Boards of Trustees in Higher Education: A Research Program

Benjamin E. Hermalin University of California at Berkeley

Introduction

Universities and colleges in the United States are overseen by boards of trustees, regents, overseers, or similarly titled entities. With respect to their place in the hierarchical structure, such boards are similar to boards of directors in corporations. Indeed, for non-state institutions of higher education, their legal status is effectively the same. Although similar in structure to corporate boards, they — and in fact non-profit boards more generally — have not received much scrutiny from economists. The purpose of this article is to suggest ways in which economists could go about making amends and trying to anticipate some of the difficulties they may face. In addition, this article attempts to point out how our understanding of for-profit corporate boards may provide insight into boards of trustees and suggest questions to investigate.

As Kerr and Gade (1989) observe, within the United States, boards of trustees and boards of directors both come from the same legal tradition.¹ Indeed, institutions such as Harvard and Yale are among the oldest corporations (in the legal sense) within the English legal tradition. And almost as long as there have been corporations, there has been criticism of the boards that oversee them.² Yet, in the for-profit arena, corporations are the dominant form of business organization. Similarly, in the U.S., the "corporate"

¹ As a shorthand, I will use "board of trustees" to refer to governing bodies of college and universities and "board of directors" to refer to the governing bodies of for-profit corporations. Similarly, a "trustee" is an overseer of a college or university, while a "director" is an overseer of a for-profit corporation.

² Adam Smith (1776, p. 700), commenting on director-overseen companies, complained that "Negligence and profusion ... must always prevail, more of less, in the management of the affairs of such a company."

model is the dominant model in higher education. Moreover, there are two, separate, pieces of evidence to suggest that it is a pretty good model: First, state colleges and universities have almost invariably copied this model even thought there is no legal requirement for them to do so. That is, for instance, a state university could easily be overseen by civil-service bureaucrats in some state agency of higher education, similar to the way many states oversee K-12 education. To be sure, the corporate model could simply be some historical accident; but, if it were a truly poor form of organization, one might have expected to see some alternatives arise in American higher education (for instance, because of emulation of alternative models observed in Europe or utilized by the Service Academies, such as West Point).

The second piece of evidence is that there are alternative models employed elsewhere in the world (a point also made by Kerr and Gade, 1989). In particular, there are models in which universities are controlled by ministries of education (*e.g.*, as in France). There are models in which they are controlled by faculty guilds (as were Oxford and Cambridge until 19th Century reforms). There are even models in which they are controlled by student guilds (as was Bologna University, the oldest in the western world).³ Yet all these models seem to yield universities that are generally perceived as inferior to American universities organized along the corporate model. Although neither of these pieces of evidence is conclusive proof that the corporate model is the best or even a superior model, they at least make clear that it can't be a particularly terrible model, at least *vis-à-vis* alternatives.

_

³ For modern-day faculty who complain of the tyranny students exercise through course evaluations, school rankings, etc., it may be worth noting that in Bologna the tyranny was quite real: Professors could not leave the campus without the permission of the students and had to make a monetary deposit against their return if permission were granted. Professors were also subject to fine for "poor" lectures. (Source: Kerr and Gade, 1989, p. 11.)

But the historical durability of the corporate model and its apparent success relative to alternative models only begs further questions? What, in fact, do boards of trustees do? How do they affect what happens in colleges and universities? What can we reasonably expect of them? Why if it's a successful model has it generated so much criticism?⁴ Moreover, the possible fact that the corporate model is the best available model is merely a relative comparison, and doesn't deal with whether boards satisfy some absolute objective (*i.e.*, achieve some *un*constrained optimum) or are just the least bad of the available evils (*i.e.*, achieve some constrained optimum). In the context of for-profit corporations, these questions and issues have recently received considerable attention, primarily in the form of empirical analyses, but also in terms of some theoretical treatments.

The next section of this chapter explores what lessons from empirical work on boards of directors might apply to boards of trustees. It also considers to what extent this empirical work can serve as a roadmap for future work focused directly on boards of trustees. The section following it turns to theoretical issues concerning directors and governance. There is a brief conclusion at the end.

What We Know about Corporate Boards and How it Might Apply to Trustees

In a recent survey of the literature on corporate boards, Michael Weisbach and I (Hermalin and Weisbach, 2002) made the following observations. First, formal theory on

⁴ A short list of critics, of varying degrees of vehemence, includes Chait and Taylor (1989), Kerr and Gade (1989), Bowen (1994), and Taylor *et al.* (1996). Many of their criticisms of non-profits' boards echo complaints leveled at for-profits' boards by Smith (1776), Berle and Means (1932), and more modern critics (some of whom are discussed below — see, too, Hermalin and Weisbach, 2002, for a more complete survey of boards and their critics).

boards of directors has been quite limited. Most of the work has instead been empirical, seeking to answer one or more of the following three questions:

- 1) How do board characteristics such as composition or size affect the achievement of firm objectives?
- 2) How do board characteristics affect the observable actions of the board?
- 3) What factors affect the makeup of boards and how they evolve over time? Research thus far has established a number of empirical regularities. First, board composition, as measured by the insider-outsider ratio,⁵ is not correlated with firm performance.⁶ However, the number of directors on a firm's board is negatively related to its financial performance. Second, board actions *do* appear to be related to board characteristics. Firms with higher proportions of outside directors and smaller boards tend to make arguably better—or at least different—decisions concerning acquisitions, poison pills, executive compensation, and CEO replacement, *ceteris paribus*. Finally, boards appear to evolve over time depending on the bargaining position of the CEO relative to that of the existing directors. Firm performance, CEO turnover, and changes in ownership structure appear to be important factors affecting changes to boards.

⁵ Most corporate directors can be classified as inside directors or outside directors. Inside directors are

employees or former employees of the firm. They generally are not thought to be independent of the CEO, because the success of their careers is often tied to the CEO's. Outside directors are not employees of the firm and usually do not have any business ties to the firm aside from their directorship. Outside directors are typically CEOs from other firms, or prominent individuals in other fields. Finally, a small minority of directors fall into neither category; often these are attorneys or businesspeople that have a longstanding relationship with the firm. These directors are usually referred to as "affiliated" or "gray" directors.

In the literature, "firm performance" is a convenient phrase meant to capture various possible measures of firm success (for example, return to investors, profitability, and successful execution of firm strategy). In many of the empirical studies, firm performance is operationalized in a precise way (for example, stock return or performance on some accounting measure). In the more limited theoretical literature, firm performance has typically meant economic profits in static models or firm value—the present discounted value of economic profits—in dynamic models.

