AN EXAMINATION OF CYCLICAL ISOMORPHISM AND THE MICRO-EFFECTS OF HOSPITAL ACCREDITATION

A Dissertation in
Health Policy and Administration

by

Tyler John Towers

© 2013 Tyler John Towers

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

May 2013
The dissertation of Tyler John Towers was reviewed and approved* by the following:

Jonathan R. Clark  
Assistant Professor of Health Policy and Administration  
Dissertation Advisor  
Chair of Committee

S. Diane Brannon  
Professor of Health Policy and Administration

Deirdre McCaughey  
Assistant Professor of Health Policy and Administration

Glen E. Kreiner  
Associate Professor of Management and Organization  
Smeal College of Business

Dennis G. Shea  
Professor of Health Policy and Administration  
Head of the Department of Health Policy and Administration

*Signatures are on file in the Graduate School.
ABSTRACT

Hospital accreditation inspections are at once highly institutionalized and predictably cyclical, creating the potential for waves of isomorphic response (i.e. convergence around commonly legitimized standards of structure or action in a field) among accredited hospitals. Yet little is known about how – and to what extent – these isomorphic waves might impact hospital personnel and the patients who enter hospital doors seeking care. This dissertation explores these phenomena by integrating diverse theory and employing robust empirical methodology.

Following an introductory chapter, Chapter Two builds a conceptual framework to theoretically argue that triennial accreditation inspections may trigger a shift in organizational attention patterns in hospitals. This shift, the framework suggests, may impact clinical outcomes for patients and influence the attitudes of hospital personnel in ways that may affect hospital survivability.

Chapter Three presents the first of two empirical studies aimed at testing portions of the conceptual framework. In this study, monthly risk-adjusted mortality rates in fifty-eight New Jersey hospitals are observed over a ten year period to assess significant changes in mortality rates during reaccreditation cycles. The analysis reveals, in fact, that mortality rates tend to improve momentarily following inspections but that improvements tend to fade away in subsequent weeks.

Chapter Four presents the second empirical study, which examines the extent to which organizational “jolts” caused by reaccreditation inspections trigger reassessment of the legitimacy of the hospital among hospital personnel. The analysis suggests that
accreditation inspections are, in fact, capable of jolting hospitals with sufficient force to trigger judgment reassessment but that individuals are not likely to retain and put into use the new judgments as hospitals likely regress toward heterogeneity following inspections.

The final chapter synthesizes the notable theoretical and empirical contributions to the academic literature offered in these papers and comprehensively discusses the practical implications of these contributions for policy makers, accrediting bodies and hospital leaders. Also, as the work represents but a first step toward understanding cyclical isomorphism and the micro-effects of hospital accreditation, the chapter concludes with a discussion of opportunities to expand on the ideas presented here and to explore new avenues of research.
# Table of Contents

List of Figures ........................................................................................................ vi
List of Tables ........................................................................................................ vii
Acknowledgments ................................................................................................... viii

Chapter 1: Introduction .......................................................................................... 1

Chapter 2: A Theoretical Model of Cyclical Isomorphism and the Micro-Effects of Hospital Accreditation ................................................................. 6

Chapter 3: The Cyclical Impact of Joint Commission Site Visits on Risk-Adjusted Mortality Rates in Hospitals ................................................................. 45

Chapter 4: Legitimate to Whom? The Impact of Cyclical Isomorphism on Individual Legitimacy Judgments ................................................................. 68

Chapter 5: Conclusion ........................................................................................... 108

References ............................................................................................................. 127
LIST OF FIGURES

Figure 2.1 – The cyclical isomorphism model ........................................ 7
Figure 2.2 – The “mentions per meeting” of accreditation within a United States Navy medical command .................................................. 15
Figure 2.3 – The “mentions per meeting” of accreditation within a more complex medical command and a less complex medical command ........... 18
Figure 2.4 – Accreditation inspections and directed organizational attention .... 19
Figure 2.5 – Directed organizational attention and patient outcomes ............ 25
Figure 2.6 – Directed organizational attention and perceived legitimacy ........ 35
Figure 2.7 – Complete theoretical framework ........................................... 38
Figure 4.1 – The cyclical isomorphism model ........................................... 74
Figure 4.2 – Diagram illustrating the potential moderating effect of status .......... 98
Figure 5.1 – Model of hospital trajectory suggested by research findings ......... 114
Figure 5.2 – Optimal model of hospital trajectory ...................................... 115
Figure 5.3 – Realistic model of hospital trajectory ...................................... 116
LIST OF TABLES

Table 3.1 – Risk-adjusted mortality

Table 3.2 – Impact of unannounced site visits on risk-adjusted mortality

Table 3.3 – The 2012 Joint Commission board of commissioners ranked in order of the technological status of the sourcing organization

Table 4.1 – Survey items included in the legitimacy judgment variable

Table 4.2 – Regression testing the main effects and interaction of accreditation and status

Table 4.3 – Robust analysis of effect duration
ACKNOWLEDGMENTS

A work of this magnitude never emerges from the efforts of a single person but through the dedication and sacrifice of many. First and foremost I wish to thank Doctor Jonathan Clark for his expert guidance and faithful friendship over the past three years. Though having just emerged from a PhD program himself, he enthusiastically embraced the responsibility of advising and encouraging me as I navigated the arduous path toward graduation. Jonathan, I look forward to many more years of fruitful collaboration. To Doctor Diane Brannon, Doctor Deirdre McCaughey, and Doctor Glen Kreiner, I thank you for your willingness to read the various drafts of this manuscript and provide unfailingly rigorous and thoughtful feedback. Reading a doctoral dissertation once is an accomplishment. Reading it multiple times with an eye toward improvement is evidence of an uncommon dedication to scholarship. I feel tremendously blessed to have worked with each of you.

I wish to thank my family for reminding me every day of what is most important in life. Jamie, words cannot express my love and gratitude for the support and encouragement you have given me throughout this process. Every good thing in my life can be attributed to marrying you. To our children Olivia, Christian, Abigail, and William, I will forever treasure the opportunity I have enjoyed these past three years of being there to walk you to the bus stop every morning. I am so proud of each of you. To my parents, David and Myrna Towers, I thank you for always believing in me and encouraging me to pursue my goals in the classroom, on the wrestling mat, and everywhere else.
I wish to thank Rear Admiral Forrest Faison and Captain John LeFavour – as well as the leadership teams of three unnamed Navy medical facilities – for making it possible for me to collect the executive meeting minutes discussed in Chapter Two. I had the privilege of serving directly under both Rear Admiral Faison and Captain LeFavour prior to beginning my doctoral studies and I can state unequivocally that their leadership skills have shaped me into the military officer that I am today. I also wish to thank Doctor Loring Crepeau and his team at the Defense Equal Opportunity Management Institute for providing the organizational climate survey data used in Chapter Four. Though fulfilling my request for data required a significant amount of effort on their part, the result of this effort exceeded my expectations and added considerable dimension to this body of work.

The professors who have influenced me over the past sixteen years are too numerous to list by name though I would like to formally thank two of them here. First, I wish to thank Doctor Harold Bauman of the University of Utah who helped me realize the joy of learning for its own sake and who inspired me to focus my professional and academic energies toward improving the delivery of healthcare in this country. I still own and regularly read the tattered copy of a text he assigned to me fourteen years ago. I also wish to thank my good friend, Doctor David Burchfield of the University of Memphis, whose dedication to his students is unparalleled. I will consider myself a successful professor if I can emulate his example even in the smallest degree.

Finally, I wish to thank the anonymous members of the 2009 Medical Service Corps Duty Under Instruction (DUINS) Selection Board for selecting me from among a pool of my peers to pursue doctoral training. I will dedicate the remaining years of my Navy career to demonstrating the wisdom of that choice.
CHAPTER 1

INTRODUCTION

The practice of accrediting hospitals has become so institutionalized in the United States that it has gained “value independent of instrumental utility” (Scott, 1987, p. 499). Indeed, though few would question the instrumental benefit to patients and providers of implementing and sustaining clinically validated accreditation standards within hospitals, it is the institutional legitimacy gained through accreditation that may drive hospital leaders – even leaders of hospitals facing daunting resource constraints – to dedicate time, money, and other valuable assets toward achieving formal accreditation rather than simply adopting identical standards on their own (Meyer & Rowan, 1977).

In other words, hospital leaders may seek formal accreditation not necessarily as a means of providing better care to the patients who enter their doors, but as a way of achieving legitimacy among peer hospitals in the larger institutional field. To maintain this legitimacy, hospitals must submit to periodic accreditation inspections (Joint Commission, 2012). At the macro level, the end result of these inspections is clear – either the inspected hospitals maintain their accreditation (i.e. their institutional legitimacy) or they do not. Much less clear is the impact that the hospital accreditation process exerts at the micro level (e.g. among patients seeking care in the accredited hospitals and among the personnel working together to provide the care).

If the primary value of hospital accreditation were in its instrumental utility to patients and providers, then perhaps a majority of hospitals would perpetually maintain alignment with accreditation standards from cycle to cycle and perhaps one would
observe little change at the micro level during inspection periods. On the other hand, if
the primary goal of accreditation is the preservation of institutional legitimacy, then strict
alignment with accreditation standards may be necessary only when inspections occur.
That is to say, such alignment may actually ebb and flow with the accreditation cycle. If
these “ebbs” and “flows” are sufficiently salient, then one might observe notable changes
among patients and hospital personnel as the ebbs and flows impact the organizational
environment within the hospital.

This dissertation investigates these possibilities by developing and testing a
framework describing the micro-level effects of the hospital accreditation process. The
inherent challenge of creating such a framework is the fact that it attempts to link actions
at the broad institutional level with outcomes at the level of the individual patient and
hospital employee. Further complicating this endeavor is the addition of a third level of
analysis – the organization – sandwiched between the institution and the individual. In
essence, the framework must consider (1) the manner and extent to which institutional
entities such as accrediting bodies act upon organizations to trigger organizational change
and (2) the potential mechanisms by which such organizational change might impact the
members of the organization as well as its customers.

The theoretical foundation of this dissertation is Institutional Theory and the role
that institutions such as accrediting bodies play in shaping and defining organizational
fields. Of particular interest to the present stream of research is the potential for
accrediting bodies to trigger isomorphic movement within accredited organizations.
Isomorphism has been defined as “a constraining process that forces one unit in a
population to resemble other units that face the same set of environmental conditions”
(DiMaggio & Powell, 1983, p. 149). Accrediting bodies pressure diverse organizations to resemble one another by requiring adoption of commonly legitimized accreditation standards as a price of securing legitimacy in the broader field. As hospital accreditation tends to occur approximately every three years, however, hospitals may be required to actually demonstrate alignment with accreditation standards only occasionally. At other times, hospital attention may be distracted away from matters of accreditation and toward more diverse and immediately pressing initiatives (Ocasio, 1997). It is possible therefore that strict alignment with accreditation standards may not be the status quo in hospitals but rather a temporary response to institutional pressures that become more salient during accreditation inspections.

The Behavioral Theory of the Firm supports the assertion that resource constraints in hospitals and bounded rationality among hospital leaders necessarily limits the degree of attention that such leaders may direct toward a given priority at any given time (March & Simon, 1958; Cyert & March, 1963). Indeed, as hospitals are highly complex systems with limited organizational attention spans, leaders may be most likely to direct attention specifically toward accreditation standards when the value of such directed attention is greatest (i.e. when alignment must be demonstrated in order to maintain legitimacy). At other times, organizational attention may stray toward priorities that carry more immediate import for hospitals (Ocasio, 1997). Such punctuated attention patterns may be particularly likely to emerge when competing institutional demands frame a given isomorphic movement as either convergent or divergent depending on which of the demands receives attention (Kraatz & Block, 2008).
In the present context, the consequence of such tension is the erosion of capacity within hospitals to strictly align with accreditation standards at all times. Nurses in a given hospital, for example, may create shortcuts or workarounds in an effort to achieve internal efficiency goals set by hospital leaders, even though such shortcuts and workarounds may run counter to the principles embodied by formal accreditation standards (see Spear & Schmidhofer, 2005, for a discussion of workarounds as contributors to medical error). As hospital leaders redirect attention toward accreditation standards during reaccreditation periods, such shortcuts and workarounds may be laid aside, at least temporarily, until compliance with accreditation standards is demonstrated. Once reaccreditation is granted, however, the same or similar shortcuts or workarounds may re-emerge, particularly when few internal or external observers are paying attention.

