.cpbo.org/archive/resources/resource1370.html>
- Huther, J. 1997. An empirical test of the effect of board size on firm efficiency. *Economics Letters* 54 (3):259-264.

- Information Management Journal. 2006. SOX: \$6 Billion Cost in 2006. *Information Management Journal* 40 (1):15-15.
- Information Management Journal. 2008. SOX Costs Sock Small Firms. *Information Management Journal* 42 (2):14-14.
- Ingram, R. 2003. Ten Basic Responsibilities of Nonprofit Boards. *BoardSource* Washington DC: Second Edition.
- Internal Revenue Service. 2007. Good Governance Practices for 501(c)(3) Organizations. <http://www.nacua.org/documents/goodgovernancePractices.pdf>
- . 2008a. Instructions for Form 990 Return of Organization Exempt from Income Tax. <http://www.irs.gov/pub/irs-pdf/i990.pdf>
- . 2008b. Background Paper: Forms 990, Moving From the Old to the New. [http://www.irs.gov/pub/irs-tege/moving\\_from\\_old\\_to\\_new.pdf](http://www.irs.gov/pub/irs-tege/moving_from_old_to_new.pdf)
- . 2008c. Governance and Related Topics - 501(c)(3) Organizations. [http://www.irs.gov/pub/irs-tege/governance\\_practices.pdf](http://www.irs.gov/pub/irs-tege/governance_practices.pdf)
- . 2010. Colleges and Universities Compliance Project Interim Report – May 7, 2010. [http://www.irs.gov/pub/irs-tege/cucp\\_interimrpt\\_052010.pdf](http://www.irs.gov/pub/irs-tege/cucp_interimrpt_052010.pdf)
- Irvin, R. A. 2005. State Regulation of Nonprofit Organizations: Accountability Regardless of Outcome. *Nonprofit and Voluntary Sector Quarterly* 34 (2):161-178.
- Iyer, V. M., and A. L. Watkins. 2008. Adoption of Sarbanes-Oxley Measures by Nonprofit Organizations: An Empirical Study. *Accounting Horizons* 22 (3):255-277.
- Jackson, D. K., and T. P. Holland. 1998. Measuring the Effectiveness of Nonprofit Boards. *Nonprofit and Voluntary Sector Quarterly* 27 (2):159-182.
- Jackson, P. M. 2006. *Sarbanes-Oxley for Nonprofit Boards: A New Governance Paradigm*: John Wiley & Sons, Inc.
- Jacobs, J. A. 2010. Board Member Legal Responsibilities. *Associations Now*:56-57.
- Jensen, M. C. 1993. The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *Journal of Finance* 48 (3):831-880.
- Jensen, M. C., and W. H. Meckling. 1976. Theory of the firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics* 3 (4):305-360.
- Jiraporn, P., Y. S. Kim, and W. N. Davidson. 2008. Multiple directorships and corporate diversification. *Journal of Empirical Finance* 15 (3):418-435.

- Jog, V., and B. J. McConomy. 2003. Voluntary Disclosure of Management Earnings Forecasts in IPO Prospectuses. *Journal of Business Finance & Accounting* 30 (1/2):125-167.
- John, K., and L. W. Senbet. 1998. Corporate governance and board effectiveness. *Journal of Banking & Finance* 22 (4):371-403.
- Judge, W. Q., and C. P. Zeithaml. 1992. An Empirical Comparison between the Board's Strategic Role in Nonprofit Hospitals and in For-Profit Industrial Firms. *Health Services Research* 27 (1).
- Keating, E. K., M. Fischer, T. P. Gordon, and J. Greenlee. 2005. Assessing Financial Vulnerability in the Nonprofit Sector. *Harvard University, John F. Kennedy School of Government, Working Paper Series*.
- Keys, P.Y., K.M. Ellis, P.T. Newsome, and S. Friday. 2002. Shareholder benefits of diversity. *Working paper, University of Delaware*.
- King, D. H. 2008. What's the Key to Raising Money in a Tough Economy? *Nonprofit World* 26 (4):24-25.
- Kitching, K. 2009. Audit Value and Charitable Organizations. *Journal of Accounting and Public Policy* 28 (6): 510-524.
- Klein, A. 1998. Firm performance and board committee structure. *Journal of Law and Economics* 41:275-303.
- Krishnan, J., D. Rama, and Y. Zhang. 2008. Costs to Comply with SOX Section 404. *Auditing* 27 (1):169-186.
- Krishnan, R., M. H. Yetman, and R. J. Yetman. 2006. Expense Misreporting in Nonprofit Organizations. *The Accounting Review* 81 (2):399-420.
- Lajili, K., and D. Zeghal. 2006. Market performance impacts of human capital disclosures. *Journal of Accounting & Public Policy* 25 (2):171-194.
- Larcker, D. F., S. A. Richardson, and I. Tuna. 2007. Corporate Governance, Accounting Outcomes, and Organizational Performance. *Accounting Review* 82 (4):963-1008.
- Laughlin, F. L., and R. C. Andringa. 2007. *Good Governance for Nonprofits: Developing Principals and Policies for an Effective Board*: American Management Association.
- Lee, D. 2003. The Business Judgment Rule: Should it Protect Nonprofit Directors? *Columbia Law Review* 103.

- Lehn, K. M., S. Patro, and M. Zhao. 2009. Determinants of the Size and Composition of US Corporate Boards: 1935-2000. *Financial Management (Blackwell Publishing Limited)* 38 (4):747-780.
- Levinsohn, A. 2005. A Silver Lining of SOX. *Strategic Finance*:57-58.
- Light, P. C. 2000. Making Nonprofits Work: A Report on the Tides of Nonprofit Management Reform Washington, DC: Brookings Institution.
- Linck, J. S., J. M. Netter, and T. Yang. 2008. The determinants of board structure. *Journal of Financial Economics* 87 (2):308-328.
- Lublin, J. S., and J. D. Stoll. 2009. GM Will Replace at Least Six Others on Board. *Wall Street Journal - Eastern Edition* 253 (74):A8
- MacKillop, K. 2010. Understanding the Non-Profit Board of Directors. *Ezine Nonprofit Articles*.
- Marshall, J., and E. M. Heffes. 2006. Sarbanes-Oxley Helps Cost of Capital: Study. *Financial Executive* 22 (8):8-8.
- McCambridge, R. 2004. Underestimating the Power of Nonprofit Governance. *Nonprofit & Voluntary Sector Quarterly* 33 (2):346-354.
- McDermott, E., R. Will, and W. Emery. 2004. Best Practices: Nonprofit Corporate Governance. <http://www.mwe.com/info/news/wp0604a.pdf>
- Mehran, H. 1995. Executive compensation structure, ownership, and firm performance. *Journal of Financial Economics* 38 (2):163-184.
- Mensah, Y. M., and R. Werner. 2003. Cost efficiency and financial flexibility in institutions of higher education. *Journal of Accounting & Public Policy* 22 (4):293-323.
- Mensah, Y. M., K. C. K. Lam, and R. H. Werner. 2008. An Approach to Evaluating Relative Effectiveness in Non-profit Institutions. *Journal of Public Budgeting, Accounting & Financial Management* 20 (3):324-354.
- Meyer, P. 1999a. The changing landscape of board remuneration. *Directorship* 25 (7):15.
- Meyer, P. 1999b. The changing landscape of board remuneration--II. *Directorship* 25 (8):12.
- Miller, D. E., & Kunce, J. T. 1973. Prediction and statistical overkill revisited. *Measurement and Evaluation in Guidance*, 6(3), 157-163.

