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**A Comparison of Capital Structure: The Use of Debt in Investor
Owned and Not-For-Profit Hospitals**

Jason S. Turner PhD, Kevin Broom PhD, Michael Elliot PhD, Jen-Fu Lee

**Jason S. Turner, PhD – Corresponding Author
Saint Louis University – Department of Health Management & Policy**

**Kevin Broom, PhD
Saint Louis University – Department of Health Management & Policy**

**Michael Elliott, PhD
Saint Louis University – Department of Biostatistics**

**Jen-Fu Lee
Saint Louis University – Department of Health Administration & Policy**

A Comparison of Capital Structure: The Use of Debt in Investor Owned and Not-For-Profit Hospitals

Abstract

According to the Trade-off Theory of Capital Structure, firms optimize their value by balancing the marginal benefits of debt with marginal costs of debt. This paper focuses on the differential use of debt financing among investor owned (IO) and not-for-profit (NFP) hospitals while controlling for important financial performance characteristics shown to influence leverage. Contrary to an earlier investigation based on a relatively small sample, the findings from this large, multi-year sample indicate NFP and IO hospitals structure their capital differently and marginal benefits and costs of debt are differentially influenced by profitability, risk, growth, and size. Investor-owned hospitals use significantly and substantially more debt than their NFP peers. The capital structure of NFP hospitals is not as sensitive to risk but more sensitive to profitability. Growth and size also have distinctly different relationships to the use of debt. As NFP hospitals grow, and asset bases get larger, the institutions use more debt. The IO hospitals use less debt as they experience growth and their size increases.

I. Introduction

There are a number of items that make the healthcare sector unique. Unlike other sectors of the economy where not-for-profit (NFP) firms occupy different market niches from their investor-owned (IO) peers, NFP healthcare firms compete directly with IO firms for patients, providers, and revenues in an attempt to preserve margins and profitability. The choice of how to finance activities has a tremendous impact on the types of projects pursued as well as the respective stakeholders. These decisions are highly complex and can be influenced by agency costs (Jensen and Meckling 1976; Myers 1977; Gavish and Kalay 1983; Jensen and Murphy 1990), asymmetric information (Myers 1984; Myers and Majluf 1984), product/input interactions (Leland and Pyle 1977; Ross 1977; Poitevin 1989; Sarig 1998) and corporate control considerations (Jensen 1986; Harris and Raviv 1988; Bowman 2002; Turner 2014). Capital structure is also clearly influenced by historical ratios and projected financial performance (Lemmon et al. 2008).

This paper focuses on the differential use of debt financing while controlling for important financial performance characteristics shown to influence leverage. Contrary to an earlier investigation based on a relatively small sample (Trussel 2012), our findings from this large, multi-year sample indicate NFP and IO hospitals structure their capital differently, and are differentially influenced by profitability, risk, growth, and size.

II. Background

According to the Modigliani and Miller Irrelevancy Theorem (Modigliani and Miller 1958), in perfect capital markets, the choice of how to finance assets does not impact firm valuations. However, when the perfect capital market assumptions are relaxed, interest expense and capital loss tax shields, asymmetric information between managers and equity holders, taxation, bankruptcy costs, and myriad of other factors make the choice of capital structure matter (Modigliani and Miller 1958; Modigliani and Miller 1963; Bhattacharya 1988; Miller 1988; Modigliani 1988). According to the dynamic trade-off theory, additional value can be generated for firms that appropriately balance the benefits of debt financing with the costs of debt financing (Miller 1977, 1988; Shyam-Sunder and Myers 1999; Fama and French 2002; Hovakimian et al. 2002).

For IO hospitals, the use of leverage has the potential to magnify returns to equity holders as long as the return on assets is greater than the return on debt. The U.S. tax code provides an interest expense tax shield that reduces tax liability and increases firm value for IO hospitals; there exist non-trivial information asymmetries among firm insiders, lenders and potential investors; and there are substantial costs of financial distress, bankruptcy, and liquidation. Moreover, risk class identification is difficult, monitoring costs associated with imperfect contracts are prohibitive, and individual borrowing cannot be substituted for firm borrowing (Stiglitz 1988).