In short, the predictably temporary institutional pressures associated with hospital accreditation may lead to equally predictable periods of attention directed toward accreditation standards within hospitals. It is this cyclical isomorphism and, more specifically, the changes in organizational attention patterns that may trigger changes in outcomes at the micro level.

This dissertation proceeds as follows. Chapter Two builds a conceptual framework to theoretically argue that triennial accreditation inspections may trigger a shift in organizational attention patterns in hospitals. This shift, the framework suggests, may impact clinical outcomes for patients and influence the attitudes of hospital personnel in ways that may affect hospital survivability. Chapter Three presents the first of two empirical studies aimed at testing portions of the conceptual framework. In this study, monthly risk-adjusted mortality rates in fifty-eight New Jersey hospitals are
observed over a ten year period to assess significant changes in mortality rates during accreditation cycles. Chapter Four presents the second empirical study, which examines the extent to which organizational “jolts” caused by reaccreditation inspections trigger reassessment of the legitimacy of the hospital among hospital personnel. Chapter Five summarizes the overarching objectives of the dissertation and expounds on the broader theoretical and practical implications of the various propositions and empirical findings conveyed here. Also, as this dissertation represents but a first step toward understanding cyclical isomorphism and the micro-effects of hospital accreditation, Chapter Five concludes with a discussion of opportunities to expand on the ideas presented here and to explore new avenues of research.
CHAPTER 2

A THEORETICAL MODEL OF CYCLICAL ISOMORPHISM AND THE MICRO-EFFECTS OF HOSPITAL ACCREDITATION

Joint Commission accreditation, perhaps more than anything else, symbolizes institutional legitimacy in the United States healthcare sector. As an institution, the Joint Commission wields considerable power to elicit isomorphic response (i.e. convergence around commonly legitimized standards of structure or action in a given field) among hospitals seeking to attain or maintain accreditation (DiMaggio & Powell, 1983). Classic Institutional Theory (see Meyer & Rowan, 1977; DiMaggio & Powell, 1983; DiMaggio & Powell, 1991) assumes that institutional isomorphism among organizations in a given field is a gradual process with a more-or-less defined end point (i.e. homogeneity). From this perspective, hospitals may be seen as gradually adapting to Joint Commission standards over time. Yet, the accreditation process is predictably cyclical and Joint Commission site visits are temporary evaluations, suggesting the possibility that hospital conformance may be similarly cyclical and temporary in nature.

Within hospitals, the macro-effects of such cyclical isomorphism may be readily apparent. As hospitals prepare for Joint Commission site visits, leaders may direct organizational attention toward reviewing existing protocols, conducting mock inspections of accredited programs, initiating new programs that may be required by the Joint Commission, and performing a variety of other tasks. During site visits, Joint Commission representatives spend approximately one week interviewing staff members, examining documentation, and observing key processes in action. When inspectors

---

1 This paper was co-authored with Jonathan R. Clark (The Pennsylvania State University). It was written and formatted with a goal of publication in a health services theory/review journal.
identify deficiencies, hospitals may fix them on the spot, or establish a strategy to fix them and report back to the Joint Commission once they are fixed. Ultimately, the outcome of this activity is clear – compliance with standards is either adequately demonstrated or it is not.

Once inspectors leave and accreditation is granted, however, hospital leaders may redirect attention back toward addressing the unique challenges within their organizations and their markets. In doing so, they likely reduce the attention devoted specifically to Joint Commission standards, which may potentially constrain their ability to sustain perpetual compliance with these standards (Ocasio, 1997). In short, hospitals may be more likely to become isomorphic when the pressure to demonstrate their legitimacy becomes more salient (e.g., during Joint Commission site visits). When the threat of Joint Commission inspection wanes, hospitals may gradually regress toward heterogeneity, only to repeat the cycle during the next accreditation period (see Figure 2.1).

**Figure 2.1 – The cyclical isomorphism model**

![Diagram showing the cyclical isomorphism model.](image-url)
Although these observations suggest the clear possibility of cyclical isomorphism, what is much less clear is how the effects of such behavior manifest themselves at the micro-level and the corresponding implications for (1) the patients being treated in the isomorphic hospitals and (2) the individuals who work in these hospitals. For example, how does such cyclicality affect an individual clinician’s perceptions of the hospital and its leaders, and how might these perceptions influence his or her job satisfaction and performance? Moreover, how does isomorphic movement at the hospital level (and any corresponding micro-level effects) impact individual patient outcomes? This paper seeks to address these questions by first elaborating on the idea of cyclical isomorphism – supported by preliminary evidence for its existence – and then presenting a theoretical framework for drawing connections between cyclical isomorphic behavior at the hospital level and the micro-effects of this behavior among hospital personnel and patients.

Ultimately, we propose that these individual-level outcomes offer useful barometers of the ability of hospitals to survive in their markets, and that hospital survivability may improve, at least temporarily, as hospitals crest the isomorphic wave.

In deference to Hackman’s (2003) assertion that phenomena are best understood using a multi-level approach we construct our framework by integrating three distinct research streams representing three descending levels of analysis. First, we draw on Institutional Theory to understand how the Joint Commission, as an institutional force, acts upon hospitals to prompt isomorphic change. Second, we reference the Behavioral Theory of the Firm to argue that institutional pressures associated with accreditation may be sufficiently potent to influence the direction of organizational attention within hospitals to the point where patient care processes (and, by association, patient outcomes)
may be impacted. Finally, we draw on the individual legitimacy judgment literature (and its foundations in social psychology) to predict that such direction of organizational attention toward accreditation standards might also trigger a reassessment among hospital personnel of the hospital’s legitimacy. As we build the framework, we offer a number of theoretical propositions intended to direct future empirical research in this largely unexplored domain.

New Contribution

The conceptual framework we present here offers four distinct contributions to the scholarly literature. First, it highlights the potentially cyclical, and hence predictable, isomorphic patterns that hospitals might follow as a result of pressures associated with institutionalized accreditation practices. Second, the framework suggests that a key measure of hospital success, the outcome of the individual patient, may be affected as the hospital moves up and down the isomorphic wave. Third, although accreditation site visits may be disdained by some hospital personnel, we argue that such inspections may trigger improved judgments among personnel of the hospital’s legitimacy if leaders are cognizant of the drivers of these legitimacy judgments. Finally, our framework draws meaningful connections between the micro-effects of cyclical isomorphism among patients and hospital personnel and the ability of hospitals to survive in their markets.

Conceptual Framework

Accreditation Site Visits and Directed Organizational Attention

Institutional legitimacy in the hospital industry. Meyer and Rowan’s (1977) description of institutionalization as achieving formal structure based on myth and
ceremony aptly captures the intangible essence of what has come to be known as Institutional Theory. Classic Institutional Theory rests on the assumption that organizations in a given field come to resemble one another by conforming to some commonly legitimized, though largely taken for granted, standard of structure or action (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). Though early work in this theoretical domain tended to ignore the possibility of differential organizational response to institutional pressures, more recent work has acknowledged that organizations facing such pressures maintain their agency to choose the degree to which they respond to these pressures and the types of actions they take to satisfy institutional demands (Oliver, 1991; Edelman, 1992). Even so, proponents of the theory maintain that organizations in a given field must outwardly achieve some minimal degree of compliance with institutionalized standards or risk losing legitimacy in that field (Greenwood et al., 2008; Kraatz & Zajac, 1996).

Institutional theorists have defined legitimacy in numerous ways (Deephouse & Suchman, 2008) though we prefer Suchman’s (1995) broadly applicable definition, which describes it as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate with some socially constructed system of norms, values, beliefs, and definitions” (p. 574). DiMaggio and Powell (1983) argue that organizational fields become more defined as the organizations operating within those fields place a greater and greater degree of legitimacy upon specific standards of structure or action. As an organizational field matures, mechanisms such as institutional accreditation may arise to coerced alignment with these institutionalized standards as a price of inclusion in the field (see Trapnell, 2007, and Patil & Codner, 2007 for insightful examples of this
phenomenon at work in the higher education field). Though hospitals may choose to pursue accreditation through any one of a variety of accreditation bodies, the Joint Commission enjoys the greatest legitimacy as evidenced by the approximately eighty-two percent of hospitals in the United States that maintain Joint Commission accreditation (Joint Commission, 2012). In effect, Joint Commission accreditation has become the taken-for-granted default status in the hospital industry.

Accreditation bodies such as the Joint Commission often ensure compliance with their standards through periodic onsite evaluations (see Hurt, 1999, as an example of American Bar Association practices for the accreditation of legal education). The Joint Commission has historically dispatched its inspectors to accredited hospitals on an approximately triennial basis with a mission of comparing observed hospital performance to codified standards. At the conclusion of these site visits, the inspectors compile and report their findings to hospital leaders and issue their accreditation decisions. Though hospital accreditation is not directly enforced by law, hospital leaders recognize that the consequences for failing to achieve accreditation – either through defiance or incompetence – may be as deleterious to the well-being of their hospitals as defiance of regulation (see Ashforth & Gibbs, 1990; Hamilton, 2006 for a discussion of the negative effects of losing legitimacy). For example, failure to achieve accreditation may disqualify a hospital from participation in the Medicare program (Social Security Act, 1965), leading to a substantial loss of revenue and, in some cases, financial insolvency. As such, we expect that leaders in hospitals should be inclined to take the steps necessary to ensure that their hospitals maintain accreditation over time.
**Organizational attention.** The physical presence of the Joint Commission in the hospital during a site visit serves to reassert the dominance of the institution over the organization. Or, as Meyer and Rowan (1977) describe it, such presence serves as an “assertion of societal control” (p. 359). The presence of inspectors and the necessity of demonstrating compliance may (1) increase the salience of the specific standards in the minds of hospital personnel and (2) reinforce the notion that personnel must earn (and re-earn with each subsequent accreditation cycle) the approval of the Joint Commission representatives. In short, we argue that accreditation site visits trigger a general direction of attention within hospitals toward accreditation standards – attention that may otherwise be spread across many competing demands and priorities over time.

Of course, the inherent limitation of granting accreditation based primarily on triennial site visits is that the pressure to direct attention toward accreditation standards occurs only occasionally. Consequently, hospitals may risk falling out of compliance with accreditation standards when the pressure to demonstrate compliance becomes less salient. The Behavioral Theory of the Firm supports this assertion (see March & Simon, 1958 and Cyert & March, 1963 for foundational description of the theory). One of the insights of this theory is that organizations, like individuals, have limited attention spans (Ocasio, 1997). This may be particularly true in the healthcare sector where hospitals, as highly complex, adaptive systems, exhibit a great deal of dynamic entanglement in which internal and external players rely on one another to achieve complicated objectives (Begun, Zimmerman, & Dooley, 2003; Eoyang and Berkas, 1999; Marion & Bacon, 2000; Kontopolous, 1993). As such, decision makers within hospitals must
simultaneously manage and prioritize many competing demands in order to satisfy the hospitals’ diverse internal and external stakeholders.

Ocasio (1997) argues that organizational decision makers are most likely to direct attention toward priorities that they deem to hold the greatest “legitimacy, value and relevance to the organization” (p. 198) at any given time. As certain priorities gain value in the eyes of decision makers, other priorities may seem to lose value as they inevitably, though perhaps only temporarily, fade to the background. Given that accreditation decisions rest primarily on observed performance during periodic site visits, a hospital’s capacity to successfully demonstrate alignment with Joint Commission standards carries the greatest value – at least in terms of securing institutional legitimacy – when site visits occur or are likely to occur. At other times, such singular attention toward compliance with accreditation standards may actually constrain the hospital by limiting the ability of its leaders to creatively address other more immediately pressing priorities.

