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THE GOVERNANCE OF NOT-FOR-PROFIT FIRMS

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ABSTRACT

Many factors including incentive-pay, powerful shareholders, and takeover threats push for-profits managers towards maximizing shareholder value. One of the most striking factors about non-profit firms is that they have no comparable governance institutions, and the only check on managers are boards that are themselves rarely responsible to anyone outside the firm. This essay discusses the implications of these weak governance institutions on non-profit behavior. A primary implication is that non-profits will often evolve into organizations that resemble workers' cooperatives. The primary check on this tendency is the need of the organizations to compete in outside markets. After presenting a model of non-profit behavior, I look at four different sectors (hospitals, museums, universities and the church). All display significant signs of capture by elite workers, but all still perform their basic missions reasonably, probably because of market competition.

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I.   Introduction

What makes not-for-profit firms different from their for-profit alternatives? Non-profit firms have tax privileges: donations to them are tax deductible and non-profit firms are themselves free from many tax burdens. These tax advantages lie at the heart of many non-profits and it is hard to imagine that America would have its thriving non-profit sector without tax deductibility. A second difference is the non-distribution constraint. Non-profit firms are not allowed to disburse profits to owners or employees and this impacts the nature of non-profits in important ways; for example, in some cases it enables non-profits to better commit not to cheat donors, customers and workers (see Hansmann, 1980, 1996, Weisbrod, 1988 and Glaeser and Shleifer, 2001).   Indeed, the non-distribution constraint is the defining element of non-profits. Some non-profits don't have tax advantages, but all of them face a non-distribution constraint.

As striking as these differences are, a third difference between non-profit and for-profit firms may be as important in explaining the behavior of non-profit firms: non-profit firms do not have owners. The non-distribution constraint ensures that the people who fund non-profits are not residual claimants to the revenues and assets of the non-profit, but the limits on the powers of donors goes beyond limiting the ability of donors to collect rents. The people who fund non-profits, through donations, often don't have control rights over the firm at all. Non-profit firms do have boards, which ultimately do have control rights, and these boards are often partially composed of donors and their representatives, but non-profit boards are ultimately not accountable to shareholders or donors and they are generally self-perpetuating.

Non-profit boards and managers are never subject to takeovers and often they are not elected.[1] Board members cannot sell or transfer their control rights, so board members don't own an asset the value of which is tied to the firm's success.   Moreover, there is certainly no legal rule requiring boards to act as custodians of the interests of past

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[1] There are certainly minor exceptions to this claim. Many churches and synagogues have boards elected by Parishioners. Alumni groups are frequently entitled to elect some members of university boards.

investors/donors. The law constrains itself to generally vaguely worded requirements about the non-profits mission. Moreover, given the murky missions of many non-profits, their managers are inherently harder to incentivize. A for-profit manager's income can be tied to the stock price of his firm, but no similar benchmarks exist for most non-profits. Indeed, many forms of incentive pay are illegal for non-profit firms.

The result of these factors is that the managers of non-profit firms— the Chief Executive Officer (CEO) and his board— have a degree of autonomy that is almost unparalleled in the economy. Moreover, there is every reason to believe that, as in all other sectors of the economy, management does not inherently maximize the objectives of either investors (donors) or society as a whole. What non-profits do maximize is a significant and difficult question. This essay, and the book that it introduces, represent an attempt to add something to the literature on this question. The goal of the paper and the book is to understand something of the motives of the major actors in the non-profit sector and how the interactions of these actors influence the actions of non-profit firms.

Indeed, given the weak nature of corporate control in non-profits, perhaps the most surprising thing about non-profits is that they function as well as they do. Widespread looting of endowments is almost unheard of. Non-profit universities and hospitals seem to do a quite credible job of educating students and curing the sick. While I will argue that workers do tend to subvert the mission of non-profits, I also think that this subversion is ultimately modest, and in some cases the subversion itself may create social benefits.[2] Perhaps the right view is that competition in the market for customers and donors is ultimately more important than corporate control, and ultimately serves to keep non-profit firms reasonably honest.

This introductory essay begins with a simple model of the choices made by non-profit firms. I consider a model with four types of actors: a manager (meant to represent the CEO and the board), workers, donors and customers. Each of these actors has different

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[2] A cynical reader might thin that since I am an employee of a non-profit, I have a vested interest in claiming that employee subversion isn't a terrible thing.

preferences about the nature of the firm's product. The model focuses on whose preferences come to dominate the firm's decision-making. Does the firm ultimately hew towards the preferences of donors, customers, workers or management?

I assume that in the non-profit firm, the manager (who is meant to be an amalgam of the board and the CEO) decides on the nature of production and maximizes preferences over both the amount of output and its attributes. The level of donations, workers' salaries and the sale price are all functions of the attributes of the output. Furthermore, workers are assumed to directly influence, or lobby, or punish the manager if he or she deviates from their preferences. In some cases (think of the student riots in the 1960s), customers are also able to cause pain to management as well.

The most central result of this model is that worker preferences tend to be more important in non-profit than in for-profit firms. In a profit-maximizing firm, worker preferences only matter to the extent that workers are willing to accept lower salaries. Even if workers are able to lobby managers, shareholders should be able to create incentives to undo the influence of elite workers. Of course, in reality, for-profit firms are often subverted by workers, especially top management. But the weak incentives in non-profit firms means that workers will have more influence within non-profits. Indeed, as Glaeser and Shleifer (2001) argue, the ability of workers to protect themselves from ex post appropriation in non-profits may be a major reason for the success of non-profit firms.[3]

Within and across non-profit firms, there will be a wide degree of variation in the extent to which workers are able to influence outcomes. Across workers, the ability to impact decision-making depends on the amount of direct contact with the manager, the extent to which the CEO comes from a specific class of workers (e.g. Professors, Doctors) and the extent to which individual workers are able to punish or reward the CEO, especially through the press. As such, the model predicts that elite workers who interact with the

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[3] Indeed, one aspect of the model in that paper is that non-profit managers care less about profits than about embarrassment. This preference comes ultimately from the weak governance of non-profits.

CEO will have influence. Lower-level workers, or other employees who are physically isolated from the manager, will not.

Across non-profit firms, the degree of worker control will rise with the wealth of the firm. Firms that are wealthy can afford to cater to their own interests rather than focusing on courting new donors or on making money through customers. Indeed, the model suggests that non-profits will have a life cycle where they are originally controlled by initial donors who select the board and continue to provide financing for the firm. However, over time, as the initial donors die off and as the firm becomes richer, the preferences of workers will tend to dominate the preferences of donors. If there is a shock to the income level of the firm, caused by an exogenous fall in price or increase in costs of production, then non-profit firms will become more commercial, i.e. cater more to the interests of consumers, and the preferences of management and workers will become less important.

The model implies that the Pauly and Redisch (1973) view of hospitals as doctors' cooperatives is likely to be applied to many areas of non-profits.[4] Instead, the generally weak governance of non-profit firms means that if the firms get wealthier over time, they will almost invariably become oriented towards the interests of their elite workers. Indeed, in many of the most important non-profit sectors, including religion, art museums and academia, the growth of the industry was closely linked to at least a partial capture of the wealthier firms by their workers. Certainly, as we have known since Berle and Means, for-profit corporations also face this problem. But the mechanisms that have made for-profit firms at least somewhat accountable to shareholders are ultimately much weaker in non-profit firms, and as such elite workers in non-profit become much more dominant.[5]

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[4] McCormick and Meiners (1988) discuss the property rights that professors have over universities and essentially point to universities as being close to faculty-run institutions.
[5] One view is that since the mid-1970s, a number of institutions including takeovers and incentive pay have served to re-orient for-profit managers towards shareholder value. No comparable changes have occurred for non-profits.

Of course, there are many factors which limit the extent to which non-profits deviate from their social goals. Boards do include representatives of, at least relatively recent, donors, and management is certainly motivated to attracting new donors. The non-profits that actually sell to the public generally must pay some attention to consumer demand, especially if their prices are close to market rates.[6] Legal restrictions are also important. Non-profits that pay their workers too much or that diverge too far from their mission statement may be subject to legal challenges. Finally, worker preferences are often themselves altruistic and often internalize the stated goals of the firm. Non-profit firms are not organizations which selfishly maximize the income of their workers, but they are organizations where the preferences of elite workers come to have a very large, and perhaps undue, amount of influence.

Board control is strongest in areas that are clearly observable, such as the size of salaries and decisions about construction. This will tend to limit the extent to which workers are able to lobby for higher salaries and will induce workers to focus on less measurable amenities. Indeed, if boards are able to force salaries to be competitive (i.e. to make sure that there are not huge queues for jobs in the non-profit), then the degree of worker influence over firm production can explain the well-known fact that salaries in non-profits are generally lower. If the salaries of non-profit workers are limited by competition, then salaries in non-profits will be pushed down to reflect workers' greater ability to influence the firm. Even if full compensation doesn't occur, and non-profit workers end up with rents, competition for jobs will generally mean that greater control over production is accompanied by lower wages.

Another implication of the model is that the composition of donors to non-profit firms will differ with the endowment level of the firm. Donors who are interested in impacting firm behavior will go to small non-profits that they can control. The donors who give to large non-profits cannot expect to impact the firm very much, except in cases where they can write a legally or reputationally enforceable contract. As such, donors to large non-

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[6] In many cases, non-profit firms appear to price at far below market rates. This both serves a charitable function and also gives them the freedom to control the product without worrying about having to cater

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profits will either have preferences that are well matched with the preferences of elite workers or they will be driven by a desire to signal generosity and wealth. Donors to smaller non-profits will generally be driven by a desire to impact firm behavior. Donors to wealthy non-profits will also tend to have tastes that are more in line with the tastes of the workers in those non-profits.

A third set of implications concerns the determinants of commercialism in non-profits. One of the major topics in non-profit research has been the convergence of non-profit and for-profit behavior, especially in the medical sector. The model suggests that this type of convergence occurs in two different ways. First, negative shocks to the earnings of non-profits will cause them to behave in a way that is more calculated to appeal to consumer tastes. Certainly, some of the commercialism of hospitals has occurred because of declining rents in that industry. Second, non-profits are still attuned to money-making opportunities and a rise in the returns to commercialism will also make non-profits more commercial. In Duggan (2000), non-profit firms seem perfectly able to take advantage of a clear money-making opportunity. This helps us to understand Jason Barro's paper in this volume that shows that advertising rose most among the rich, university hospitals, not among the cash-strapped hospitals. He explains this by arguing that the returns to this form of commercial activity have risen most for non-profits with the highest quality level.

Finally, the general freedom of non-profit managers means that there will be much more variance over time and across companies in the structure and methods of non-profits (relative to for-profits). If there is a profit-maximizing way to produce, then our models predict that profit-maximizing should generally follow that strategy. However, non-profits are much more likely to follow the quirky preferences of their CEO. This variance will be limited if workers as a group are homogeneous across non-profits and if CEO behavior tends to cater to the elite workers. As such, the model predicts that managerial style, which Bertrand and Schoar (2002) find to be important in for-profit firms, should be even more important in non-profit firms.

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excessively to consumer preferences.

After presenting the model, I discuss donor-worker-customer conflicts in four key non-profit industries: academia, hospitals, art museums and the Catholic Church. I argue that all four industries support the basic point of the model: weak incentives mean that workers come to greatly influence the practices of non-profits. However, competition still acted to check massive rent extraction and to keep non-profits oriented towards customers. Universities were generally originally dominated by their donors and the clergy. Over the 1900-1960 period, academics and higher level administrators came to dominate these institutions. In 1890, donors and customers were the dominant figures in the life of the university. Professors were freely dismissed if their views differed from those of trustees, even on religious matters that were unrelated to their teaching. 100 years later, academics and elite administrators exercise an incomparably larger degree of control over the nature of the university. Universities still cater to customers, and competition has certainly limited the growth of faculty salaries, but the rise of the research university is intimately related to professors gaining influence over the management of the academy.

