Non-profit Hospitals, Market Power, and Capacity Decision

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Abstract

In the debate over whether non-profit and for-profit hospitals behave differently in the presence of market concentration and greater individual market power, most scholars have concentrated on the traditional price analysis approach. But this has produced conflicting results. This study attempts to avoid the limitations of price as an indicator of how these hospitals respond to greater market power by examining changes in admissions given the capacity decision. The results indicate that for-profit and public, hospitals respond similarly to increased market power. On the other hand, private non-profit hospitals appear to act differently. This presents important implications for antitrust policies and for the management of public hospitals.

I. Introduction

As part of its effort to control health care costs and protect the availability of services to local communities, the government frequently challenges the merger of hospitals operating in the same market. They, of course, assume that greater market concentration will lead to fewer services and higher prices. While the assumption is generally accepted for most industries, it is not the consensus in the literature covering the hospital industry. The main point of contention centers on non-profit hospitals, which represent the majority of hospitals in the U.S.[1] For example, empirical evidence supports the view that non-profits set lower prices than for-profits when all other factors are similar.[2] What remains unclear is whether for-profit and non-profit hospitals both react the same way once faced with greater market power. Theoretically there is reason to believe that non-profit hospitals do not react to increased market share in the same manner as their for-profit counterparts. However, the theories of firm behavior and managerial decision-making are not the same for the two types of institutions.

As with any non-profit organization, the model of the profit-maximizing firm cannot fully explain the behavior of the non-profit hospital. By its nature and its tax-exempt status a non-profit hospital cannot pay dividends. Yet, in theory, there are residual net revenues. Absent, however, are defined property rights over the residual.[3] Allocation of the residual therefore depends on the "political" influence of special interest groups consisting of administrators, physicians, staff, philanthropic donors, and patients. For example, Pauly and Redisch (1973) argue that non-profit hospitals operate in the interest of physician cartels. Once they have captured control of the hospital, physicians pressure administrators to investments in capital and staff that will lead to increases in

their revenues. Administrators, on the other hand, will target quantity and quality (Newhouse, 1970). They gain utility through the prestige and income of a larger and more advanced facility. However, there are trade-offs between quality and quantity. The administrator will have to balance them in a way that will maximize his utility. Lynk (1994) believes non-profit hospitals often fit a consumer cooperative model. In a sense, they are the captives of patients and donors. Such a situation could explain a greater quantity of charity care or lower prices. In reality, as Phelps (1997: 269) says, it is unlikely that one group completely controls the hospital. Like the formation of public policy, each special interest group is pushing the hospital in directions that promote its welfare. How successful it will be depend on the resources at its disposal, political skills of its members, and the rules of the game. Since these will differ for each group and the difference between groups will differ at each hospital, we cannot predict how a particular non-profit hospitals will appear or behave.

The most important constraint on the influence of these groups is the competition faced by the hospital. As Frech (1996: 21) notes, the comparative statics of the response to market conditions by a non-profit hospital should mirror that of the for-profit hospital with which it must compete. Competition dictates the behavior of the non-profit hospital, not the ultimate pecuniary and nonpecuniary goals of the special interest groups. In the end, its prices, costs and level of efficiency will be on par with its for-profit competitors. Empirical evidence supports this conclusion (Pauly 1987,Dranove, Satterthwaite, and Sindelar 1986, and Becker and Sloan 1985). But does this imply that in the absence of competition non-profit hospitals will behave differently than for-profits? It is quite possible that once the administrator's attention is no longer occupied by competitors, it is

then captured by the special interest groups that are vying for the net-revenue residuals. There are also its own interests of greater prestige (and income) through the optimum balance of quality and quantity. That is, administrators of non-profit hospitals gain prestige through their management of large hospitals that provide an ever increasing number of complex procedures. They are not alone in the push for increased quality and quantity. The goals of the other special interests demand increases in the number of services the non-profit hospital provides and in the number of patients treated. Physicians, endowed with the power to induce demand for their services, will pressure the hospital to provide more beds, nursing staff, and surgical facilities. Community groups, particularly donors, are always demanding lower prices and more services, especially for the indigent population. So though we may not be able to discover who are the dominant special interest groups, we can say that in the absence of the pressures of competition the interests of these groups will exert greater influence, and that influence is most likely to lead to lower prices and increased services. This is opposite of what we would expect from a for-profit hospital in the presence of less competition and greater market power.