To what extent should we expect a similar picture to hold for boards of trustees? Anecdotal evidence (*e.g.*, Bowen, 1994) suggests that large boards are no more effective in higher education than in the corporate world, although I am unaware of any formal statistical analyses for boards of trustees demonstrating that size is negatively related to performance.⁷ Other results, such as those pertaining to acquisitions, poison pills, and changes in ownership are clearly non-applicable to higher education.

One problem with replicating these studies using data for board of trustees is deciding how to define — to say nothing of measuring — "firm objectives" in the higher-education context. When it comes to boards of trustees, there is no unambiguous dimension along which to measure performance — does one measure research, teaching effectiveness, fund-raising success, or what? Moreover, even we let researchers decide to concentrate on one dimension, there is no unambiguous yardstick to employ for most dimensions — is research, for instance, measured by articles in scholarly journals, citations, grants received, faculty memberships in prestigious scholarly societies, or what?

The definition-of-objectives problem is not the only problem facing a would-be researcher addressing Question #1 as it relates to boards of trustees (*i.e.*, how do board characteristics affect objective attainment?). Other problems face him or her as well. First, many of the board characteristics that have been hypothesized to matter in the corporate context are either not meaningful or difficult to define in the higher-education context. For instance, given that typically the only director from management is the

⁷ In the corporate setting Jensen (1993) and Lipton and Lorsch (1992) were among the first to suggest a negative relation should hold between board size and corporate performance. Yermack (1996) was the first to provide compelling statistical evidence in support of this view. Eisenberg *et al.* (1998) provides additional statistical support.

⁸ As is, to some extent, done in the corporate context — see footnote 6 *supra*.

university or college president, one might conclude that there is not much scope for an empirical analysis of the impact of insiders versus outsiders. On the other hand, one might object that even the definition of "insider" is unclear: There are boards of trustees, for instance, that include student representatives or faculty representatives. Are they insiders, outsiders, or something that has no real analog in the corporate world?

Of course, even if the measurement issues with both the dependent and independent variables inherent in Question #1 could be resolved, there is no reason to suspect that such an analysis would reveal anything. As reviewed in Hermalin and Weisbach (2002), almost all such analyses in the corporate context yield insignificant results; that is, researchers typically find no evidence that corporate board characteristics affect firm performance. The one exception, in fact, has been the relation between board size and corporate performance (Yermack, 1996; Eisenberg *et al.*, 1998), where the former is significantly negatively correlated with the latter. However, as I discuss below, there are reasons to wonder whether those results indicate a causal relation.

In retrospect, there are two reasons why we should perhaps not be surprised by the lack of results when looking empirically at whether board characteristics affect firm performance. First, firm performance is relatively volatile and buffeted by many forces. Moreover, it is not clear with what lag board characteristics should even be expected to

⁹ One can think of Question #1 as the regression, $p_{t+s} = \phi c_t + \varepsilon_t$, where p is a performance measure (e.g., profits in the corporate context), c is a measure(s) of board characteristics (e.g., insider-outsider ratio), ϕ is the coefficient(s) to be estimated, ε is an error term (including, possibly, other controls), t is a time index and s > 0 to reduce joint endogeneity problems.

¹⁰ The one study of which I'm aware in the non-profit — but *not* higher education — context, Herman and Renz (1998), suggests some relation between the prestige of board members and organizational effectiveness. Given, however, their study lacks controls for joint endogeneity — do, for instance, effective organizations attract high-prestige board members or do high-prestige board members make organizations effective — it is impossible to view their results as indicative of any causal relationship *from* board characteristics *to* institutional performance. Furthermore, the subjective manner in which the variables are measured also raises questions about how one might interpret their results.

affect performance. Given the noise inherent in the dependent variable and the uncertainty of the lag structure, it is not surprising that detecting a relationship between characteristics and performance would be difficult, at least as a statistical matter.

Although some measures of university or college performance are no doubt less volatile than financial performance measures, they are likely subject to more measurement error, so the "noise" problem would likely be equally severe were one to attempt to explain university or college performance on the basis of trustee characteristics.

The second reason not to be surprised is that presumably organizations want to perform well. If there is some way in which board characteristics affect performance, organizations should ensure that their boards exhibit those characteristics that yield optimal performance. That is, if there is an optimal set of characteristics, we should expect *ceteris paribus* organizations to converge to these characteristics. In equilibrium, then, there should be no meaningful variation in board characteristics with respect to performance, which means — unless there are a number of *out*-of-equilibrium firms in the sample for some reason — there isn't the variation in the independent variables necessary to detect the relation between board characteristics and performance.

This notion of optimality in equilibrium also raises questions of how one would interpret any positive results from addressing Question #1 (see Hermalin and Weisbach, 2002, for a complete discussion). In particular, one can imagine that the set of board characteristics that would be optimal in terms of performance under a given set of circumstances differs from the set that would be optimal under a different set of circumstances. If, in fact, all organizations adopt the board structure that is optimal for them given their circumstances, then any relation found between board structure and

performance would necessarily be spurious — the correlation is simply the consequence of both being correlated with the underlying circumstances. For instance, suppose that the more complex an organization is, the more difficult it is to manage well. Because of the difficulty in managing such a complex organization, it might be optimal to have a large board. A large board would, perhaps, allow for a range of expertise on the many problems confronting a complex organization. At the same time, because it is difficult to manage, a complex organization's performance would be worse *ceteris paribus* than a simpler organization's. Given my premises, one would readily find a negative relation between board size and performance, but this relationship would be spurious rather than causal. In particular, it would be an erroneous policy prescription to encourage an organization with a large board to shrink it — the organization would end up with a board that was *less* well-suited to its purposes and its performance would be even worse than before.

This "equilibrium" problem could, however, be less pronounced for boards of trustees than boards of directors. For-profit firms are subject to the forces of economic Darwinism — in the long run, competition from more efficient firms either induces improvement in inefficient firms or it drives them out of business. It is, thus, difficult for a for-profit firm to maintain a board structure that grossly departs from optimality for any extended period of time. Universities and colleges, while not wholly immune to Darwinian forces, are not, as a rule, hit with them as strongly (a point also made by Bowen, 1994, pp. 9–13). This is especially true of well-endowed and state institutions. Moreover universities and colleges are much more affected by other, non-economic forces, such as political pressures and a greater need to respect tradition, which could

yield and perpetuate boards that are non-optimal in structure (this would seem especially true of state institutions, where there is little reason to imagine that the political process will yield an optimal board). Consequently, we can expect much greater variation in the characteristics and structures of boards of trustees than boards of directors, which, in turn, means there could be hope of having sufficient variation in the independent variables to detect their impact on performance.