Hospitals were also initially dominated by donors who supported them as institutions of charity for the poor. Doctors initially often had little control over their management. Again, as they grew richer, they became much more oriented towards the interests and objectives of elite doctors. Hospitals for the indigent became elite research hospitals focused on the interests of their most impressive doctors. Only in the past 30 years have recent changes in the industry caused a re-orientation of these hospitals (see Weisbrod, 1999). As the model predicts, this re-orientation appears to be the result of a substantial decline in the amount of available rents.

Art museums have likewise seen a transformation from primarily donor-controlled institutions to institutions where curators wield more power, but the transition has been much more modest. Donors are still quite dominant in many institutions. This probably occurs because art museums generally have limited free cash (their endowments are primarily in non-transferable works of art) and they depend on donors for new purchases.

Art museums have generally been less effective in funding themselves with customers, but perhaps the financial success of blockbuster exhibitions will end up freeing museum management from donors and giving them more autonomy.

My final example of the transformation from donor to worker control is the Catholic Church. 1000 years ago, lay leaders—the founders of the church—exercised a phenomenal amount of control over the institution. They chose bishops. They determined church policy. Even the pope was ultimately beholden to the secular authorities who supported him. Over the last 300 years, the wealth of the church grew significantly and with it the degree of priestly power. In recent years as well, the rise of various churches in the U.S. and elsewhere has been accompanied by church workers freeing themselves from lay control.

Finally, I end the paper by reviewing the seven subsequent papers in this volume. These papers relate to various aspects of non-profit behavior. Two of these are general: Fisman and Hubbard examine endowments and Malani, Philipson and David review the empirical literature on what non-profits maximize. Three are focused on the medical sector: Hansmann, Kessler and McClellan show that non-profits are slower to respond to negative demand shocks than their for-profit competitors, Erus and Weisbrod look at bonuses in non-profits and Barro examines hospital advertising. Goetzman and Oster examine the behavior of art museums, and Nelson and Zeckhauser examine donor-church relations in renaissance Florence.

II.   The Model

I consider a non-profit firm that is producing a product (healthcare, education, etc.) that is characterized by number of units sold, denoted N, and a production attribute, denoted X. This "X" attribute is meant to capture things like the research orientation of medical care in hospitals, the spending decisions of universities, the degree of openness of Art Museums or the style in which ministers preach. Different values of "X" will impact the

utility of managers, workers, donors and customers. For simplicity I assume that "X" is a continuous scalar variable that lies between minus one and one. Of course, in reality "X" is a rich vector of production characteristics.

In principle, this production attribute, "X," can have several interpretations. In some cases, X might refer mainly to the nature of the good provided to consumers. In this case, employees care about the nature of output primarily because of their altruism or attitudes towards the potential customers. For example, doctors may care about the quality of medicine being practiced, or academics may care about the degree to which courses concentrate on current research rather than basic skills, or clergymen may be devoted to a particular type of theological sermonizing.   In some cases, the value of X refers to attributes of production that impact workers but not customers.

The good is sold for a price $P(|X - X_C|)$ where P(.) is a strictly decreasing function and $|X - X_C|$ is the absolute value operator. In the case of some non-profits P may be fixed at zero. In the case of for-profits, "P" is unlikely to be zero. The value of X_C represents the ideal nature of the good to consumers. Thus, in a university context, customer willingness to pay for classes might depend on the extent to which those classes are entertaining or cater towards productivity in the workplace.

The firm produces using a manager, exactly one unit of labor and a flexible amount of capital. The cost of capital is K(N), where K(.) is an increasing, weakly convex function (in most cases, I will assume that K(N) is linear). The wage rate of labor is denoted W, so that total costs of production are W+K(N).

The utility of workers' utility equals their wage, W, plus BX. I assume that X is ordered so that higher values of X always reflect the preferences of the workers. The parameter "B" captures the degree to which workers care about this aspect of production.

I assume that the reservation utility of workers equals <u>W</u>. One key issue is the degree to which wages are set by market consideration, and the degree to which wages will respond

to the level of X. Given that I am assuming a fair amount of divergence from profit-maximizing behavior, in principle it might be possible for workers to radically capture the organization and pay themselves extremely high wages. In line with the experience of most non-profit firms, I assume that this does not occur and that wages must be at least somewhat responsive to the degree of competition for the jobs. In fact, I go further and assume that wages cannot be bargained above the reservation wage, because this is observable and extremely inappropriate wages can be blocked by donors.

However, I do assume that wages may not completely be determined by competition. In some cases, workers in non-profits will be able to receive rents. The form that this will take is that in some non-profits, workers perquisites will rise and wages will not fall one-for-one. In the language of the model, wages may not respond fully to changes in the level of X. To capture the range of possibilities, we assume that wages, W, equal $\underline{W} - \sigma BX$, where σ can range from zero to one. Low values of σ imply that workers are actually able to appropriate rents from the job if they influence the character of the firm's production. High values of σ imply that workers' utility levels are determined entirely by their outside opportunities. If σ is lower then workers are able to keep more of the rents that their lobbying activities generate.

I first consider a purely-profit maximizing firm, which will provide a benchmark for comparison with non-profits. Of course, it is worth re-emphasizing the for-profit firms themselves don't purely maximize profits, but rather often have their own incentive problems. Still a purely profit-maximizing firm is the most straightforward comparison.

A purely profit-maximizing firm will choose X and N to maximize $P(|X - X_C|)N - K(N) - (\underline{W} - \sigma BX)$, which implies that the firm will choose output so that $P(|X - X_C|) = K'(N)$, and X so that $P'(|X - X_C|)N + \sigma B = 0$. This implies that profit-maximizing firms will choose a level of X that is greater than X_C and, generally, the value of X will rise with σ and B. Thus, if workers care more about the attribute,

and if their wages are more flexible, then profit maximizing firms will be likely to cater, at least somewhat, to the desires of both workers and customers.

In the case of non-profit firms, no simple profit-maximization rule can be assumed. Instead, I assume that the choices of X and N are made by a manager with his or her own preferences over the value of X. In the non-profit context, I think of the manager as representing the combination of the non-profit's CEO and the boards. I assume that the direct utility for the manager from production equals $f(N) - g|X - X_M|$. Thus, the manager receives utility both from the scale of production and from the extent to which the good aligns well with his own preferences. The value of X_M reflects the manager's preferences about the product, and I will assume that this lies between zero and one.

The non-distribution constraint ensures that the non-profit is not allowed to earn positive profits, and the non-profit is also not allowed to go bankrupt. As such, the firm's total cost must equal its total revenues. The firm has revenues from sales, the endowment (equal to E) and new donations. The supply of endowment revenues is exogenous, but the flow of new donations is determined by optimizing behavior on the part of the new donor. To highlight the potential conflict between donors and workers, I assume that donors' preferences are diametrically opposed to those of workers and the donor would ideally like X to equal zero. As such, I assume that the level of donations will be a function $D - d|X|$. The equality of costs and revenues implies that total firm profits, or $P(|X - X_C|)N + D - d|X| + E - (\underline{W} - \sigma BX) - K(N)$, must equal zero.

Workers' preferences are internalized by management in two ways. First, just like for-profit firms, non-profit firms will respond to the impact that catering to employees will have on wages. Second, I assume that workers can impose a cost of C times (1-X) on management. The level of cost is increasing in the distance between the actual attribute of the good and the workers' desired nature of the good. Examples of this cost would include publicly embarrassing the CEO by talking negatively about him to newspapers or just impeding his progress through obstructionist tactics. This is meant to reflect the

power that workers generally have over the quality of life of their bosses. In principle, workers in for-profit firms can also influence their CEOs, but in the case of for-profit firms, shareholders may be able to incentivize the CEO to care more about profits than about elite worker influence.

Because managers are workers who are selected by boards, I will assume that the preferences of managers lie between the preferences of workers and donors, i.e. X_M lies between zero and one. I consider a non-profit firm where the manager maximizes solely his own utility subject to the constraint that total net revenues are non-negative, or. The manager then maximizes $f(N) - g|X - X_M| - C(1 - X)$ over N and X subject to this constraint. The first order condition for the level of N yields: $(P(|X - X_C|) + f'(N)/\lambda = K'(N)$, where λ is the multiplier on the balanced budget constraint.

If we let X_N refer to the value of X chosen by the non-profit firm, then the following proposition holds:

Proposition 1: The level of production will be greater in the non-profit firm than in the for-profit firm if and only if $P(0) < P(|X_N - X_C|) + f'(N)/\lambda$.

As long as $P(0) < P(|X - X_C|) + f'(N)/\lambda$, then this first order condition gives us the familiar result (shown in Malani, Philipson and David, in this volume) that non-profits will produce more than for-profits because they have a direct taste for production (the f'(N) term in this equation). This proposition also suggests that non-profits will be slower to shut down hospitals in the face of declining profitability, as found by Kessler, Hansmann and McClellan in this volume.

However, if $P(0) > P(|X - X_C|) + f'(N)/\lambda$ then for-profit firms produce at a larger scale than non-profit firms. The intuition of this result is that for-profits end up making goods

that appeal more to consumers. As such, the price that for-profit firms receive will be higher and the marginal benefit to them of producing is also higher than the marginal benefit of producing to the non-profit firm. One example of this phenomenon might be non-profits that produce very elite products, such as public radio and television, which have less market appeal than their for-profit alternatives.

To focus on the determinants of X, I now assume that K(N)=KN and that K>P(0). This assumption, combined with the zero profit assumption, means that non-profits produce in areas where for-profits would lose money and shut down. If X>0, then the level of N for the non-profit firm will equal $(E + D - d|X| - W)/(K - P(|X - X_C|))$. Values of X which please consumers will increase scale by raising the overall revenues. Values of X which please donors will increase scale by raising the level of donations. Thus, the managers will have to decide on a value of X taking into account that they can either cater to their own wishes (or the wishes of workers) and produce at a smaller scale, or they can cater to the wishes of donors and customers and produce at a larger scale.

The manager maximizes $f(N) - g|X - X_M| - C(1 - X)$ over N and X subject to the constraint that N equals $(E + D - \underline{W} - d|X| + \sigma BX)/(K - P(|X - X_C|))$. This yields the first order condition for the manager of:

(1) $\qquad P'(|X - X_C|)N + \sigma B = d * I(X > 0) - (C - g * I(X > X_M))\dfrac{(K - P)}{f'(N)}$,

where $I(X > k)$ is an indicator function that takes on a value of one if $X > k$ and negative one otherwise. I assume that d is greater than σB to avoid a corner solution where workers completely dominate.

Comparing this first order condition with the first order condition for the profit-maximizing firm, $P'(|X - X_C|)N + \sigma B = 0$, shows that non-profits will not produce the same products as for-profit firms. Their output will be directed towards the interests of

both donors and workers in a way that is different from for-profits. If d is small, and $X_M > X_C$, then it immediately follows that non-profits will cater to worker and manager's tastes more than for-profits will. As such, this view predicts that in all non-profits, not just Pauly and Redisch's (1973) hospitals, worker influence will matter. The forces that mitigate this effect will be the preferences of customers and donors. As such, if the firm is in a highly competitive market for donations or customers, it will be limited in the extent to which it caters to workers.

Proposition 2: If $P'(|X - X_C|) = P$ then X>0 and if $d > \sigma B$, then the value of X is rising with σ, B, C, D, E, and falling with d and $\underline{W}$. The value of X is falling with K and rising with P if and only if $f'(N) > -Nf''(N)$.

The assumption that $P'(|X - X_C|) = P$ eliminates the role of competition for consumers at this stage. I will return to this form of competition later in the model. Here this assumption implies that X will be positive, since a negative value of X would only hurt the manager, through direct utility loss, through higher wages, through punishment from workers and through lost donations.