Whether the non-profit hospital behaves differently than the for-profit hospital when faced with market power can be answered only through empirical evidence. Yet the current supply of research has not provided a definitive answer. There is a substantial amount of research on the behavior of hospitals in the presence and absence of competition, but these generally do not delve deeply into the differences between non-profit and for-profit hospitals. The first group of studies center their analyses on the reaction of hospitals of different ownership forms to the presence of market power.

Three in particular best represent the group through their use of large data sets. The earliest of these is by J. Gruber (1994). Unlike most studies of market concentration in the hospital industry, it does not directly tests the relationship between price and market power. Gruber measures the level of uncompensated care by non-profit hospitals in areas with different degrees of market concentration. He finds that non-profit hospitals operating in areas of high market concentration provided greater uncompensated care than those in markets with less concentration. Gruber concludes that non-profit hospitals, just like for-profit hospitals, exploit market power. In contrast to for-profit hospitals, however, they use some of the surplus the market power generates to fund charity care.

William J. Lynk (1995) attempts to find an overt relationship between price and market power for non-profit, for-profit, and government hospitals. With a Herfindahl-Hirschman Index (HHI) based on admissions in the county and a hospital's market power as its share of county-level admissions, he measures the effect of a merger on the merging hospitals' net prices.[4] First, he tests the relationship between net price and market share and net price and HHI for non-profit, for-profit, and government hospitals by measuring pre-merger and post-merger prices. Next he uses the resulting coefficients to simulate the effect of a merger of two hospitals of the same ownership category. Based on 1989 data for California hospitals, he finds that the merger effect on hospital prices do vary by type of ownership. When two for-profit hospitals merge net price would increase by 8.7 percent. If they were government hospitals, net price would rise by 4.1 percent. However, if two private non-profit hospitals were to merge, we should expect a decline in net price of 4.1 percent, according to Lynk.[5]

With these results, Lynk's study is the only one to support the position that private, non-profit hospitals do not exploit their market power by raising prices. On the other hand, he is part of the consensus that claims for-profits and, to a lesser degree, government hospitals do take advantage of market power. It is not surprising, therefore, that there has been some criticism of Lynk's findings. While not looking at ownership characteristics specifically, Melnick et al (1992) and Dranove et al (1993) find an overall positive relationship between price and concentration from a similar data set of California hospitals. Their data include non-profit, for-profit, and government hospitals. If Lynk's results are not to conflict with those of Melnick et al (1992) and Dranove et al (1993), the positive relationship between price and concentration that he finds for the for-profit and government hospitals in California must somehow dominate the negative relationship he finds for non-profits. As Simpson and Shin (1998: 143) note, given that 52 percent of Lynk's sample are non-profit hospitals, this seems unlikely. Lynk's study, however, is not as easily comparable to the previous works. Costs may be higher in concentrated markets. Lynk adjusts for this by including cost-related, hospital-specific variables and uses a specific set of diagnostic related group (DRG) classified services.[6] In addition, his use of a slope dummy variable for ownership category to test for the relationship between price and market power simulates the post-merger effect on prices, as opposed to a straight-forward estimate of the relationship between prices and concentration ratios.

John D. Simpson and Richard Shin (1998) also include variables to account for cost differences as well as DRG weighting of each discharge, to test the relationship between prices, market power, and ownership characteristics.[7] Instead of list or net prices, however, they use net inpatient revenue per admission of privately insured

patients. Their data represent general, acute care hospitals in California in 1993. Unlike Lynk, they run two estimates of their model. One uses HHI by county as the measure of market power. The other uses the distance from a hospital to its next closest competitor as the measure of market power. Given the ever present controversy over the correct way to measure market power, this is an important step in advancing the study of market concentration in the hospital industry. Simpson and Shin first estimate each variation of their model with the coefficient for ownership category equal to zero. This provides a picture of the pricing behavior of hospitals in general, when faced with market power. Both estimates indicate a positive, large, and statistically significant (at the one percent level) relationship between price and market power, regardless of how it is measured. When they allow the model to estimate the coefficients for the variables that measure differences in the price and market power relationship by ownership category, it produces positive values when market power is measured with the HHI. But the coefficients are not statistically significant. In the model where market power is measured by distance to nearest competitor, the coefficients are also not statistically significant. Simpson and Shin conclude, then, that there is no evidence that non-profit and for-profit hospitals behave differently in the presence of market power. Both will increase prices.