To illustrate more fully, consider organizational attention in terms of a continuum with diffused organizational attention (i.e. simultaneous and equal focus on all priorities) on one end of the spectrum and directed organizational attention (i.e. complete focus on a single priority) on the other. Though hospitals are unlikely to ever reside at either extreme of the continuum, they may experience a good deal of movement along the continuum as decision makers assess and reassess the legitimacy, value, and relevance of competing priorities and strategies. In keeping with Ocasio’s (1997) attention-based view of the firm, hospital leaders may be most likely to direct the greatest degree of attention toward priorities dealing with organizational survival. Achieving Joint Commission accreditation is one such priority given that sustainability may depend on it.
As such, we expect that hospital leaders would direct a disproportionate degree of attention toward compliance with accreditation standards, particularly when a site visit takes place or when a site visit is imminent.

A longitudinal examination of executive meeting minutes from a United States Navy medical command provides preliminary support for this relationship. The subject medical command is comprised of a large medical center and fifteen branch medical and dental clinics. It serves approximately 90,000 beneficiaries including active duty military personnel, their dependents, and military retirees. Using as a guide the most recent accreditation site visit date for this command, we requested and obtained copies of executive-level meeting minutes covering approximately fifteen weeks of activity on both sides of the site visit. We reviewed each set of minutes in detail to assess the degree to which discussion of accreditation became more prominent as the command cycled through the accreditation process.

To quantify prominence, we calculated a “mention per meeting” index at consistent points throughout the observation period. For example, if the subject command held three meetings in a given week but accreditation was discussed only once during the week, then the “mention per meeting” for that week was 1 divided by 3 or 0.3333. It became obvious rather quickly that considerable variation from week to week in terms of meeting frequency and topic discussion would make comparison between weeks difficult and unreliable. To stabilize the effect of this variation, we calculated

---

2 The views expressed in this paper are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or the United States government.
3 Navy hospitals simultaneously submit to two types of accreditation site visits – Joint Commission site visits and site visits conducted by the United States Navy Medical Inspector General. Though the two site visits are distinct and substantively different, the collective goal of both visits is to evaluate the legitimacy of the inspected organization in terms of its concurrent status as both a hospital and a military command. Because both site visits occur simultaneously, we considered any documented discussion of either site visit to be a “mention” of accreditation in the meeting minutes.
rolling five-week averages across the entire observation period. The first five week window, for example, included week -15 through week -11; the second window included week -14 through week -10, and so forth. We calculated a separate “mention per meeting” for each window yielding a total of thirteen separate observations on each side of the site visit date (see Figure 2.2). These observations reveal clear and substantial direction of attention toward accreditation in the weeks immediately surrounding the site visit date.

Figure 2.2 – The “mentions per meeting” of accreditation within a United States Navy medical command

The organizational attention pattern observed in Figure 2.2 may be particularly likely to occur in connection with hospital accreditation site visits because (1) requirements for accreditation are often highly specified and codified and (2) the overt pressure to demonstrate legitimacy is known to be cyclical.\(^4\) In other words, hospital

\(^4\) Historically, hospital leaders knew well in advance when Joint Commission inspectors would be visiting their hospitals. In 2006, however, the Joint Commission began performing unannounced site visits. Even with this change in policy, site visits continued to occur on an approximately triennial basis. Consequently, though the spike in hospital attention around site visits may have flattened a bit, it is likely that it has not disappeared completely. In fact, the analysis presented above emerges from executive meetings that took place well after the new policy took effect.
leaders facing accreditation site visits likely understand precisely what standards their hospitals must demonstrate and the general time frame in which hospital personnel must be prepared to demonstrate them. As such, these leaders may perceive that the cost of temporarily directing a high degree of attention toward compliance and, consequently, directing attention away from other priorities, is feasible and worthwhile. When one considers the potentially disastrous consequences for failing to achieve accreditation, it becomes even more likely that hospital leaders would direct an unusual degree of attention toward complying with accreditation standards when the threat of an accreditation site visit increases. As illustrated in Figure 2.2, however, such direction of attention may be short-lived as the pressure to demonstrate compliance with accreditation standards is gradually replaced by other more immediately pressing priorities once inspectors leave the hospital. Stated more succinctly:

**Proposition 1a:** Hospital leaders will direct a progressively greater degree of attention within their hospitals toward accreditation standards as the threat of an accreditation site visit increases, and will direct a gradually diminishing degree of attention toward accreditation standards as the threat of an accreditation site visit wanes.

Of course, the analysis of organizational attention patterns described above represents but a single organization and research has shown that organizational responses to institutional pressures run the gamut from acquiescence or compromise to defiance or manipulation (Oliver, 1991; Edelman, 1992). Referring specifically to the direction of
organizational attention toward accreditation standards, we assert that a hospital’s response to accreditation pressures may, in fact, be framed by the degree of organizational complexity exhibited by the hospital. Begun, Zimmerman, and Dooley (2003) likened hospitals to complex, adaptive systems with many competing demands and interests. As organizational complexity increases, the quantity and variety of demands placed on the hospital likely expand as well. It follows that as the diversity of pressures facing a given hospital increases, it may become increasingly difficult for the leaders of that hospital to perpetually direct attention toward accreditation requirements (Ocasio, 1997). Consequently, more complex hospitals, by virtue of their complexity, may be more likely to approach heterogeneity when not facing the prospect of an accreditation site visit. Such hospitals may then require greater redirection of attention toward accreditation standards during inspection periods in order to successfully demonstrate legitimacy. In other words, the degree to which the leaders in a given hospital direct attention toward accreditation standards when the threat of a site visit increases may be positively correlated with the degree of organizational complexity exhibited by that hospital.

The Navy medical command described above might be categorized as more complex given the size of its beneficiary base and breadth and variety of its operations. To preliminarily explore the moderating influence of organizational complexity, therefore, we performed a second analysis focusing on a less complex United States Navy medical command. The selected command includes a small community hospital with two branch medical clinics and serves approximately 15,000 beneficiaries including active duty military personnel, their dependents, and military retirees. As with our
previous analysis, we obtained meeting minutes covering approximately fifteen weeks of
activity on both sides of the most recent accreditation site visit date. Figure 2.3 presents
the results of this analysis, superimposed over the results of the more complex command.

**Figure 2.3 – The “mentions per meeting” of accreditation within a more complex
medical command and a less complex medical command**

The less complex command displayed a slight drop in “mentions per meeting”
once the site visits were completed. When compared to the more complex command,
however, the overall effect on organizational attention patterns appears to be much
smaller. Together, these findings bolster the case that (1) institutional pressures
associated with accreditation site visits may prompt hospitals to direct attention toward
accreditation standards to an unusual degree but that (2) the degree of complexity of
hospital operations may moderate the effect of these accreditation pressures on hospital
attention patterns. Thus, we offer Proposition 1b below:
Proposition 1b: The relationships suggested in Proposition 1a will be moderated by the relative degree of complexity of hospital operations, such that hospitals exhibiting greater complexity will display greater direction of attention toward accreditation standards as the threat of an accreditation site visit increases.

In Figure 2.4, we begin building our conceptual framework based on the relationships suggested in Propositions 1a and 1b. With this foundational framework in place, the stage is set to examine the potential micro-effects of cyclical isomorphism on individual patients and hospital personnel. We begin with patients.

Figure 2.4 – Accreditation inspections and directed organizational attention

Directed Organizational Attention and Patient Outcomes

To be sure, a potentially infinite number of factors might conceivably contribute to patient outcomes in hospitals. This is abundantly evident in light of the wide variety of studies that have attempted to link patient outcomes to nurse staffing levels (Blegen, Goode, & Reed, 1998), the use of computer-based clinical decision support systems (Garg et al., 2005), specific managed care configurations (Jha, Joynt, Orav, & Epstein,
2012) and myriad other variables. The vast breadth of scholarly work in this domain is not surprising. After all, the fundamental goal of delivering healthcare services is to improve outcomes for those seeking care. Thus, the value of any program or initiative undertaken in the healthcare sector will almost inevitably be measured by whether it supports or hinders the ability of the hospital to achieve optimal outcomes for its patients. Of course, patient outcomes may also be defined in numerous ways. Perhaps the most obvious outcomes are clinical outcomes such as mortality (death), morbidity (illness), and preventable readmission, though numerous studies have examined such diverse outcomes as patient satisfaction (see Jackson, Chamberlin, & Kroenke, 2001), length of stay (see Zhan & Miller, 2003), wait times (see Bell & Redelmeier, 2004), out-of-pocket expenditures for patients (see Hwang, Weller, Ireys, & Anderson, 2001) and many others. For the sake of this paper, we refer specifically to clinical outcomes.

In making the case that isomorphic behavior among hospitals might impact clinical outcomes, we must first reiterate that institutional isomorphism is, fundamentally, organizational change motivated by a need to align with some institutionalized set of standards (DiMaggio & Powell, 1983). It follows that as hospitals become isomorphic in response to accreditation pressures, they may adjust practices and procedures in order to demonstrate their conformity to accreditation standards and, ultimately, prove their legitimacy. As patient care is the end result of many interdependent practices and procedures that are informed by accreditation standards, a change or disruption at any point could alter the course of care for patients and, ultimately, impact clinical outcomes. The pressing question is whether isomorphic response to accreditation pressures might improve or deteriorate these outcomes. We argue that clinical outcomes would generally
improve as hospitals isomorphically align with accreditation standards. We offer two arguments, one fairly obvious and one more nuanced, to make this case.

The more obvious argument for improvement is the fact that accreditation standards represent “best practices” developed upon rigorous scientific analysis and expert consensus (Joint Commission, 2012). Thus, as hospital leaders place renewed emphasis on applying these standards in the patient care environment, patients will likely do better (Moffett & Bohara, 2005). For example, the rate of preventable readmission in a given hospital may improve as hospital personnel direct greater attention toward Joint Commission Standard IM.6.10, EP7, which mandates that discharge summaries accompany all discharged patients and that each summary include six key informational components (Kind & Smith, 2008). Indeed, research has shown that the risk of re-hospitalization decreases when patients are assessed post-discharge by physicians who are in possession of the discharge summary (van Walraven, Seth, Austin, & Laupacis, 2002). Moreover, incomplete discharge summaries have been shown to adversely impact follow-on care for some patients (Spatz, Engel, Hölzel, & Jauch, 2001; Coleman, 2003; Kripalani et al., 2007).

Less obvious is the independent positive effect that the direction of organizational attention toward accreditation standards might realize upon the team of individuals who care for the patients. This includes doctors, of course, but also nurses, physical therapists, pharmacists and a variety of other clinical personnel who work together throughout the patient care process. Even the actions of administrative personnel might conceivably contribute to the individual patient’s experience in ways that might improve or deteriorate clinical outcomes (e.g., an administrator might issue a policy that improves
or exacerbates existing patient hand-off procedures, affecting the likelihood that care coordination would be successful. Because patient outcomes depend on the collective action of such diverse actors – actors that are often separated by professional training, physical distance and a variety of other complicating factors – the relative success that these actors collectively achieve may be influenced by the degree to which they achieve unity of purpose and action (Stille et al., 2005). As hospital leaders direct greater attention toward accreditation standards, they are, in effect, re-emphasizing a commonly legitimized script for each of the actors to follow. We argue that this reaffirmation of the common script may increase the possibility that the interactions between actors will be more efficient and more effective, resulting in better care for the patient.