These comparative statics are the heart of the model. The manager faces a tradeoff between accommodating the donors and accommodating the workforce. The manager's interest in accommodating the workforce is naturally driven by the extent to which the workers can cause pain to the manager and by the extent to which their wages can be reduced by catering to their desires. Thus, if the manager is particularly dependent on the workers or if the workers have the ability to embarrass the manager, then the manager will be likely to accommodate their desires, not the desires of the donors.

In profit-maximizing firms, worker preferences only change firm behavior if catering to those preferences can reduce wages. In unincentivized non-profits, worker preferences will matter because of the ability of workers to influence or punish management. As such, non-profits and profit-maximizing firms are predicted to cater to different workers.

Profit-maximizing firms are predicted to change working conditions if those changes can reduce the wage bill. Non-profits are predicted to change working conditions to cater to those workers who are able to directly influence or punish the CEO and board.

A more complicated model might allow different groups to have different abilities to engage in different forms of lobbying. In that case, we would expect those workers with a particular ability to influence management to receive the biggest amenities. The workers that are physically closest to the CEO or that have the best ability to use the press to embarrass the CEO are likely to acquire the most rents.

If the division of labor increases in the largest non-profits, then we should expect CEOs mainly to interact with other administrators. In smaller non-profits, the CEOs should be expected to have more direct contact with the actual workers in the firm. If this is true, then the CEOs in the largest non-profits may tend to be more oriented towards the desires of administrators and CEOs in smaller (but still wealthy) non-profits may be more oriented towards other elite workers. This might explain why many observers argue that the University of Chicago is more faculty-oriented, while larger universities such as Harvard or Stanford might be more oriented towards the desires of top administrators.

Given that CEOs will cater to their friends, forward-looking non-profit boards should choose CEOs from different interest groups over time if they are interested in maintaining balance in the orientation of the firm. Perhaps in choosing university presidents it might make sense to alternate between an administrator and an academic. Given the ability to directly incentivize for-profit CEOs, there is less reason to choose a for-profit CEO by cycling among different interest groups.[7]

The tendency to favor the donors decreases with the innate wealth of the organization. If donations are forthcoming regardless of whether the donors are satisfied, or if the organization has a large endowment, then the marginal benefits of satisfying the donor is

less. This follows from the concavity of f(.). Higher levels of innate income mean that the firm is already producing a significant amount of output and there is little need for more production. This will suggest that in early stages of the firm, when the endowment is low and the firm is really dependent on new donations, donor preferences will be followed. However, over time as the wealth of the firm increases, the manager will find the pressure of his workforce more important than the desires of donors.

An innately lower value of $\underline{W}$ will act as an income shock, so firms that have an innately cheaper workforce will be free not to accommodate donors. This implies that firms that hire workers at market wages will have to pay more attention to the needs of donors and firms that have access to below market wage workers will not. As such, the presence of volunteer labor will be a determinant of whether (cash) donors' wishes are paramount.

A higher level of d will tend to induce the firm to follow the wishes of donors more. The impact of "d" makes it clear that non-profits will be likely to follow the desires of "new" donors, but the lack of legal controls means that unless the tastes of the CEO line up well with the tastes of the "old" donors, old donors will have little sway. In practice, older donors tend to have influence on non-profits in two ways: (1) explicit legal arrangements that bind non-profits and (2) representation on the board.

One example of explicit legal restrictions is the actual mission statement of the non-profit. In principle, if management strays too far from this mission statement it can open itself up to legal action. A recent example includes the legal challenges that were considered a few years ago against the Lincoln Land Institute. The Lincoln Land Institute was set up by a philanthropist follower of Henry George. As national interest in the ideas of Henry George has waned, recent management has certainly put less emphasis on Georgist research and a group of Henry George-inspired individuals were considering legal action against the institute to push it towards its original orientation.

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[7] Of course, different for-profit CEO styles may be appropriate at different times (see Bertrand and Schoar, 2002), but in the case of an incentivized CEO there is less reason to cycle in order to take care of all of the

Other examples of explicit contracts binding non-profits are more specific. Gifts often come with terms, i.e. a building for a particular type of medicine, or a chair for Canadian studies. If the non-profit grossly violates these terms, it does leave itself open to legal challenge. However, in most contexts contractual incompleteness ensures that the non-profit has a great deal of latitude in actually implementing the donor's wishes. An exception to this claim is that donors do seem to be effective at legally insuring that their name remains attached to the gift. The model suggests that a desire for new donations, not legal contracts, keeps non-profits oriented towards the desires of donors.

In the absence of explicit legal restrictions, board membership tends to be the best means of ensuring that a non-profit will follow the wishes of a past donor. However, boards may themselves find it easier to control some aspects of non-profits than others. Boards will find it easy to monitor cash outlays and to make decisions about big construction projects. As Jencks and Riesman (2002) wrote (originally more than 30 years ago) "Mistaken judgments about bricks and mortar are more obvious to the lay trustees than most mistakes in academic policy or personnel." Boards will often find it difficult to actually monitor the nature of services. This predicts that donors will be good at controlling new buildings, and will be good at holding down salaries, but they will be bad at determining what is said during lectures. Indeed, a major trend over the 20th century is the rise in faculty autonomy over research and teaching. Another major trend in universities is the decline in board (or CEO) control over hiring and firing decisions. This trend again should be seen as an example of increasing worker influence over an area that boards find it hard to monitor.

While the boards of for-profit firms are ultimately elected by shareholders, the boards of non-profit firms are much more like self-perpetuating oligarchies. In some cases, particular groups (such as alumni) have the right to elect members of a non-profit board.[8] In some cases, large donations will be "rewarded" with board membership. However, even if a board is initially made up of representatives of the non-profits major donors,

interest groups.

eventually this board will be replaced and generally the CEO will play a large role in selecting the new board members. As such, if the CEO is an elite worker at the university, then the CEO will be able to influence the selection of new members of the board to match his or her own preferences. The history of non-profit firms is rife with examples of boards which at one time were filled with representatives of the original donor, but later moved in some other direction. A particular example seems to be foundations that always seem to move left-ward politically as the tastes of foundation employees (who tend to be relatively left-wing) come to dominate the tastes of the original donors (who were often right-wing). Indeed, there are reported cases where donors have specifically restricted the expected life of their foundation because they feared this eventually leftward shift.

Even in cases where board membership is passed along within a family, a donor's descendants' preferences will often differ from those of the original donor.[9] As time goes by, the goals of management will tend to follow their own paths and rarely seem bound by the wishes of the original donors. Modern universities may be swayed by the desires of new donors or alumni, but no one can look at modern universities, such as Harvard and Yale, and think that the desires of the original donors who wanted to endow training grounds for the clergy, are being ardently pursued.

In the case of new donors, their influence will be a function of "d"—the extent to which donation flows respond to their preferences. Clearly, there are some donors who are motivated by influencing the behavior of the non-profit. These donors have a high value of "d" and are using non-profits to achieve their own objectives, which may include curing a particular disease or teaching a particular worldview.

However, as both the Goetzman and Oster and Nelson and Zeckhauser essays in this volume emphasize, donors are also motivated by a desire for social prestige. The

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[8] For example, in the case of Harvard University, the Board of Overseers is elected by alumni, but the Harvard Corporation is a self-perpetuating organization that selects its own members.

permanence of some non-profits makes them an ideal way to broadcast the wealth and generosity of donors for generations to come. The altruistic functions of non-profits mean that donations serve as a signal of the "goodness" of the donor. These donors are presumably interested in having their names clearly attached to permanent things, such as buildings, but otherwise they don't really care about the internal functioning of the non-profit (as long as it survives). These types of donors will lead to a high value of D and a lower value of d.

It is also clear that the degree of institutional wealth and worker autonomy will impact the nature of donations. Because donor control over rich non-profits is often weak, donors who really want their money to be spent in a specific manner will start their own foundations instead of giving to wealthy non-profits.   Donors whose preferences are in line with those of elite workers at the non-profit will continue to give. As such, the original donors to Yale might have been motivated by a desire to train clergy. More recent donors are presumably more motivated by a desire to fund research.

Many donors also appear to be interested in broadcasting their own wealth and benevolence than in changing non-profit behavior. These donors should be particularly attracted to the largest non-profits. In some cases, non-profit endowments will have increasing returns, as large endowments serve as a guarantee of future survival and tend to increase the publicity value of donations. These particularly wealthy non-profits will tend to have a comparative advantage with "signaling" donors because (1) their wealth often means that they can broadcast the signal to a wider audience and (2) their wealth guarantees permanence.   As such, we should expect donations to weak and poor non-profits to be driven by a desire to change non-profit behavior and we should expect donations to wealthy, strong non-profits to be driven by a desire to broadcast wealth and benevolence.

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[9] There is some evidence to suggest that the preferences of the children (and grandchildren) of philanthropists like John MacArthur or John D. Rockefeller are not all that close to the preferences of their parents.

Managerial and worker power both determine and are determined by the composition of donors. If a non-profit reaches the stage where it can generate a steady stream of donations based entirely on the desire for eternal fame, or on the desire to fund workers, then it will be relatively free to follow its own objectives without interference from donor wishes. However, if donors are primarily involved altruists, then the wishes of donors will tend to be quite important in the decisions of non-profits. The independence of some universities and art museums probably has as much to do with their ability to raise donations motivated entirely by a desire for fame, as by their endowments themselves.

Changes in B—the extent to which workers care about the nature of the product—will impact the choice of X only through the wage. As such, changes in B will increase to firm income if X>0 and if σ is high. Thus, the more that the firm favors workers, increases in the strength of workers' tastes will lead to decreases in the price of the wage bill and increases in the extent that workers favor workers if the firm is already catering to those workers.

Finally, changes in K and P have two effects. First, an increase in P or a decrease in K raises the income available to the firm. This effect will tend to make the firm increase the value of X. Second, an increase in P or a decrease in K decreases the cost of output—this will tend to make it more attractive for the manager to increase output and this will increase the desire for more cash. This will increase the importance of donors. Of course, if we get to the point where P>K, then the manager will increase output purely for the sake of making money.

The following corollary to proposition 1 follows directly from the fact that wages equals the reservation utility plus B times X.

Corollary to Proposition 2: As long as $\sigma < 1$, then observed wages of workers in non-profits will be less than if $P(|X - X_C|) = P$, and wages will be falling with C, D, and E and rising with d. The level of wages is falling with K and rising with P if and only if $f'(N) > -Nf''(N)$.

The basic implication of this corollary is that in rich non-profits, especially where employees are effective at lobbying management, we should expect to see compensating differentials where employees are paid less as a result of their ability to influence the firm's production processes. This result would change if the employees are also good at lobbying to get their nominal wage increased, but, as I have argued earlier, boards tend to be effective at limiting massive salary increases for workers. If workers can increase their wages, then there will be queues for jobs at particularly wealthy non-profits. Indeed, any situation where $\sigma > 0$ will result in a situation where there are queues for entry into the firm; because worker wages do not adjust fully to the higher level of amenities in non-profits, we should expect to see workers getting some of the rents.[10]

I have so far discussed the ability of workers to influence managers during the everyday business of the managers' term of employment. It is also true that workers are able to influence the board to get managers who are friendly to their interests. As workers will generally serve on search committees, in part because their expertise is helpful in finding a new manager, they will also be able to get a manager with preferences close to their own.

The impact of the strength of the manager's preferences will depend on whether X is above X_M, or below X_M, or in other words, if the nature of the non-profit looks more like an average of manager's tastes and worker's tastes or more like an average of manager's tastes and donor's tastes.

Proposition 3: If second order conditions hold, then an increase in the value of g, will raise the value of X if and only if X_M >X.