Finally, there are those that attempt to find differences in the reaction of non-profit and for-profit hospitals to increased market power through case studies of horizontal mergers. Two studies in particular are noteworthy. The earlier of these is a study of the merger of two non-profit hospitals in the already concentrated hospital market of Santa Cruz, California in 1990. This study by Michael G. Vita and Seth Sacher (2001) assesses the consequences of merger-induced changes in market structure by

comparing the pre- and post-merger prices charged by the merged hospitals. The problem they face, as with all price-centered studies, is to find a measurement of "price." They take the familiar route of using "average net revenue received per inpatient acute-care admission for privately insured patients" (Vita and Sacher 2001: 69). The problem with this, as they admit, is the inability to rule out the possibility that the price change might reflect improvements in quality (Vita and Sacher 2001: 80). However, their tests do not find a significant increase in quality that could be considered a by-product of the merger, to justify this possibility. They conclude, therefore, that the large increase in prices that followed the creation of this new non-profit entity was largely the product of the market power it now commanded. A more recent study also uses a merger to stage its analysis of how non-profit hospitals react to increased market share and power. Martin Gaynor and William B. Vogt (2003) first estimate a structural model of demand and pricing for California's hospital industry in 1995.[8] They next use the estimates to simulate an actual merger under different scenarios. One of these is a simulation of the merger under the counterfactual assumption that the merged for-profit hospitals were non-profit. They discover there would have been virtually no effect on the postmerger price increase that actually occurred, if the new merged entity was non-profit.

This review of the literature shows that the question of whether non-profit hospitals behave differently than for-profit hospitals when faced with market power has not been fully answered to anyone's satisfaction. We have therefore decided to address this issue, but from a different angle. Changes in price may not be the best variable to use when studying the behavior of non-profit hospitals. State regulations and federal tax laws limit the ability to raise prices and reduces the relevancy of changes when the non-

profit hospital can get away with raising them. More important, when a non-profit raises prices in response to greater market power, it does not necessary mean that they will be reducing the overall quantity of services. They may raise the price of one category of services, but use the money to increase the quantity of services favored by the dominant special interest groups. A prime example of this is the practice of raising prices in the high-income areas of its market and using the funds to finance increased charity care, as demonstrated by the Gruber (1994) study.[9] We, therefore, have chosen to study the reaction of hospitals to the presence of market power through changes in output. But since the change in output can occur in areas other than charity care, we have decided to take a broader approach. Specially, we have decided to use a model of capacity decision for its implications about the behavior of non-profit hospitals versus the behavior of for-profit hospitals.

II. The Model

Following Spence (1977) and Dixit (1979), consider a production function whereby capacity (K) must exist before output (Q) can be produced. Furthermore, output cannot exceed capacity. Then,

$$Q \leq K \text{ and } Q/K \leq 1$$

Spence shows that if an increase in capacity does not lower marginal cost, then

$$Q/K = 1$$

If an increase in capacity lowers marginal cost, then firms can invest in excess capacity as a means of deterring entry and/or deterring expansion by smaller firms. In this case,

$$Q/K < 1$$

For smaller firms with little or no market power, an increase in Q requires an increase in K, and one would expect Q to equal K regardless of the firm's size. It would also be possible for Q to grow faster than K for firms operating below capacity but trying to grow. A small firm could not have sufficient excess capacity to deter entry or expansion by others. A larger firm with market power, however, could increase K without a comparable increase in Q. As a result, one would see Q/K fall as the firm gained market power.

As an application of this model to hospitals, admitting patients for in-patient care first requires that a hospital has a sufficient number of beds to meet the demands of patients needing to stay. A bed can be used several times in a year. Still, the number of admissions is constrained by the number of beds. A hospital can establish market power by having a large share of the beds in its market. This is the measure we use to proxy market power. If a hospital has one-hundred percent of a market's bed capacity, it can be a monopolist with respect to admissions. A hospital with a very small share of a market's bed capacity can exhibit little or no market power. As a hospital's share of a market's bed capacity increases, so does the hospital's market power. If such a hospital wishes to deter entry or growth by other hospitals, then one would observe a lower admissions-beds ratio

for hospitals with a large share of beds. In other words, the hospital is using its large share of beds as excess capacity. By contrast, if the admissions-beds ratio is independent of market power, then the larger hospitals are not holding excess capacity. Finally, if the admissions-beds ratio is larger for firms with more market power, then the firms require the increase in capacity to increase their growth rates. One could argue that such firms are experiencing economies of scale.