- Miller, J. L. 2002. The Board as a Monitor of Organizational Activity: The Applicability of Agency Theory to Nonprofit Boards. *Nonprofit Management and Leadership* 12 (4):429-450.
- Miller-Millesen, J. L. 2003. Understanding the Behavior of Nonprofit Boards of Directors: A Theory-Based Approach. *Nonprofit & Voluntary Sector Quarterly* 32 (4):521.
- Moore, R. L., A. H. Studenmund, and T. Slobko. 1991. The effect of the financial aid package on the choice of a selective college. *Economics of Education Review* 10 (4):311-321.
- Morck, R., A. Shleifer, and R. W. Vishny. 1988. Management Ownership and Market Valuation: An Empirical Analysis. *Journal of Financial Economics* 20 (1/2):293-315.
- Mulligan, L. N. 2007. What's Good for the Goose is Not Good for the Gander: Sarbanes-Oxley-Style Nonprofit Reforms. *Michigan Law Review* 105 (8):1981-2009.
- New York Stock Exchange. 2004. NYSE Listed Company Manual Section 303A Corporate Governance Listing Standards. *Frequently Asked Questions*.
- Nizankiewicz, M. J. 2005. Building the Best Board. *Association Management* 57 (1):22-26.
- Nonprofit Good Practice Guide. 2009. Glossary. <http://www.npgoodpractice.org/Glossary>
- Norris, F. 2002. Andersen Trial in Phoenix Opens With Views on Fraud. *The New York Times*. <http://www.nytimes.com/2002/05/01/business/andersen-trial-in-phoenix-opens-with-views>.
- Office of New York State Attorney General. 2003. Sarbanes-Oxley for Nonprofits. <http://www.npccny.org/info/gti10.htm>
- Okten, C., and B. A. Weisbrod. 1999. Determinants of donations in private nonprofit markets. *Journal of Public Economics* 75:255-272.
- Olson, D. E. 2000. Agency Theory in the Not-for-Profit Sector: Its Role at Independent Colleges. *Nonprofit and Voluntary Sector Quarterly* 29 (2):280-296.
- O'Regan, K., and S. M. Oster. 2005. Does the Structure and Composition of the Board Matter? The Case of Nonprofit Organizations. *Journal of Law, Economics & Organization* 21 (1):205-227.
- O'Reiley, T. 2008. Give Or Get: Board Members Must Provide Cash. *Nonprofit Times Weekly* 22 (7):21.

- Oster, S. M. 1995. Strategic management for nonprofit organizations: Theory and cases. New York and Oxford: Oxford University Press.
- Ostrower, F. 2007. Nonprofit Governance in the United States - Findings on Performance and Accountability from the First National Representative Study. *The Urban Institute Press*.
- Ostrower, F., and M. M. Stone. 2006. Governance: Research Trends, Gaps, and Future Prospects. *The Nonprofit Sector: A Research Handbook* Chapter 26:612-628.
- Panel on the Nonprofit Sector. 2005. Strengthening of Charitable Organizations. [http://www.nonprofitpanel.org/Report/final/Panel\\_Final\\_Report.pdf](http://www.nonprofitpanel.org/Report/final/Panel_Final_Report.pdf)
- Parker, J., and J. Summers. 1993. Tuition and enrollment yield at selective liberal arts colleges. *Economics of Education Review* 12 (4):311-324.
- Parsons, L. 2003. Is Accounting Information from Nonprofit organizations useful to donors? A review of Charitable giving and value-relevance. *Journal of Accounting Literature* 22:104-129.
- . 2007. The Impact of Financial Information and Voluntary Disclosures on Contributions to Not-For-Profit Organizations. *Behavioral Research in Accounting* 19:179-196.
- Parsons, L. M., and J. M. Trussel. 2008. Financial reporting factors affecting donations to charitable organizations. *Advances in Accounting* (23):263-285.
- Petra, S. T., and N. T. Dorata. 2008. Corporate governance and chief executive officer compensation. *Corporate Governance: The International Journal of Effective Board Performance* 8 (2):141-152.
- Plambeck, D. L. 1985. The Implication of Board Member Composition for Fund-Raising Success. *Nonprofit and Voluntary Sector Quarterly* 14:60-66.
- Posnett, J., and T. Sandler. 1989. Demand for Charity Donations in Private Non-profit Markets. *Journal of Public Economics* 40 (2):184.
- Powell, W. W., and R. Steinberg. 2006. *The Nonprofit Sector: A Research Handbook*: Second edition. New Haven and London: Yale University Press.
- Raheja, C. G. 2005. Determinants of Board Size and Composition: A Theory of Corporate Boards. *Journal of Financial & Quantitative Analysis* 40 (2):283-306.
- Richard, O.C. 2000. Racial diversity, business strategy, and firm performance: A resource-based view. *Academy of Management Journal* 43: 164–177.

- Salmon, J. L. 2004. Area United Way's Ex-Chief Admits \$500,000 Fraud. *The Washington Post*  
<http://pqasb.pqarchiver.com/washingtonpost/offers.html?message=The%20document%20format%20was%20not%20specified>
- Scitovszky, T. 1944. Some Consequences of the Habit of Judging Quality by Price. *The Review of Economic Studies* 12 (2):100-105.
- Senate Finance Committee. 2004. Statement of U.S. Senator Max Baucus - *Charity Oversight and Reform: Keeping Bad Things from Happening to Good Charities*.
- Seneca, J. J., and M. K. Taussig. 1987. The effects of tuition and financial aid on the enrollment decision at a state university. *Research in Higher Education* 26 (4):337-362.
- Shleifer, A., and R. W. Vishny. 1997. A Survey of Corporate Governance. *Journal of Finance* 52 (2):737-783.
- Siliciano, J. I. 1996. The Relationship of Board Member Diversity to Organizational Performance. *Journal of Business Ethics* 15 (12):1313-1320.
- Silk, T., and R. Fei. 2005. California's Nonprofit Integrity Act of 2004. *The International Journal for Not-for-Profit Law* 7 (2).
- Smith, P. 2009. Best Compensation Governance Practices.  
<http://blog.petesmithconsulting.com/nonprofit-musings/2009/08/best-compensation-governance-practices.html>
- Stone, M. M., B. Bigelow, and W. Crittenden. 1999. Research on Strategic Management in Nonprofit Organizations. *Administration & Society* 31 (3):378.
- Stone, M. M., and F. Ostrower. 2007. Acting in the Public Interest? Another Look at Research on Nonprofit Governance. *Nonprofit and Voluntary Sector Quarterly* 36 (3):416-438.
- Strom, S. 2002. Questions Arise on Accounting at United Way. *The New York Times*.
- Sun, J., S. F. Cahan, and D. Emanuel. 2009. Compensation committee governance quality, chief executive officer stock option grants, and future firm performance. *Journal of Banking & Finance* 33 (8):1507-1519.
- Terjesen, S., R. Sealy, and V. Singh. 2009. Women Directors on Corporate Boards: A Review and Research Agenda. *Corporate Governance: An International Review* 17 (3):320-337.

- Tinkelman, D. 1998. Differences in Sensitivity of Financial Statement Users to Joint Cost Allocations: The Case of Nonprofit Organizations. *Journal of Accounting, Auditing & Finance* 13 (4):377-393.
- . 1999. Factors Affecting the Relation between Donations to Not-for-profit Organizations and an Efficiency Ratio. *Government and Nonprofit Accounting* 10: 135-161.
- . 2004. Using nonprofit organization-level financial data to infer managers' fundraising strategies. *Journal of Public Economics* 88 (9/10):2181.
- Tinkelman, D., and K. Mankaney. 2007. When is Administrative Efficiency Associated With Charitable Donations? *Nonprofit and Voluntary Sector Quarterly* 36 (1):41-64.
- Urban Institute and the Center on Philanthropy at Indiana University. 2004. The pros and cons of financial efficiency standards. *Nonprofit Overhead Cost Project Brief 5*. Indianapolis.
- Vafeas, N. 1999. Board meeting frequency and firm performance. *Journal of Financial Economics* 53 (1):113-142.
- van der Klaauw, W. 2002. Estimating the Effect of Financial Aid Offers on College Enrollment: A Regression-Discontinuity Approach. *International Economic Review* 43 (4):1249-1287.
- Weisbrod, B. A., and N. D. Dominguez. 1986. Demand for Collective Goods in Private Nonprofit Markets: Can Fundraising Expenditures Help Overcome Free-Rider Behavior? *Journal of Public Economics* 30 (1):83.
- Williamson, O. E. 1983. Organization Form, Residual Claimants, and Corporate Control. *Journal of Law & Economics* 26 (2):351-366.
- Wooldridge, J. 2009. *Introductory Econometrics: A Modern Approach*, 4th Edition. Michigan State University.
- WorldatWork. 2007. Severance and Change-in-Control Practices. <http://www.worldatwork.org/waw/home/html/home.jsp>
- Wright, P, S.P. Ferris, J.S. Hiller, and M. Kroll. 1995. Competitiveness through management of diversity: Effects on stock price valuation. *Academy of Management Journal* 38: 272–287.
- Wyland, M. 2003. Term Limits: Only 'Perfect' Boards Can Do Without Them. *The NonProfit Times* February (1).

Yermack, D. 1996. Higher market valuation of companies with a small board of directors. *Journal of Financial Economics* 40 (2):185-211.