Understanding market imperfections and how they affect the value of firms has been the focus of much research subsequent to Modigliani and Miller. The efforts can be roughly sorted into four main categories -- agency costs, asymmetric information, product/input market interactions, and corporate control considerations.¹

¹These categories should not be considered mutually exclusive.

Agency Costs

Agency costs arise when the incentives of stakeholders are not aligned with or do not reinforce each other (Jensen and Meckling 1976; Jensen and Murphy 1990). This may be best illustrated with the asset substitution phenomenon (Myers 1977; Gavish and Kalay 1983). As a firm's proportion of debt financing increases, equity holders/managers have an increased incentive to carry out more risky projects. Equity holders/managers are insulated from potential losses if the project is a failure since the debt issuers bear the bulk of the downside risk. If the project is successful, debt issuers do not share in the upside gains and the benefits accrue to the managers and equity holders. By not sharing in the downside risk, the expected payout to equity holders skews managerial behavior toward riskier projects that have the potential to decrease the value of the firm. Under the asset substitution framework the increased use of debt is related to firm value destruction.

Another example of an agency cost is related to what managers do with free cash flows. If firms have positive free cash flows that are not distributed back to equity holders, managers will have excess cash to direct toward pet projects, perquisites, and empire building. Demonstrated investment sensitivity to cash flow indicates that when excess cash resources are available, managers are more likely to seek out investment options. These options are not held to the same decision making rigor as when excess cash flows are not available. Under this heuristic, managers are overly optimistic about cash flow and/or executives are overconfident in their ability to achieve high returns for the firm (Shefrin 2007). Consequently, equity holders would prefer to have excess free cash flows returned via a dividend or stock repurchase and altogether avoid the poor behavior of managers with excess cash (so they can reinvest at a higher expected return given the same underlying risk profile). When debt financing is implemented, free cash flows are reduced and/or covenants set in place that limit the investment behavior of managers. Thus, some leverage does increase the value of the firm by imposing financial discipline on managers.

Borrowing again from the field of behavioral finance, reputational concerns may also play into how investment decisions are made (Diamond 1989; Hirshleifer 1992). Not wanting to appear risk-prone or overly unconventional, managerial concern for reputation may encourage pursuit of overly conservative business strategies. This behavior runs counter to the asset substitution effect, thus aligning management with debt holders at the expense of equity holders. When lenders recognize managerial conservatism they are more likely to make additional debt available and the firm becomes more leveraged. While the firm generates benefits from the additional debt capacity and increased return on equity, it also destroys the overall value of the firm through overly conservative management.

Asymmetric Information

Asymmetric information problems arise in corporate finance when firm insiders have or are thought to have more information than people outside the firm such as investors or debt issuers (Myers and Majluf 1984). The Pecking Order Theory (Myers 1984) maintains that because of information asymmetries, firms have a preferred sequence of financing. Firms will first seek to fund projects with internal funding (retained earnings or internal debt), move to external debt markets when internal funding is not available, and, finally, raise funds in external equity markets when other funding resources have been depleted.

There are multiple reasons for the preferences but they can be fundamentally thought of as ease of administration and an effort to limit the financial impact on equity holders.²

The pecking order phenomenon is consistent with firms slowly changing their capital structure as internal equity is made available or debt levels can be supported. This is borne out by Leary and Roberts who find that frequently changing capital structure is very expensive and that capital structure remains relatively stable over time (Leary and Roberts 2005). It is worth noting that there does appear to be differential preferences for use of debt depending upon firm size (Frank and Goyal 2003). Additionally, evidence from the implementation of hybrid securities does not reinforce pecking order theory (Brennan and Kraus 1987).³