Of note, this assertion departs significantly from classic Institutional Theory, which suggests that organizations cope with institutional pressures by “decoupling” their formal structure from their core activities (Meyer and Rowan, 1977). In other words, the theory suggests that organizations might shield the personnel responsible for achieving the central mission of the organization from outside distractions while tasking those responsible for maintaining the formal structure of the organization with addressing those distractions. In the context of the hospital, this might equate to clinicians being allowed to continue treating patients unhindered while administrators ensure that institutional pressures are adequately addressed. Of course, because hospital accreditation largely concerns the hospital’s core mission (the provision of patient care), any effort to decouple the core from the structure is misguided. Rather, another type of decoupling likely occurs – a temporary decoupling of the diverse actors from their individualized routines and priorities, with a subsequent coupling of these actors to the common script.
Taken together, we argue that (1) an increased direction of attention within hospitals toward applying best practices and (2) the adoption of a common script among diverse actors in the patient care process will contribute to improved clinical outcomes for patients during accreditation cycles. Simply put:

*Proposition 2a: As hospital leaders direct greater organizational attention toward accreditation standards clinical patient outcomes will improve.*

By proposing that patient outcomes are linked to organizational attention patterns, we must also assume that patient outcomes might regress toward “normal” levels as hospital leaders redirect attention toward more diverse priorities once inspectors leave and accreditation is granted. On the surface, this statement seems counterintuitive. Why would hospital leaders allow gains in patient outcomes, particularly clinical outcomes, to slip away? The most obvious reason is that these leaders may simply be unaware of any significant and concrete changes in the outcomes of their patients, even as attention is directed toward accreditation standards.

Such a scenario may be particularly likely to occur if administrators or clinicians perceive institutional legitimacy – rather than improved patient outcomes – as the greatest gain to come from the accreditation site visit. Once accreditation is granted and legitimacy is secured, these individuals may perceive diminished value in maintaining such directed attention. Levitt and March (1988) suggested that as organizations learn, they tend to select and preserve routines that are either associated with prior success or perceived to be the best among a pool of alternative routines. Because hospital
accreditation is not new, most hospital leaders have accumulated considerable first-hand experience cycling through accreditation periods. This experience may reinforce the notion that a temporary direction of attention is sufficient to achieve accreditation. When ongoing compliance with accreditation standards fails to yield an “increased degree of accreditation,” hospital leaders may shift attention toward more pressing concerns – concerns that may yield a greater immediate return for their investment of money, time, or other valuable resources. Consequently, any improvement in outcomes triggered by the hospital accreditation process may go unnoticed and forgotten.

It is also possible that certain hospitals may be less capable of maintaining perpetual alignment with accreditation standards over time. One key factor related to this capacity may be the degree of resource slack within the hospital. Hospitals that are affiliated with larger health systems, for example, may exhibit a greater degree of slack resources than stand-alone hospitals by virtue of system affiliation (Shimizu & Hitt, 2004; Sanchez 1995; Ginn & Lee, 2006). This resource slack may enhance the strategic flexibility of the hospital by allowing hospital leaders greater capacity to simultaneously address a wider variety of competing demands (Kraatz & Zajac, 2001). In other words, such hospitals may be better able to sustain alignment with accreditation standards over time because increased resource slack allows leaders in these hospitals to continue directing attention toward accreditation requirements even as increasing numbers of competing organizational pressures become more salient.

In summary, we propose that any improvements in clinical outcomes that are triggered by accreditation site visits will likely dissipate as hospitals redirect attention toward more diverse priorities once accreditation is granted. This fluctuation may be less
likely to occur, however, in hospitals that are better able to sustain alignment with accreditation standards between site visits (e.g. hospitals with greater resource slack). Thus we offer two additional propositions below. We add these relationships, as well as the relationship suggested in Proposition 2a, to our foundational model in Figure 2.5.

Proposition 2b: As hospital leaders redirect organizational attention toward more diverse priorities following completion of an accreditation site visit, clinical patient outcomes will regress back toward the mean.

Proposition 2c: The relationships suggested in Proposition 2a and Proposition 2b will be moderated by the hospital’s degree of resource slack, such that hospitals with greater resource slack will be less likely to exhibit fluctuation in clinical patient outcomes during accreditation cycles.

Figure 2.5 – Directed organizational attention and patient outcomes
Second only to patients in importance to hospitals is the cadre of personnel that treat those patients, manage facilities and perform myriad other tasks. Hospitals routinely experience considerable difficulty in recruiting and maintaining qualified personnel to effectively meet the diverse needs of the patients that enter their doors. Consequently, just as a given hospital must weigh the value of a given course of action by the impact it might have on patient outcomes, it must also consider whether such action might attract or alienate the personnel working there.

Though cyclical isomorphic behavior at the hospital level may conceivably impact hospital personnel in a variety of ways, we focus specifically on the effect that it may exert on the individual’s judgment of the hospital’s legitimacy. To begin this section of the paper, we discuss how this type legitimacy differs from the institutional legitimacy described previously. We then describe the process by which individuals assess and reassess organizational legitimacy. Finally, we argue that the direction of organizational attention toward accreditation standards might, under certain circumstances, be sufficiently potent to trigger a reassessment of organizational legitimacy among hospital personnel.

**Directed Organizational Attention and Perceived Legitimacy**

Tyler (1997) defined the type of legitimacy that individuals bestow upon leaders, groups and organizations as “the belief that authorities are entitled to be obeyed” (p. 323, emphasis added). Major and Schmader (2001) take a different approach by defining legitimacy as “subjective perceptions of the fairness or justice of the distribution of socially distributed outcomes” (p. 180). For the sake of this discussion, we combine
these definitions to argue that a given authority is entitled to be obeyed, and is therefore legitimate, when it is seen as distributing desired outcomes in a just and fair manner.

Further, we apply Tost’s (2011) integrative model of legitimacy judgments to make the connection between the direction of organizational attention toward accreditation standards and the reassessment of legitimacy judgments among hospital personnel. This model suggests that the average hospital employee is likely to create his or her initial judgment of the hospital’s legitimacy within the first few days or weeks of association with the hospital. Once this initial judgment has been formed, the individual is likely to put it into use by employing it as a lens through which to judge the relative value of future hospital policies, programs, and procedures. In other words, a favorable initial judgment of legitimacy might prompt the individual to perceive any subsequent actions taken by the hospital in a more favorable light while a perception of poor legitimacy might prompt negative reaction toward hospital policies or actions.

Whatever the nature of the initial judgment, it is likely to remain in use unless something occurs to jolt the organizational environment with sufficient force to trigger a “mental alarm” within the individual (Lieberman & Eisenberger, 2004). We argue that a clear direction of organizational attention toward accreditation standards might introduce such a jolt. To make this case, however, we must first explore the specific triggers that might prompt judgment reassessment. Tost (2011) describes three broad categories of triggers. We describe each in more detail below.

**Triggers of instrumental legitimacy.** A given organization is more likely to be perceived as legitimate by its members when it is perceived to value and advance the instrumental interests and needs of the individual (Hollander, 1980; Hollander & Julian,
1970). As hospitals direct greater attention toward accreditation standards, various instrumental aspects of the individual’s work environment may be jolted with sufficient force to trigger a reassessment of the hospital’s instrumental legitimacy. For example, the role of the individual in the work team or in the department might shift if the department head or team leader determines that current practices are inadequate to meet accreditation standards. Such action may serve to increase individual role clarity – an instrumental need – as diverse actors adopt a common script (Ivancevich & Donnelly, 1974).

On the other hand, such action may potentially introduce role ambiguity, at least temporarily, until new processes are firmly established (Biddle, 1986). Similarly, as individual roles are adjusted, some department heads and team leaders may offer specific training to their subordinates – another instrumental need – though others may neglect training altogether and simply expect their subordinates to pick things up as needed (see Fernandez & Rainey, 2006, for a discussion of the importance of training during periods of organizational change). Finally, given the high organizational stakes involved in accreditation site visits, the relative value of individual successes and the relative detriment of individual failures may be amplified when it comes awarding such instrumental needs as promotions and salary increases.

In short, hospital personnel may be particularly sensitive to the perceived degree of support that they receive from their leaders in fulfilling their job responsibilities during accreditation cycles. As such, any departure from expectation during such times (e.g. the normally unhelpful supervisor who stays after hours to assist a struggling subordinate)
may be more likely to trigger a reassessment of instrumental legitimacy within the individual.

**Triggers of relational legitimacy.** Hospital personnel may also be more likely to reassess the relational legitimacy of their hospitals during accreditation cycles. Organizations gain greater relational legitimacy in the eyes of their members when they “affirm individuals’ social identities and bolster their sense of self-worth” (Tost, 2011: p. 690; see also Tyler, 1997, Tyler & Lind, 1992). Such affirmation commonly occurs (or, in some cases, fails to occur) as supervisors acknowledge the work of their subordinates. Indeed, research suggests that the recognition of both successes and failures carries tremendous weight in influencing subordinate perceptions of fairness and justice in the organization (Luthans, 2000; Leung, Su, & Morris, 2001). Because accreditation site visits are emotionally laden events (Gaddis, Connelly, & Mumford, 2004) due to the inherent stress associated with them and the increased visibility of any successes or failures, we would expect that individuals would be particularly sensitive to the distribution of praise and criticism during such times.

For example, individuals who are specifically recognized from among their peers for exemplary work during an accreditation site visit might take greater satisfaction than they normally would in such recognition, given the stress of the site visit. On the other hand, individuals who expect praise during such times may be even more disappointed than they normally would if they perceive (1) that organizational leaders do not adequately recognize or appreciate their efforts or (2) that their peers receive greater recognition than they do. The negative impact of criticism during such times may be particularly distressing given the fact that negative emotional reactions tend to exert
disproportionately stronger effects on individual attitudes than positive ones (Gaddis, Connelly, & Mumford, 2004; Taylor, 1991). The effect may be even more detrimental if the negative feedback is viewed as inconsiderate and unsupportive or if the person giving the feedback displays negative emotions (Baron, 1990; Ilgen, Peterson, Martin, & Boeschen, 1981; Weisinger, 1989).

**Triggers of moral legitimacy.** Beyond the instrumental and relational factors described above, individuals may judge the legitimacy of their hospitals on moral grounds (Leach, Ellemers & Barreto, 2007). An example of this phenomenon at work on a broader scale comes from Skitka, Bauman, and Lytle’s (2009) study of perceived legitimacy of the U.S. Supreme Court. These researchers observed that the degree of individual moral conviction on the subject of physician-assisted suicide observed prior to the court’s ruling on the subject was predictive of the individual’s judgment of the court’s legitimacy following the ruling. In a similar manner, hospital personnel may ascribe a greater or lesser degree of moral legitimacy to their hospitals depending on whether the hospitals are seen as engaging in activities that affirm or undermine their personally held morals and values.

Accreditation inspections, we argue, serve to reassert within hospitals the core values espoused by the greater healthcare institution. The Joint Commission mission statement, for example, indicates a commitment to “continuously improve health care for the public, in collaboration with other stakeholders, by evaluating health care organizations and inspiring them to excel in providing safe and effective care of the highest quality and value” (Joint Commission, 2012). A hypothetical sampling of hospital mission statements would undoubtedly reveal many of the same themes, though
the actions of these hospitals may not always be perceived by hospital personnel to align with them. As hospitals strive to align (or realign) with specific standards during accreditation cycles, they may be perceived by their personnel as reasserting the core institutional values enshrined in the Joint Commission mission statement. If these personnel enjoy a sufficient degree of moral investment in the same institutional values, they may be more likely to reassess the legitimacy of their hospitals on moral grounds during such times.

It is important to emphasize that responsiveness to any of the legitimacy triggers described above is likely to be highly individualized and specific to the organizational context. Thus we do not pretend to suggest that a temporary direction of attention toward accreditation standards will automatically trigger judgment reassessment among all hospital personnel, or that individual responses will be the same or even similar. Rather, we argue simply that the organizational environment may become more favorable for judgment reassessment during reaccreditation cycles. Thus, we offer the following proposition:

**Proposition 3a**: As hospital leaders direct a greater degree of organizational attention toward accreditation standards when the threat of an accreditation site visit increases, hospital personnel will be more likely to reassess the legitimacy of their hospitals on instrumental, relational, and/or moral grounds.