Table 1 "confirms" the hypothesis of great variation. It summarizes some of the characteristics of the trustees of four universities.

[Table 1 about here]

Although Table 1 reflects the considerable heterogeneity in boards of trustees, it also raises doubts about finding any relation between institutional performance and the structure of the board and its characteristics. While admittedly four is a rather small sample, it is worth noting that all four of these universities are widely considered to be among the very top universities in the US. Looking at the heterogeneity in Table 1 and the uniform excellence of these schools, the hypothesis that the structure of its board of trustees has no effect on university or college performance would seem the more logical hypothesis than that it does have an effect. Hence, while higher education offers greater variability in boards than the corporate world, there still seems no reason to expect to find that these boards matter for institutional performance, at least in an empirically detectable way.

A potentially more profitable question to tackle is #2 — how do board characteristics affect the observable actions of the board? In the corporate board arena,

¹¹ Although, interestingly, a survey of presidents and board chairs finds that they generally feel their board structure, at least in term of size, is good (see Table 3 of Kerr and Gade, 1989, p. 89).

this question has been a more fruitful line of research than Question #1. Specifically, evidence indicates that both board composition and size are correlated with the board's decisions regarding CEO replacement, acquisitions, poison pills, and executive compensation. Because only the first and last of these could be relevant in the context of higher education, I will limit my review to these two sets of findings.

The most commonly discussed responsibility of the board is to choose and to monitor the firm's CEO (see Mace, 1986, for example). Indeed, rather than make day-to-day decisions, boards appear to play a crucial role in picking the firm's CEO and to view their primary responsibility as monitoring and potentially replacing him. One way, therefore, to evaluate the board's effectiveness is by looking at the quality of these decisions.

A large number of papers have documented that there is a positive relation between CEO turnover and poor performance in large corporations, as well as in other types of organizations.¹² The standard interpretation of this relation is that it measures the board's monitoring; when performance is worse, the board is more likely to find the current CEO unacceptable and to make a change.

Simply documenting a relation between poor performance and an increased probability of a CEO turnover, although suggestive of board monitoring, is nonetheless far from conclusive. After all, a sense of failure or pressure from shareholders could explain this relationship. To better identify the role played by the board, Weisbach (1988) interacts board composition and firm performance in a CEO turnover equation. His results indicate that when boards are dominated by outside directors, CEO turnover is

¹² Among them, Coughlan and Schmidt (1985), Warner, Watts, and Wruck (1988), Weisbach (1988), Jensen and Murphy (1990), Barro and Barro (1990), Blackwell *et al.* (1994), Kaplan (1994), and Huson *et al.* (2000).

more sensitive to firm performance than it is in firms with insider-dominated boards. This result is consistent with the view that outsider-dominated boards — those *a priori* likely to be independent of management — are responding to corporate performance when they make CEO-retention decisions. In contrast, turnover in insider-dominated boards is not performance-driven, suggesting that insider dominated boards make turnover decisions for reasons unrelated to corporate performance. This is not surprising: Inside directors' careers tend to be tied to the CEO's, which gives them incentives to advance the CEO's career regardless of the stock price. Consistent with this tied-career explanation is evidence from Borokhovich *et al.* (1996) and Huson *et al.* (2000), who find outsider-dominated boards are more likely than insider-dominated boards to replace a CEO with someone from *outside* the firm.

Yermack (1996) and Wu (2000) perform a similar analysis of CEO turnover, measuring the impact of board size on the relation between CEO turnover and firm performance. These papers estimate similar equations to Weisbach (1988), except that they substitute an interaction of the log of board size with firm performance for Weisbach's interaction of board composition with firm performance. Both Yermack and Wu find a positive and significant coefficient on this interaction term, which indicates that firms with smaller boards have a stronger relation between firm performance and CEO turnover than do firms with larger boards. This finding is consistent with the view that smaller boards are more effective overseers of the CEO than larger boards. In particular, in response to poor performance, they may not be paralyzed by free-riding or otherwise plagued with inertia the way larger boards are.

To interpret these studies, the key issue is whether the relations they uncover are causal. In other words, do the particular attributes of the board, such as composition or size directly affect the board's monitoring? Alternatively, it could be that boards that are independent for some other reason (as suggested, *e.g.*, by the bargaining-game model of Hermalin and Weisbach, 1998, which I discuss later). Although observationally difficult to distinguish, it is hard to imagine that it is the board characteristics *per se* that matter; rather what is at issue is whether the board is dominated by a CEO. A dominated board will not monitor regardless of its visible characteristics; however, visible characteristics tend, on average, to be correlated with independence from the CEO. Conversely, a board made up of directors who wish to be independent of management will arrange themselves, in term of size and composition, in a way that best facilitates oversight of management.

Another role of the board is to set and to oversee the firm's compensation policies. A view, prevalent since at least Berle and Means (1932), is that CEOs can exert control over their boards, and use this control to extract "excessive" levels of compensation. For example, Michael Eisner, the longtime CEO of Disney, was able to have his personal attorney appointed to the Disney board, and even got him a seat on the compensation committee [see *Wall Street Journal*, Feb. 2, 1997]. Not surprisingly, Eisner has been one of the most highly compensated CEOs in recent years.

Core *et al.* (1999) study the relations among board composition, ownership structure, and CEO pay. Their results suggest that firms with weaker governance structures tend to pay their CEOs more. In particular, they find that a CEO's pay rises with the number of outside directors appointed during his tenure, the number of directors

over age 69, board size, and the number of "busy" directors, where busy is defined in terms of the number of additional directorships held by a director. ¹³ In addition, both Core *et al.* (1999) and Hallock (1997) find that CEO pay increases when a board contains interlocking directors (*e.g.*, when the CEO of Firm A sits on Firm B's board and the CEO of Firm B sits on Firm A's board). Finally, Yermack (1996) finds that the payperformance relation for CEOs decreases with board size, suggesting that small boards give CEOs larger incentives and force them to bear risk more so than do large boards. This evidence suggests that CEOs' influence over their boards does result in higher pay for them.

It seems plausible that similar studies investigating how trustees make decisions about replacing college and university presidents and setting their compensation could be undertaken, although to the best of my knowledge such studies have not yet been conducted. Of course, to some extent, any such studies would face many of the same empirical problems raised earlier (*e.g.*, defining trustee types, measuring performance, etc.). In addition, the data collection could be more daunting than it is in the corporate setting: Although the *Chronicle of Higher Education* does, for instance, collect and report salary information for university and college presidents (see Ehrenberg *et al.*, 2001), collecting data on trustee characteristics and certain measures of performance (*e.g.*, research output) could be more difficult.