Product/Input Market Interactions (Industrial Organization)

In addition to the agency and asymmetric problems associated with debt, strategic signals (Leland and Pyle 1977; Ross 1977) may be sent to both competitors and the market through the use of capital structure. Firms that are highly leveraged have a limited ability to compete on a price basis (Poitevin 1989). As price declines, the margin between profitability and their debt obligations (and other fixed costs) decreases. When prices fall low enough, the highly leveraged firm runs the risk of falling into default. As a result, debt levels lower than industry norms may allow a corporation to increase market share through price predation or posturing. Conversely, debt levels at or above industry norms may signal an inability to compete based on price and emphasis on continuing with the status quo.

Debt levels also impact the bargaining position with external customers and suppliers. For the same reason cited above (smaller margin between revenue and fixed costs), highly leveraged firms are in a stronger or less flexible bargaining position with suppliers and customers (Sarig 1998). These highly leveraged firms can point to a reduced ability to extend price concessions to customers and a constrained capacity to cope with increased input costs.

Corporate Control Considerations

The final area of research has focused on corporate control and how a firm's mix of debt and equity interact with governance and ownership. Not surprisingly, leverage is one of the many resistance techniques employed by firms to stave off takeover attempts (Harris and Raviv 1988).⁴ First, debt covenants often include restrictions that limit managerial behavior or ownership and consequently the benefits that may accrue to future managers and equity holders. Second, leverage restrains behavior by

² Firm insiders are presumed to have a more detailed understanding of the state of the firm. When managers raise capital in the external equity markets investors interpret the action as a managerial belief in the market's overestimation of firm value. Investors will account for the overestimation by lowering their price point and, as a result, new equity holders will expropriate wealth from existing equity holders.

³ Issuing equity is a negative signal; however, simultaneously issuing equity and retiring/repurchasing debt with some of the proceeds perceived as a positive signal that does not negatively impact share price (Harris and Raviv 1991). See also Amy Ditmar, Why do firms issue equity, JF, Feb 07. Find that when managers think market opinion is aligned with that of firm, they use equity; otherwise debt.

⁴ Other methods include targeted share repurchases, voting trusts, nonvoting equity, and targeted share repurchases.

using interest and principal payments that reduce future cash flows (Jensen 1986). Finally, as long as the incumbent has greater voting power than the rival, “issuing debt reduces the probability of the incumbent being voted out” by concentrating ownership (Harris and Raviv 1988).

It is clear that the relationships among firm value, competition, control, strategy and use of debt are complex. The impact leverage has on the firm is a mosaic- it has the ability to increase firm value under some circumstances and decrease the value of the firm in response to others.

For healthcare institutions the costs and benefits of debt utilization is greatly influenced by tax status. Approximately 56% of American hospitals, containing about 68% of the country’s beds, are organized as charitable or educational institutions under IRS Code 501(c) 3 (GAO, 2005; American Hospital Association, 2013). These NFP organizations are often exempt from property taxes, some sales & use taxes, as well as state and federal income taxes. In addition, the 501(c)3 organizations have access to low cost municipal debt, deductible philanthropy, and are not subject to involuntary bankruptcy (Bowman 1999). Moreover, the very nature of NFP firms may exacerbate the investment sensitivity to free cash flows found by Jensen (1986). Specifically, their inability to return equity to shareholders may make them particularly susceptible to poor investment behavior (Kauer and Silvers 1991).⁵ Rather than distribute excess free cash flows to shareholders, the NFP administrator either builds the endowment or seeks out investment (Wedig et al. 1996; Gentry 2002). Conversely, when free cash flows are scarce their limited access to equity may make them more risk adverse than their FP peers (Wedig 1994) and may make changing capital structure relatively more difficult (Wheeler et al. 2000). Moreover, due to the disparate nature of stakeholders, NFP firms are not subject to the same oversight and market discipline as IO firms (Smith et al. 2000). Finally, NFP firms have some favorable contractual procurement processes and are not perceived by the community to be driven by the profit motive (Steinberg and Gray 1993). As a result, the relationships between NFP healthcare providers and the communities they serve tend to be better than between IO providers and their communities.