Yetman, M., and R. J. Yetman. 2008. The Effects of Governance on the Financial Reporting Quality of Nonprofit Organizations. *Working paper, University of California at Davis*.

Zahra, S. A., and J. A. Pearce II. 1989. Boards of Directors and Corporate Financial Performance: A Review and Integrative Model. *Journal of Management* 15 (2):291.

Zander, A. 1993. *Make Boards Effective: The Dynamics of Nonprofit Governing Boards*: Jossey-Bass.

Zhang, I. X. 2007. Economic consequences of the Sarbanes-Oxley Act of 2002. *Journal of Accounting & Economics* 44 (1/2):74-115.

## ***APPENDIXES***

### ***Appendix A: Nonprofit Fraud Examples***

#### *Arizona Baptist Foundation*

Fraud at the Arizona Baptist Foundation was described as a “Ponzi-like” scheme leaving elderly investors owed approximately \$570 million in 1999. In the trial against the foundation’s auditors, Arthur Andersen, the diligence of the board of directors was of central concern. Quoting Arthur Andersen’s lead attorney, Dan Martin, in a 2002 New York Times article (Norris 2002): “every member of the board of the foundation knew of the fraud, as did lawyers and accountants who worked for the foundation. They knew about the fraud, and they kept quiet”.

#### *The United Way*

The United Way has also been involved in multiple nonprofit scandals over the years. In 1992, United Way CEO William Aramony was accused of using charity funds to fuel a lavish lifestyle complete with an expensive condominium, limousine, and trips on the Concorde Jet (Gibelman et al. 1997). In 2004, CEO, Oral Suer, was accused of siphoning \$1.6 million in United Way donations, including exorbitant pension payouts and advances on his salary that were never repaid (Salmon 2004). Additionally, several local United Ways (Washington DC, New York, Chicago, and others) were questioned in connection with their methods for accounting for contributions. In all three cases the actions of the national United Way board of directors have come into question (Gibelman et al. 1997, Strom 2002).

#### *World Bank, the Nature Conservatory, American University, and the American Red Cross*

Additional nonprofit frauds include smaller scale scandals at the WorldBank, The Nature Conservatory, American University, and the American Red Cross. World Bank encountered problems in the form of kickbacks, bribery, payoffs and collusive bidding, in addition to embezzlement of over \$2 million. The Nature Conservatory uncovered fraud related to inappropriate business and real estate transactions with board members. American University's president was found to be involved in excessive personal spending, ending with the board of directors requesting that \$125,000 be repaid to the university. The American Red Cross reported poor internal control mechanisms leading to excessive bonuses and stolen funds.

## ***Appendix B: Email Request for Survey Participation***

To the office of the University President:

We need your help! Our research is exploring the nature of nonprofit Board of Directors. We are interested in how your board members contribute to your University. The survey is very short and will not take more than 10 minutes to complete.

Please forward this message to the Chief Financial Officer at your institution who will have the information necessary to answer these valuable survey questions.

Your response will be kept confidential and no individual results will be shared in any way. Your support will help us contribute to the academic research in the area of nonprofit governance.

Thank you, we very much appreciate your feedback. The web link below will connect your CFO to an electronic survey:

[Survey Link](http://www.surveymonkey.com/s.aspx?sm=5D26zxIypykxWBFewtwqA_3d_3d)

([http://www.surveymonkey.com/s.aspx?sm=5D26zxIypykxWBFewtwqA\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=5D26zxIypykxWBFewtwqA_3d_3d))

Erica Harris  
Accounting PhD student  
Temple University

*Appendix C: Electronic Survey Instrument*



[Exit this survey >>](#)

THANK YOU for following the link to this survey and providing valuable information for the research of nonprofit governance.

This survey is for research purposes only, all information is secured and your answers will be grouped anonymously.

Your participation is completely voluntary and you may exit the survey at any time.

This survey will take about 10 minutes to complete, please follow the completion meter at the bottom of your screen.

Thank you for your time!

1 / 7

14%

[Next >>](#)



[Exit this survey >>](#)

**1. Please select the statement that best describes the board of directors at your organization:**

Provides valuable contributions to our business      Does not provide much contribution to our business      I am not sure

**2. Please tell us about your board of directors:**

Total number of board members: 

Approximate number of board meetings per year: 

How many years may directors serve on the board? 

**3. What are the attendance patterns of your board of directors at regularly scheduled board meetings?**



2 / 7

29%

[<< Prev](#)

[Next >>](#)



[Exit this survey >>](#)

**4. How many members of your board are:**

- Currently working full time?
- Currently work or have previously worked in the industry your organization operates in?
- Considered to be financial experts (understanding of generally accepted accounting principles and financial statements)?
- Major donors to your organization (top 25 donors):
- On the boards of other nonprofit organizations?
- Female?
- Members of a minority group defined as African American, Hispanic, or Native American?
- Employees of the organization?
- Related in any way to employees of the organization?
- Principals in a firm that does business with your organization?



43%

3 / 7

[<< Prev](#) [Next >>](#)



[Exit this survey >>](#)

**5. Please answer the following related to your board of directors:**

- Are board members required to be elected to their positions on the board?
- Does the CEO/President also act as the Chairman of the board?
- Does your organization receive goods or services below market value as the result of a business relationship with a board member?
- Are board members required to disclose business relationships with your organization?
- Does your organization have a board conflict of interest policy?
- Does your organization maintain Directors & Officers insurance?
- Are any board members appointed by outside agencies or funding sources?

Yes                      No                      Not sure

4 / 7

57%

[<< Prev](#) [Next >>](#)



[Exit this survey >>](#)

**6. Are board members compensated for their time and services?**

Yes                      No                      Not sure

If so, please provide average compensation amount:

**8. Does your organization have an audit committee?**

Yes                      No                      Not sure

If so, how many members does the audit committee have?

5 / 7

**7. How many separate committees does your board of directors have?**

**9. Does your organization have a finance committee?**

Yes                      No                      Not sure

If so, how many members does the finance committee have?

71%



[Exit this survey >>](#)

**10. Please answer the following questions about your board committees:**

Yes                      No                      Not sure

Does your board of directors include a compensation committee?

Does the board of directors include a nominating committee?

Is the nominating committee chairman also the board chairman?

6 / 7

**11. On a scale of 1 – 5 with 5 being extremely active and 1 being extremely inactive, how would you rate the following board characteristics?**

Extremely inactive 1    2    3    4    5    Extremely active    N/A

Activity of the board is a whole

Fundraising efforts

Audit committee activity

Finance committee activity

86%



[Exit this survey >>](#)

**12. Your current job title:**

CEO / President

CFO

Controller

Executive  
Director

Chairman of the  
board

Board member

Other (please specify)

**13. Please select the industry that best describes your organization:**

**15. Annual budget of your organization:**

**17. Please provide your firm's tax identification number:**

**14. 5 digit zip code your organization's headquarters are located in:**

**16. Number of employees:**

7 / 7

100%

<< Prev

Done >>

### *Appendix D: Survey design choice findings*

The first batch of 255 paper surveys was mailed out on July 14, 2008 followed by a second request on September 3, 2008. Please see Appendix F for a copy of the paper survey instrument. This batch acted as a test for three survey administration preferences. The first choice was related to return postage for completed surveys. While all survey requests included a self addressed envelope, one third included a first class stamp, one third included a business reply envelope, and one third did not include return postage of any kind. A second instrument alternative related to the format of the survey itself. Half of the surveys in batch one included a two-page letter sized survey while the other half received a one-page legal sized survey. The implication of different sized surveys is that, although both formats included the same number of questions, respondents may interpret a one page (legal size) survey as shorter and less time consuming than two letter sized pages. The third and final design choice was linked to the cover letter included with the survey request. One half of the cover letters sent out were signed by my dissertation advisor while the other half was signed by me. See Appendix E for copies of these cover letters. The purpose of the design test group was to determine if differences existed in the number of survey responses received based on any one of the three design choices described above.

The response rate for batch one was 44 percent with 112 responses out of 255 from both first and second request mailings. Related to postage, 37 survey responses were returned using the first class stamp provided, 35 were received by business reply envelope, and 40 were acknowledged to have used postage provided by the addressee. Related to survey format, 51 responses to batch one were received in letter format, 61 in

legal. Finally, with respect to cover letter signatory, 48 survey responses were received in reply to requests sent from my advisor, and 64 were collected in reply to requests signed myself. Please see [Table 3](#) for a summary of these design choice survey responses. As a result of these findings, batches two and three were prepared with no return postage (also found to be more cost effective), using the legal size format of the survey instrument (also found to be more efficient for coding purposes), and with all cover letters signed by me.