This proposition actually has some useful implications for the impact of a strong president. At a point in time where donors are particularly powerful (because D and E

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[10] It is possible that in some cases, worker control will lead to higher nominal wages in non-profit firms. However, management is likely to take at least some advantage of their ability to hire cheaper workers.

are small) X is likely to be low, or less than X_M. In that case, an increase in g—a powerful president—will be likely to raise the value of X, to make the non-profit more into a workers' cooperative and less into a donors' firm. Alternatively, in spectacularly rich and long-standing firms, the value of X is likely to be high, and strong managers will find themselves fighting against workers, rather than supporting them. As such, in the early 20th century, university presidents saw their goal as liberating the university from the control of the donors (in some cases, state governments). Men like Robert Maynard Hutchins at Chicago or Clark Kerr at Berkeley fought for their professors and generally opposed their donors and boards.

Today presidents are more likely to find themselves allied with their donors against their faculties. This does not occur because the views of the presidents have changed, but rather because the status quo value of X is much closer to workers' interests than to donors' interests, i.e. the increasing wealth of universities has made them much closer to workers' cooperatives than to donors' playthings.

One exception to this claim tends to be state universities. In these places, probably because (1) legislators care more about the nature of the university (i.e. have a higher value of d) and (2) because endowments are smaller, the universities have stayed closer to the interests of the donors (i.e. the state legislatures) and further from the interests of the faculty. As such, X is often below X_M, and strong university presidents find themselves trying to push the university towards more academic goals, rather than towards goals that are aligned with those of donors.

The influence of the idiosyncratic tastes of non-profit CEOs implies that there will be much more variance in the methods and practices of non-profits than is comparable for profit firms. The model implies that the level of X in for-profits will be determined by the demands of consumers and partially of workers. In some cases, for-profits will differ in their services to fit different product niches. However, they shouldn't change their patterns in response to the whims of their CEOs. As such, the model predicts more variation from firm to firm and within firms over time in response to different managers.

Commercialism

I now turn to the topic of commercialism. The previous section dealt with the conflict between the goals of donors and those of workers. However, the interests of consumers also matter. When we think about non-profits commercializing themselves, this tends to mean that they are taking the interests of consumers into account more strongly.

In the framework, these issues can be captured by different values of X_C. If X_C is negative, then the preferences of consumers differ from the preference of both donors and workers. If X_C is positive, then customers' tastes will lie somewhere between the tastes of workers and donors.

To simplify the analysis, I will analyze two cases which capture the intuition of the differing scenarios. First, I consider where customers want the value of X to be as low as possible and thus their interests are opposed to the interests of both donors and workers. This may well capture the reality in private hospitals, where commercialism tends to act against both the wishes of doctors and the wishes of donors. Second, I will discuss the case where X_C lies between zero and one, and thus customers' tastes lie between the tastes of managers and donors.

For simplicity, we will also assume that the interests of workers and management are perfectly aligned, i.e. $X_M = 1$ so that we can focus on a three-way (rather than a four-way) conflict between workers, donors and customers.

$$
C + g = f' \left(\frac{E + D + \sigma B X - dX * I(X > 0) - \underline{W}}{K - P(|X - X_C|)} \right) *
$$
(1')
$$
\left(\frac{d * I(X > 0) - \sigma B - P'(|X - X_C|) * I(X > X_C)N}{K - P(|X - X_C|)} \right)
$$

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Proposition 4: If $P(|X - X_C|) = P_0 - P_1 X$, and if we assume that

$-(C + g)(K - P_0 + P_1 X)f''(N) > 2P_1 f(N)^2$ so that second order conditions hold, then:

(a) The level of X will rise with E and D and fall with $\underline{W}$.

(b) The level of X will rise with C and g. The level of X will rise with B and σ as long as X isn't too negative. If X isn't too negative, then the level of X will fall with d if and only if X if positive.

(c) The level of X will rise with P_0 and fall with K as long as $K > P_0 + P_1 X - .25$.

(d) The value of X will decline with P_1.

The intuition of the first result is that increases in wealth allow non-profits to cater to their own preferences a little bit more. Technically, this occurs because income causes the number of units to rise and this decreases the marginal benefit per unit. As such, this predicts that decreases in wealth will tend to make non-profit firms more commercial.

Result (b) tells us that the desire to cater to customers will decrease when worker or manager preferences are stronger, or when workers have more influence over manager utility. This result is unsurprising and just suggests that non-commercial non-profits will particularly appear when managerial or worker preferences are strong. The impact on donor preferences depends on whether X is positive or not. In either case, increases in d will make the non-profit adhere more closely to donor preferences.

The third comparative static tells us that increases in the profit per unit sold will tend to make non-profits less attentive to market demands. This effect works through the income effect discussed above. However, it is conceivable that increases in profitability can have another effect—they can increase the desire to produce more units. In this case, the non-profit firm may cater to customers in order to raise income and increase the number of units produced.

Finally, the comparative static on P_1 is quite straightforward. If customers are particularly interested in goods of a certain quality, then non-profits are likely to cater to that taste. This helps us make sense of Jason Barro's finding that university hospitals particularly took to advertising (a form of commercialism) in the 1990s. He argues that this can be understood because there was an increase in the marginal revenue from advertising for hospital non-profits, and less of an increase for other firms.

When X_C lies between zero and one, the situation gets somewhat murkier. In that case, the comparative statics depend on whether X lies above or below X_C. Increases in wealth or increases in the strength of managerial or worker preferences will still cause X to rise. Increases in donor preferences will cause X to fall. Increases in the strength of consumer preferences will generally cause non-profits to adhere more closely to the demands of consumers. As none of these results are all that surprising, I will omit a formal proposition.

This model has emphasized several points about non-profits and the differences between non-profits and profit-maximizing firms. First, non-profits will be more oriented towards the desires of their elite workers than for-profit firms. In particular, non-profits will cater to the workers who have direct contact with the CEO. This difference between non-profits and for-profits will be most visible among the richest non-profit firms. As non-profits become poorer, they will more closely resemble for-profit firms.

Second, non-profits will offer lower wages than for-profit firms, unless worker control has cut off any labor market competition. These lower wages are compensating differentials for greater control over the working environment. Third, non-profits will be less oriented towards the interests of consumers and their policies will be much less likely to shift with changes in consumer demand. This will depend on the degree to which there is profound product market competition. Four, non-profits will on the other hand be much more likely to shift policies with changes in their CEO. Finally, non-profit behavior is likely to show much more profound "income effects" than for-profit behavior.

III.   Conflicts in Non-Profit Firms

In this section, I focus on four areas of non-profit firms and discuss some of the history of these sectors. My interest is only in certain episodes of donor-worker or customer-worker-donor conflict, and I am not trying to give even a thumbnail sketch of the history of these sectors.

The Rise of the Modern American University[11]

Writing in 1968, Jencks and Riesman (2002) describe an "academic revolution" where early 19th century colleges, dominated by the preferences of founders, donors and customers, evolved into 20th century universities which increasingly were dominated by upper level administrators and faculty. This transformation follows exactly the logic of the model. 19th century colleges were poor and because "financial solvency was so precarious … colleges responded to even the smallest external pressures and had only the most limited ability to reshape the priorities established by their supporters" (Jencks and Riesman, 2002, p.6).

20th century colleges became rich, in part because of the increasingly important role of education in the modern economy. As the university got richer, it re-oriented itself to the preferences of upper-level administrators and faculty. As Jencks and Riesman (2002, p. 17) write: "What is perhaps unusual about the academic world is the extent to which the top management, while nominally acting in the interests of the board, actually represents the interests of 'middle management' (i.e. the faculty)." Of course, I have argued that this orientation is not particular to academia, but it is a general feature of wealthy non-profits.

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[11] As is obvious from my quotation practices, my view of the changes in the modern university has been primarily influenced by Jencks and Riesman (2002).

The wealthiest non-profit universities were founded in the colonial period. As Morrison (1995) describes, Harvard was founded by the General Court of Massachusetts with an initial grant of 400 pounds. John Harvard's own bequest came in his will in 1638 and appears to have been somewhere between 200 and 800 pounds. Contemporary observers such as Governor Winthrop and Thomas Shepard appear to have thought that Nathaniel Eaton, Harvard's first professor, absconded with the funds. Thus, from the first, the funding of America's universities appears to have been used in the interests of faculty (see Morrison, 1995, for details).

While there was certainly substantial secular education at Harvard, as Morrison writes "we should miss the spirit of early Harvard if we supposed the founders' purpose to be secular" (Morrison, 1995, p. 250). The ultimate goal of the university was certainly to propagate the puritan faith. Indeed, the religious orientation of college persisted for centuries. Jencks and Riesman begin their book by writing "during the seventeenth, eighteenth and early nineteenth centuries, American colleges were conceived and operated as pillars of the locally established church …" (Jencks and Riesman, 2002, p.1). They were funded by a combination of private donations (often given at death) and public funding. New colleges were founded by local entrepreneurs who responded to some combination of their own idiosyncratic passions and local demand, and these entrepreneurs often provided strong, occasionally overwhelming leadership.

Jencks and Riesman describe the world of the 19th century colleges as being characterized by "self-confident trustees [who] tended to intervene in college affairs far more often and more disastrously than is usual today" (Jencks and Riesman, p. 6). They continue and write "nineteenth-century college presidents also tended to be far more domineering than they are today, carrying the business of the college around in their brief cases or even in their heads, entrusting very little to committees of faculty members of lower level bureaucrats, and imposing their personal stamp on the entire college" (Jencks and Riesman, p. 6). Of course, in many cases, powerful presidents, such as the University of Chicago's William Rainey Harper, were powerful because they acted in concert with

founding donors, such as John D. Rockefeller. As such, control of the nineteenth century university was shared between donors, the CEO and customers.

Over the course of the 20th century, two major complementary trends occurred which transformed universities into their more modern incarnations: universities grew in both complexity and wealth. The rise in complexity meant that CEOs could not micro-manage the entire organization and as such had to trust in subordinates. Naturally, a greater reliance of subordinates meant that these subordinates were able to influence the direction of the university. The rise in income meant that universities were freed from catering to the customers and donors. The net result was, again quoting Jencks and Riesman, that "most university presidents see their primary responsibility as 'making the world safe for academicians,' however much the academicians resent the necessary (and unnecessary) compromises made on their behalf." By the late 20th century, the university was "more concerned with keeping the faculty happy than with placating any other single group" (Jencks and Riesman, 2002, p. 18).

The importance of university wealth in the transformation from donors' universities to faculty universities is well illustrated in the remarkable career of Robert Maynard Hutchins who ran the University of Chicago between 1929 and 1951. Hutchins was both a highly-idiosyncratic president and also a President who was fundamentally oriented towards faculty preferences. The single most glaring example of Hutchins faculty orientation was his decision to shut down Chicago's extremely successful football program (the original Monsters of the Midway) because it distracted from more academic pursuits. Hutchins also created his Great Books program and ardently pursued his vision of the university as a "community of scholars." Hutchins had the freedom to pursue this vision because of the vast wealth of the University of Chicago. Because of the generosity of the Rockefellers, the University of Chicago had the largest endowment in the country and Hutchins could use it to pursue the interests of himself and his faculty. Of course, the downside of creating a true professors' paradise is the loss in donations which ultimately caused a massive reduction in the relative financial standing of the university.

Of course, the academic history of the late 20th century also shows that university management is also vulnerable to the lobbying and influence of students. In the model, I assumed that only workers can punish the CEO. More realistically I would have allowed current students to also cause pain to the administration. Indeed, the student riots of the 1960s and the current living wage sit-ins are examples of students exploiting their ability to cause pain to university administrators. These actions appear to be effective in influencing the behavior of non-profit CEOs. It is hard to imagine that similar demonstrations would have been as effective in changing the behavior of General Steel or Exxon.[12] The weak incentives of non-profit CEOs make them more vulnerable to this type of local influence.