_

¹³ "Busy" could also be a proxy for professional directors. Such people may have motives to develop reputations for *not* rocking the boat and being supportive of the CEO in order to increase the number of directorships they're offered.

¹⁴ Ehrenberg *et al.* (2001) considers some of the determinants of college and university presidents' pay, but composition of the board of trustees or other characteristics of the trustees are not among the determinants considered. It would appear from Ehrenberg *et al.* that there are not many other studies of presidential pay.

Replicating studies of how different types of boards of trustees respond to performance in their decisions to retain or remove their institutions' presidents would be fascinating. One potential pitfall would be the noise in the dependent variable because not every change in president is due to the removal of the incumbent. Although presumably exogenous causes of change, such as death, can be dealt with, it is still the case that some separations are voluntary (*e.g.*, the president retires) while others are involuntary (*e.g.*, the president announces she is retiring, but would have preferred to stay on if the trustees had permitted her to do so). Weisbach (1988) discusses some of the ways in which voluntary separations might be distinguished from involuntary, but, as he notes, the consequences of failing to identify correctly the two types of separation need not be fatal: Leaving voluntary separations in the sample only adds noise to the regression analysis, but should not bias the results; the only consequence, therefore, being that t-statistics are lower than would be ideal.

In addition to replicating the analyses conducted for corporate boards, research on board of trustees could consider the effect of the board on decisions that are unique to higher education. One example of this type of work is Lowry (2001), who examines how differences in trustee selection across different public universities affect these universities' setting of tuition and other fees. He finds that tuition and other fees are lower, *ceteris paribus*, the greater the representation on the board of trustees of "external" trustees, defined as state officials serving *ex officio* or trustees selected by the governor, state legislature, or by popular election.

The third type of empirical analysis has been to answer the question: What factors affect the makeup of boards and how they evolve over time? These papers typically

measure the impact of *changes* in a firm's characteristics on subsequent *changes* in board composition. Looking at changes minimizes the potential joint endogeneity problem that would arise if one considered levels (*i.e.*, distinguishing the effect of firm characteristics on board characteristics from the effect of board characteristics on firm characteristics).

Hermalin and Weisbach (1988) take this approach and estimate the factors that lead to changes in corporate boards. They find that three sets of factors predict changes in the board: First, they find that poor firm performance increases the likelihood that inside directors leave and that outside directors join the board. Second, they find that the CEO succession process appears to be intertwined with the board selection process. When a CEO nears retirement, firms tend to add inside directors, who are potential candidates to be the next CEO. Just after a CEO change, inside directors tend to leave the CEO, consistent with the hypothesis that these directors are losing candidates to be CEO. Finally, Hermalin and Weisbach document that after a firm leaves a product market, inside directors tend to depart and outside directors tend to join the board. Denis and Sarin (1999) confirm these findings on a much larger sample of firms from a non-overlapping time period. Denis and Sarin find that large changes in board composition tend to occur after abnormally poor performance and around the time of a CEO change.

Replication of studies of this third type using trustee data could be difficult for a number of reasons. First, whereas corporate directors serve relatively short terms, ¹⁵ many trustees serve far longer terms (e.g., the 10 to 12-year terms of trustees or regents of Princeton and the University of California — see Table 1). This suggests fewer

¹⁵ The norm was one-year terms in the Hermalin and Weisbach (1988) data, but these days, in response to the takeover wave of the late 1980s, the norm is three-year staggered terms.

turnovers in trustees,¹⁶ which makes detecting sensitivity of changes in board composition to institutional performance more difficult. A second difficulty could be the now familiar difficulty of measuring performance, or more precisely focusing on the relevant measures of performance. A third difficulty is defining different types of trustees, an issue raised earlier.

One strategy would be simply to avoid the third difficulty by just looking at what increases turnover rates, regardless of type of trustee. In particular, a reasonable prediction is that events that increase "headaches" for trustees, such as scandals or financial problems, also increase turnover. Another possible line of research would be the "flip-side" of Lowry (2001): He hypothesizes that political pressures cause "external" trustees to hold down fee increases. Is there evidence for such pressures? Do, for instance, fee increases lessen reelection rates for elected trustees? Do they influence state elections more generally?¹⁷

In this section, I have reviewed the empirical literature on corporate boards to see the extent to which it can serve as a road map for similar work on boards of trustees in higher education. At an abstract level, much of the work on corporate boards could be replicated for boards of trustees, but as I've indicated there are reasons to suspect that in a number of instances such work is unlikely to yield interesting results. This is particularly true of attempts to determine how the characteristics of the board of trustees affect the achievement of institutional objectives (*i.e.*, Question #1). Measuring both left and right-hand side variables could prove messy. Moreover, there are fundamental theoretical

¹⁶ Although, whether turnover rates on university and college boards are in fact lower than corporate boards is ultimately an empirical question. One possible study would, therefore, be to compare these rates.

¹⁷ That elected officials believe they do is evidenced by the current governor of California, Gray Davis, who has steadily resisted fee increases at the University of California as part of his attempt to establish his "bona fides" as an "education governor."

reasons to question both whether any significant relationship should exist and what, if one is found, it would mean. The one line of inquiry on this dimension of which I would be less negative would be to determine whether a *statistical* relation between board size and performance, which has been established in the corporate setting (Yermack, 1996; Eisenberg et al., 1998) and hypothesized by Bowen (1994) for higher education, indeed exists for higher education. But should such a relation be uncovered, I would caution against necessarily accepting the "obvious" causal interpretation.

As noted above, more fruitful lines of research would be to address Questions #2 and #3 in the board-of-trustees context. With respect to Question #2 — how do characteristics of the board affect its observable actions? — there are a number of interesting analyses to be conducted. For instance, one could extend Ehrenberg et al. (2001) to see whether board characteristics affect how the various determinants they study influence presidential pay or even whether board characteristics directly affect presidential pay. In particular, based on the work of Main, O'Reilly, and their co-authors, one would hypothesize that the socio-economic status of trustees will have a significant effect on presidential compensation. 18 One could also seek to do a similar study to Ehrenberg et al., but with the dependent variable being a change in president, and then adding in board features as Weisbach (1988) did in the corporate-board context. Finally, more work like Lowry (2001), which looks at the role of board of trustee characteristics on important higher education decisions (e.g., fee setting), would be most welcome.¹⁹

¹⁸ O'Reilly et al. (1988) and Main et al. (1995).