*Appendix E: Paper Survey Cover Letters*

*Version A: Signed by Erica Harris*



July 15, 2008

Dear Sir or Madam:

As part of my dissertation I am conducting research exploring the nature of nonprofit board of directors. In particular, I am interested in how your board members contribute to your University. The enclosed survey is very short and will not take more than 10 minutes to complete.

Your response will be kept confidential and no individual results will be shared in any way. Your support will help me contribute to the academic research in the area of nonprofit governance.

Thank you, I very much appreciate your feedback. Please use the enclosed self addressed envelope to return your completed survey as soon as possible. If you have any questions about the survey, feel free to contact me at (772) 631-0555 or [harris03@temple.edu](mailto:harris03@temple.edu), or my advisor, Dr. Steven Balsam, at (215) 204-5574 or [drb@temple.edu](mailto:drb@temple.edu).

Sincerely,

Erica Harris, M.B.A., C.P.A.  
Accounting Doctoral Candidate

*Version B: Signed by Dr. Steven Balsam*



July 15, 2008

Dear Sir or Madam:

We are conducting research exploring the nature of nonprofit board of directors. In particular, we are interested in how your board members contribute to your University. The enclosed survey is very short and will not take more than 10 minutes to complete.

Your response will be kept confidential and no individual results will be shared in any way. Your support will help us contribute to the academic research in the area of nonprofit governance.

Thank you, we very much appreciate your feedback. Please use the enclosed self addressed envelope to return your completed survey as soon as possible. If you have any questions about the survey, feel free to contact me at (215) 204-5574 or [drb@temple.edu](mailto:drb@temple.edu), or my assistant, Erica Harris, at (772) 631-0555 or [harris03@temple.edu](mailto:harris03@temple.edu).

Sincerely,

Steven Balsam, Ph.D. C.P.A.  
Professor of Accounting

*Version C: Offer for results*



September 3, 2008

Dear Sir or Madam:

As part of my dissertation I am conducting research exploring the nature of nonprofit board of directors. In particular, I am interested in how your board members contribute to your University. The enclosed survey is very short and will not take more than 10 minutes to complete.

Your response will be kept confidential and no individual results will be shared in any way. Your support will help me contribute to the academic research in the area of nonprofit governance. If you are interested in receiving a copy of my completed project with results, kindly either send an email to the address below or include your business card with your completed survey.

Thank you, I very much appreciate your feedback. Please use the enclosed self addressed envelope to return your completed survey as soon as possible. If you have any questions about the survey, feel free to contact me at (772) 631-0555 or [harris03@temple.edu](mailto:harris03@temple.edu), or my advisor, Dr. Steven Balsam, at (215) 204-5574 or [drb@temple.edu](mailto:drb@temple.edu).

Sincerely,

Erica Harris, M.B.A., C.P.A.  
Accounting Doctoral Candidate

## *Appendix F: Paper Survey Instrument*

THANK YOU for taking the time to complete this survey and providing valuable information for our research into the governance of nonprofit universities. This survey is for research purposes only, your personal information is secured and your answers will be grouped anonymously. Further, your participation is completely voluntary and you may refuse to participate at any time.

Your unfinished survey is also valuable to us; please return any completed portion. This survey will take about 10 minutes to complete, thank you for your time!

---

1. How would you describe the board of directors at your University?  
 Our board provides valuable contributions to our organization  
 Our board does not provide much contribution to our organization  
 Not sure
2. Are board members elected to their positions on the board?  Yes  No  Not sure
3. How many years may directors serve on the board of directors at your University?  
\_\_\_\_\_  Not sure
4. Are board members compensated for their time and services?  Yes  No  Not sure
5. What are the attendance patterns of your board of directors at regularly scheduled board meetings?  
 76 - 100% attendance  26 - 50% attendance  
 51 - 75% attendance  0 - 25% attendance or less
6. How many board members are currently working full time? \_\_\_\_\_  Not sure
7. How many board members currently work or have previously worked in the higher education industry (College, University, Community College)? \_\_\_\_\_  Not sure
8. How many board members are considered to be financial experts (understanding of generally accepted accounting principles and financial statements)? \_\_\_\_\_  Not sure
9. Number of board members who are also major donors (top 25 donors): \_\_\_\_\_  Not sure
10. How many board members serve on the boards of other nonprofit organizations?  
\_\_\_\_\_  Not sure
11. How many board members serve on the boards of for-profit organizations?  
\_\_\_\_\_  Not sure
12. Number of female board members: \_\_\_\_\_  Not sure
13. How many board members belong to a minority group defined as African American, Hispanic, or Native American \_\_\_\_\_  Not sure
14. Number of board members who are employees of the University: \_\_\_\_\_  Not sure
15. Does the President also act as the Chairman of the board?  Yes  No  Not sure

16. Are board members required to disclose business relationships with the University?  
 Yes     No     Not sure
17. How many board members have business relationships with the University?  
 \_\_\_\_\_  Not sure
18. Does your University receive goods or services below market value as the result of these business relationships?  
 Yes     No     Not sure     Not applicable
19. Does the University have a board conflict of interest policy?  Yes  No  Not sure
20. Does the University have an audit or finance committee?  Yes  No  Not sure
21. Does your board of directors include a compensation committee?  Yes  No  Not sure
22. Does the board of directors include a nominating committee?  Yes  No  Not sure
23. Number of board members: \_\_\_\_\_  
 If you are not sure, please estimate \_\_\_\_\_
24. Approximate number of board meetings per fiscal year: \_\_\_\_\_  
 If you are not sure, please estimate \_\_\_\_\_

25. What is your current job title?

- President
- CFO
- Controller
- Executive Director
- Chairman of the board
- Board member
- Other

26. What is the Zip code of your main campus? \_\_\_\_\_

*Please share any other thoughts you have about how this survey or the governance at your university.*

## ***Appendix G: Survey Results Provided to Survey Participants***

### Nonprofit University Board of Directors Survey *Summary of Results – June, 2009* *Erica Harris, CPA, Temple University*

The focus of this study was to compile and analyze survey data related to nonprofit university board of directors and associated business practices. During the course of the study, a total of two thousand four hundred paper and electronic surveys were sent to colleges and universities throughout the United States. Electronic survey recipients (1,627) were selected from a listing of American Universities found on the University of Texas at Austin website (<http://www.utexas.edu/world/univ/state>). Paper survey recipients (774) were identified from the National Council for Charitable Statistics (NCCS) database, specifically nonprofits classified as institutions of Higher Education. Five hundred and fifty-seven surveys were received in reply to four separate mailings (Winter 2007, Spring 2008, Summer 2008, and Fall 2008), for an overall response rate of twenty-nine percent. Forty-nine states are represented in the sample with responses coming from universities, colleges and community colleges alike. Respondents primarily identified themselves as the university Chief Financial Officer (59%), but responses from university Presidents (14%) and other board representatives (22%) were also tallied.

Overall results indicate that an overwhelming majority (93%) of survey participants believe that their board of directors provide valuable contributions to their institutions. Highlights from the twenty-four questionnaire items indicate that nonprofit universities in the sample have large boards with little diversity. However, governance and disclosure practices appear to be in-line with recommendations from the IRS and groups such as the National Center for Nonprofit Boards (BoardSource).

The average board size reported by survey respondents was 28.16 members, with a median size of 29 members. This respondent board size is particularly large with respect to three publically available nonprofit benchmarks. In a 2004 white paper, the Senate Finance Committee proposed limiting board size to no less than three and no more than fifteen members. Second, the National Center for Nonprofit Boards (BoardSource) reports an average board size of 16 (with a median of 15) in their 2007 Nonprofit Governance Index. Finally, boards reported on by the Urban Institute (Center on Nonprofits and Philanthropy) in their 2007 study of over 5,000 nonprofit organizations in varied industries, calculated a mean of 11 (median of 13) board members. As such, university boards represented by survey participants appear to be much larger than boards in a comparative pool of industry diverse nonprofit organizations. More detailed analysis will be the topic of further research, with specific attention devoted to the rationale for large boards in the nonprofit university setting.