As with patient outcomes, we assert that any changes in individual legitimacy judgments may evaporate as hospital leaders redirect attention toward routine priorities.
Stated in terms of Tost’s (2011) legitimacy judgment model, we would expect that the “jolt” introduced by the direction of organizational attention toward accreditation standards might trigger reassessment of the individual’s legitimacy judgment (either positively or negatively) but that the individual might choose to discard the new judgment and resume the old one if he or she perceives that the organization has not really changed. In other words, unless a given hospital is able to sustain the instrumental, relational, and moral factors that contributed to triggering judgment reassessment during the accreditation cycle, chances are high that the new judgment would eventually be discarded and the original judgment would be reinstated. As organizational attention patterns return to “normal” following an accreditation site visit, such a scenario may be increasingly likely to occur:

Proposition 3b: As hospital leaders redirect attention toward routine priorities following an accreditation site visit, individuals who had reassessed the legitimacy of their hospitals during the accreditation cycle will be more likely to discard their new legitimacy judgments and reinstate their original judgments.

The wide variety of scenarios described in the previous paragraphs illustrates the potentially innumerable scope of moderators that might impact (1) the likelihood of judgment reassessment, (2) the nature of the judgment, and (3) the likelihood of putting into use the new judgment. We will specifically discuss just a few of them here. At the individual level, for example, a person’s status as a leader or non-leader may influence the likelihood that he or she would actively reassess organizational legitimacy during
accreditation cycles. Indeed, as organizational leaders are the ones who direct attention within organizations, any changes in organizational attention patterns likely reflect the strategic and tactical decisions of the leaders and would not necessarily be perceived as straying from the status quo. In contrast, we expect that non-leaders would be particularly sensitive to changes in the direction of organizational attention as they exert little control over the direction of attention but must deal with the outcomes of changes in organizational attention patterns.

Moreover, an individual’s professional affiliation (e.g. physician, nurse, technician, administrator, etc.) may influence his or her propensity to form and retain new legitimacy judgments and may influence the nature of those judgments. A physician, for example, may be more likely to positively reassess the legitimacy of his or her hospital during a site visit if he or she perceives that a direction of attention toward accreditation standards might improve his or her ability to practice medicine the way he or she would like. Conversely, a mid-level administrator who values financial sustainability above all else might be prompted to reassess the hospital’s legitimacy in a more negative light if he or she observes that the attention directed toward clinical quality hinders his or her ability to maintain the financial stability of the hospital.

Similarly, prevailing organizational norms and established leadership styles in hospitals may not only prompt individuals to perceive isomorphic organizational changes in different ways but may also influence the likelihood that judgment reassessment might occur as a result of these perceptions. For example, the frustrated administrator described above may be less likely to reassess the legitimacy of his or her hospital if he or she understands from past experience and through reassurance from his or her superiors that
hospital operations will return to normal in the weeks following an accreditation site visit. The physician, on the other hand, may be more likely to reassess his or her judgment in a positive light and also retain and put into use the new judgment if (1) he or she knows from past experience that organizational changes tend to stick and (2) his or her superiors positively reinforce that knowledge through word and action. Thus we offer the following proposition:

**Proposition 3c:** The relationships suggested in Proposition 3a and Proposition 3b will be moderated by diverse factors at the individual level (e.g. status, professional affiliation, etc.) and the organizational level (e.g. leadership style, organizational norms, etc.)

**Cyclical Isomorphism and Hospital Survivability**

In the previous sections, we discussed at length the potential impact of accreditation inspections on the two populations of greatest immediate importance to hospitals – the patients who enter hospital doors to be treated and the personnel who make the treatment possible. We argued specifically that patient outcomes would likely improve as hospitals crest the isomorphic wave but that any improvements would likely fade as hospitals slide back toward heterogeneity in the weeks and months following accreditation site visits. Additionally, we proposed that hospital personnel would be particularly likely to reassess their individual judgments of the legitimacy of their hospitals during accreditation site visits and that these new judgments may become either more negative or more positive than the original ones, depending on specific individual
and organizational factors. As with patient outcomes, however, we proposed that these new judgments may be discarded as hospitals gradually return to “business as usual.” We combine these relationships in our growing conceptual framework in Figure 2.6.

**Figure 2.6 – Directed organizational attention and perceived legitimacy**

We assert that changes in outcomes at either level could potentially indicate a change in the ability of a given hospital to thrive, or even survive, in its market. Individual perceptions of the instrumental, relational and/or moral legitimacy of the hospital, for example, may collectively paint a picture of the general state of the organizational climate in the hospital. Indeed, organizational climate has been defined as
“an experientially based description of what people see and report happening to them in an organizational situation” (Ostroff, Kinicki, & Tamkins, 2003, p. 566). If hospital climate improves then physicians, nurses, and other difficult-to-recruit professionals may be more likely to remain loyal to the hospital. Conversely, as climate deteriorates hospitals may face increasing difficulty in keeping their people (see Stone et al., 2006, and Gregory et al., 2007, for descriptions of this phenomenon among registered nurses). Stated more succinctly, hospitals with poorer climates may operate at a significant human resource disadvantage relative to their competitors – a disadvantage exacerbated by the chronic shortage of professionals such as nurses (May, Bazzoli, & Gerland, 2006).

**Proposition 4a: Changes in legitimacy judgments among hospital personnel that are triggered by increased direction of attention toward accreditation standards will impact the survivability of the hospital.**

Changes in patient outcomes may also signal a change in hospital survivability given the broad external visibility of hospital performance markers today. The United States Department of Health and Human Services, for example, offers “Hospital Compare,” an online tool that allows consumers to instantly compare performance among over 4,000 Medicare-certified hospitals on things such as mortality and readmission rates (United States Department of Health and Human Services, 2012a). As individual consumers become more knowledgeable of these performance measures, hospitals with better performance may realize a competitive advantage in attracting patients. Perhaps of more immediately pressing concern to hospitals is the fact that the Affordable Care Act
mandates that quality measures such as readmission rates be used as a basis for reimbursement by the Medicare program (United States Department of Health and Human Services, 2012b). Thus, hospitals that struggle to achieve mandated patient outcomes risk being penalized.

*Proposition 4b: Changes in patient outcomes that are triggered by increased direction of attention toward accreditation standards will impact the survivability of the hospital.*

In summary, we argue that cyclically isomorphic behavior spawned by hospital accreditation practices will likely trigger movement in both barometers. For clinical patient outcomes, this movement is likely to be positive. For legitimacy judgments among hospital personnel, this movement could be positive or negative, depending on specific individual and organizational factors. In either case, movement is likely to occur. As such, hospital leaders who are aware of the movement may be better positioned to either capitalize on positive change or mitigate the effects of negative change. On the other hand, hospital leaders who fail to recognize movement in either barometer may struggle to compete in their markets, particularly if their competitors recognize and capitalize on the movement in their own barometers. We complete our conceptual framework by incorporating the final two propositions (see Figure 2.7 on page 38).
Figure 2.7 – Complete theoretical framework

- **Hospital Survivability**
  - **Clinical Patient Outcomes**
    - Mortality, Preventable Readmission, etc.
  - **Individual Judgment of Org. Legitimacy** (Relational, Moral, Instrumental)
    - (+)
  - **Organizational Differences**
    - Leadership Style, Organizational Norms, etc.
  - **Complexity of Hospital Operations**
    - (+)
  - **Threat of an Accreditation Site Visit**
    - (+)
  - **Individual Differences**
    - Status, Professional Affiliation, etc.
  - **Hospital Resource Slack**
    - (−)

(+/−)
Discussion

Contributions. This framework offers four distinct contributions to the scholarly literature. First, it highlights the potentially cyclical, and hence predictable, isomorphic patterns that hospitals might follow as a result of institutionalized accreditation practices. Within the Institutional Theory literature, it is assumed that institutional isomorphism among organizations in a given field is a slow process with a more-or-less defined end point (i.e. homogeneity). Figure 2.1 suggests, instead, that hospitals might routinely and rather frequently move in and out of states of isomorphic homogeneity as the threat of accreditation site visits becomes more or less salient. If it were not so, then an observer would witness little or no change within hospitals as the hospitals cycle through accreditation periods. In reality, the activity level within hospitals often becomes substantially more frenetic when a site visit is imminent. Programs may be reviewed and adjusted, individuals may be trained on how to respond to questions, and hospital spaces may be inspected more thoroughly to ensure compliance. In an attempt to reduce such behavior, the Joint Commission recently moved toward conducting unannounced site visits. Yet, these site visits continue to occur with more or less the same frequency as before the change. Hence, the isomorphic waves may have flattened a bit but likely have not disappeared completely.

Second, the model suggests that perhaps the most important measure of hospital success, the outcome of the individual patient, may be affected as the hospital moves up and down the isomorphic wave. Though improvements in patient outcomes during accreditation cycles would underscore the value of the institutionalized standards, variation in patient outcomes in temporal relation to accreditation site visits might call
into question the efficacy of the accreditation process itself. In granting accreditation, the Joint Commission should reasonably expect that the accredited hospital would maintain minimum standards at all times. This is, after all, the value of accreditation; the Joint Commission seal implies a minimum level of compliance with institutionalized standards. If the propositions outlined above are ultimately supported by empirical research, however, then hospital accreditation may have real value only when hospital leaders perceive an increased threat of an accreditation site visit. This point may be particularly true for hospitals where perpetual compliance with the institutionalized accreditation standards may be more difficult (i.e. hospitals with relatively little resource slack).

Third, although accreditation site visits may be stressful and are often disdained by hospital personnel, it is possible that these site visits may actually result in improved judgments among personnel of their hospital’s legitimacy. As described above, any reassessment of legitimacy is likely to be informed by a variety of organizational and individual factors. Even so, hospital leaders that recognize specific instrumental, relational, and moral triggers of legitimacy judgment may be able to channel them to their advantage during accreditation cycles.

Finally, our framework draws meaningful connections between the micro-level outcomes described previously and the ability of the hospital to survive and thrive in its market. Given the perpetual struggles facing hospitals (financial and otherwise) a greater understanding of these connections would offer clear theoretical and empirical value. Furthermore, a better understanding of the micro-effects of hospital accreditation on patients and hospital personnel would offer much practical utility to hospital leaders and
policy analysts. If, for example, hospital leaders recognize the potential for accreditation site visits to impact hospital survivability (beyond just the value of the accreditation itself), they may be more likely to recognize and foster the specific organizational changes that contribute to improved clinical outcomes and strengthened perceptions of hospital legitimacy among employees.

**Limitations and opportunities for future research.** Of course, the model we present here represents but a first step toward understanding the impact of accreditation site visits on patients and hospital personnel. As such, it exhibits some limitations. Most notably, we recognize that by categorizing patient outcomes in a rather broad way (i.e. “clinical” outcomes) we necessarily lose some ability to make meaningful predictions about the effect of directed organizational attention on those outcomes. We did this for two reasons. First, the overwhelming variety of clinical outcomes made it simply impractical to attempt to predict any particular outcome with greater specificity. Second, by defining the outcomes so broadly, we hoped to allow greater applicability and freedom when researchers attempt to test these propositions empirically. Finding conflicting evidence when alternative outcomes are considered would, in reality, serve to enrich any discussion spawned by the framework. It is possible that the direction of organizational attention toward accreditation standards may exert a positive impact on one clinical outcome while simultaneously exerting a negative impact on another. A hospital that offers a diverse service line but specializes in a particular service, for example, may potentially see a reduction in quality within the specialty service as hospital resources are redirected elsewhere in order to satisfy accreditation requirements in flagging service lines.
Similarly, a clear direction of attention toward clinical care processes may inadvertently impact non-clinical outcomes such as patient satisfaction. Though research has shown that self-reported patient experiences of care are generally related to measures of the technical quality of care in hospitals (Isaac, Zaslavsky, Cleary, & Landon, 2010), situations certainly arise where patient care is technically good but where the service experience is poor (see Daley, 2001 and Eisenberg, 2001 as an example). Thus, an exploration of the theoretical connection between directed organizational attention and non-clinical outcomes would be particularly informative.