In general, we posit the following model:

Admissions/Beds = f(Market Share of Bed Capacity)

	>	possibly economies of scale
Where f'	= 0 implies	no excess capacity
	<	the presence of excess capacity

The model is tested in linear, quadratic and logarithmic specifications, and a separate effect is estimated for non-profit, for-profit and public hospitals. Specifically, we estimate the equations:

$$\text{Admits/Bed} = B_0 + B_1(\text{Nonprofit}) + B_2(\text{Public}) + B_3(\text{Share}) + B_4(\text{Share*Nonprofit}) + B_5(\text{Share*Public}) + B_6(\text{Share2}) + B_7(\text{Share2*Nonprofit}) + B_8(\text{Share2*Public})$$

Or in Log-Log form:

$$\text{Ln(Admits/Bed)} = B_0 + B_1(\text{Nonprofit}) + B_2(\text{Public}) + B_3(\text{Ln(Share)}) + B_4(\text{Ln(Share)*Nonprofit}) + B_5(\text{Ln(Share)*Public})$$

Where Nonprofit is a dummy variable equal to 1 for private nonprofit hospitals and 0 otherwise. Public is a dummy variable equal to 1 for public hospitals and zero otherwise.

Share is equal to the hospital's bed capacity as a share of the total market's bed capacity. All equations are estimated using a fixed effects model to control for all market specific factors.

III. The Data

Table 1 summarizes the data-specific information together with the sample mean, standard deviation and source for each variable used in the analyses. Data on hospital characteristics (number of beds and average costs per admission) and market characteristics (the hospital's market share, measured as the hospital's share of the total number of beds in its market) come from the American Hospital Association's *1998-99 Hospital Guide*. The survey covers the 12-month period ending on 30 September 1997. This puts us in the middle of the dramatic wave of hospital mergers, which occurred from 1994-2000. Only private and nonfederal public, general service medical and surgical hospitals are included in the data for this study. The HMO penetration rate data are from the National Research Corporation's Health Care Market Guide survey of 1994. The penetration rate is measured as the proportion of the metropolitan population enrolled in an HMO in 1994. The year 1994 was chosen under the assumption of a lag effect. Also, penetration rates changed very little after that date. Average household income (1999), population (1995), and physicians per 1000 residents (1998) data are from the *Places Rated Almanac* (2000). The proportion of population over 65 years of age is from the *State and Metropolitan Area Data Book, 1997-1998*. The end result is a data set that allowed us to construct a picture of the hospital markets for 81 metropolitan statistical areas (MSA) containing 869 hospitals.[10] While there is debate over how to define a hospital's market area, the MSA is one of the most commonly used definitions (see

Frech, 1996). Patients will generally travel only short distances for minor treatment and great distances for more complex procedures. MSAs represent the average or in between distance of travel for the average patient.

IV. Results

The regression coefficients, not including the fixed effects market dummies, appear in Table 2. The results are surprising if one expects to see that for-profit hospitals with market power seek to acquire excess capacity. We find that capacity utilization increases with market power. This is true for for-profit hospitals and, to a lesser extent, public hospitals. Interestingly, non-profit hospitals ignore market power altogether when determining capacity utilization. The results are consistent across the three functional forms tested. For-profit hospitals gain efficiency with market power as opposed to using the market power to create excess capacity. These results suggest that for-profit hospitals with market power do not abuse that market power. Of course, the conclusion is limited to the range of market power tested. The quadratic model, while not significant, suggests that a hospital would use its market power to build excess capacity if its share of bed capacity exceeded thirty percent. Unfortunately, the largest for-profit hospital in our data set has 29.5% of its market's bed capacity. For public hospitals, the quadratic model suggests that excess capacity accumulation would occur for hospitals with more than thirteen percent of market capacity which is this size of the largest hospital in the dataset. Thus, while the relative size of hospitals in the dataset limits our ability to test if firms with market power seek to deter entry by acquiring excess capacity, we can conclude that for-profit hospitals with as much as 29.5% of a market's bed capacity, do not have

sufficient market power to attempt to deter entry or rivals' growth by building excess capacity.

Non-profit hospitals, on the other hand, do not react at to any change in market power. Capacity utilization at non-profit hospitals is independent of the hospital's share of the market's bed capacity. In other words, we find no evidence that a non-profit hospital takes market power into account when deciding its capacity utilization rate.