Board diversity is often linked to the ability of a nonprofit to meet the needs of the gender and racial diversity of its constituents. Nonprofit research conducted by BoardSource and published in a 1999 handbook entitled: *Perspectives on Nonprofit Board Diversity* has shown that heterogeneity in groups promotes creativity and innovation, noting that the need for diversity is an essential part of making effective decisions and delivering appropriate services to minority clients. Additionally, The Greenlining Institute (a multi-ethnic public policy research and advocacy group) also provides recent research in the form of a 2009 research brief entitled: *Diversity on Foundation Boards of Directors* indicating the need for ethnic diversity on foundation boards in an effort to be responsive to the grant making needs of our culturally diverse

nation (González-Rivera 2009). Finally, in a 2009 report by the California Public Employees' Retirement System's (the nation's largest pension fund), for-profit firms with gender and ethnic diversity on their boards are found to outperform those lacking board diversity, highlighting a financial advantage for diverse boards. With the increasing diversity of university students today, the ability of a university to respond to the needs of diverse student populations and perform at its best is of paramount importance.

Boards in the respondent pool are made up of approximately twenty-eight percent female and twelve percent minority members (defined as African American, Hispanic, or Native American). Looking first at racial minority membership, respondent boards appeared to follow findings of the Urban Institute and Board Governance Index studies which both reported fourteen percent minority members. Further, the US Department of Education also reports that minority faculty (defined as African American, Hispanic or Native American) stands at ten percent of full-time faculty as of Fall 2007. However, when compared to the racial make-up of student enrollment reported by the US Department of Education, board diversity in the respondent group appears relatively low. Specifically, minority student enrollment (also defined as African American, Hispanic or Native American) totaled twenty-four percent of students at US colleges and universities during the Fall of 2007. As such, the lack of ethnic diversity at respondent organizations provides one area where improvements could be made to better serve the student populations of nonprofit colleges and universities in the sample.

With respect to female members, participating universities reported almost half as many female members (28%) as documented by the Urban Institute (48% females) and 2007 BoardSource Governance Index (43% females). Additionally, the Department of

Education tallies a nation-wide student population made up fifty-seven percent female students, and forty-two percent female faculty members. These results coupled with the lack of ethnic diversity on respondent organization boards signal one area of weakness in the university boards represented.

In terms of governance and disclosure, both the new IRS Form 990 and the 2007 discussion draft of *Good Governance Practices for 501(c)3 Organizations* prepared by the IRS, as well as the Senate Finance Committee discussion draft mentioned above, include several governance and disclosure recommendations for charity organizations to incorporate into their businesses in an effort to enhance transparency. Included in the discussion from the IRS are the recommendations to incorporate a conflict of interest policy and maintain an audit or finance committee. Nearly all (97%) of respondents indicated that their board maintains a finance or audit committee, compared to eighty percent of boards documented in the 2004 Nonprofit Governance Index and seventy-four percent maintaining an audit committee and eighty-one percent holding a finance committee in the 2008 Grant Thornton National Board Governance Survey for Not-for-Profit Organizations. Further, ninety-five percent of responding institutions reported that their organization has a conflict of interest policy in place. In comparison, the Urban Institute study reported that only half of their respondent's reported the use of a conflict of interest policy, while the 2007 Nonprofit Governance Index indicates that eighty-eight percent of charities in their study have an established conflict of interest policy, and the 2008 Grant Thornton National Board Governance Survey for Not-for-Profit Organizations reports that ninety-two percent of survey respondents in their study have a conflict of interest policy in place. When analyzed together, it appears that respondent

organizations have better governance and disclosure practices than broader groups of nonprofit agencies, based on two widely studied characteristics.

Please refer to the table below for additional detailed questionnaire response information.

<b>Survey question</b>	<b>Number of responses received</b>	<b>Summary of Responses Mean (Median)</b>
Number of board members:	548	28.16 (29.00)
How would you describe the board of directors at your University?	481	Provides valuable contribution: 449 (93%) Does not provide valuable contribution: 32 (7%)
Are board members elected to their positions on the board?	528	Yes: 417 (79%) No: 111 (21%)
How many years may directors serve on the board of directors at your University?	509	Unlimited term: 136 (27%) Limited term: 373 (73%) Mean (median) of limited terms: 9.1 years (9 years)
Are board members compensated for their time and services?	527	Yes: 3 (1%) No: 524 (99%)
What are the attendance patterns of your board of directors at regularly scheduled board meetings?	545	76 – 100%: 278 (51%) 51 – 75%: 209 (38%) 26 – 50%: 53 (10%) 0 – 25%: 5 (1%)
How many board members are currently working full time?	446	21.1 (21.0) <i>as a % of mean (median) board size: 75% (72%)</i>
How many board members currently work or have previously worked in the higher education industry (College, University, Community College)?	493	3.94 (3.00) <i>as a % of mean (median) board size: 14% (10%)</i>
How many board members are considered to be financial experts (understanding of generally accepted accounting principles and financial statements)?	500	7.51 (6.00) <i>as a % of mean (median) board size: 27% (21%)</i>
Number of board members who are also major donors (top 25 donors):	426	8.55 (5.00) <i>as a % of mean (median) board size: 30% (17%)</i>
How many board members serve on the boards of other nonprofit organizations?	282	20.84 (16.00) <i>as a % of mean (median) board size: 74% (55%)</i>

<b>Survey question</b>	<b>Number of responses received</b>	<b>Summary of Responses Mean (Median)</b>
How many board members serve on the boards of for-profit organizations?	84	10.34 (8.00) <i>as a % of mean (median) board size: 37% (28%)</i>
Number of female board members	520	7.95 (7.00) <i>as a % of mean (median) board size: 28% (24%)</i>
How many board members belong to a minority group defined as African American, Hispanic, or Native American	492	3.41 (2.75) <i>as a % of mean (median) board size: 12% (9%)</i>
Number of board members who are employees of the University	527	1.33 (1.00) <i>as a % of mean (median) board size: 5% (3%)</i>
Does the President also act as the Chairman of the board?	530	Yes: 9 (2%) No: 521 (98%)
Are board members required to disclose business relationships with the University?	519	Yes: 491 (95%) No: 28 (5%)
How many board members have business relationships with the University?	474	2.17 (1.00) <i>as a % of mean (median) board size: 8% (3%)</i>
Does your University receive goods or services below market value as the result of these business relationships?	400	Yes: 38 (10%) No: 362 (90%)
Does the University have a board conflict of interest policy?	523	Yes: 496 (95%) No: 27 (5%)
Does the University have an audit or finance committee?	528	Yes: 513 (97%) No: 15 (3%)
Does your board of directors include a compensation committee?	524	Yes: 261 (50%) No: 263 (50%)
Does the board of directors include a nominating committee?	523	Yes: 447 (86%) No: 76 (14%)
Approximate number of board meetings per fiscal year:	548	3.90 (3.00)
What is your current job title?	494	President: 68 (14%) CFO: 292 (59%) Controller: 17 (4%) Other: 110 (22%) Executive Director: 5 (1%) Chairman of Board: 1 Board member: 1

*Appendix H: U.S. News and World Report University Ranking Methodology*

<b>Ranking Category</b>	<b>National Universities &amp; Liberal Arts Colleges</b>	<b>Universities Master's &amp; Baccalaureate Colleges</b>	<b>Subfactor</b>	<b>National Universities &amp; Liberal Arts Colleges</b>	<b>Universities Master's &amp; Baccalaureate Colleges</b>
Peer assessment	25%	25%	Peer assessment survey	100%	100%
Student Selectivity for fall 2008 entering class	15%	15%	Acceptance rate	10%	10%
			High school class standing in top 10%	40%	0%
			High school class standing in top 25%	0%	40%
			Critical Reading and Math portions of the SAT and the composite ACT scores	50%	50%
Faculty resources for 2008 – 2009 academic year	20%	20%	Faculty compensation	35%	35%
			Percent faculty with top terminal degree in their field	15%	15%
			Percent faculty that is full time	5%	5%
			Student/faculty ratio	5%	5%
			Class size, 1 - 19 students	30%	30%
			Class size, 50+ students	10%	10%
Graduation and retention rates	20%	25%	Average graduation rate	80%	80%
			Average freshman retention rate	20%	20%
Financial resources	10%	10%	Financial resources per student	100%	100%
Alumni giving	5%	5%	Average alumni giving rate	100%	100%
Graduation rate performance	5%	0%	Graduation rate performance	100%	0%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