Another notable limitation (and, by association, an additional area for future research) stems from our choice to focus specifically on individual legitimacy judgment as an outcome of interest rather than examining a more diverse set of predictors of overall “fit” with the hospital environment (see Kristof-Brown, Zimmerman & Johnson, 2005, for a comprehensive meta-analysis of the voluminous Person-Environment Fit literature). To be sure, there is considerable overlap between the two paradigms. Job satisfaction, for example, may be both an instrumental need that triggers legitimacy judgment and a predictor of person-job fit. Yet there are aspects of P-E Fit Theory (e.g., fit with the work team, etc.) that lay well beyond our conceptual framework, but may nevertheless influence the likelihood that an individual will engage in judgment reassessment during a hospital accreditation cycle. Research suggests, for example, that individuals tend to be passive judges of their surroundings – judges that rely largely on validity cues from peers – unless jolted to actively reassess the surroundings (Gilbert, 2002; Kahneman & Frederick, 2002; Lieberman, 2003; Tost, 2011). Assuming that the tendency to rely on validity cues from fellow group members is correlated with the individual’s strength of fit
with the group, it is conceivable that the degree of group fit may moderate the relationships suggested in Propositions 3a and 3b. In short, future work associated with this framework may benefit from inclusion of this and other relevant “fit” constructs.

In spite of these limitations, the conceptual framework we offer is a promising base camp from which to begin exploring this largely uncharted mountain. The framework focuses on commonly accepted constructs in the relevant literatures, making it an appropriate place to start. Certainly the presence of various other constructs in these and other literatures suggest a multitude of avenues for future research that stretch beyond the propositions outlined here.

**Conclusion**

The Joint Commission seal of accreditation symbolizes institutional legitimacy in the healthcare sector. Hospitals earn this seal by successfully completing accreditation site visits, which occur approximately every three years. This predictably cyclical accreditation process may create waves of isomorphic response among hospitals seeking to maintain accreditation. Though institutional theorists have extensively observed and documented institutional isomorphism at the macro level, the literature remains relatively silent regarding the micro-effects of isomorphic organizational change, particularly the cyclical isomorphic movement predicted here. Such micro-effects are potentially innumerable, though this paper specifically explored the impact of accreditation site visits on clinical patient outcomes and on the likelihood that hospital personnel would actively reassess the legitimacy of their hospitals. The resulting conceptual framework integrates three prominent, though largely distinct, research streams including Institutional Theory,
the Behavioral Theory of the Firm, and the individual legitimacy judgment literature (with its foundations in social psychology).

Though compelling from a theoretical perspective, a clearer understanding of the micro-effects of hospital accreditation on patients and hospital personnel offers much practical utility for hospital executives and policy analysts. If, for example, hospital personnel judge that hospital legitimacy improves during an accreditation cycle, then hospital leaders might take more active measures to cultivate the organizational environment created by the accreditation process. More importantly, by predicting a positive association between isomorphic movement among hospitals and changes in patient outcomes, the conceptual framework simultaneously emphasizes the value of the institutionalized standards but, perhaps, calls into question the efficacy of the accreditation process itself.
The Joint Commission’s move toward unannounced site visits in 2006 clearly underscores its goal to ensure more consistent compliance with its standards among accredited hospitals between site visits (Joint Commission, 2012). As Joint Commission standards are intended to inform a host of practices associated with preventing adverse patient outcomes, and accreditation signals a satisfactory level of adoption of these practices, there should be no significant fluctuation in patient outcomes if hospital compliance remains sufficiently consistent before, during, and after an accreditation site visit, ceteris paribus. However, prior research on the implementation of practices in health care organizations (especially those related to quality improvement) points to the likelihood of inconsistency in the use of such practices, even after they have been “adopted” (Nembhard, Alexander, Hoff, & Ramanujam, 2009). If this is the case, we might expect to see cyclical movement in patient outcomes in close temporal proximity to accreditation site visits.

Although perpetual compliance with Joint Commission standards remains a real possibility, organization theory suggests that the predictably cyclical pressure exerted by the Joint Commission (even when site visits are, technically, unannounced) may lead to equally predictable patterns in the direction of attention toward these standards (Ocasio, 1997). Such punctuated attention patterns may be particularly likely to emerge where pluralistic institutional demands frame a given change as either convergent or divergent.

---

5 This paper was co-authored with Jonathan R. Clark (The Pennsylvania State University). It was written and formatted with a goal of publication in an applied health services research journal.
depending on the observer, and where organizational stability may be tenuous (Kraatz & Block, 2008).

We explore these possibilities by examining monthly patterns in risk-adjusted rates of inpatient mortality, particularly in close temporal proximity to hospital accreditation cycles. We do so with the intention of addressing four important and related issues: (1) the extent to which Joint Commission standards are in fact effective at improving mortality rates (2) the extent to which mortality rates ebb and flow with the inspection cycle, indicating cyclical compliance with Joint Commission standards, (3) the extent to which cyclical compliance (or the sustainability of practice implementation) depends on the characteristics of the hospital in question, and (4) the extent to which any fluctuation in risk-adjusted mortality rates is ameliorated when site visits are unannounced. These issues carry clear implications for managers, as well as significant meaning at the policy level in terms of both the value of the standards themselves and the process by which accreditation is granted.

**Conceptual Framework**

Classic Institutional Theory posits that organizations gain legitimacy as they gradually come to resemble one another by demonstrating alignment with commonly legitimized standards of structure or action within the organizational field (Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Suchman, 1995). Joint Commission accreditation, for example, symbolizes institutional legitimacy in the hospital industry because it signals alignment with commonly legitimized standards of quality in healthcare delivery (Joint Commission, 2012). In reality, hospitals face considerable
pressure to attain and maintain such institutional accreditation (Greenfield & Braithwaite, 2008; Chen, Rathore, Radford, & Krumholz, 2003) or risk suffering the consequences of losing legitimacy (Hamilton, 2006), which may include exclusion from participation in the Medicare program (Social Security Act, 1965).

Though Institutional Theory might predict a gradual (and perpetual) alignment with Joint Commission standards over time, other research suggests that health care organizations struggle to sustain the practices they attempt to implement (Nembhard, Alexander, Hoff, & Ramanujam, 2009) and that organizational attention and effort fluctuate with situational circumstances (Ocasio, 1997; Cyert & March, 1963). Such fluctuation may be particularly likely to emerge in hospitals, where pluralistic institutional pressures introduce organizational tension as competing institutional demands battle for priority (Kraatz & Block, 2008). Indeed, viewing hospitals and their practices through the lens of institutional pluralism suggests a rougher, and perhaps more cyclical, pattern when it comes to the adoption of Joint Commission standards. More specifically, given that attention is a finite resource, the pluralistic demands placed on hospitals may lead to accreditation alignment patterns that fluctuate around inspections, when organizational attention is most likely to be affixed to the Joint Commission. If this is the case, we would expect that patient outcomes might also vary as hospitals cycle through site visits.

To explore this possibility, we examine changes in risk-adjusted mortality rates within hospitals. We specifically chose mortality because it represents a fundamental objective of virtually all practices that are informed by Joint Commission standards – the prevention of patient death. Research has shown that the likelihood of patient death
decreases as hospital personnel adhere to certain infection control protocols (Klevens et al., 2007; Burke, 2003), staffing practices (Aiken et al., 2008; Aiken et al., 2002), information management procedures (Bates & Gawande, 2003; Karch, 2004) and various other practices that are directly informed by Joint Commission standards. It follows that as hospital personnel direct a greater degree of attention toward such Joint Commission standards when they face pressure from the Joint Commission and their local leaders to demonstrate those practices (i.e. during and just after an on-site visit), then patients may be less likely to die in the hospital. Of course, this assertion also suggests that any improvement in mortality rates may fade as hospital leaders redirect attention back toward more immediately pressing priorities and, by consequence, away from Joint Commission standards as the pressure to demonstrate compliance wanes (Ocasio, 1997).

Though the attention hospital personnel direct toward accreditation standards may ebb and flow with accreditation site visits, and there is suggestive evidence in the literature supporting this pattern (Moffett & Bohara, 2005), hospitals may also vary in their capacity to implement and sustain such standards, even in the absence of the need to demonstrate compliance with them. One key factor related to this capacity may be resource slack in the hospital. Resource slack may enhance the strategic flexibility of hospitals by allowing hospital leaders greater capacity to simultaneously address a wider variety of competing demands (Kraatz & Zajac, 2001). In other words, hospitals with greater resource slack may be better able to sustain alignment with accreditation standards over time because leaders in such hospitals may be more capable of continuing to direct attention toward accreditation requirements even as increasing numbers of competing organizational pressures demand greater and greater resource commitment.
Hospitals that are affiliated with larger health systems, for example, may exhibit a greater degree of resource slack than stand-alone hospitals by virtue of system affiliation (Shimizu & Hitt, 2004; Sanchez 1995; Ginn & Lee, 2006). Similarly, hospitals with more technologically advanced capabilities and service lines may exhibit greater resource slack given the substantial investments in equipment and personnel necessary to offer such services. Ultimately, we would expect to see decreased fluctuation in risk-adjusted mortality rates as hospital resource slack increases.

**Data and Methods**

**Setting and Data Sources**

We obtained ten years of hospital discharge data (1999-2008) for the state of New Jersey from the Healthcare Cost and Utilization Project (HCUP) State Inpatient Database (SID). The HCUP SID is one of a family of databases that is administered by the Agency for Healthcare Research and Quality (AHRQ) and compiled in collaboration with public and private state-level data organizations. Unlike the Nationwide Inpatient Sample (NIS), which draws a distinctly different twenty percent sample of hospitals each year, the SID includes data for the same hospitals year after year. These hospitals are identified in the individual state databases using the American Hospital Association Identification Numbers (AHAIDs). Each state database contains a variety of data elements obtained from individual discharge records. These data elements include patient demographic characteristics, admission/discharge dates, diagnosis and procedure information, disposition and many other variables (see Steiner, Elixhauser, & Schnaier, 2002, for a useful overview of the HCUP). We obtained documentation for all Joint
Commission site visits for each of the hospitals in our sample using the public-facing Joint Commission website.

**Study Variables**

**Dependent variable.** The dependent variable for this study is a monthly risk-adjusted mortality rate calculated for each hospital in the sample. We followed a two-stage process to calculate these monthly risk-adjusted mortality rates. First, using the approximately 11.4 million individual discharge records in our dataset, we employed the following Linear Probability Model to calculate a predicted probability of mortality:

\[
\text{Died}_{iy} = \lambda_y + \beta_1 DRG_i + \beta_2 X_i + \epsilon_{iy}
\]

Where \(\text{Died}_{iy}\) represents an indicator variable denoting whether a given patient died in the hospital; \(\lambda_y\) represents year fixed effects to account for unobserved temporal patterns; \(DRG_i\) represents the individual patient’s primary diagnosis related grouping; \(X_i\) represents a vector of the thirty patient comorbidity measures identified by Elixhauser, Steiner, Harris, and Coffey (1998) as the most important determinants of case severity; and \(\epsilon_{iy}\) represents the residual. Based on the resulting estimates, we calculated predicted mortality rates \((PMR_{hmy})\) for each hospital-month in each year along with observed mortality rates \((OMR_{hmy})\). These average rates were then used to calculate our risk-adjusted mortality rates as follows:

\[
\text{Mortality}_{hmy} = \frac{OMR_{hmy}}{PMR_{hmy}} \times AMR
\]
Where AMR represents the average mortality rate across all hospitals during the study period. Of note, we chose to employ the natural logarithm of Mortality in our analysis to ensure a distribution that more closely approximates a normal distribution and to avoid potential problems associated with the distribution of our error terms.