¹⁹ Chait and Taylor (1989) offer a list of possible decisions, including the decision to begin offering graduate education, discontinue church affiliation, establish new academic departments, and setting investment policies. An interesting historical decision would be the decision to go co-educational. A topical set of decisions to analyze would be those connected with affirmative action and minority outreach.

For Question #3, a sensible focus would be on the determinants of trustee turnover. Basic facts need to be uncovered, such as what's the underlying rate of turnover? Beyond that it would be good to know what the determinants of turnover are. Of particular importance would be to see what actions affected the tenure of elected regents of state schools and, more generally, the extent to which political issues affect trustee tenure.

Governance Theory and its Application to Boards of Trustees

The prototypical view of hierarchy is that those who hold higher positions in the hierarchy control those beneath them. Under this view, the board of trustees should have all the power with regard to the running of universities and colleges.²⁰ Reality, of course, is clearly different and there are a number of reasons why.

One reason that boards cannot possess all the power is that they don't possess the necessary knowledge, incentive, and time. Most boards of trustees consist primarily of *lay* trustees; that is, trustees who are not academics and whose primary employment is not in higher education. They, thus, haven't the time to make all the decisions and must rationally delegate much of the decision making to the officers of the college or university. Such delegation necessarily implies the ceding of power. In the same line, the lack of necessary knowledge and experience makes the trustees reliant on the officers for background and briefings, which again shifts power to the officers. Finally, as in any

²⁰ In state schools, this view could be questioned on the grounds that the legislature and governor, through their control of the purse strings, might be the ultimate authorities. In California, for example, the immense power the Governor has over the state budget makes him essentially a "super-regent" with respect to many University of California decisions, particularly when it comes to fees. This view could also be questioned for a school that is owned by a religious organization, in which case important authority may reside with

church officials who are not directly connected to the school.

²¹ This isn't to say that boards of trustees do not, from time to time, involve themselves in decisions that are inappropriate uses of their time. See Chait and Taylor (1989) or Bowen (1994) for anecdotes. Kerr and Gade (1989) offer some survey data on the prevalence of "inappropriate" decision making (see, *e.g.*, their Tables B-9, B-10, and B-17).

team, there is the usual "teams problem," whereby each individual trustee under-provides effort because he or she wishes to free-ride on the efforts of his or her fellow trustees.²² These means less attention overall to the institution and, in particular, less oversight of the administration and a power "vacuum" that administrators (and others) will seek to fill.

Organization scholars sometimes refer to such shifts of power as the board retaining the right to govern (oversee) while management is granted the right to manage (take action).²³ But even the board's right to govern is not absolute. A second reason, then, that the board cannot possess all the power is that it must also make concessions on the right to govern, at least in a *de facto* sense. These concessions are part of the bargaining — implicit or explicit — between the president and the board over the latter's ability to govern. This bargaining model, set forth in Hermalin and Weisbach (1998), runs as follows: At any point in time, the board can fire the current president and draw a new one from the relevant population of new presidents. Such a decision is rationale only if the board concludes the current president is less able than a randomly drawn president from this population is likely to be.²⁴ Conversely, if the board doesn't wish to replace the current president, then that means the trustees see her as better, in expectation, than any available replacement. But this makes her a "rare commodity," which in turn bestows on her bargaining power vis-à-vis the board. She can, of course, use this bargaining power to extract more compensation and perks from the board. But, as Michael Weisbach and I showed, she will also use it to gain looser governance and less oversight.

²² Free-riding is an externality problem long recognized by economists. For a formal analysis of it in the context of a team see Holmstrom (1982).

²³ Recently, economists have begun to model such shifting of power (see, e.g., Aghion and Tirole, 1997, or Levitt and Snyder, 1997), but such analyses are quite abstract and do not deal with board-management issues per se.

Alternatively, if there is a cost to replacing a president (e.g., search costs, costs of disruption, etc.), then the rationale decision is to fire only if the incumbent is worse than the expected ability of a randomly drawn replacement minus the replacement costs.

Although written in the context of corporate boards, the Hermalin and Weisbach model carries over straightforwardly to higher education. ²⁵ Indeed, it may be even more powerful in that latter context than the former. Observation suggests that changing university or college president is a more costly undertaking, particularly for board members, than is changing a corporate CEO. It's rare to have an internal successor, who's been groomed for the job, just sitting there at a college or university, whereas succession planning is an ongoing process at most corporations (see, *e.g.*, Vancil, 1987, for a study). Moreover, even when a corporation goes outside for a new CEO, the process can be done more quickly and less publicly than it can in most college or university settings. Raising the cost of replacing the president increases her bargaining power and, thus, results in less oversight in equilibrium.

The president may also gain bargaining power to the extent that faculty and students are effectively her allies. A large proportion of a college or university's assets are in human capital; moreover, in human capital that is exceedingly mobile (at least in comparison to most corporate alternatives). Particularly on academic issues of importance to the faculty, the president can utilize that mobility to strengthen her bargaining power *vis-à-vis* the board of trustees. Similarly, to the extent that conflict between board and president adversely affects applications or yield, the president can capture bargaining power. Ironically, though, this bargaining-power story also means that a president who loses the support of faculty or students may lose a tremendous amount of bargaining power *vis-à-vis* the board, even if she has otherwise proven to be a strong

_

²⁵ The only possible problem would be with interpreting the single dimensional performance variable in Hermalin and Weisbach in the higher-education context. This is not a critical problem because the Hermalin and Weisbach model can be readily extended to have *the* performance variable be some statistic over multidimensional performance measures.

administrator. Ultimately, then, there is a greater devolution of power from the board and top management to the employees (faculty) and customers (students) in higher education than there is in the typical corporation.

In the Hermalin and Weisbach (1998) model, the manner in which the president secures less oversight is by having trustees appointed who are less "independent" of the president. Operationally, less independence means the trustee suffers greater disutility of oversight or reduced personal benefit from oversight or both ceteris paribus. Comparing the higher education and corporate contexts, it seems reasonable to imagine that the personal benefits of oversight are lower in the former than in the latter: Trustees do not have the financial incentives (stock, stock options, fear of being sued) that corporate directors have. In addition, to the extent trustees see their positions as honorific, ²⁶ they may enter the board expecting not to work hard, which could lead them to act as if they have a high disutility of effort. In contrast, corporate directors presumably understand that they are making a serious commitment. So, all else equal, we could expect board of trustees to be less effective monitors of management than corporate boards. Moreover, in the Hermalin and Weisbach model, the bargaining between boards and presidents never results in the board becoming *more* effective monitors — either effectiveness is unchanged, if the president has insufficient bargaining power, or it is reduced.²⁷ Hence.