The traditional market discipline instituted by investors is not in full play with NFP firms. IO firms are directly responsible to their shareholders. The stakeholders in NFP firms are much less concentrated (more disparate utility functions) and include physicians, patients, administrators and the general community. The disparate nature of NFP stakeholders often means balancing multiple agendas that are not necessarily consistent with market discipline. It is important to note that IO hospitals do not enjoy the same benefits as NFP hospitals but they do have access to traditional equity markets. IO hospitals can also take advantage of a number of tax shields that reduce tax liability and increase profitability. The results of the corporate control, product/input market interactions, asymmetric information, and agency cost considerations is a balance of debt and equity that is different for IO and NFP hospitals if the dynamic trade-off theory holds for healthcare firms.

⁵ In traditional investor owned firms it is clear who has a residual claim on the assets of the firm once debt obligations have been met – the shareholders. Equity can be distributed to easily identifiable shareholders. The residual claim on assets is not as clear in NFP firms. Should the equity be distributed to consumers of healthcare goods in the form of lower charges, distributed among employees, returned to the community where the NFP operates, or returned to the local and national government whose forgone taxes have supported the enterprise?

III. Methodology & Results

To test the null hypothesis that there is no difference in the capital structure of NFP and IO hospital systems, hospital characteristics and financial statements were pulled from the Centers for Medicare & Medicaid Services' Healthcare Cost Report Information System (CMS Form 2552). Of all organizations that filed hospital cost reports only short-term, acute care hospitals were selected for inclusion in our dataset. For comparability purposes, hospitals were required to have cost reports with 12 months of consecutive accounting periods to be included. Hospitals with missing cost reports between years 2006 and 2011 were also excluded. In addition, hospital financial statements with total liabilities, total assets, or total operating expenses of less than or equal to 0 were removed. Outlier firms were removed by dropping hospitals with standard deviations of their return on assets greater than the 99th percentile, which was 0.81. The final sample consisted of 470 investor owned and 2,175 nonprofit short-term acute care hospitals throughout the U.S. with over 40% of the sample concentrated in facilities with fewer than 100 beds. The national sample was almost evenly distributed between stand-alone and system affiliated hospitals and included teaching and non-teaching facilities, critical access (CA) hospitals and non-CA hospitals, and urban as well as rural hospitals.

Table 1 Descriptive statistics

Hospital beds	Count	Percent	Hospital characteristics	Count	Percent	Total
<100	1,197	45.32%	System affiliation	1,316	49.75%	100%
100-199	644	24.38%	No system affiliation	1,329	50.25%	
200-299	337	12.76%	Critical access	518	19.59%	100%
300-399	196	7.42%	Non-critical access	2,127	80.41%	
400-499	116	4.39%	Teaching	737	27.87%	100%
>499	151	5.72%	Non - teaching	1,908	72.13%	
Unknown	4	0.15%	Urban	1,685	63.69%	100%
Total	2,645	100.00%	Rural	960	36.31%	

Using the methodology and variables employed in earlier capital structure and ownership studies (Kester 1985; Trussel 2012), leverage is treated as the dependent variable and is a proxy for capital structure. Leverage is defined as current year's total liabilities over current year's total assets. In addition to ownership status, explanatory and control variables include profitability, growth, risk, and size. Profitability is the 5-year average (2007 to 2011) return on assets (ROA). The ROA is defined as the current year's net income over the prior year's total assets. Risk is defined as the standard deviation of profitability over the 5 year sample as measured by the return on assets. Growth is the average geometric

increase of total revenues from 2007 to 2011. In keeping with the Trussel model (2012), size was calculated as the natural log of the total revenues in 2010. Type was defined as one if the hospital was nonprofit and zero if the hospital was investor owned.