**Independent variables.** Our primary independent variables are a set of seven binary variables that indicate whether a given observation occurred in one of seven distinct observation windows surrounding a Joint Commission site visit. To create these variables, we obtained documented Joint Commission site visit dates for each of the hospitals in our dataset. We did this by matching the AHAID in the HCUP data to specific hospital names. We then entered the names of the specific hospitals into the accredited programs search feature on the public facing Joint Commission website. In this manner, we obtained multiple site visit dates for a total of fifty-eight acute care (non-specialty, non-pediatric) hospitals. For a majority of the hospitals (n=50), we were able to obtain Joint Commission records for the entire ten years. For the remaining hospitals, we obtained five years of records (n=3), seven years of records (n=3), and nine years of records (n=2). These records indicated that a majority of hospitals (n=39) completed three Joint Commission site visits during the observation period. The remaining hospitals completed two site visits with the exception of one hospital that completed a single site visit. This analysis was completed during a four-week period from May to June 2011.

Based on these site visit dates, we created the variable *Inspection*, which denotes whether a given observation occurred in the same calendar month as a site visit. For example, if a site visit occurred in the month of June 2005, that month would be indicated as an inspection month (i.e. *Inspection* = 1) for that hospital. We then created six other
variables $Month(-3)$, $Month(-2)$, $Month(-1)$, $Month(+1)$, $Month(+2)$, $Month(+3)$ to denote observations that occurred at a progressively greater temporal distance in both directions from a given inspection month. Continuing with our example, the month of July 2005 would be $Month(+1)$ because it would be the first complete calendar month following the site visit for that hospital and May 2005 would be $Month(-1)$ because it would be the last complete calendar month prior to the site visit.

To observe the potentially moderating influence of system affiliation and technological status, we created two variables $System$, and $Techstatus$. $System$ is a binary variable indicating whether a given hospital is affiliated to any degree with a larger health ($System = 1$) or unaffiliated with a larger health system ($System = 0$). $Techstatus$ is built upon the Technology Index first described and employed by Landon et al. (2006). This index considers technologies in a variety of clinical departments and assigns weights to the presence of the technologies according to the proportion of hospitals that do not possess the same technologies. The index is the sum of these weights. $Techstatus$ is a binary variable that indicates whether a given hospital is above the fiftieth percentile ($Techstatus = 1$) or below the fiftieth percentile ($Techstatus = 0$), relative to the other hospitals in the sample. Two other hospital-level characteristics, the hospital’s annual admission rates (labeled $Admissions$) and membership in the Council of Teaching hospitals (labeled $COTH$), were included as control variables. Finally, we created a binary variable $Unannounced$ to indicate whether a given observation occurred prior to the introduction of unannounced site visits ($Unannounced = 0$) or following the introduction of unannounced site visits ($Unannounced = 1$).
Statistical Analysis

As noted above, our analysis examined monthly observations of risk-adjusted mortality obtained from discharge data in fifty-eight New Jersey hospitals over a ten year period (1999 to 2008). We do so by employing Ordinary Least Squares regression models of the following form:

\[
Mortality_{hmy} = \delta_h + \lambda_y + \gamma_m + \beta_1 Month(-3)_h + \beta_2 Month(-2)_h + \beta_3 Month(-1)_h + \beta_4 Inspection_h + \beta_5 Month(+1)_h + \beta_6 Month(+2)_h + \beta_7 Month(+3)_h + \beta_8 X_h + \varepsilon_{hym}
\]  

(1)

Where \(\delta_h\) represents hospital fixed effects to account for time invariant organizational factors that may influence patient outcomes; \(\lambda_y\) represents year fixed effects to account for unobserved temporal patterns; \(\gamma_m\) represents month fixed effects to account for unobserved seasonal patterns; \(Month(-3)_h\) through \(Month(+3)_h\) represent the seven primary explanatory variables described above; \(X_h\) represents a vector of hospital-level variables including System, Techstatus, Admissions, and COTH; and \(\varepsilon_{hym}\) represents the residual.

In order to test for the moderating influence of System, and Techstatus we amend (1) to include interactions between these variables and each of the seven primary explanatory variables. We perform a similar analysis using Unannounced to ascertain whether the introduction of unannounced site visits moderates the primary relationships proposed above. To minimize the potential bias stemming from serial correlation between multiple observations of the same hospital we cluster all standard errors by hospital.
Results

Risk-Adjusted Mortality

Table 3.1 contains the results of our mortality models. Column 1, presents the results of our base model, without any interactions. Among the seven primary observation windows, we see no significant effect until Month(+1) when the mortality rate drops by approximately four percent ($\beta = -0.0454, p <0.05$). The significant drop in mortality in Month(+1) weakens substantially and becomes insignificant in Month(+2) and Month(+3). Among the other key variables in our model, we observe significant effects for system affiliation ($\beta = 0.0481, p <0.05$) and technological status ($\beta = -0.0395, p <0.05$), suggesting that among the hospitals in our sample, those that are affiliated with systems are more likely to display higher rates of mortality while more technologically advanced hospitals display lower rates of mortality, on average.

In columns 2 and 3, we systematically interact our inspection windows (Month(-3) through Month(+3)) with System and Techstatus. With respect to system affiliation, the interaction estimates in column 2 (e.g., Month(+1) x System) indicate little difference in the impact of inspections on non-affiliated versus affiliated hospitals. With respect to technological status, we observe in column 3 a strong and highly significant moderating effect for Techstatus ($\beta = 0.0888, p <0.01$) in Month(+1). Specifically, the estimates suggest that while hospitals with fewer advanced technologies experience lower mortality rates immediately following an inspection ($\beta = -0.0964, p <0.01$), hospitals with greater technological capacity do not. We note, however, that the main effect of Techstatus remains negative and significant ($\beta = -0.0450, p <0.05$), suggesting that technologically advanced hospitals perpetually do better in keeping patients alive. Overall, these findings
Table 3.1 – Risk-adjusted mortality

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Adjusted Mortality</th>
<th>(2) Adjusted Mortality</th>
<th>(3) Adjusted Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>0.0481** (0.0230)</td>
<td>0.0520** (0.0232)</td>
<td>0.0479** (0.0230)</td>
</tr>
<tr>
<td>Techstatus</td>
<td>-0.0395** (0.0179)</td>
<td>-0.0398** (0.0178)</td>
<td>-0.0450** (0.0178)</td>
</tr>
<tr>
<td>Month(-3)</td>
<td>0.0130 (0.0141)</td>
<td>0.0176 (0.0177)</td>
<td>0.0116 (0.0234)</td>
</tr>
<tr>
<td>Month(-3) x System</td>
<td></td>
<td>-0.0148 (0.0309)</td>
<td></td>
</tr>
<tr>
<td>Month(-3) x Techstatus</td>
<td></td>
<td></td>
<td>-0.0040 (0.0295)</td>
</tr>
<tr>
<td>Month(-2)</td>
<td>-0.0157 (0.0160)</td>
<td>-0.0131 (0.0165)</td>
<td>-0.0475 (0.0288)</td>
</tr>
<tr>
<td>Month(-2) x System</td>
<td></td>
<td>-0.00847 (0.0402)</td>
<td></td>
</tr>
<tr>
<td>Month(-2) x Techstatus</td>
<td></td>
<td></td>
<td>0.0567 (0.0343)</td>
</tr>
<tr>
<td>Month(-1)</td>
<td>0.00562 (0.0163)</td>
<td>0.0172 (0.0196)</td>
<td>-0.00191 (0.0333)</td>
</tr>
<tr>
<td>Month(-1) x System</td>
<td></td>
<td>-0.0371 (0.0398)</td>
<td></td>
</tr>
<tr>
<td>Month(-1) x Techstatus</td>
<td></td>
<td></td>
<td>0.0137 (0.0408)</td>
</tr>
<tr>
<td>Inspection</td>
<td>-0.000699 (0.0129)</td>
<td>0.00971 (0.0174)</td>
<td>0.0300 (0.0223)</td>
</tr>
<tr>
<td>Inspection x System</td>
<td></td>
<td>-0.0334 (0.0245)</td>
<td></td>
</tr>
<tr>
<td>Inspection x Techstatus</td>
<td></td>
<td></td>
<td>-0.00560 (0.0271)</td>
</tr>
<tr>
<td>Month(+1)</td>
<td>-0.0454** (0.0171)</td>
<td>-0.0338* (0.0183)</td>
<td>-0.0964*** (0.0259)</td>
</tr>
<tr>
<td>Month(+1) x System</td>
<td></td>
<td>-0.0361 (0.0249)</td>
<td></td>
</tr>
<tr>
<td>Month(+1) x Techstatus</td>
<td></td>
<td></td>
<td>0.0888*** (0.0269)</td>
</tr>
<tr>
<td>Month(+2)</td>
<td>0.0121 (0.0170)</td>
<td>0.0185 (0.0202)</td>
<td>8.78e-05 (0.0360)</td>
</tr>
<tr>
<td>Month(+2) x System</td>
<td></td>
<td>-0.0203 (0.0426)</td>
<td></td>
</tr>
<tr>
<td>Month(+2) x Techstatus</td>
<td></td>
<td></td>
<td>0.0212 (0.0392)</td>
</tr>
<tr>
<td>Month(+3)</td>
<td>-0.00707 (0.0126)</td>
<td>-0.00698 (0.0159)</td>
<td>-0.0285 (0.0218)</td>
</tr>
<tr>
<td>Month(+3) x System</td>
<td></td>
<td>-0.000540 (0.0321)</td>
<td></td>
</tr>
<tr>
<td>Month(+3) x Techstatus</td>
<td></td>
<td></td>
<td>0.0375 (0.0284)</td>
</tr>
<tr>
<td>Admissions</td>
<td>3.08e-06 (3.44e-06)</td>
<td>3.06e-06 (3.42e-06)</td>
<td>3.14e-06 (3.45e-06)</td>
</tr>
<tr>
<td>COTH</td>
<td>0.0261 (0.0322)</td>
<td>0.0252 (0.0328)</td>
<td>0.0284 (0.0314)</td>
</tr>
</tbody>
</table>

Observations: 6,012

Robust standard errors are clustered by hospital and reported in parentheses

*** p<0.01, ** p<0.05, * p<0.1
suggest that less technologically advanced hospitals achieve some degree of parity, at least temporarily, during the weeks just after a Joint Commission site visit.

**Unannounced Site Visits and Risk-Adjusted Mortality**

In our final analysis we introduce the new variable, *Unannounced*, and interact it with the seven primary explanatory variables in our mortality model to determine whether the shift in policy toward unannounced site visits has exerted any effect on the cyclicality noted in our previous analysis. The results of this analysis are contained in Table 3.2. Perhaps not surprisingly⁶, we observe that the main effect for *Unannounced* was insignificant (other than a modestly significant increase in the main effect of *Unannounced* when we introduced the interaction). We observe that the main effect for *Month(+1)* remained strong and significant in this model ($\beta = -0.0454$, $p < 0.05$), though we could not establish any moderating effect. We must conclude, therefore, that the shift toward unannounced site visits appears to have had little effect in dampening the cyclicality observed in our previous analysis.