2

²⁶ See Chait and Taylor (1989), Bowen (1994), and Taylor *et al.* (1996) for discussions of the problem of trustees who see their positions as largely honorific.

²⁷ The reason for this is as follows. The incumbent board has an ideal level of monitoring given the preferences of the existing members. The president/CEO always prefers as little monitoring as possible. So by agreeing to less monitoring than their ideal (*e.g.*, by adding even less vigilant members to the board), the incumbent members suffer only a second-order loss — they're moving from their optimum — while the president/CEO enjoys a first-order gain; hence the bargaining must always lead to less monitoring than that which the incumbent board would otherwise have done. (This prediction of a steady decline or "entropy" in board effectiveness could be seen as a weakness of the Hermalin and Weisbach model. There are, however, radical breaks in corporate governance, such as from takeovers, that could periodically "reset" board effectiveness — see page 106 of Hermalin and Weisbach for a discussion. Interestingly, many of these

one can see the Hermalin and Weisbach model as predicting that board of trustees should be less powerful overseers of presidents than corporate boards are over CEOs; a prediction that is consistent with anecdotal comparisons, such as Bowen (1994).

Another model that could be applied, a variant of the ideas in Hermalin and Weisbach (1998), would be to imagine that the board of trustees needs to be sensitive to many objectives. In this sense, the board is analogous to a consumer who may wish to consume many different goods. One of these is oversight of the president and other administrators. If, however, the president appears able and capable, then the benefit of monitoring relative to other objectives is lower. A lower relative benefit is analogous to a higher cost; hence, the situation is similar to a consumer who sees the price of one good rises — she consumes less of that good and more of the other goods. Similarly, the board will "purchase" more of its other objectives. For instance, it may add "honorific" trustees to reward large donors (or potential donors); it may expand to allow for greater diversity on the board to mollify critics; or it may expand to have a greater range of expertise. But whatever the motive, the board may rationally respond to capable management by pursuing courses of action that lessen its effectiveness as a monitor. Moreover, although rational, many of these actions are in some ways irreversible — large donors cannot readily be dropped; it is hard to shrink a board, particularly at the expense of diversity. Although it is admittedly a sample of one, it is nonetheless consistent with this view that Princeton's board is currently just one trustee shy of its permitted maximum (see Table 1).

[&]quot;reset" mechanisms don't operate in higher education, which further bolsters the view that boards of trustees may be less effective monitors than corporate boards.)

A diverse board, while desirable for many reasons, can also result in a weaker board with regard to oversight. Unlike a corporation, which ostensibly has a single objective — make money — a university or college has multiple objectives. If these different objectives acquire different champions on the board, or even if there is simply considerable disagreement about their relative importance, then the board can become dysfunctional.²⁸ A power "vacuum" at the top means more power devolves to the president and others in the institution.

To summarize, there are a number of reasons to expect the governance and management exercised by a board of trustees to be relatively weak:

- 1. Lack of expertise on the part of lay trustees, which increases reliance on president and other administrators for information and guidance.
- Lack of time to devote to the job, which increases the amount of delegation to the president and other administrators. This also means less effort expended on monitoring.
- 3. Free-riding (teams problem), which reduces amount of oversight.
- 4. Bargaining power of successful president, which leads to less monitoring.
- 5. Bargaining power of faculty and students, which reduces board power in general, but can also bolster the president's bargaining power *vis-à-vis* the board to the extent she can channel this bargaining power of these other stakeholders.
- 6. The temptation to use the board for non-oversight purposes, such as to reward large donors or increase diversity.
- 7. Divisiveness among the directors, which results in a power vacuum at the top.

²⁸ Bowen (1994), among others, warns of this danger in nonprofit boards.

Although there are all these reasons to imagine that boards of trustees will be "weak," it is worth remembering that not *all* institutions are, necessarily, governed by weak trustees. For instance, political or other pressures could make trustees attentive and focused. Restrictions imposed by charters and by-laws on board size or selection could limit the amount of power a board can bargain away. Finally, in some instances, the board will consist of "strong" trustees, who, by dint of their personality, political clout (*e.g.*, a state governor), or financial clout (*e.g.*, a large donor), are able to "re-capture" some amount of power from administrators.²⁹ On net, however, given that the majority of complaints about boards, corporate or collegiate, is that they are insufficiently vigilant (see, *e.g.*, Berle and Means, 1932; Chait and Taylor, 1989; Lipton and Lorsch, 1992; Jensen, 1993; and Bowen, 1994), the seven reasons for weakness given above would, in whole or in part, seem to apply to most boards.³⁰

In contrast to their critics, at least two members of the board, its chair and the president, typically view the board as functioning well according to survey results presented in Kerr and Gade (1989). Chairs give their boards passing marks on all issues except the issue of raising and securing adequate funding (see Kerr and Gade, Table 3, p. 89). Of particular interest, is that 80% or more of the chairs describe their boards' review of the president, its delegation of authority to the president, and its level of commitment and involvement as "good" or "excellent" (Kerr and Gade, Table 3). Presidents are somewhat tougher graders, but nonetheless tend to assign good marks as well.

_

²⁹ It is worth noting that this powerful trustee "solution" is not always desirable, at least from some perspectives. Bowen (1994) warns against institutional capture by a large donor, urging nonprofits to diversify their donor base. Governor Gray Davis's refusal to increase fees despite funding problems at the University of California is almost surely not the best course of action from the University's perspective. ³⁰ A view echoed by a significant number of faculty, who, among other criticisms, believe the board cedes too much authority to the president (40% hold this view according to survey results reported in Kerr and Gade, 1989, Table B-11).

Interestingly, the presidents' view varies from the chairs' on the questions of authority, where they give lower marks.³¹

How to reconcile the good marks assigned by presidents and board chairs with the criticism leveled by observers (including faculty — Kerr and Gade report considerable faculty dissatisfaction with their institutions' boards, see Table B-11 of Kerr and Gade)? Part of the answer is simply that people typically assign themselves higher marks than outside observers do — a fact made abundantly clear to me first as a professor and, more recently, as an academic administrator. Another part though, and one consistent with the Hermalin and Weisbach (1998) bargaining model, is that chairs and presidents are reasonably satisfied with the, perhaps implicit, agreement they've reached concerning the degree of oversight and involvement of the board. Outside parties, who may not understand this bargaining or who wish or believe that one side or the other could have been more effective bargainers, are more inclined to express dissatisfaction with the outcome. (An analogy would be the not uncommon occurrence of the rank and file expressing dissatisfaction with the contracts that union leaders achieve with management.)