V. Discussion and Conclusion

The continuing debate over whether the behavior of the nonprofit hospital differs from that of its for-profit counterpart has led to several attempts involving many types of approaches to addressing the issue. With regards to whether they behave differently in the present of market concentration and greater individual market power, most scholars have concentrated on the traditional price analysis approach. But this has produced conflicting results. While Lynk (1995) finds that for-profit and government hospitals raise their prices and nonprofit hospitals do not raise their prices with the acquisition of greater market share, Melnich et al (1992), Dranove et al (1993), and Simpson and Shin (1998) find a positive correlation between market power and higher prices, regardless of the hospital's proprietary type. Part of the conflict, we believe, is that price is an imperfect indicator of a hospital's market strategy. Regulatory and legal rules restrict the ability of hospitals to change their price in response to new market conditions, including increased market concentration. Furthermore, the third-party payment systems that dominate the market weaken the link between price and market conditions.

This paper attempts to avoid the limitations of price as an indicator of how hospitals respond to greater market power and whether there exists a difference in response between for-profit and nonprofit hospitals by examining changes in output. This is accomplished through the use of analyzing the hospitals' capacity decisions. These models identify a hospital acting to take advantage of its market power by how it utilizes its capacity and whether this is movement toward excess capacity. In addition, since the variation in the proprietary nature of the hospitals in our sample implies that motives will vary from maximizing profit to maximizing community welfare to optimizing the utility of physicians, the empirical model we have chosen casts a net broad enough to capture the entire industry and tests to see if the proprietary differences and motives affect the way capacity utilization responds to market power.

Our findings are consistent with those of Lynk (1995) who finds that non-profits do not respond to market power while for-profit, and to a lesser extent public, hospitals do. Yet, the response of for-profit hospitals is not to create excess capacity but to expand. We are at odds with those of Melnich et al (1992), Dranove et al (1993), and Simpson and Shin (1998) who find no difference in the reaction of non-profit and for-profit hospitals to increased market power. We do find no evidence that public hospitals are creating excess capacity. The response of public hospitals is similar, but smaller, to that of for-profit hospitals.

We do not imply that all hospitals, regardless of type, are identical in all ways. As Simpson and Shin (1998: 149) point out, there are likely to be significant differences in how the gains of market power, pecuniary and otherwise, are utilized. Private nonprofit and public hospitals are not supposed to accumulate profits. Therefore, one

must assume that their expenditures and costs will differ from those of the for-profit hospital. And as Gruber (1994) shows, there are differences in the level of charity care. Nevertheless, our study has expanded the understanding of the hospital industry by considering concepts common to industrial organization analysis, but until now rarely applied to the hospital industry and never in terms of the ownership characteristics of individual hospitals.

Endnotes

[1] Non-profits controlled 71 percent of the beds in community hospitals in 2000. For-profit hospitals controlled 13 percent of beds, with the remaining share in public hospitals run by state and local governments (Santerre and Neun, 2004).

[2] See, for example, Thomas J. Hoerger (1991), Noether (1988) , Sloan (1988), and Watt (1986). According the Frech (1996: 21) the empirical evidence implies that non-profit hospitals set prices about 10 to 15 percent lower than for-profits for the same type of care.

[3] The property rights theory as applied to non-profit hospitals, and as discussed here, is largely taken form Sloan (1988).

[4] Net price is the price charged after all discounts are included.

[5] The results for the government and non-profit hospitals were statistically significant at the 5 percent level. That for the for-profits was significant at the .108 level.

[6] Hospitals are reimbursed by the federal government under the Medicare system through a perspective payment scheme. It is called the **diagnosis-related group** system. There are approximately 500 payment categories based on the characteristics of the patient, diagnosis, and treatment. Payment is then assigned according to which category the individual case falls. It is believed that the fixed payment creates incentives for hospitals to control costs. Instead, hospitals try to uncover other medical problems the patient has, which will ratchet up the DRG to a higher paying category.

[7] Their costs variables include labor costs. Something Lynk did not use.

[8] An interesting aside, the estimates show that non-profit hospitals face less elastic demand, but act as if they have lower marginal costs than for-profit hospitals (Gaynor

and Vogt 2003: 765). Furthermore, they indicate decreasing returns to scale for government hospitals and increasing returns for for-profit and non-profit hospitals, though the latter finding was not statistically significant (Gaynor and Vogt 2003: 778).

[9] Major health care payers have begun to complain about this practice. See *The Wall Street Journal*, January 20, 2004, B1.

[10] Incomplete reporting by a significant number of hospitals prevented the construction of a larger set of MSA markets.

Reference

Becker, Edmund R. and Frank A. Sloan (1985). "Hospital Ownership and Performance." *Economic Inquiry* 23(1): 21-36.