Based on the descriptive data in Table 2, the use of debt is significantly and substantially different ($p < .001$) for IO and NFP hospitals. NFP entities are financing roughly 52% of their assets with debt while IO hospitals are financing 85% of their assets with debt. Significant differences also exist in ROA, Risk, and Size when the sample is stratified by type. IO hospitals have grown at a slightly higher rate (p -value = .0776), experienced greater risk, and generated a higher ROA than NFP hospitals. Consistent with the theory of NFP empire building and agency costs, NFP hospitals are larger than their IO counterparts. The differences in size may be due to the lack of a clear stockholder voice that demands distribution of earnings or it may be related to managerial attempts to maximize firm utility by maximizing discretionary income (Wedig et al. 1988; Wedig 1994; Wedig et al. 1996).

Table 2 Variable means and standard deviations (unweighted)

	LEV		ROA		Risk		Growth		Size	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Investor-owned	0.8499	0.8644	0.1007	0.2675	0.0968	0.1003	0.0522	0.0738	17.9094	1.0709
Nonprofit	0.5284	0.4151	0.041	0.0882	0.0608	0.0705	0.0464	0.0621	18.4115	1.3305
T-test p-value (pooled)	<.0001*		<.0001*		<.0001		0.0776		<.0001	

*Satterthwaite t-test to account for uneven standard deviations between IO & NFP hospitals.

To assess the impact ownership has on capital structure two general linear models were investigated. The first model uses ownership type as an explanatory variable while controlling for ROA, Risk, Growth, and Size (Eq. 1 and Table 3).

Eq. 1

$$\text{Leverage} = \beta_0 + \beta_1\text{ROA} + \beta_2\text{Risk} + \beta_3\text{Growth} + \beta_4\text{Size} + \beta_5\text{Type} + \text{error}$$

With the exception of growth (p-value = .3835) and size (p-value = .4698), all variables are significant at the <.0001 level. The -.35824 value of β_5 indicates that NFP hospitals are using substantially less debt than similar IO hospitals after accounting for the controlling variables.

Table 3 Eq. 1.0 GLM results

F statistic	208.48 (<.0001)				
Adj R-Sq	0.2832				
	DF	Coefficient	Std Err	t value	P-value
Constant	1	.74259	.12953	5.73	<.0001
ROA	1	-1.72670	.06626	-26.06	<.0001
RISK	1	1.89812	.11902	15.95	<.0001
GROWTH	1	.12293	.14102	.87	.3835
SIZE	1	.00508	.00703	.72	.4698
TYPE	1	-.35824	.02398	-14.94	<.0001

It is also important to note that based on the information in Table 2, NFP and IO hospitals differ significantly on their respective ROA, Risk, and Size, and less significantly on their Growth. An interaction term that captures the impact ownership has on the respective control variables provides a more accurate depiction of the ownership effect and does not confound the impact of ownership with control variables that are averaged across IO and NFP hospitals (Eq. 2 and Table 4).

Eq. 2

$$\text{Leverage} = \beta_0 + \beta_1\text{ROA} + \beta_2\text{Risk} + \beta_3\text{Growth} + \beta_4\text{Size} + \beta_5\text{Type} + \beta_1\text{ROA}*\text{Type} + \beta_2\text{Risk}*\text{Type} + \beta_3\text{Growth}*\text{Type} + \beta_4\text{Size}*\text{Type} + \text{error}$$

To rule out that the differences in leverage is related to sample characteristics predominately found among NFP hospitals, critical access, teaching status, whether or not the hospital identified itself as part of a system, and urban/rural location were added as control variables to Equation 2.0.

With the exception of Geography, none of the additional control variables were significant. The magnitude and sign of the Equation 2.0 model after the introduction of the additional control variables is similar to the Equation 2.0 model without the control variables. There was some slight decrease in the impact NFP status had on leverage and the urban/rural location of the hospital does appear to impact the

use of debt. It is notable that the fit and significance of the Eq. 2 coefficients remains largely unchanged with the introduction of the additional control variables.