There are two particularly glaring examples of the rise of the power of faculty over the 20th century: the institution of tenure and the rise in importance of research as a faculty activity. The widespread existence of academic tenure really only came about in the middle 20th century. Appointments, without fixed end dates, certainly existed before 1900, but in general, it was accepted that the President of the university could end these appointments virtually at will. In many cases, appointments were always explicitly for one year and re-appointment was far from automatic. 100 years ago, most colleges were sufficiently precarious that a lifetime commitment to a faculty member would have been a ridiculous encumbrance.

But faculty members, beginning at the turn of the century, made a concerted effort to get formal control over the dismissal process. For example, an economist E.A. Ross had been dismissed from Stanford because his left-wing views annoyed Jane Lathrop Stanford, the sole trustee of Stanford University at that time. When Ross was fired, he began a campaign of defamation in the press again David Jordan, the President of Stanford (see Metzger, 1973, for details). Ross's allies in the American Economic Association undertook an investigation of his dismissal. Jordan fought back, and Ross's dismissal was not reversed, but a concerted faculty effort certainly managed to impose

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[12] Of course, large scale strikes can influence large corporations. But these strikes generally involve a large fraction of the workforce (often sit-ins are perpetrated by a tiny minority of the student body) and generally

pain on Jordan and on the university as a whole. During the early 20th century, these types of tactics were regularly used by faculty members who were dismissed by their universities.

Eventually the faculty members won. In 1940, the American Association of University Professors (AAUP) and the American Association of Colleges agreed on a set of principles about tenure. By 1970, tenure was a fairly universal institution at four-year colleges. This was achieved through the actions of individual professors and through the power of the AAUP. As I have argued, the actions of unions and individual lobbying should be much more effective against weakly incentivized non-profits than against profit-maximizing firms. There is no major for-profit sector with a comparable institution of tenure.

Of course, the other ingredient that made tenure possible was growing university resources. As Metzger (1973) writes "helped by enormous largesse from the states, steep rises in federal support, the seed millions of the Ford Foundation, the success of innumerable alumni fund drives, and public willingness to pay the tuition and other college attendance costs …the fortunes of judicial tenure rode high upon this arc." He continues "wealthier institutions were able to consider the positive sides of tenure and not dwell on its alleged inefficiencies and money costs." Just as the model predicts, an increase in non-profit wealth led to an increase in the orientation towards worker preferences.

Accompanying this change in status, Professors also changed their work habits. The typical Professor in an elite institution in the early 20th century spent much more time teaching and much less time doing research than his late 20th century counterpart. Then and now, professors in less well endowed institutions do more teaching, but there has been a significant change in the amount of time allocated to non-teaching activities. As Jencks and Riesman write

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involve a focused change in workers' compensation.

Until World War II even senior scholars at leading universities did a good deal of what they defined as scut work: teaching small groups of lower-level students, reading papers and examinations, and the like. … Today, however, few well-known scholars teach more than six hours a week, and in leading universities many bargain for less. Even fewer read undergraduate examinations and papers. (Jencks and Riesman, 2002, p. 40).

Professors have been able to reshape their jobs to fit their own scholarly ideals.

Of course, some of this comes from the growing market power of some professors, not from their ability to lobby institutions. However, teaching loads appear to be more closely correlated with the wealth of an institution than with the market power of the professor within that institution. The decline in teaching and the rise in research appear to have been shared among the faculty of wealthy institutions—these changes didn't just affect mobile faculty who were in demand. Ultimately, donors have been found to pay for at least some of this research, but in many cases, this seems more like an ex post adjustment to a new reality than a driver of change.

Overall, the story of 20th century universities appears to be one in which faculty members and elite administrators were gradually able to exercise increasing control over increasingly wealthy institutions. 100 years ago, universities were still generally dominated by powerful donors and occasionally autocratic Presidents. Presidential power still matters, but the ability of donors to dictate university actions has fallen since the days when Mrs. Stanford could get a left-wing economist fired on a whim. Academics have instituted tenure and gotten control over hiring and firing decisions. In wealthy institutions, they have managed to replace teaching with research. While boards have certainly stopped extreme looting of the university by its workers, it is hard not to be impressed with the general success that elite workers have had in taking control of non-profit universities and colleges.

An alternative interpretation of the change in universities is that this was just a response to a changing market. In 1900, students didn't care about having researchers as faculty members. In 2000, they do. While there may be some truth to this claim, ultimately it

seems difficult to accept that the switch to research was really motivated by a desire to cater to students. In part, the best counter example is the continuing success of teaching colleges throughout the U.S.

Teaching colleges generally operate with significant lower endowments and much less state aid than large research universities. Instead, they require much more from their teachers and allow them much less free time to do research. While it is true that the top universities are more popular than any teaching colleges, top teaching colleges, such as Amherst or Haverford, are able to compete easily with many research universities and to give many fewer perquisites to their professors. If research was such an important component of consumer demand, then students would always prefer the University of Rochester or the University of Chicago to Williams. They don't.

Indeed, the history of teaching colleges reminds us that there are cases where elite workers are not able to dominate schools. In places with smaller endowments, schools end up requiring much more from teachers and giving them much less in terms of both amenities and income. The extreme example of this tends to be private high schools (at least those without large endowments). In these schools, teachers work for generally quite low sums. They have little control over the direction of the school and donors and parents tend to dominate. Worker control is not inevitable in non-profits and greater financial need severely limits the ability of workers to re-orient the institution's mission.

The Rise and Fall of the Doctor's Cooperative

The first half of the history of the hospital strongly echoes the history of the university. Between 1800 and 1950, hospitals evolved from being charitable institutions dominated by their donors and oriented towards the poor into being the "physicians' cooperatives" described by Pauly and Redisch (1973). As Rosenberg (1987, p.7) writes "the perceptions, the values and rewards, the career patterns, and, increasingly the specific knowledge of physicians have structured this development [of the hospital]." Starr (1994) agrees: "authority over the conduct of the institution [the hospital] passed from the

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trustees to the physicians and administrators." In the case of hospitals, though, there is a second act, where increasingly financial pressure has led to commercialism, and to a decline in the autonomy of physicians and professional administrators.

Hospitals begin in America in the 18th and early 19th century as charitable institutions for the indigent. The early hospitals such as Pennsylvania Hospital (founded in 1752) or Massachusetts General Hospital (1821) were "something Americans of the better sort did for their less fortunate countrymen" (Rosenberg, 1987, p. 20), where "the worthy poor would find an opportunity to recover outside the almshouse's demeaning walls." Starr (1994) writes "from their earliest origins in preindustrial societies, hospitals had been primarily religious and charitable institutions for tending the sick, rather than medical institutions for their cure." He also emphasizes that "in the nineteenth century, the trustees or managers entered directly into the detailed operation of hospitals, including decisions that now would be seen as strictly medical." For example, in many hospitals, donors determined who would be admitted. Like early universities, early hospitals were dependent on donations and as a result, donors wielded a great deal of authority.

Even at this beginning stage, though, it was understood that hospitals served in part as educational institutions for physicians. Rosenberg writes that "the hospital's wards and amphitheater would serve as a school of clinical medicine, and some physicians at least would have the advantage of seeing and treating a broad variety of diseases." Some physicians volunteered to work in hospitals out of a combination of desire for experience and philanthropic impulses. Unlike teachers, who were unlikely to have the ability to subsidize hospitals, doctors were also donors and as such had some donor-like control even in the earliest hospitals.

But over time, the medical control of hospitals grew and ultimately changed the very nature of these institutions. Starr evocatively writes that "in developing from places of dreaded impurity and exiled human wreckage into awesome citadels of science and bureaucratic order, they acquired a new moral identity, as well as new purposes and patients of higher status." By 1900, hospitals had focused on elite private patients. They

were centers of elite medicine. They were significantly involved in teaching and research. As Rosenberg writes, by 1900, "the hospital had become easily recognizable to twentieth century eyes."

For our purposes, the most striking shift is the degree of medical control over hospital operations. In 1825, the trustees of Massachusetts General had entrusted the management of their hospital to Nathan Gurney, a retired sea captain. As Rosenberg (1987) writes "the possibility of appointing a physician as superintendent was not even considered." Early trustees feared that doctors would put their professional objectives first and the preferences of patients second. This situation corresponds to the situation in the model where donors and customers are arrayed against elite workers. Over the 19th and 20th centuries the relative power of trustees and doctors shifted. "Admissions, appointments, and control of teaching were all areas of conflict between lay and medical authorities— and all areas in which laymen gradually retreated and left the field to their medical staff" (Rosenberg, 1987, p. 263). The modern hospital is an outcome of the increasing power of doctors who shaped the hospital towards their own interests.

Why did doctors come to control hospitals? Like universities, the rise in doctor controlled hospitals had much to do with increasing wealth. However, the wealth of 20th century universities came primarily from the generosity of donors. The wealth of 20th century hospitals came more from commercial activity which became profitable because of changes in medical technology. These technological changes made doctors more effective and increased the medical value of hospitals. The biggest early innovations appear to have been improvements in avoiding infections during surgery. These improvements specifically favored specialized locations for surgery (as opposed to surgery at home) and came to increase demand for hospitals. The rise in specialization also favored hospitals where large medical staffs could share their expertise in caring for the sick. These changes increased the demand for medical care and the wealth of both hospitals and doctors. Given the more central role that doctors played in generating income for hospitals relative to faculty in universities, it is not surprising that they came to dominate these non-profits at a somewhat earlier time period.

Doctors' control did not just reflect their financial muscle. They were able to influence the way that all of the hospital's financial resources were used, including those contributed by donors or the state. Because doctors actually handled the day-to-day operations and because they were the workers who interacted with the superintendent regularly, they naturally became able to exert influence. Moreover, the increasing specialization of medical knowledge meant that retired sea captains no longer had sufficient expertise to run large hospitals, and that doctors and later professional administrators themselves became superintendents. As in the case of universities, the weak incentives present in non-profits meant that the elite workers were able to redirect the institution towards their own goals.

Of course, doctors are not the only powerful hospital employees. Starr argues, following Charles Perrow, that "medical domination of hospitals began to weaken in the thirties and forties, as challenges from administrators to the authority of physicians became more common." This again echoes the rise in power of the upper-level administrators in universities. Hospital administrators, like their university counterparts, became the workers who interacted most often with the CEO (and often provided the CEO), and unsurprisingly they became an influential group of elite workers.

But the control of hospitals by doctors and administrators eroded significantly since 1980, and the primarily reason for change has again been wealth. Sloan (1998) describes the bevy of negative income shocks that have occurred during the past 20 years. Government payments for Medicare and Medicaid have become less lucrative. Health-Maintenance Organizations have sprung up and replaced traditional fee-for-service insurance. As a result, hospitals have considerably less ability just to set their own fees. Skyrocketing costs associated with changing medical technology have also greatly increased the price of being a hospital. As a result, the amount of rents available to non-profit hospitals has shrunk dramatically.

In some cases, this has led non-profit hospitals to close. While Hansmann, Kessler and McClellan's essay shows that non-profits are slower to shut their doors than for-profits, there has still been a significant reduction in many areas in the number of non-profit hospital beds. Another trend has been the conversion of non-profit hospital to for-profit status. This trend is investigated by Cutler and Horwitz (1999). This is surely the ultimate example of commercialism.

More subtle examples of commercialism in non-profit hospitals also exist. Weisbrod (1998) describes a wide array of non-profit hospital behavior which appears to mimic for-profit firms and which appears to be a response to decreasing profit margins. The doctor's cooperative described by Pauly and Redisch (1973) can only exist if there are substantial rents to be directed by workers. As these rents disappear, hospitals have become more like for-profits firms and this is exactly what the simple model predicts.