Dranove, David, Mark Satterthwaite, and Jody Sindelar (1986). "The 'New Competitiveness' in Health Care: Some Implications for Price an Quantity." Inquiry 23(4): 429-31.

Dranove, David, Mark Shanley and William D. White (1993). "Price and Concentration in Hospital Markets: The Switch from Patient-Driven to Payer-Driven Competition." *Journal of Law and Economics* 36(1):179-204.

Frech, H.E. (1996). *Competition an Monopoly in Medical Care.* Washington, D.C.: American Enterprise Institute.

Gruber, J. (1994). "The Effect of Competitive Pressure on Charity: Hospital Response to price Shopping in California." *Journal of Health Economics* 38(1): 183-212.

Hoerger, Thomas J. (1991). " 'Profit' Variability in For-Profit and Not-for-Profit Hospitals." *Journal of Health Economics* 10(1): 259-89.

Lindsay, Cotton M. (1976). "A Theory of Government Enterprise." *Journal of Political Economy.* 84(5): 1061-1077.

Lynk, William J. (1995). "Non-profit Hospital Mergers and the Exercise of Market Power." *Journal of Law and Economics* 38(2): 437-461.

Melnick, G.A., J. Zwanziger, A. Bamezai, R. Pattison (1992). "The Effect of Market Structure and Bargaining Position on Hospital Prices." *Journal of Health Economics* 11(1): 217-233.

Niskanen, William A. Jr. (1971). *Bureaucracy and Representative Government.* Chicago: Aldine-Atherton.

Noether, Monica (1988). "Competition among Hospitals." *Journal of Health Economics* 7(3): 256-279.

Newhouse, Joseph, P. (1970). "Toward a Theory of Non-profit Institutions: An Economic Model of a Hospital." *American Economic Review* 60(1): 64-74.

Pauly, Mark V. and Michael Redisch (1973). "The Not-for-Profit Hospital as a Physicians' Cooperative." American Economic Review 63(3): 87-99.

Phelps, Charles, E. (1997). *Health Economics.* Reading, Mass.:Addison-Wesley.

Pauly, Mark V. (1987). "Non-profit Hospitals in Medical Markets." *American Economic Review* 77(2): 257-62.

Santerre, Rexford E. and Stephan P. Neun (2004). *Health Economics: Theories, Insights and Industry Studies.*

Sloan, Frank A. (1988) "Property Rights in the Hospital Industry" in H.E. Frech and Richard Zeckhauser (eds), *Health Care in America.* San Francisco: Pacific Research Institute.

Simpson, John and Richard Shin (1998). "Do Non-profit Hospitals Exercise Market Power?" *International Journal of the Economics of Business* 5(2): 141-157.

Vita, Michael G. and Seth Sacher (2001). "the Competitive Effects of Not-for-Profit Hospital Mergers: A Case Study." *Journal of Industrial Economics* 49(1): 63-84.

Watt, J. Michael (1986). "The Comparative Economic Performance of Investor-Owned Chain and Not-for-Profit Hospitals." *New England Journal of Medicine* 314(1): 89-96.

Table 1. Means and Standard Deviations

	For-Profit	Non-Profit	Public
Admissions/Bed	39.13 (29.42)	41.53 (13.16)	41.96 (16.26)
Share of Beds	.043 (.047)	.053 (.063)	.040 (.037)
n	132	536	80

Table 2: Regression Results – Dependent Variable = Annual Admissions Per Bed

	Linear	Quadratic	Log-Log
Constant	34.59 (10.74)	34.76 (9.48)	3.90 (23.38)
Share	127.19 (3.368)***	192.44 (2.16)**	
Share *Nonprofit	-127.53 (-3.33)***	-203.15 (-2.24)**	
Share*Public	-84.26 (-1.28)	-96.24 (-0.56)	
Share^2		-315.96 (-0.81)	
Share^2*Nonprofit		352.42 (0.89)	
Share^2*Public		-55.88 (-0.05)	
Log(Share)			0.075 (2.04)**
Log(Share)*Nonprofit			-0.077 (-1.99)**
Log(Share)*Public			0.008 (0.14)
Nonprofit	7.42 (2.87)***	9.24 (2.85)***	-0.15 (-1.03)
Public	4.12 (0.26)	4.60 (0.95)	0.093 (0.42)
Adj R-sqrd	.104	.101	.146
F	2.01***	1.96***	2.507***

t-statistics are in parentheses
*** signif at .01
** signif at .05