Personally, my sympathies lie more with the chairs and the presidents than with the outside critics. Within the reality that trustees face — the tradeoffs, the true incentives, the allocation of bargaining power, etc. — they achieve the best solution possible in terms of oversight and control. To be sure, we can conceive of better oversight and better control. But we can also conceive of two-hour flights from New York to Tokyo —

³¹ To the question, "understands and observes the line between policy and administration," 86% of public institution chairs rated the board's performance as good or excellent, while only 69% of the presidents of these institutions did (the numbers are 94% and 88%, respectively, for private institutions) — see Table B-9 of Kerr and Gade. To the question, "effectively reviews the performance of the president," 80% of chairs rated the board's performance as good or excellent, while only 68% of presidents did (Table B-8).

something that, in the world we currently live in, is not going to be. To be sure, there are board failures: Occasionally, trustees shirk on duties that can be reasonably expected of them; sometimes they could reasonably be tougher bargainers; sometimes they accept actions that we would rightly expect them to reject; and so forth. But one must be careful not to make idiosyncratic mistakes the basis of a condemnation of a system. To do so would be analogous to asking that the rules of football be rewritten because occasionally receivers drop passes and quarterbacks throw interceptions.

Although much of the existing theory of governance, derived in the context of considering for-profit firms, can be exported to non-profits, such as colleges and universities, there are certainly differences between for-profit and non-profit firms that could call for the development of new models. In particular, the fact that some non-profits, like institutions of higher education, have multiple objectives pushed by multiple stakeholders means that there are governance issues that are absent or less pressing in the for-profit realm, where presumably making money is essentially the only objective. For instance, an argument could be made that the while the purpose of governance in a for-profit is to ensure effective achievement of the one objective, make money, the purpose of governance in a college or university is to keep the various stakeholders content to continue with the school and to engage with each other.

To be concrete, students want greater variety of courses. With a finite faculty, more variety means more teaching by the faculty. The faculty, in contrast, want less teaching because they have other uses for that time, such as conducting research. The administration's task is, therefore, to achieve a compromise that keeps each group sufficiently satisfied. The role of governance is, thus, to ensure that the administration

properly affects a compromise solution; a role made difficult by the lack of clear performance metrics and uncertainty over objectives on the part of the governors.

Although the basic toolkit of the modern economic theorist, such as agency theory, game theory, and information economics, can be employed, the model that will be constructed from this toolkit could easily be far different than any model built in the for-profit context.

As these new models are built, they will start to shape how we perceive the role of the board of trustees and will give further guidance toward models and theories of its functioning. This is not to say that the seven points made previously will be shown not to apply or that insights from corporate boards will shown to be non-applicable to higher education. Rather, these new models and theories will add additional points to those made previously and will help us think about the relative importance of all these points in understanding the functioning of boards of trustees. Because, however, mapping out a research agenda for looking at higher education governance more generally is beyond the scope of this chapter, it is not feasible to say more on this point at this time.

Conclusions

This chapter has considered board of trustees of institutions of higher education. The aim has been to consider how the insights that have been gained over the years concerning corporate board of directors, whether empirical or theoretical, could be applied to boards of trustees. To a large extent, the focus has been on the degree to which this earlier research on corporate boards can serve to guide future research on boards of trustees.

For the most part, the theory of boards should apply to both directors and trustees. The principle differences are in degree. The basic insights concerning lack of expertise,

lack of time, free-riding among board members, and the Hermalin-Weisbach (1998) bargaining model apply to both directors and trustees; although, as discussed above, could loom larger in the trustee context. The dependence on highly mobile human capital creates problem for higher education governance that are less pronounced in most corporate settings. Higher education also suffers two other issues not generally present in the corporate world: First, a temptation to use the board for purposes other than governance; and, second, a susceptibility to divisiveness on the board that comes from less focused objectives as compared to the essentially single objective of corporations. Although there is every reason to believe that theoretical insights about boards arrived at by thinking about the for-profit corporate context apply, with some modification, to boards of trustees of colleges and universities, it is also true that colleges and universities face governance issues unlike those typically seen in the for-profit context. As some of these issues enjoy greater study, a consequence will be that our perception of the role and functioning of the board of trustees will be adjusted. That is, the corporate model provides a good picture of boards of trustees, but a more complete picture awaits advances in the theory of collegiate and university governance.

With respect to empirical analyses of boards of trustees, analyses of corporate boards are generally good guides concerning what to study and what can be expected to be found. In particular, it is unlikely that any analysis will find a relation between characteristics of boards of trustees and the overall performances of the institutions in question.³² More promising lines of inquiry are with respect to whether trustee characteristics help explain specific board actions (*e.g.*, presidential compensation and

³² As discussed above, one possible exception would between board size and performance. Measuring performance in the higher-education context is, however, difficult and, moreover, it is not clear that any relation uncovered is causal.

replacement, setting of fees, specific types of expansion, etc.) and with respect to what causes turnover in trustees.

When I began to formulate this chapter, I started with two beliefs: First, that boards of trustees are very much like corporate boards of directors; and, second, that boards are a reasonably good solution to a set of governance problems affecting any complex organization, whether for-profit or non-profit. Basically, I still hold to both beliefs. As discussed above, there are differences between the two types of boards and that these differences will have an impact on both empirical and theoretical analyses. Nonetheless, these differences are primarily ones of degree and not of substance. Directors and trustees are, for instance, both imperfect agents with respect to oversight of management, but institutional aspects of colleges and universities suggest that trustees could be the more imperfect agents, at least in some dimensions. Moreover, despite the criticisms that both types of boards engender, I still maintain that they are a reasonably good solution within the constraints within which they operate. Corporate boards, for instance, do in the end replace incompetent management; and there is every reason to believe that so too do boards of trustees. The real evidence is that, despite numerous critics, alternative organizational forms have generally not functioned better. This is true in the for-profit context, where the corporate form with directors is the dominant form of organizing a large company. And it is true is the college and university context, where American universities, with their boards of trustees, dominate higher education and have outperformed along any reasonable metric non-American universities organized along different lines.³³

³³ A point also made by Kerr and Gade (1989).

References

Aghion, P. and J. Tirole (1997) "Formal and Real Authority in Organizations," *Journal of Political Economy*, **105**(1), pp. 1–29.

Barro, J. and R. Barro (1990) "Pay, Performance and Turnover of Bank CEOs," *Journal of Labor Economics*, **8**, pp. 448-481.

Berle, A. and G. Means (1932) *The Modern Corporation and Private Property*. New York: MacMillan.