Connoisseurship in Art Museums

The case of art museums also fits the general patterns. The large museums began with large bequests from donors who generally exercised a great deal of control over the collections. Over time, curators began to exercise an increasing amount of dominance in the running of museums. As museums became rich, curators got independence from their donors and they began to orient collections towards their own objectives— displaying their own curatorial competence. Still, though, museums probably look more like donor-run enterprises than either universities or hospitals. The continuing power of donors comes from the relative simplicity of museum operations, which makes it easier for donors to give bequests that are bound by legal restrictions. The power of donors also stems from the extremely high ratio of physical to human capital and from the fact that non-donation museum revenues are extremely small relative to the non-donation revenues of hospitals and universities.

Art museums in the U.S. sprung from the wealth of the gilded age. Collectors like J. P. Morgan, Andrew Mellon and Isabella Stewart Gardner used their wealth to collect vast

troves of European art. At first this art was their own private collections. Then, motivated by some combination of a desire to elevate public tastes and to enhance their own prestige, they turned their collections into public museums. In many cases, their collections were turned over to museums when they died. These gifts enabled the collections to stay intact and free from the impact of estate taxes. As such, the wealth of museums like the Metropolitan (which received a great deal of Morgan's magnificent collection) and the National Gallery (which relied on Mellon's paintings) came from socially-elite art owners who wanted to preserve and show off their collections in perpetuity.

Occasionally, these gifts came with strong legally binding limitations that still impact the collections. Museums built around a single collection, such as the Frick Gallery in New York or the Barnes Foundation in Philadelphia, were the most restrained. In those cases, the donor had the most freedom to craft the by-laws of the foundation and the greatest ability to influence future actions of the museum. So for example, both Frick and Barnes have restrictions that block the extent to which their art can travel. Both museums have severe restrictions that block the selling of existing paintings. In the case of the Frick, the gift of art was accompanied by a large cash endowment as well, so these restrictions have not been all that problematic. However, the Barnes endowment came with paintings but not enough cash to actually support the museum (at least in the manner that the Barnes' curators think that the museum should be run). As such, the restrictions placed on the paintings actually severely influence the operations of the museum.

In many cases, the private donors were also supported by some degree of direct governmental involvement as well. In the case of the National Gallery or the Metropolitan Museum, the government was involved in bequeathing either direct or indirect subsidies to the museums. In some cases, the government really directly runs museums as public enterprises. In other cases, universities run museums and have their own interests at play.

Over the course of the 20th century, the power of curators generally increased. Figures, such as Thomas Hoving at the Metropolitan, used the increasing wealth of their museums to pursue their own agendas, and were often at odds with their wealthy trustees. A classic example of rising curatorial independence was Hoving's show *Harlem on My Mind*. This exhibition showcased pictures of Harlem's architecture and focused on social conditions in the neighborhood. It was a flamboyant gesture with adverse political consequences that did little but cause pain to the museum's wealthy donors. This type of curatorial showboating was typical of Hoving's tenure. In a sense, he was the museum equivalent of Hutchins, who pushed his own agenda, which was deeply tinged by his curatorial ambitions, rather than the goals of the trustees.

A particularly frequent area of dispute between curators and donors is the organization of collections. Generally, curators like to design collections around historical periods and themes which can highlight their own vision. Donors, on the other hand, like to keep their collections intact. Presumably, their goal is also to highlight their own artistic vision. In most cases, the curators have won. Museums rarely highlight their donors' visions, except in extreme cases like the Frick and the Barnes. However, still, there are cases, such as the Lehman wing at the Metropolitan, were donors are able to keep their collections intact through an explicit legal contract with the museum.

Another area of conflict between donors, curators and customers, which the Goetzman and Oster paper in this volume highlight, is the degree of accessibility of the museum to the general public. Museum fees are one way that the museum controls the inflow of observers. However, fees may be far from the most important attribute of the museum. Collections can be designed in a particularly user friendly manner in which the nature of the art is made accessible to a wide range of the public. Once again, Hoving was the aggressive pursuer of a more open vision of the museum.

Ultimately, museum attendance in some cases serves to provide non-donation revenues which can free curators from their reliance on donors. The extreme example of this is "blockbuster" exhibitions which have been designed in a very user friendly manner and

which tend to attract a very large audience. These blockbusters are a relatively recent phenomenon, but the large revenues that they generate may be a portent of things to come. If museums can generate sufficient revenues from this source, it seems likely that they will end up being more curatorial in their orientation and less oriented towards donor demands.

All-in-all, museums show some of the same features as the other non-profits. Generally, they have become oriented towards their elite workers and away from their donors over time. However, the extreme reliance of museums on donor financing means that museums are still much more dependent on their donors than other non-profits and as such donors continue to wield significant power.

The Medieval Church

At this point, in the spirit of the Nelson and Zeckhauser essay in this volume, I stray considerably from 20th century America to the rise of the medieval church. 1,000 years before elite workers were able to wrest some degree of control over universities, hospitals and art museums from lay donors, the clergy fought and won a battle with their lay sponsors. This battle has all of the trademark features that we see in these modern non-profits. Increasing wealth in combination with the ability of elite workers to directly influence top management leads to a re-orientation of the institution towards workers and away from donors.

The medieval church shares several elements with the non-profits we have already discussed. Officially, the Church's CEO (the Pope) was formally elected by the College of Cardinals, a self-perpetuating group of elite workers in the church, and indeed, the Pope had some authority even at the turn of the last millennium. But 1000 years ago, wealthy donors generally had significant say over appointments and indeed over church policy itself. Like hospital donors, who controlled admissions, and university trustees, who could dismiss professors, local kings and noblemen often had the right to appoint, and if necessary, dismiss, local bishops and clergymen. Indeed, laymen generally

appointed the pope throughout the 10th and most of the 11th century. For example, in 1046, at the Synod of Suri, the Holy Roman Emperor Henry III removed the existing Pope, Gregory VI.

At the end of the 11th century, Gregory VII began an extremely bitter conflict with lay authorities to establish clerical control over the church. The most important area of controversy between cleric and donor was lay investiture—the appointment of bishops and other clergymen by lay authorities. This policy led to significant lay control over church policies. After all, if the Emperor chose the Bishops then surely he controlled much of the course of the church. Lay investiture also led to a significant transfer of resources from clergymen to nobles. In general, nobles would charge the clergy for the right to be appointed. The unsurprising use of power to extract rents was condemned by the Papacy as the sin of "Simony."

The opening salvo of the war between the Pope and lay authorities occurred in 1075, when Gregory VII, in a remarkable display of Papal autonomy, announced the end of lay investiture and defrocked clergymen who had paid for their offices. Gregory had a remarkable pre-Papal career as the reforming Bishop Hildebrand and he was the first non-German pope since Henry III had started appointing popes in 1046. [13] The Emperor, Henry IV, used his ability to influence German Bishops to try and depose the Pope. Ultimately, Henry would humble himself at Canossa, and accept some limits on investiture. The Pope's victory was actually due to support from the Hohenstaufen's lay Saxon enemies who were eager to use this religious conflict as an excuse to depose the emperor.[14] Still, the Emperor was powerful enough to exile the Pope to Salerno where he died.

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[13] The fact that Henry III's son Henry IV became emperor while he was a child certainly contributed to the move towards Papal independence.

[14] Henry's Saxon opponents were Welfs, while Henry was a Hohenstaufen. The famous Florentine parties of the Guelfs and the Ghibellines are linguistic descendants of the Welfs and the Hohenstaufens.

The conflict over investiture would last for centuries, but ultimately the Papacy would free the church from most lay authority.[15] While the conflict between Pope and Emperor was surely the most important early battle, conflicts over investiture and clerical authority occurred in many countries. For example, the famous battle between Thomas á Becket and Henry II of England concerned secular authority over priests. In 1302, Boniface VIII faced off against Philip the Fair of France. After Boniface issued a Papal Bull announcing Papal supremacy, Philip demanded his trial as a heretic. Ultimately, the French would at least temporarily win as they moved the Papacy to Avignon.

But overall, the movement was towards increasing clerical control over the church. Popes, like Innocent III, managed to increase the wealth and authority of the Papacy substantially. The land-holdings of the church increased. By the Fifteenth Century, the time of the Nelson and Zeckhauser paper, the Papacy had moved back to Rome, and the church had finally gained some measure of independence from secular authorities. Under a succession of popes, starting with Martin V, the church converged on something like its modern, more independent form. Lay investiture disappeared. Clerics achieved control over church policy, and ultimately the church became oriented towards the interests of priests, not kings and nobles.

Within the church, the Curia—the Pope's court—came to dominance during this period. During the earlier medieval period, local bishops enjoyed a significant amount of autonomy. As the power of the Pope increased, the powers of the clergy who were closest to the Pope also increased. The result was that the Catholic Church became increasingly Roman. Theological unity, based generally on the opinions of Roman clerics, drove out previous diversity. A particularly strong example of this was the Albigensian crusade where Rome crushed the Catharist heretics in the South of France. Orders of mendicant friars, such as the Dominicans and Franciscans, who were obedient to Rome, not to local bishops, became increasingly important, and further served to extend the reach of the Roman clergy throughout Europe.

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[15] Although, it is worthwhile emphasizing that the Emperor's eventual heir, the Austrian emperor, was still seen as having veto power over the choice of Pope as late as the 20th century.

Why did the Papacy and the Roman Bishops eventually win control? There are two obviously important factors which created independence. The first was the increasing wealth of the church. A rich variety of innovations, and the growing wealth of Europe generally, had acted to increase the wealth of the Papacy. The sale of indulgences, taxes on clergy and general levies imposed to fund the religious wars all filled the Papal coffers. The crusades also were a source of Papal funds. An increasingly competent Papal bureaucracy was able to enforce these rent extractions.

The second factor was the ability of successive Popes to play off European leaders. In a number of major political crises, the Pope's support was seen as an important edge. Popes, such as Innocent III, were able to wring extractions from secular leaders in exchange for support. The rise of the nation state was accompanied by an increasing emphasis on legal forms and the appearance of legitimacy. While an 8th century monarch generally relied only on his swords for dominance, 13th century kings increasingly needed less bloody forms of support. Thus, political division and an increasing emphasis on quasi-legal institutions acted as an income shock to the Papacy. Just as in hospitals and universities, clerics were able to take control of the church as the independent wealth of the church rose.

Of course, there is a striking post-script to the rise of clerical independence. Just as the Papacy appeared to have control over the church, the reformation tore Christendom in half. While there are certainly intellectual elements to the reformation as well, much of the early political support for reformers came from secular rulers who were eager to take back the authority that they had lost to Rome. Henry VIII is the most obvious example of a ruler for whom the reformation was little more than a bald attempt to seize lost royal prerogatives. But the German princes who supported Martin Luther were probably no less selfish. Ultimately then, the reformation stands as a warning to non-profits who try to establish too much independence from their donors. It is likely that these donors will find alternative non-profits to support.

The past 200 years have also seen many episodes of increasing worker power in a number of churches. Within the U.S., the Catholic Church eliminated lay appointments in 1845. In the richly competitive world of the American Churches, there actually appears to be something of a lifecycle. New faiths are open to lay preachers and the clergy is essentially powerless, as free entry and lack of organization prevents clerical rents. As churches grow, they acquire wealth and the clergy organizes and manages to gain some degree of control. With this control comes barriers to entry into the priesthood, such as seminaries, that stop lay competitors. Furthermore, the churches often tend to re-orient themselves away from their lay-people towards clerical comfort.

IV.   Papers in the Volume

The volume which follows explores the governance of non-profit firms. It contains seven essays: two on art museums, three on hospitals and two on non-profits generally. The first essay, by Fisman and Hubbard, explores the endowment effect. In the model, I took endowment as fixed, but this is clearly a mistake. The level of initial giving will itself take into account the impact of that giving on later actions by the non-profit.

Fisman and Hubbard explore the role of endowments. They emphasize that endowments have two roles. First, as discussed above, they lead non-profit firms to follow their own objectives instead of the objectives desired by donors. Second, endowments protect foundations from the winds of fate. As such, endowments create permanence in non-profit firms and make them more likely to survive. Hubbard and Fisman emphasize this tradeoff between alleviating risk and governance.