IV. Findings & Discussion

It is clear from both GLM models and summary table that NFP hospitals use significantly and substantially less debt than their IO peers. Some of the difference is directly related to their ownership status but there is also significant difference in how NFP and IO hospitals manage their capital structure in reaction to profitability, risk, growth and size. In the model where hospital ownership is allowed to interact with the control variables (Eq. 2 and Table 4), all variables (with the exception of Growth), including the interaction terms, are significant at the $p \leq .05$ level. NFP firms use less debt financing, relative to their IO peers, in general but also use less debt as profitability increases. Rather than distributing earnings back to equity holders, NFP firms either make new capital expenditures with the retained earnings or they use the retained earnings to build a cash reserve for future needs. The same relationship holds for risk; NFP hospitals are less leveraged as their risk profile increases. This tendency to be less leveraged as risk increases is consistent with the conservative nature of NFP governance and costs of debt financing that increase with the riskiness of the borrower.

Table 4 Eq. 2.0 GLM 4results

F statistic	135.94 (<.0001)				
Adj R-Sq	0.3171				
	DF	Coefficient	Std Err	t value	P-value
Constant	1	2.24676	.37477	6	<.0001
ROA	1	-1.56103	.07976	-19.57	<.0001
RISK	1	3.08716	.22302	13.84	<.0001
GROWTH	1	-.29091	.28986	-1	.3157
SIZE	1	-.08505	.02063	-4.12	<.0001
TYPE	1	-2.11868	.39868	-5.31	<.0001
ROAxTYPE	1	-.65633	.13826	-4.75	<.0001
RISKxTYPE	1	-1.75196	.26230	-6.68	<.0001
GROWTHxTYPE	1	.65728	.33050	1.99	.0468
SIZExTYPE	1	.10640	.02189	4.86	<.0001

A more nuanced interpretation is required for the Size and Growth relationships. As evidenced by the Growth ($\beta_3 = -.29091$) and Size ($\beta_4 = -.08505$) coefficients, as IO hospitals get larger and experience growth in their revenues less leverage is associated with their capital structure.⁶ The magnitude and sign of the interaction terms; however, indicate that NFP hospitals have the opposite relationship. Faced with the same growth and size, NFP hospitals employ more leverage. As revenues grow and the asset bases get larger the NFP hospitals utilize more leverage.

Table 5 Eq. 2.0 GLM results w/ additional control variables

F statistic	96.99 (<.0001)			
Adj R-Sq	0.3207			
Variable	Parameter Estimate	Standard Error	t-Value	Pr > t
Intercept	2.72275	0.39151	6.95	<.0001
ROA	-1.57683	0.07981	-19.76	<.0001
RISK	3.00071	0.22271	13.47	<.0001
GROWTH	-0.26875	0.2888	-0.93	0.3522
SIZE	-0.10316	0.02144	-4.81	<.0001
TYPE	-1.85374	0.40513	-4.58	<.0001
ROAxType	-0.60169	0.13977	-4.3	<.0001
RISKxTYPE	-1.72499	0.26171	-6.59	<.0001
GROWTHxTYPE	0.67898	0.32938	2.06	0.0394
SIZExTYPE	0.09307	0.02222	4.19	<.0001
Teaching	0.00979	0.02419	0.4	0.6859
CAH	-0.02101	0.03056	-0.69	0.4918
System	-0.01206	0.01814	-0.66	0.5064
Geography	-0.111	0.02324	-4.78	<.0001

⁶ It is important to note that Growth is not significant for the IO hospitals. If Equation 1.0 is regressed on a sample restricted to NFP hospitals the coefficient (.36637) is positive and significant ($p = .0047$).