**Appendix I: Summary of Predicated Relationships**

<i>Predicted associations with...</i>	<i>Contributions</i>	<i>Total Revenues</i>	<i>Financial measures</i>	<i>Efficiency</i>
<b>Diversity (Chapter 3)</b>				
Ethnic/racial diversity	+	+	+	
Gender	+	+	+	
<b>Expertise (Chapter 3)</b>				
Directors working in higher education	+	+	+	
Financial experts	+	+	+	
Directors who serve on other nonprofit boards	+	+	+	
Directors who serve on other for-profit boards	+	+	+	
<b>Contribution (Chapter 3)</b>				
Major donors	+	+	+	
Attendance patterns	+	+	+	
Number of meetings	+	+	+	
Board size	+	+	+	
<b>Board Organization (Chapter 4)</b>				
Compensation committee				+
Nominating committee				+
Audit/finance committee				+
<b>Independence (Chapter 4)</b>				
CEO duality				-
Employees				-
Board term				-
Elected directors				+
<b>Disclosure (Chapter 4)</b>				
Disclose business relationships				+
Disclose goods below market value				+
Conflict of Interest Policy				+

## TABLES

*Table 1: Electronic Survey Response Descriptive Statistics by Question*

Survey item number	Survey question	Response	N	Percentage / Mean
1	Board contribution	Valuable	123	91%
		Not valuable	12	9%
2a	Board size		201	25.65
2b	Approximate number of board meetings per year		198	4.51
2c	Board term limits?	Yes	159	84%
		No	31	16%
3	Attendance patterns	0-24%	0	0%
		25-49%	3	2%
		50-74%	48	24%
		75-100%	147	74%
4a	% Working full time	as a % of board size	179	81%
4b	% Working in industry	as a % of board size	179	21%
4c	% Financial experts	as a % of board size	180	31%
4d	% Major donors	as a % of board size	175	32%
4e	% On other NFP boards	as a % of board size	167	69%
4f	% Female	as a % of board size	179	33%
4g	% Minority	as a % of board size	178	18%
4h	% Employees	as a % of board size	179	9%
4i	% Related to Employees	as a % of board size	176	8%
4j	Number of business relationships		176	3.26
5a	Directors elected?	Yes	126	70%
		No	54	30%
5b	CEO duality?	Yes	4	2%
		No	177	98%
5c	Goods below market value?	Yes	16	9%
		No	164	91%
5d	Disclose business relationships?	Yes	164	91%
		No	16	9%
5e	Conflict of interest policy?	Yes	165	91%
		No	16	9%

5f	Directors and Officers insurance?	Yes	151	83%
		No	30	17%
5g	Directors appointed by outside agencies or funding sources	Yes	48	27%
		No	133	73%
6	Compensated	Yes	2	1%
		No	177	99%
7	Number of committees		177	6.79
8	Audit committee?	Yes	144	80%
		No	36	20%
9	Finance committee?	Yes	166	92%
		No	14	8%
10a	Compensation committee?	Yes	71	39%
		No	109	61%
10b	Nominating committee	Yes	139	77%
		No	42	23%
10c	Nominating chair also chairman?	Yes	23	13%
		No	152	87%
11a	Activity of full board	1= Extremely inactive	0	0%
		2	10	5%
		3	30	17%
		4	86	48%
		5 = Extremely active	55	30%
11b	Fundraising efforts	1= Extremely inactive	14	7%
		2	22	12%
		3	47	26%
		4	72	40%
		5 = Extremely active	26	15%
11c	Audit committee activity	1= Extremely inactive	27	15%
		2	16	9%
		3	27	15%
		4	55	31%
		5 = Extremely active	53	30%
11d	Finance committee activity	1= Extremely inactive	14	8%
		2	11	6%
		3	8	5%
		4	60	34%
		5 = Extremely active	84	47%

12	Respondent's job title	President	44	30%
		CFO	94	64%
		Controller	5	3%
		Other	2	1%
		Executive Director	1	1%
		Chairman of board	0	0%
		Board member	0	0%
13	Industry	Higher Education	177	
14	5 digit zip code		204	
15	Annual budget		168	\$239,908,827
16	Number of employees		172	1,465
17	Tax id number		169	

**Table 2: Complete Sample Selection Procedures**

<b>Electronic Surveys</b>		
US colleges and universities from listing provided by University of Texas at Austin	2,071	
Email address <i>unidentified</i> for the University President, Provost, or Chancellor	( 401 )	
Email address found failed to deliver message	<u>( 45 )</u>	
Total email requests sent out	<b>1,625</b>	
Survey responses received via SurveyMonkey.com	344	
Duplicate survey responses	( 36 )	
University unable to be identified	( 73 )	
University not an identified 501(c)3 charitable organization	( 17 )	
Form 990 financial information not available	<u>( 14 )</u>	
Final usable electronic survey responses	<b>204</b>	13%
<b>Paper surveys</b>		
All charities in NCCS 2004 SOI database	14,213	
Organizations in industries other than industry code BH (Institutions of Higher Education)	( 13,294 )	
Electronic survey response already received	( 132 )	
Institutions with foreign addresses	( 13 )	
Total paper survey requests sent out	774	
Returned surveys for incorrect address	<u>( 3 )</u>	
Total papers surveys eligible for response	<b>771</b>	
Survey responses received	362	
Duplicate survey responses	( 8 )	
Surveys returned indicating that their institution would not participate	<u>( 4 )</u>	
Final usable paper survey responses	<b>350</b>	45%
<b>Total usable electronic and paper survey responses</b>	<b>554</b>	<b>29%</b>

*Table 3: Paper Survey Pilot Survey Responses by Design Choice*

<b>Design choice:</b>	<b>N</b>	<b>Response Rate for Pilot Survey (Batch one = 255 surveys sent out)</b>
<b>Postage</b>		
Postage – First class stamp	37	31%
Postage – Business reply	35	33%
Postage – No postage provided	40	36%
<b>Survey size</b>		
Size – Letter (2 pages)	51	46%
Size – Legal (1 page)	61	54%
<b>Cover letter</b>		
Cover letter – Advisor	48	43%
Cover letter – E. Harris	64	57%

**Table 4: Paper Survey Response Descriptive Statistics by Question**

<b>Survey item number</b>	<b>Survey question</b>	<b>Response</b>	<b>N</b>	<b>Percentage / Mean</b>
1	Board contribution	Valuable	326	94%
		Not valuable	20	6%
2	Directors elected?	Yes	291	84%
		No	57	16%
3	Board term limits?	Yes	214	67%
		No	105	33%
4	Compensated	Yes	1	0%
		No	347	100%
5	Attendance patterns	0-24%	2	1%
		25-49%	5	1%
		50-74%	62	18%
		75-100%	278	80%
6	% Working full time	as a % of board size	266	73%
7	% Working in higher education	as a % of board size	311	13%
8	% Financial experts	as a % of board size	317	26%
9	% Major donors	as a % of board size	249	25%
10	% On other NFP boards	as a % of board size	114	57%
11	% On other FP boards	as a % of board size	84	33%
12	% Female	as a % of board size	338	27%
13	% Minority	as a % of board size	312	11%
14	% Employees	as a % of board size	347	3%
15	CEO duality?	Yes	5	1%
		No	344	99%
16	Disclose business relationships?	Yes	327	96%
		No	12	4%
17	Number of business relationships		298	1.52
18	Goods below market value?	Yes	22	10%
		No	198	90%
19	Conflict of interest policy?	Yes	331	97%
		No	11	3%
20	Finance committee?	Yes	347	100%
		No	1	0%
21	Compensation committee?	Yes	190	55%
		No	154	45%

22	Nominating committee	Yes	308	90%
		No	34	10%
23	Board size		347	29.62
24	Number of board meetings		350	3.55
25	Respondent	President	24	7%
		CFO	198	57%
		Controller	12	3%
		Other	108	31%
		Executive Director	5	1%
		Chairman of board	0	0%
		Board member	1	0%

*Table 5: Descriptive Statistics*

*Sample Organizations*

	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Net Assets</b>	239,720	26,703,620,253	438,243,761	1,537,499,508
<b>Total Contributions</b>	0	1,851,647,989	25,981,133	105,107,165
<b>Total Revenues</b>	533,606	4,933,532,039	140,558,143	380,953,615

*All Higher Education Organizations Reported in the Statistics of Income Database*

	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Net Assets</b>	154,984	63,575,072,000	616,635,867	2,782,782,712
<b>Total Contributions</b>	-200,000	1,851,647,989	43,388,122	161,775,266
<b>Total Revenues</b>	-1,492,548	6,719,116,860	186,723,765	521,973,449