Of course, this raises the question about who is determining the size of the endowment. If we think of endowments as the result of the management of non-profits saving, rather than spending, current earnings, then endowments will be attractive both because they insure against future shocks and because they give independence to non-profit management. Presumably the cost of endowments, to managements, is that they

represent forgoing current expenditure. As such, endowments should probably be seen as a classic form of savings.

If we think of endowments as being the result of donors' decisions to contribute to an endowment rather than to current spending, then the puzzle becomes a little more difficult. Why would a donor ever give money all at once rather than dribbling it out over time? Presumably, the donor always maintains more control by keeping the money in his or her own bank account rather than by giving to the non-profit. Of course, endowment gifts at the time of death are presumably less puzzling. At that time, donors really have no option of continuing to keep control over the gift.

One possible explanation for donors giving to endowments all at once instead of giving a slow flow of gifts is that this type of gift represents a firm commitment to the non-profit, which may attract other donors.[16] If the attraction of non-profits is intimately linked to their permanence, perhaps because of the selling immortality aspects of donations, then a large endowment may end up attracting other donors. As such, endowments are a commitment device by one donor to make the long term viability of the organization more obvious to others and hopefully to elicit more donations.

While Fisman and Hubbard don't necessarily answer all of the questions about the determinants of non-profits, they do give us two key empirical clues about endowments. First, they find that endowments are higher in sectors with more income volatility. This evidence strongly supports the precautionary savings view of endowments. Whether endowments are determined by non-profit management or by donors (or by a combination of both), we should expect to see larger endowments in riskier areas, and that is what they find.

Their second finding documents a connection between measures of governance and the size of endowments. They find that in states where donors have more control over the

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[16] Of course, in many cases a larger endowment may reduce the flow of future donations because it reduces the marginal impact of any new donations (see Glaeser and Shleifer, 2001).

actions of non-profits, endowments tend to be larger. This result should probably be interpreted as meaning that donors understand that by endowing non-profits they are ceding independence. As such, they will be more likely to give endowments if there are other checks on the actions of non-profit firms.

The next two essays in the volume concentrate on donor-worker interactions in non-profits and the incentives of different actors. Hansmann, Kessler and McClellan compare the exit decisions of hospitals under different forms of ownership. As discussed above, one of the implications of the model is that non-profits will continue to produce when there are negative profits. For-profits will generally not. This gap stems from the ability of non-profits to subsidize production out of donations and endowment, and from the occasional inclination of non-profits to overproduce.

In particular, the decision to close seems likely to really matter to the workers at a non-profit institution. Closures are almost surely going to include layoffs and a substantial loss of welfare to the workers. As such, if workers are able to influence management, we should expect management to be particularly influenced to fight closures. Furthermore, some closures are likely to include managers themselves losing their jobs—something managers are likely to oppose. As such, the closure decision is an area where we should really expect the weak governance of non-profits to matter. Non-profits, with substantial endowments and weak governance, are likely to cater to their workers and stay open when comparable for-profits are likely to close.

Hansmann, Kessler and McClellan look at the responses of hospitals to changes in local demand. They look at exogenous shifts in an area's population of Medicare eligible population. This population represents a disproportionately large share of potential hospital clients; in principle, hospitals should be expected to rein in capacity when this key population falls. Hansmann, Kessler and McClellan compare different ownership groups: for-profit and non-profit hospitals. They find that both types of hospitals respond equally to increase in demand, but decreases in demand create a greater decline in for-profit than in non-profit hospitals.

They can then further distinguish between different types of non-profit hospitals. Religious hospitals appear to contract more readily than secular non-profit hospitals. This may occur because there is residual claimant in the case of religious hospitals (the church) that imposes some discipline on these hospitals. In the framework of the model, it might be that ultimately management, in the case of religious hospitals (presumably the chief officers in the church), are not nearly as strongly opposed to closures as top management in non-profit hospitals. Cardinals will not lose their jobs if a hospital shuts down—chief executives of hospitals will. As such, the differences between secular and religious hospitals again emphasize the importance of weak governance in the decision making of non-profit firms. Even though donors who care about overall national health would presumably prefer it if the resources of a hospital in a declining area were used elsewhere, managers will tend to keep the hospital open.

Goetzmann and Oster examine the donor-management conflict in the area of art museums. They emphasize that art museums serve three constituencies: donors, curators and the public. Donors, they argue, seek social prestige through the prominent placement of donated art. Art museum workers and managers are generally connoisseurs who care primarily about preservation and perhaps their own research. Presumably the public is particularly interested in the entertainment value of the museum experience.

In their view, the relative power of these constituencies will tend to differ across museum types. Free standing non-profit museums will generally be the most oriented towards the interests of their donors. Although, as the model suggests, this orientation will probably decline as the wealth of the museum rises. University museums are likely to be most free from donors or any other concerns. Their managers will be beholden to the managers of the university, not to donors. Finally, public museums will have the most obligation to serve the voting public. As such, Goetzmann and Oster predict that university museums will be most engaged in connoisseurship activities, free standing non-profits will serve their donors and public museums will charge low entrance fees and try to attract large audiences.

They are able to test this prediction using attendance data. They find that collection size and location influences attendance, but governance also matters. Public museums have significantly higher attendance levels than their private competitors. Free standing non-profits have the next highest attendance levels and university museums have the least attendance. This exactly fits a model where university museums are the least oriented towards customers (and the most towards their elite workers) and public museums are the most customer oriented.

Importantly though, they also find that the attendance elasticity with respect to the value of the museum collection is far less than one (about .26) across the entire sample. Perhaps this should be compared with an expected benchmark elasticity of one—twice as many paintings, twice as many visitors. The model predicts that richer museums will be less oriented towards the public (and more towards workers). As such, we should expect attendance to rise with size of collection far less than one-to-one because the richer museums are less oriented towards catering to the public and more oriented towards the interests of their curators.

Interestingly, the university museums appear to have found an alternative source of funding that relies on their connoisseurship—traveling shows. While the real blockbusters are the product of wealthy free standing non-profits with the most important pieces, university museums appear to have a disproportionate share of the mid-level shows that are designed around important artistic themes. These shows are generally intensive in the time and interests of the curators who design them. As such, we should probably not be surprised that it is the university museums that specialize in them.

The next two essays examine different forms of "commercialism" in non-profits. Jason Barro looks at the rise of hospital advertising over the last 10 years. There has been a striking rise in this particularly commercial form of activity among hospitals since the early 1980s. This rise appears to go against traditional medical biases against

advertising, and it represents a striking, new attempt of hospitals to reach out to consumers.

The model, discussed above, suggests that this type of commercialism might tend to show up when hospitals are in trouble financially, but this is not what Barro finds. Indeed, it is the wealthiest, teaching hospitals. In particular, these hospitals are advertising in markets with big HMOs. It seems that this is meant to increase their bargaining power vis-à-vis HMOs. Thus, hospitals that do have high quality doctors and facilities are trying to market themselves directly to consumers to eliminate some of the monopsony power held by large HMOs.

This paper is interesting in that it helps us to understand this dramatic shift in non-profit behavior, and it emphasizes that commercialism is not necessarily a response to poverty, but sometimes a response to wealth. In this case, the teaching hospitals invested in quality, probably (as discussed above) because they were responding to the interests of their elite workers. However, this quality turns out to be a complement with advertising, a "commercial" activity. The high quality firms have a greater incentive to broadcast their quality than the low quality firms. As such, large endowments may, in some cases, tend to make the firm ultimately more commercial (at least by some measures) than small endowments.

Erus and Weisbrod look explicitly at the incentive systems in non-profit and for-profit hospitals. These are important because they directly look at the incentives being placed on non-profit managers. Changes in bonuses over time, especially if those bonuses are related to firm profitability, can also be seen as increases in the level of commercialism.

Erus and Weisbrod find performance-based compensation is much rarer in non-profit hospitals. This confirms the general lack of incentives within the non-profit sector. They find that religious non-profits tend to have weaker incentive systems than secular non-profit hospitals. Bonuses were rarer in religious hospitals which appear to follow a more classic pure salary approach.

Erus and Weisbrod also find a change over time. Bonuses became more widespread in non-profit hospitals over the 1990s. The increase in incentive-based compensation appears to be the result of tighter financial constraints and increasing HMO penetration. Just as the model predicts, as the excess rents in a non-profit dry up, non-profit CEOs will have act more like for-profit CEOs.

Jonathan Nelson and Richard Zeckhauser take us back to Renaissance Florence to understand the role that donor-church relationships played in the creation of some of the world's most famous art. They document that the building of churches in the renaissance was a relatively decentralized affair. Local leaders, in combination with some members of the clergy, would decide to finance the public good of a local church. The bulk of this financing would be found by selling private chapels. These chapels were paid for entirely by private families who would both decorate the chapels and would pay for masses at the chapels that would be said for themselves. These chapels would generally not be open to the public.   Indeed, the patrons themselves would rarely go to the chapel. However, the chapels would be visible to church-goers (who could see and admire) their donor's generosity.

The architectural importance of this type of financing appears to be significant.   By necessity, chapels needed to be ringed by private chapels to pay for the public aspects of the construction. As such, there was a division between private and public space in these churches. There was also a divergence from the simpler forms of design that were more common during the Romanesque period.

In a sense, the Nelson and Zeckhauser piece reminds us of the fascinating ways in which non-profits use private goods (i.e. chapels) to finance public goods (i.e. churches). Because the donors want the religious returns from chapels and the social prestige of a prominently placed chapel, the church is able to use their funding to subsidize a more general public worship space.   The donors themselves appear to have little interest in the existence of that space directly, but they certainly appear to have valued the social

prominence that a large visible chapel created for them. In a place like Florence, where political institutions were fluid and dependent upon local prestige, prominent displays of wealth (and benevolence) could perhaps even finance themselves by providing a basis for political power.

By taking us to the roots of non-profit firms, Nelson and Zeckhauser may help us to see that the essence of many non-profits lies in providing an opportunity for the wealthy to display their resources and benevolence. In a sense, the provided service may actually be pretty secondary and really only a way to get the public in the door. The key client of the non-profit is the donor who is willing to provide large sums of cash as long as the money is "tastefully" displayed, and as long as the donor is guaranteed that his generosity will be well observed. This characterization is perhaps extreme, but it does seem to fit many typical modern donor-financed non-profits including art museums, universities and some hospitals.

Nelson and Zeckhauser demonstrate that the Renaissance Church met contemporary criteria for qualifying as a non-profit. They briefly cite data on Harvard's recent capital campaign, showing major donors rarely gave to general funds or chose anonymity. Presumably they, like wealthy families in Florence purchasing private chapels, welcomed recognition.

Malani, Philipson and David present an overall synthesis of the approach to non-profit firms and stands, in a sense, as an apt conclusion to the volume. They divide the existing theories of non-profit firms into three categories: (1) the altruism model, (2) the worker cooperative model and (3) the non-contractible quality model.   The altruism model loosely follows Newhouse (1970) and Lakdawalla and Philipson (1978). It argues that non-profit firms can be characterized by preferences over quality and quantity of output, and that generally non-profits prefer more of both. This fits nicely with the governance model where the non-profit managers care about both of these attributes.

Their second theory is the worker cooperative model, which clearly adheres most closely to the work of Pauly and Redisch (1973). According to this model, the firm maximizes net revenue per worker. While their model assumes that workers focus on "wages," this view is a close cousin of the model discussed above where workers are able to orient production towards their own needs and interests. The classic result of this model is that because worker cooperative maximizes average revenues instead of total revenues, they will have lower levels of employment and lower levels of production than for profit firms.