Using the dynamic trade-off theory, the large and significant difference in the use of debt intimates that either the benefits of debt for IO hospitals is greater than it is for NFP hospitals or the costs associated with financial distress associated with leverage are lower for IO hospitals. Although additional investigation is warranted, the effective interest rates for IO and NFP may indicate that the benefits of low-cost municipal debt may be overstated relative to the tax shields and leverage magnification of the ROE experienced by IO hospitals.

V. Implications, Limitations, and Future Research

The findings from this study indicate that real differences do exist between how IO and NFP hospitals establish their capital structure policies. IO hospitals rely more heavily on debt as a source of financing for their long-term financial operations, and therefore their targeted capital structure, primarily due to their ability to take advantage of a number of tax shields that reduce their tax liability and increase their profitability. Furthermore, the results of the corporate control, product/input market interactions, asymmetric information, and agency cost considerations also produce a balance of debt and equity that is quite different for IO and NFP hospitals.

Our evidence indicates that net benefits accrue to IO hospitals for maintaining a more debt-heavy capital structure (than for NFP hospitals). Managers of IO firms, either at the individual level or at the system level, should consider the offsetting tax benefits and bankruptcy costs of debt when deciding on adjustments to their current capital structure. IO hospitals have greater tax incentives to use debt in their capital structure, but the greater use of debt places more financial risk on their hospitals.

Our study does have some limitations. First, an alternative approach to measuring capital structure would be to use a market observed value of equity, rather than using the book value of equity. Our approach may underestimate the value of existing equity within a hospital's capital structure. Some of the finance research on publicly traded companies uses the market value of equity, rather than the book value of equity (i.e. stockholders' equity). However, since NFP hospitals and many privately held IO hospitals do not have market observable prices, our approach was an appropriate method to measure the capital structure for both IO and NFP firms in a consistent manner. Moreover, using market values of equity rather than book values of equity may confound capital structure with a measure of future earning potential.

Another approach would be to focus on measuring capital structure using only long-term debt, rather than all debt. This approach would focus on the long-term sources of contributed capital (debt and/or equity) that are used for long-term investments, rather than comingling short-term sources of capital, which are traditionally used to finance day-to-day operations. Moreover, any short-term impact resulting from the 2009 recession is beyond the scope of this study. Future studies should address these limitations of our study.

Future research should seek to extend the results from our study. While our findings indicate that capital structure differences do exist between IO and NFP hospitals, our shorter time period does not help shed light on whether capital structure patterns within the health industry change or are stable over time. Moreover, capital structure could be decomposed over time to see if the individual components of contributed capital change over time. If overall capital structure is relatively static, are the underlying

components also relatively static, or are the underlying components routinely changing, but offsetting each other?

Another extension would be to analyze capital structure patterns across the remainder of the health industry (rather than just the hospital sector). While hospitals make up a large portion of the health industry, other sectors such as pharmaceutical manufacturing, insurance, and biotech firms also play large roles. Future studies should also specifically focus on whether capital structure policies change in response to legislation, at both the federal and state level, impacting the health industry.

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To Contact the Authors

Jason S. Turner, PhD – Corresponding Author
Saint Louis University – Department of Health Management & Policy
3545 Lafayette Avenue
Salus Center
Saint Louis, MO 63104
Jturne32@slu.edu / 314-977-3280 (Office) / 314-977-1674 (Fax)

Kevin Broom, PhD
Saint Louis University – Department of Health Management & Policy
3545 Lafayette Avenue
Salus Center
Saint Louis, MO 63104
Kbroom3@slu.edu / 314-977-4491 (Office)

Michael Elliot, PhD
Saint Louis University – Department of Biostatistics
3545 Lafayette Avenue
Salus Center
Saint Louis, MO 63104
elliottmb@slu.edu / 314-977-4027 (Office)

Jen-Fu Lee
Saint Louis University – Department of Health Administration & Policy
3545 Lafayette Avenue
Salus Center
Saint Louis, MO 63104
jenfulee@slu.edu / 314-977-8128 (Office)