Blackwell, D., J. Brickley, and M. Weisbach (1994) "Accounting Information and Internal Performance Evaluation: Evidence from Texas Banks," *Journal of Accounting and Economics*, **17**, pp. 331-358.

Borokhovich, K., R. Parrino, and T. Trapani (1996) "Outside Directors and CEO Selection," *Journal of Financial and Quantitative Analysis*, **31**, pp. 337-355.

Bowen, W. (1994) Inside the Boardroom. New York: John Wiley & Sons, Inc.

Chait, R. and B. Taylor (1989) "Charting the Territory of Nonprofit Boards," *Harvard Business Review*, January-February.

Core, J., R. Holthausen, and D. Larcker (1999) "Corporate Governance, Chief Executive Officer Compensation, and Firm Performance," *Journal of Financial Economics*, **51**, pp. 371-406.

Coughlan, A. and R. Schmidt (1985) "Executive Compensation, Managerial Turnover, and Firm Performance: An Empirical Investigation," *Journal of Accounting and Economics*, 7, 43-66.

Denis, D. and A. Sarin (1999) "Ownership and board structures in publicly traded corporations," *Journal of Financial Economics*, **52**, pp. 187-224.

Eisenberg, T., S. Sundgren, and M. Wells (1998) "Larger Board Size and Decreasing Firm Value in Small Firms," *Journal of Financial Economics*, **48**, pp. 35-54.

Ehrenberg, R., J. Cheslock, and J. Epifantseva (2001) "Paying Our Presidents: What Do Trustees Value?" *The Review of Higher Education*, **25**, pp. 15–37.

Hallock, K. (1997) "Reciprocally Interlocking Boards of Directors and Executive Compensation," *Journal of Financial and Quantitative Analysis*, 32, 331-334.

Hermalin, B. and M. Weisbach (1988) "The Determinants of Board Composition," *The RAND Journal of Economics*, **19**, pp. 589-606.

—— and —— (1998) "Endogenously Chosen Boards of Directors and their Monitoring of the CEO," *American Economic Review*, **88**, pp. 96-118.

—— and —— (2002) "Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature," *Economic Policy Review*, forthcoming.

Herman, R. and D. Renz (1998) "Nonprofit Organizational Effectiveness: Contrasts between Especially Effective and Less Effective Organizations," *Nonprofit Management and Leadership*, **9**, pp. 23–38.

Holmstrom, B. (1982) "Moral Hazard in Teams," *Bell Journal of Economics*, **13**, pp. 324–340.

Huson, M., R. Parrino, and L. Starks (2000) "Internal Monitoring and CEO Turnover: A Long-Term Perspective," Working Paper, University of Texas.

Jensen, M. (1993) "The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems," *Journal of Finance*, **48** (3), pp. 831-80.

— and K. Murphy (1990) "Performance Pay and Top-Management Incentives," *Journal of Political Economy*, **98**, pp. 225-264.

Kaplan, S. (1994) "Top Executive Rewards and Firm Performance: A Comparison of Japan and the U.S.," *Journal of Political Economy*, **102**, pp. 510-546.

Kerr, C. and M. Gade (1989) *The Guardians: Boards of Trustees of American Colleges and Universities*, Washington: Association of Governing Boards of Universities and Colleges.

Levitt, S. and C. Snyder (1997) "Is No News Bad News? Information Transmission and the Role of 'Early Warning' in the Principal-Agent Model," *RAND Journal of Economics*, **28** (4), pp. 641-61.

Lipton, M. and J. Lorsch (1992) "A Modest Proposal for Improved Corporate Governance," *Business Lawyer*, **48** (1), pp. 59-77.

Lowry, R. (2001) "Governmental Structure, Trustee Selection, and Public University Prices and Spending: Multiple Means to Similar Ends," *American Journal of Political Science*, **45**, pp. 845-861.

Mace, M. (1986) Directors: Myth and Reality, Boston: Harvard Business School Press.

Main, B., C. O'Reilly III, and J. Wade (1995) "The CEO, the Board of Directors, and Executive Compensation: Economic and Psychological Perspectives," *Industrial and Corporate Change*, **4**(2), pp. 293–332.

O'Reilly III, C., B. Main, G. Crystal (1988) "CEO Salaries as Tournaments and Social Comparisons: A Tale of Two Theories," *Administrative Science Quarterly*, **33**(2), pp. 257–274.

Smith, A. (1776) *An Inquiry into the Nature and Cases of The Wealth of Nations*. New York: The Modern Library.

Taylor, B., R. Chait, and T. Holland (1996) "The New Work of the Nonprofit Board," *Harvard Business Review*, September-October.

Vancil, R. (1987) *Passing the Baton: Managing the Process of CEO Succession*. Boston: Harvard Business School Press.

Warner, J., R. Watts, and K. Wruck (1988) "Stock Prices and Top-Management Changes," *Journal of Financial Economics*, **20**, pp. 461-492.

Weisbach, Michael (1988) "Outside Directors and CEO Turnover," *Journal of Financial Economics*, **20**, pp. 431-60.

Wu, Yilin (2000) "Honey, I Shrunk the Board," Working Paper, University of Chicago.

Yermack, D. (1996) "Higher Valuation of Companies with a Small Board of Directors," *Journal of Financial Economics*, **40**, pp. 185-212.

Table 1: Four Universities and their Trustee Characteristics

(Source: Except where noted, sources are the respective web sites of the universities.)

	Method of Selection	Number of	Frequency of
University	(composition)	Trustees	Regular Meeting
University of California*	 18 Regents appointed by Governor for 12-year terms One regent (a student) appointed by the Regents for a one-year term Four state officials: Governor, Lt. Governor, Speaker of the Assembly, & Superintendent of Public Instruction Two alumni officials: President and Vice President of the Alumni Associations President of the University 	26	Six times annually
University of Michigan [†]	 Eight Regents elected in biennial state-wide elections. President of the University 	9	12 times annually
Harvard University	Two boards: Corporation (7 members) self-perpetuating with consent of Board of Overseers (includes President of the University). Members appointed for life. Board of Overseers elected by alumni at large	NA	Corporation meets 15 times annually. [‡]
Princeton University	 13 Alumni trustees (elected by alumni for 4-yr. terms), one of whom, at least, must be an alumnus/a of the Graduate School. Four to eight Term Trustees. Elected by the board for 4-yr. terms. Governor of New Jersey President of the University Unspecified number of Charter Trustees. Elected by the board for 10-yr. terms. 	23–40 (currently 39)	Five times annually

^{*} Oversees 9-campus system

† One main campus and two secondary campuses

‡ Source: Kerr and Gade (1989, p. 60).