**Table 6: Full Sample Descriptive Statistics by Question**

<b>Survey question</b>	<b>Number of responses received</b>	<b>Summary of Responses Mean (Median)</b>
Number of board members:	548	28.16 (29.00)
How would you describe the board of directors at your University?	481	Provides valuable contribution: 449 (93%) Does not provide valuable contribution: 32 (7%)
Are board members elected to their positions on the board?	528	Yes: 417 (79%) No: 111 (21%)
How many years may directors serve on the board of directors at your University?	509	Unlimited term: 136 (27%) Limited term: 373 (73%) Mean (median) of limited terms: 9.1 years (9 years)
Are board members compensated for their time and services?	527	Yes: 3 (.01%) No: 524 (99.99%)
What are the attendance patterns of your board of directors at regularly scheduled board meetings?	545	76 – 100%: 425 (78%) 51 – 75%: 110 (20%) 26 – 50%: 8 (1.5%) 0 – 25%: 2 (.5%)
How many board members are currently working full time?	446	20.8 (21.0) <i>as a % of mean (median) board size: 76% (79%)</i>
How many board members currently work or have previously worked in the higher education industry (College, University, Community College)?	493	3.87 (3.00) <i>as a % of mean (median) board size: 16% (11%)</i>
How many board members are considered to be financial experts (understanding of generally accepted accounting principles and financial statements)?	500	7.47 (6.00) <i>as a % of mean (median) board size: 27% (22%)</i>
Number of board members who are also major donors (top 25 donors):	426	8.06 (5.00) <i>as a % of mean (median) board size: 28% (21%)</i>
How many board members serve on the boards of other nonprofit organizations?	280	17.50 (15.00) <i>as a % of mean (median) board size: 64% (63%)</i>

<b>Survey question</b>	<b>Number of responses received</b>	<b>Summary of Responses Mean (Median)</b>
How many board members serve on the boards of for-profit organizations?	84	10.34 (8.00) <i>as a % of mean (median) board size: 33% (30%)</i>
Number of female board members	520	7.95 (7.00) <i>as a % of mean (median) board size: 29% (25%)</i>
How many board members belong to a minority group defined as African American, Hispanic, or Native American?	492	3.29 (2.75) <i>as a % of mean (median) board size: 14% (9%)</i>
Number of board members who are employees of the University	527	1.06 (1.00) <i>as a % of mean (median) board size: 5% (3%)</i>
Does the President also act as the Chairman of the board?	530	Yes: 9 (2%) No: 521 (98%)
Are board members required to disclose business relationships with the University?	519	Yes: 491 (95%) No: 28 (5%)
How many board members have business relationships with the University?	474	2.04 (1.00) <i>as a % of mean (median) board size: 8% (5%)</i>
Does your University receive goods or services below market value as the result of these business relationships?	400	Yes: 38 (10%) No: 362 (90%)
Does the University have a board conflict of interest policy?	523	Yes: 496 (95%) No: 27 (5%)
Does the University have an audit or finance committee?	528	Yes: 513 (97%) No: 15 (3%)
Does your board of directors include a compensation committee?	524	Yes: 261 (50%) No: 263 (50%)
Does the board of directors include a nominating committee?	523	Yes: 447 (86%) No: 76 (14%)
Approximate number of board meetings per fiscal year:	548	3.90 (3.00)

Survey question	Number of responses received	Summary of Responses Mean (Median)
What is your current job title?	494	President: 68 (14%) CFO: 292 (59%) Controller: 17 (4%) Other: 110 (22%) Executive Director: 5 (1%) Chairman of Board: 1 Board member: 1

**Table 7: Univariate Regression Results – Board Characteristics (Chapter 3)**

	<b>Total Contributions</b>	<b>Total Revenue</b>	<b>Rank</b>	<b>Retention</b>	<b>SAT Scores</b>	<b>Enroll Growth</b>
<b>DIV_Female</b>						
Coefficient	0.032	-0.060	-0.035	0.067	-0.070	-0.059
p-value	0.498	0.197	0.435	0.202	0.233	0.404
N	457	457	515	362	290	204
<b>DIV_Minorities</b>						
Coefficient	0.107**	-0.072	-0.110**	-0.123**	-0.143**	-0.050
p-value	0.026	0.132	0.019	0.024	0.018	0.497
N	435	435	488	340	274	191
<b>EXP_Financial Experts</b>						
Coefficient	0.117***	0.074	-0.129***	0.155***	0.158***	-0.083
p-value	0.014	0.123	0.004	0.004	0.008	0.244
N	441	441	495	348	280	198
<b>EXP_Other For-Profit Boards</b>						
Coefficient	0.318***	0.317***	0.070	-0.003	0.128	-0.128
p-value	0.007	0.007	0.529	0.981	0.374	0.450
N	72	72	84	62	50	37
<b>EXP_Other Nonprofit Boards</b>						
Coefficient	0.211***	0.160***	-0.103*	0.091	0.186**	-0.157
p-value	0.001	0.011	0.088	0.225	0.025	0.119
N	255	255	279	179	146	100
<b>EXP_Working in Higher Education</b>						
Coefficient	0.102**	0.067	0.014	0.114**	-0.006	-0.006
p-value	0.033	0.164	0.766	0.034	0.926	0.913
N	439	439	492	345	279	370
<b>CON_Attendance</b>						
Coefficient	-0.008	0.027	-0.046	0.173***	0.151***	-0.087
p-value	0.856	0.552	0.288	0.001	0.008	0.205
N	483	483	543	379	306	216
<b>CON_BoardSize</b>						
Coefficient	0.273***	0.425***	-0.026	0.312***	0.288***	-0.004
p-value	0.000	0.000	0.540	0.000	0.000	0.959
N	485	485	546	379	306	215
<b>CON_MajorDonors</b>						
Coefficient	0.265***	0.310***	-0.053	0.227***	0.299***	-0.109
p-value	0.000	0.000	0.274	0.000	0.000	0.162
N	383	383	424	289	233	167
<b>CON_Meetings</b>						
Coefficient	0.089**	-0.086*	-0.211***	-0.067	-0.053	0.039
p-value	0.051	0.059	0.000	0.194	0.353	0.568
N	485	485	546	381	308	216

\* significant at .10 level, \*\* significant at .05 level, \*\*\*significant at .01 level

**Table 8: Multivariate Regression Results – Board Characteristics (Chapter 3)**

Dependent Var →	Total Contributions			Total Revenue			Rank			Retention Rate			SAT Scores			Enrollment Growth		
	Coef.	P> t		Coef.	P> t		Coef.	P> t		Coef.	P> t		Coef.	P> t		Coef.	P> t	
DIV_Females	0.237	0.393		-0.255	0.343		0.237	0.349		0.119	0.071	*	0.007	0.855		0.077	0.003	***
DIV_Minorities	0.787	0.043	**	0.005	0.987		0.053	0.888		-0.125	0.125		-0.055	0.362		0.037	0.236	
EXP_FinExp	-0.295	0.443		0.057	0.759		0.111	0.647		0.022	0.708		-0.037	0.405		-0.030	0.256	
EXP_NPboard	-0.296	0.079	*	-0.183	0.124		0.097	0.568		-0.035	0.266		0.040	0.034	**	0.005	0.772	
EXP_WorkingED	-0.242	0.446		-0.469	0.165		-0.231	0.581		0.145	0.079	*	0.040	0.495		0.018	0.566	
CON_Attendance	-0.087	0.360		-0.038	0.575		-0.054	0.688		0.004	0.872		0.008	0.692		-0.022	0.068	*
CON_BoardSize	-0.002	0.786		-0.001	0.589		-0.001	0.872		0.003	0.024	**	0.001	0.372		0.000	0.740	
CON_MajorDonors	0.006	0.123		0.000	0.939		0.003	0.576		0.002	0.010	**	0.002	0.047	**	0.001	0.036	**
CON_Meetings	0.046	0.319		0.101	0.003	***	-0.097	0.401		-0.020	0.056	*	-0.023	0.000	***	-0.003	0.638	
AdjPRICE	1.801	0.182		1.715	0.021	**												
Operating Margin	1.403	0.004	***															
Fundraising Exp	-0.011	0.643																
Age	0.081	0.367		-0.134	0.085	*	0.036	0.785		0.020	0.355		0.012	0.218		-0.009	0.357	
Total Assets	0.877	0.000	***	0.838	0.000	***												
Prog Serv Rev	0.014	0.887					-0.248	0.008	***	0.060	0.000	***	0.048	0.000	***	0.000	0.987	
Other Revenue	-0.122	0.071	*															
Public	<i>omitted</i>			<i>omitted</i>			<i>omitted</i>			<i>omitted</i>			<i>omitted</i>			<i>omitted</i>		
IvyLeague	<i>omitted</i>			<i>omitted</i>			<i>omitted</i>			<i>omitted</i>			<i>omitted</i>			<i>omitted</i>		
Sports	-0.250	0.960		0.092	0.518		-0.074	0.549		-0.020	0.678		-0.018	0.641		0.021	0.099	*
Hospital	<i>omitted</i>			<i>omitted</i>			<i>omitted</i>			<i>omitted</i>			<i>omitted</i>			<i>omitted</i>		
Religious	-0.071	0.935		0.124	0.164		0.008	0.967		-0.015	0.331		-0.049	0.030	**	0.011	0.334	
Electronic	0.034	0.626		-0.009	0.917		-0.270	0.022	**	-0.034	0.148		-0.024	0.268		-0.007	0.383	
Constant	0.301	0.042	**	1.585	0.083	*	9.618	0.000	***	3.168	0.000	***	5.444	0.000	***	0.086	0.395	
N	132			138			144			129			111			140		
Prob > F	0.000			0.000			0.000			0.000			0.000			0.000		
R-squared	0.723			0.851			0.253			0.427			0.442			0.119		