The final theory is the non-contractible quality theory advanced by Hansmann (1980), Weisbrod (1988) and Shleifer and Glaeser (2001). This theory argues that non-profits have an advantage because of the weak incentives that are inherent in the non-distribution constraint. As such, non-profit firms are better at ensuring that they will not cheat on providing high quality goods than for-profit firms and, in some cases, this will enable the non-profits to be able to charge higher prices. Variations on this theory argue that non-profits are also safer for their workers, or other investors in some cases, because they are less likely to have strong incentives to expropriate. As such, workers may be more willing to invest in firm-specific human capital with non-profit firms because they believe that it is less likely that the non-profit will later expropriate their investment.

Malani, Philipson and David present a simple model that integrates all of these views and then look at the different predictions of the different models about the differences between non-profit and for-profit firms. While this approach has many advantages, it suffers from the fact that it is hard in industries which don't have both for-profit and non-profit firms. Three examples of their approach give the style of this paper.

First, they discuss the implications of the different theories for firm size. The non-contractible quality model tells us little about the expected firm size of the non-profit, but the other two theories do indeed give us contrasting implications. The altruism model predicts larger firm sizes, at least holding quality constant, because the non-profit firm directly cares about the scale of production. The workers' cooperative model predicts

that there will be fewer workers and smaller firm size, at least holding capital constant, because the number of workers at which average revenue per worker is reached is less than the number of workers where total revenues is maximized. The existing studies appear to confirm that non-profit hospitals and nursing homes tend to be bigger than their for-profit counterparts. This presents some evidence for the altruism model. This can be fit into the discussion above where firm size might be larger on non-profits because of the manager's preferences for size (which is exactly the same as the Newhouse, 1970, model), even if adhering to workers' preferences leads to at least some drop in size (relative to a donor-controlled firm).

The different models also give different predictions about the quality of care. The non-contractible quality model predicts that non-profits will have higher levels of non-verifiable quality. The altruism model predicts that non-profits will have higher levels of all forms of quality, because, after all, the managers directly care about the quality of care. Empirically, most studies find little difference in the quality of care across different ownership types. This evidence doesn't square all that well with any of the models.

A final example of their approach is their examination of pricing in non-profit and for-profit firms. Here again the models diverge. The non-contractible quality model predicts that, holding observable quality constant, for-profit firms will generally charge more in recompense for their higher quality levels. Alternatively, the altruism model predicts that prices will be lower both as a result of altruism for customers, but also to increase capacity utilization. The governance approach will also tend to predict lower prices, but in this case, prices might be lower because low prices and queues make it easier for incumbent workers than trying to push the product hard at the true market wage. In the hospital context, the evidence on prices is limited but appears to be mixed. Some evidence suggests that once you adjust for quality, the non-profits have a slight price premium that appears to be waning over time. Other evidence suggests that non-profits charge a lower price in the health sector. Certainly, in the educational sector it is hard to argue with the view that non-profits often charge below market rates and attract queues.

V.   Conclusion

Non-profit firms have governance problems that resemble the problems in for-profit firms, but are often far more extreme. In both non-profit and for-profit firms, investors have troubles ensuring that the firm's decisions maximize the investors' welfare. However, the market for corporate control and the ultimately democratic nature of for-profits, gives for-profit investors in for-profit firms and shareholders much more power than donors. In non-profits, the preferences of management end up being far more important and in most cases, non-profits end up being quite independent of their original investors—the donors. This independence becomes particularly extreme in the wealthiest non-profits that have large endowments with which to support the preferences of their managers. Poorer non-profits find it more necessary to either cater to customers or to donors.

In the case of wealthy non-profit firms, the interests of the elite workers become quite powerful. The idiosyncrasies of the particular CEO matter a lot, but the CEO will also end up making choices that are close to the choices that are preferred by the most entrenched workers. One reason for this connection is that CEOs are usually chosen from among the group of elite workers. Hospitals are often run by doctors. Universities are often run by professors and museums are run by curators. After all, running a non-profit often requires specific skills that only the elite workers have. A second reason for the power of the workers is that they interact with the CEO and have the ability to make his or her life more or less pleasant.

As such, it shouldn't surprise that over time, non-profits, which were originally dominated by donors, ultimately resemble workers' cooperatives. Hospitals, museums and universities have all transformed from institutions that maximized donors' interests, to institutions that generally maximize the interests of their elite workers, making some exception for the continuing power of some boards and the idiosyncrasies of individual CEOs. To the extent that wages are free to adjust, the power of workers to push the non-profits explains why there are lower wages in the non-profit sector.

As much as I am convinced that there are serious governance issues within non-profits, I also remain convinced that most non-profits ultimately do a reasonable job of attending to their core function. The absence of powerful instruments of corporate control allows workers and managers a fair amount of latitude, but ultimately the sector still works. To some degree this may stem from the altruistic objectives of workers or managers, but in many cases, this probably comes from the need for non-profits to compete in product markets and in the market for donations. Ultimately, the lesson of non-profits is that competition tends to keep organizations in line, even if their governance structure is weak. Perhaps this is ultimately the virtue of delegating social services to the non-profits sector instead of having these services provided by the government.

Appendix: Proofs of Propositions

Proof of Proposition 1: In the non-profit firm, production is set so that
$K'(N) = P(|X - X_C|) + f'(N)/\lambda$. In the for-profit firm production is set so that
$K'(N) = P(0)$. From the convexity of K(.), the proposition immediately follows.

Proof of Proposition 2: First, we can immediately note that since $X_M > 0$, it is
impossible for the optimal X to be negative. If X were negative, then an increase in X
would please workers, donors and the manager and there is (by assumption) no impact on
price.

I will use the notation that $a = D + E - \underline{W}$, $b = d - \sigma B$, and c=K-P, so N=(a-bx)/c, and I
denote the overall maximization problem of the manager as

V(X, a, b, c, C, g). The value of $\dfrac{\partial V}{\partial X}$ equals $g * I(X < X_M) + C - f'\left(\dfrac{a - bx}{c}\right)\dfrac{b}{c}$.

Standard differentiation tells us that for any parameter "Z", $\dfrac{\partial X}{\partial Z} = \dfrac{\partial^2 V}{\partial XZ} \bigg/ \left(-\dfrac{\partial^2 V}{\partial X^2}\right)$ and

the value of $\dfrac{\partial^2 V}{\partial X^2}$ equals $f''(N)\left(\dfrac{d - \sigma B}{K - P}\right)^2$ which is negative, so the sign of $\dfrac{\partial X}{\partial Z}$ is the

same as the sign of $\dfrac{\partial^2 V}{\partial XZ}$.

The value of $\dfrac{\partial^2 V}{\partial X \partial C} = 1 > 0$ so X increases with C, and differentiation yields:

(A1) $\dfrac{\partial^2 V}{\partial X \partial D} = \dfrac{\partial^2 V}{\partial X \partial E} = -\dfrac{\partial^2 V}{\partial X \partial \underline{W}} = \dfrac{\partial^2 V}{\partial X \partial a} = -f''(N)\dfrac{b}{c^2} > 0$,

and

(A2) $\dfrac{\partial^2 V}{\partial X \partial b} = \dfrac{\partial^2 V}{\partial X \partial d} = -\dfrac{1}{B}\dfrac{\partial^2 V}{\partial X \partial \sigma} = -\dfrac{1}{\sigma}\dfrac{\partial^2 V}{\partial X \partial B} = -\dfrac{f'(N)}{c} + f''(N)\dfrac{bX}{c^2} < 0$

and

(A3) $\dfrac{\partial^2 V}{\partial X \partial c} = \dfrac{\partial^2 V}{\partial X \partial K} = -\dfrac{\partial^2 V}{\partial X \partial P} = \dfrac{f'(N)b}{c^2} + f''(N)\left(\dfrac{bN}{c^2}\right)$

which is certainly negative if and only if $f'(N) > -Nf''(N)$.

Differentiation also yields.

Corollary: The proof of corollary 1 follows immediately from proposition 1, and the fact that wages equal $\underline{W} - \sigma BX$.

Proposition 3: We assume that $\dfrac{\partial^2 V}{\partial X^2}$ is negative and $\dfrac{\partial^2 V}{\partial X \partial g} = -I(X > X_M)$, which is negative if and only if X is greater than X_M, so the proposition holds.

Proposition 4: Adjusting the notation of the previous section, I now let z=C+g, $a = D + E - \underline{W}$, $b = d * I(X > 0) - \sigma B$, and $c = K - P_0$, so $\dfrac{\partial V}{\partial X}$ equals

$z - f'\left(\dfrac{a - bX}{c + P_1 X}\right)\dfrac{bc + aP_1}{(c + P_1 X)^2}$.   Differentiating again produces

$\dfrac{\partial^2 V}{\partial X^2} = \dfrac{(bc + aP_1)}{(c + P_1 X)^3}\left(\dfrac{bc + aP_1}{c + P_1 X}f''(N) + 2P_1 f'(N)\right)$ which is negative if and only if

$-\dfrac{bc + aP_1}{c + P_1 X}f''(N) > 2P_1 f'(N)$, or $-(C + g)(K - P_0 + P_1 X)f''(N) > 2P_1 f(N)^2$ which we assume

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is negative, and so again, the sign of $\dfrac{\partial X}{\partial Z}$ is the same as the sign of $\dfrac{\partial^2 V}{\partial XZ}$.

Differentiation gives us that

(A4) $\dfrac{\partial^2 V}{\partial X \partial z} = \dfrac{\partial^2 V}{\partial X \partial g} = \dfrac{\partial^2 V}{\partial X \partial C} = 1 > 0$, and

(A5) $\dfrac{\partial^2 V}{\partial X \partial D} = \dfrac{\partial^2 V}{\partial X \partial E} = -\dfrac{\partial^2 V}{\partial X \partial \underline{W}} = \dfrac{\partial^2 V}{\partial X \partial a} = -f''(N)\dfrac{(bc + aP_1)}{(c + P_1 X)^3} - f'(N)\dfrac{P_1}{(c + P_1 X)^2}$,

and this is positive if $-f''(N)\dfrac{bc + aP_1}{c + P_1 X} > P_1 f'(N)$, which follows from the assumption

that $-\dfrac{bc + aP_1}{c + P_1 X} f''(N) > 2P_1 f'(N)$. Further differentiation yields:

(A6)
$\dfrac{\partial^2 V}{\partial X \partial b} = \dfrac{\partial^2 V}{\partial X \partial d} * I(X > 0) = -\dfrac{1}{B}\dfrac{\partial^2 V}{\partial X \partial \sigma} = -\dfrac{1}{\sigma}\dfrac{\partial^2 V}{\partial X \partial B}$.
$= f''(N)\dfrac{(bc + aP_1)X}{(c + P_1 X)^3} - f'(N)\dfrac{c}{(c + P_1 X)^2}$

This is negative if X as long as X is positive or close to zero. Further differentiation

yields: $z - f'\left(\dfrac{a - bX}{c + P_1 X}\right)\dfrac{bc + aP_1}{(c + P_1 X)^2}$

(A7) $\dfrac{\partial^2 V}{\partial X \partial c} = \dfrac{\partial^2 V}{\partial X \partial K} = -\dfrac{\partial^2 V}{\partial X \partial P_0} = 2f''(N)\dfrac{(a - bX)(bc + aP_1)}{(c + P_1 X)^4} + P_1 f'(N)\dfrac{a - bX}{(c + P_1 X)^4}$,

which is negative if $-2f''(N)(bc + aP_1) > P_1 f'(N)$ and this follows from

$-\dfrac{bc + aP_1}{c + P_1 X} f''(N) > 2P_1 f'(N)$ as long as $4 > \dfrac{1}{c + P_1 X}$. Differentiation again yields:

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$$\text{(A8)} \quad \frac{\partial^2 V}{\partial X \partial P_1} = f''(N)\frac{(a - bX)(bc + aP_1)X}{(c + P_1 X)^4} - 2cf'(N)\frac{a - bX}{(c + P_1 X)^4} ,$$

which is certainly negative.

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