\* significant at .10 level, \*\* significant at .05 level, \*\*\*significant at .01 level

**Table 9: Instrumental Variable Regression Results – Board Characteristics (Chapter 3)**

Dependent Var →	Total Contributions			Total Revenue			Rank		Retention		SAT Scores		Enrollment Growth	
	Coef.	P> z		Coef.	P> z		Coef.	P> z	Coef.	P> z	Coef.	P> z	Coef.	P> z
INDEX <i>(instrumented)</i>	2.752	0.363		1.868	0.364		0.247	0.910	0.618	0.252	0.297	0.507	1.435	0.782
AdjPRICE	-0.487	0.577		1.560	0.012	**								
Operating Margin	1.548	0.004	***											
Fundraising Exp	0.008	0.745												
Age	0.002	0.986		-0.155	0.072	*	-0.042	0.667	-0.017	0.453	0.002	0.896	0.096	0.730
Total Assets	0.669	0.000	***	0.688	0.000	***	-0.096	0.266	0.058	0.000	***	0.067	0.000	***
Prog Serv Revenue	0.020	0.771					-0.185	0.000	***	-0.005	0.742	-0.006	0.643	0.790
Other Revenue	-0.103	0.147												
Public	1.705	0.000	***	0.308	0.255		0.075	0.802	-0.139	0.053	*	-0.255	0.000	***
IvyLeague	<i>omitted</i>			<i>omitted</i>			<i>omitted</i>		<i>omitted</i>		<i>omitted</i>		<i>omitted</i>	
Sports	-0.089	0.498		0.212	0.016	**	0.116	0.230	-0.053	0.109	-0.022	0.417	-0.024	0.952
Hospital	0.546	0.194		0.647	0.032	**	0.758	0.025	**	-0.047	0.635	-0.001	0.982	-1.292
Religious	0.039	0.719		-0.036	0.620		-0.032	0.698	-0.006	0.742	-0.016	0.158	0.108	0.609
Electronic	-0.099	0.714		-0.197	0.282		-0.131	0.520	-0.068	0.189	-0.024	0.478	-0.104	0.850
Constant	2.960	0.013	**	3.613	0.001	***	9.878	0.000	***	3.163	0.000	***	5.017	0.000
N	328			340			353		323		265		187	
Prob > chi2	0.000			0.000			0.000		0.000		0.000		0.000	
Adj R-squared	0.600			0.745			0.191		0.080		0.441		0.142	

\* significant at .10 level, \*\* significant at .05 level, \*\*\*significant at .01 level

**Table 10: Summary of Findings – Board Characteristics (Chapter 3)**

	Total Contributions			Total Revenue			Rank			Retention			SAT Scores			Enrollment Growth			Total
	<i>U</i>	<i>M</i>	<i>IV</i>	<i>U</i>	<i>M</i>	<i>IV</i>	<i>U</i>	<i>M</i>	<i>IV</i>	<i>U</i>	<i>M</i>	<i>IV</i>	<i>U</i>	<i>M</i>	<i>IV</i>	<i>U</i>	<i>M</i>	<i>IV</i>	
DIV_Females											+						+		2
DIV_Minorities	+	+					-			-			-						5
EXP_FinExp	+						-			+			+						4
EXP_OtherFPboard	+			+															2
EXP_OtherNPboard	+	-		+			-						+	+					6
EXP_WorkingED	+									+	+								3
CON_Attendance										+			+				-		3
CON_BoardSize	+			+						+	+		+						5
CON_MajorDonors	+			+						+	+		+	+			+		7
CON_Meetings	+			-	+		-				-			-					6
INDEX																			0
Total	8	2	0	5	1	0	4	0	0	6	5	0	6	3	0	0	3	0	43

Where:

*U* = Univariate results

*M* = Multivariate results

*IV* = Instrumental variable results

Positive signs indicate significant, positive relationships.

Negative signs indicate significant, negative relationships.

Blank cells indicate insignificant findings.

**Table 11: Univariate Regression Results – Board Monitoring (Chapter 4)**

	<b>AdjPRICE (Efficiency)</b>
DIS_Business Relationships	
Coefficient	0.101**
p-value	0.039
N	423
DIS_Conflict of Interest Policy	
Coefficient	0.1965***
p-value	0.000
N	464
DIS_Goods Below Market Value	
Coefficient	-0.025
p-value	0.641
N	357
ORG_Compensation Committee	
Coefficient	0.1216***
p-value	0.009
N	464
ORG_Finance/Audit Committee	
Coefficient	0.040
p-value	0.383
N	468
ORG_Nominating Committee	
Coefficient	0.1271***
p-value	0.006
N	464
IND_CEO duality	
Coefficient	-0.026
p-value	0.582
N	470
IND_Elected directors	
Coefficient	0.013
p-value	0.786
N	468
IND_Employees	
Coefficient	-0.098**
p-value	0.034
N	466
IND_Board Term	
Coefficient	0.098*
p-value	0.085
N	314

\* significant at .10 level, \*\* significant at .05 level, \*\*\*significant at .01 level

**Table 12: Multivariate Regression Results – Board Monitoring (Chapter 4)**

Dependent Variable →	AdjPRICE (Efficiency)	
	Coef.	P> t
DIS_Bisness Relationships	0.049	0.214
DIS_Conflict of Interest Policy	-0.027	0.119
DIS_Goods Below Market Value	0.003	0.841
ORG_Compensation Committee	0.004	0.697
ORG_Finance/Audit Committee	<i>Omitted</i>	
ORG_Nominating Committee	-0.008	0.645
IND_CEO duality	-0.010	0.548
IND_Elected	0.007	0.624
IND_Employees	0.165	0.118
IND_Board Term	0.010	0.026 **
Financial Flexibility	-12.676	0.000 ***
Age	0.015	0.165
Total Assets	0.008	0.124
Public	-0.001	0.929
Ivy League	<i>Omitted</i>	
Sports	0.028	0.052 *
Hospital	<i>Omitted</i>	
Religious	0.008	0.380
Electronic	-0.026	0.225
Constant	0.361	0.001 ***
N	154	
Prob > F	.0000 ***	
Adjusted R-squared	0.175	

\* significant at .10 level, \*\* significant at .05 level, \*\*\*significant at .01 level

**Table 13: Instrumental Variable Analysis Results – Board Monitoring (Chapter 4)**

Dependent Variable →	AdjPRICE (Efficiency)	
	Coef.	P> z
INDEX ( <i>instrumented</i> )	-0.150	0.759
Financial Flexibility	-2.748	0.645
Age	0.006	0.447
Total Assets	0.012	0.104
Public	-0.005	0.923
Ivy League	<i>omitted</i>	
Sports	0.025	0.027 **
Hospital	0.002	0.946
Religious	0.003	0.651
Electronic	0.013	0.731
Constant	0.407	0.023 **
N	339	
Prob > chi2	0.000 ***	
R-squared	0.030	

\* significant at .10 level, \*\* significant at .05 level, \*\*\*significant at .01 level