**Discussion**

**Implications of Study Findings**

The main effect we observe in our base model is striking on two levels. First, the fact that we observe any changes in risk-adjusted mortality in such close temporal proximity to accreditation site visits suggests that the association between these variables is non-trivial. Second, the temporal ordering of the intervention and the effect suggest

---

⁶ Though the tables presented here do not include results for the year fixed effects due to space constraints, our analysis revealed no significant differences in Mortality from year to year.
Table 3.2 – Impact of unannounced site visits on risk-adjusted mortality

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Adjusted Mortality</th>
<th>(2) Adjusted Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unannounced</td>
<td>0.0399</td>
<td>0.0416*</td>
</tr>
<tr>
<td></td>
<td>(0.0246)</td>
<td>(0.0247)</td>
</tr>
<tr>
<td>Month(-3)</td>
<td>0.0130</td>
<td>0.0239</td>
</tr>
<tr>
<td></td>
<td>(0.0141)</td>
<td>(0.0156)</td>
</tr>
<tr>
<td>Month(-3) x Unannounced</td>
<td>-0.0316</td>
<td>(0.0322)</td>
</tr>
<tr>
<td>Month(-2)</td>
<td>-0.0157</td>
<td>-0.00946</td>
</tr>
<tr>
<td></td>
<td>(0.0160)</td>
<td>(0.0210)</td>
</tr>
<tr>
<td>Month(-2) x Unannounced</td>
<td>-0.0183</td>
<td>(0.0362)</td>
</tr>
<tr>
<td>Month(-1)</td>
<td>0.00562</td>
<td>-0.000813</td>
</tr>
<tr>
<td></td>
<td>(0.0163)</td>
<td>(0.0219)</td>
</tr>
<tr>
<td>Month(-1) x Unannounced</td>
<td>0.0181</td>
<td>(0.0347)</td>
</tr>
<tr>
<td>Inspection</td>
<td>-0.000699</td>
<td>0.00822</td>
</tr>
<tr>
<td></td>
<td>(0.0129)</td>
<td>(0.0158)</td>
</tr>
<tr>
<td>Inspection x Unannounced</td>
<td>-0.0249</td>
<td>(0.0250)</td>
</tr>
<tr>
<td>Month(+1)</td>
<td>-0.0454**</td>
<td>-0.0549***</td>
</tr>
<tr>
<td></td>
<td>(0.0171)</td>
<td>(0.0187)</td>
</tr>
<tr>
<td>Month(+1) x Unannounced</td>
<td>0.0273</td>
<td>(0.0248)</td>
</tr>
<tr>
<td>Month(+2)</td>
<td>0.0121</td>
<td>0.0204</td>
</tr>
<tr>
<td></td>
<td>(0.0170)</td>
<td>(0.0230)</td>
</tr>
<tr>
<td>Month(+2) x Unannounced</td>
<td>-0.0222</td>
<td>(0.0380)</td>
</tr>
<tr>
<td>Month(+3)</td>
<td>-0.00707</td>
<td>-0.0101</td>
</tr>
<tr>
<td></td>
<td>(0.0126)</td>
<td>(0.0156)</td>
</tr>
<tr>
<td>Month(+3) x Unannounced</td>
<td>0.00792</td>
<td>(0.0302)</td>
</tr>
<tr>
<td>System</td>
<td>0.0481**</td>
<td>0.0481**</td>
</tr>
<tr>
<td></td>
<td>(0.0230)</td>
<td>(0.0230)</td>
</tr>
<tr>
<td>Techstatus</td>
<td>-0.0395**</td>
<td>-0.0394**</td>
</tr>
<tr>
<td></td>
<td>(0.0179)</td>
<td>(0.0179)</td>
</tr>
<tr>
<td>Admissions</td>
<td>3.08e-06</td>
<td>3.07e-06</td>
</tr>
<tr>
<td></td>
<td>(3.44e-06)</td>
<td>(3.44e-06)</td>
</tr>
<tr>
<td>COTH</td>
<td>0.0261</td>
<td>0.0262</td>
</tr>
<tr>
<td></td>
<td>(0.0322)</td>
<td>(0.0322)</td>
</tr>
</tbody>
</table>

Observations 6,012  6,012
R² 0.374  0.374

Robust standard errors are clustered by hospital and reported in parentheses

*** p<0.01, ** p<0.05, * p<0.1
that the relationship goes beyond simple association. Indeed, among the seven observation windows in our model we observed no significant differences until the month just following the site visit (i.e. the introduction of the intervention). The effect then disappeared in the following two observation windows (i.e. once the intervention had been removed). These findings seem to suggest (1) that accreditation site visits might trigger changes in patient care processes – changes that presumably bring these processes into closer alignment with Joint Commission standards, (2) that these changes in processes result in improved rates of mortality, and (3) that the process changes tend to evaporate in the weeks immediately following the site visit.

Beyond simple observation of these phenomena, it is useful to revisit why the phenomena might be occurring. We argue that the process of aligning with Joint Commission standards is a form of innovation implementation within hospitals. Organizational scholars generally define innovation as a specific practice, policy, or technology that, while perhaps existent in other organizations, is nevertheless new to the organization in question (Rogers, 2003). Successful implementation of an innovation depends upon frequent, consistent, and assiduous use of the innovation. On the other hand, implementation failure may be attributed to an insufficient degree of frequency, consistency, or assiduousness in the use of the innovation such that the benefit of the innovation cannot be realized (Klein & Sorra, 1996). Though neither the specific Joint Commission standards nor the accreditation process itself would be considered novel in any hospital, a salient increase in the degree to which patient care practices within a given hospital align with Joint Commission standards might be. In this respect, cyclical alignment with Joint Commission standards represents an ongoing process of innovation.
implementation that, as evidenced by its cyclicality, perpetually results in implementation
failure (Nembhard, Alexander, Hoff, & Ramanujam, 2009).

But why would hospitals that achieve improved mortality rates during
accreditation cycles allow such improvements to evaporate? One reason might be that
administrators, physicians, nurses, and other hospital personnel simply do not notice the
improvements as they are occurring. This oversight may be particularly likely when
hospital personnel consider accreditation – rather than improved patient outcomes – as
the primary objective of the accreditation process. In looking at the process through this
lens, it is understandable that such individuals may see little value in continuing to direct
a high degree of attention toward accreditation standards once accreditation has been
granted and legitimacy has been secured. In other words, continual direction of attention
toward accreditation standards will not yield an “increased degree of accreditation.”
Consequently, any peripheral gains emerging from the shift in attention toward
accreditation standards, even gains associated with such centrally important outcomes as
patient death, may evaporate.

It is also possible that certain hospitals may be less capable of maintaining
alignment with Joint Commission standards between site visits, even if they recognize the
benefits of doing so. We addressed this possibility by exploring the moderating effect of
resource slack using system affiliation and technological status as proxies. Interestingly,
though we could not identify a moderating effect for \textit{System}, we observed a significant
main effect that suggests that system affiliation is associated with poorer mortality rates
overall. We expect that this may be due, at least in part, to the temporary turmoil that
may accompany the transition from free-standing hospital to system hospital (though a
thorough analysis of this finding goes beyond the scope of the paper). As it is, we could not demonstrate that the hypothesized resource slack gained through system affiliation had any appreciable effect on reducing cyclical fluctuation in mortality rates. In contrast, we observed a highly significant moderating effect for Techstatus in Month(+1), which suggests that the temporary improvement in mortality that we observed in Month(+1) was almost entirely driven by the less technologically advanced hospitals in our sample. Stated more succinctly, the more technologically advanced hospitals appeared to perpetually maintain better mortality rates relative to their less technologically advanced peers, though the less technologically advanced hospitals appeared to close the gap, at least temporarily, during the weeks just following their Joint Commission site visits.

In addition to resource slack, our Techstatus variable may illustrate another factor that may influence hospital capacity to perpetually comply with Joint Commission standards. We refer to the relative conceptual proximity of the more technologically advanced hospitals to the Joint Commission— an advantage that may increase the capacity for such hospitals to act as institutional entrepreneurs within the field (Battilana, Leca, & Boxenbaum, 2009; Battilana, 2006). To be sure, Joint Commission standards represent commonly legitimized best practices in the hospital industry (Joint Commission, 2012). Even so, the specific standards—as well as the processes by which the standards are enforced—are developed and overseen by a board of commissioners that is comprised of individuals drawn, in large part, from more technologically advanced hospitals themselves (see Table 3.3). Indeed, among the twenty-one sitting board members on the 2012 board that were drawn from clinical organizations, only one represented an
Table 3.3 – The 2012 Joint Commission board of commissioners ranked in order of the technological status* of the sourcing organization

<table>
<thead>
<tr>
<th>Commissioner</th>
<th>Sourcing Organization Type</th>
<th>Technology Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Academic Medical Center or System</td>
<td>6.06</td>
</tr>
<tr>
<td>#2</td>
<td>Academic Medical Center or System</td>
<td>6.06</td>
</tr>
<tr>
<td>#3</td>
<td>Academic Medical Center or System</td>
<td>6.06</td>
</tr>
<tr>
<td>#4</td>
<td>Academic Medical Center or System</td>
<td>6.06</td>
</tr>
<tr>
<td>#5</td>
<td>Academic Medical Center or System</td>
<td>6.06</td>
</tr>
<tr>
<td>#6</td>
<td>Academic Medical Center or System</td>
<td>6.06</td>
</tr>
<tr>
<td>#7</td>
<td>Academic Medical Center or System</td>
<td>5.79</td>
</tr>
<tr>
<td>#8</td>
<td>Academic Medical Center or System</td>
<td>5.39</td>
</tr>
<tr>
<td>#9</td>
<td>Academic Medical Center or System</td>
<td>5.22</td>
</tr>
<tr>
<td>#10</td>
<td>Academic Medical Center or System</td>
<td>5.06</td>
</tr>
<tr>
<td>#11</td>
<td>Academic Medical Center or System</td>
<td>5.04</td>
</tr>
<tr>
<td>#12</td>
<td>Academic Medical Center or System</td>
<td>4.61</td>
</tr>
<tr>
<td>#13</td>
<td>Non-Academic Medical Center or System</td>
<td>4.41</td>
</tr>
<tr>
<td>#14</td>
<td>Academic Medical Center or System</td>
<td>4.39</td>
</tr>
<tr>
<td>#15</td>
<td>Non-Academic Medical Center or System</td>
<td>4.29</td>
</tr>
<tr>
<td>#16</td>
<td>Non-Academic Medical Center or System</td>
<td>3.72</td>
</tr>
<tr>
<td>#17</td>
<td>Non-Academic Medical Center or System</td>
<td>3.49</td>
</tr>
<tr>
<td>#18</td>
<td>Non-Academic Medical Center or System</td>
<td>3.28</td>
</tr>
<tr>
<td>#19</td>
<td>Academic Medical Center or System</td>
<td>3.03</td>
</tr>
<tr>
<td>#20</td>
<td>Non-Academic Medical Center or System</td>
<td>2.94</td>
</tr>
<tr>
<td>#21</td>
<td>Non-Academic Medical Center or System</td>
<td>2.21</td>
</tr>
<tr>
<td>#22</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#23</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#24</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#25</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#26</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#27</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#28</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#29</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#30</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#31</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
<tr>
<td>#32</td>
<td>Non-Clinical Organization</td>
<td>**</td>
</tr>
</tbody>
</table>

* To calculate “technological status,” we employ the technology index first described and employed by Landon et al. (2006). This index considers technologies in a variety of clinical departments and assigns weights to the presence of the technologies according to the proportion of hospitals that do not possess the same technologies. The index is the sum of these weights and runs from a minimum of 0 to a maximum of 6.06.
organization with a technology index below the median in our sample and none were below the median technology index for all hospitals in the United States.

Again, by virtue of their respective positions on the board, these commissioners may (1) directly influence the standards that all accredited hospitals must adopt and (2) oversee the processes by which accreditation is granted. As such, the practices espoused by the Joint Commission may, in fact, simply be the institutional practices of a class of more technologically advanced hospitals with the slack resources to invest in testing and identifying “best practices.” It follows that because such hospitals already resemble the ideals upon which the standards were developed in the first place, we would expect to observe (and, in fact, do observe) two things among more technologically advanced hospitals: (1) better patient outcomes overall, given their conceptual proximity to the frontier of “best practices” and (2) less fluctuation in patient outcomes around accreditation inspections.

It is important to note that although the coefficient for the main effect in our model appears to be small (an approximately four percent reduction in the risk-adjusted mortality rate), it nevertheless represents substantial preservation of human life. Consider the fact that the average low technology hospital in our sample admitted 10,681 patients a year during the observation period and maintained an average risk-adjusted mortality rate of 3.11 percent. In human terms this equates to approximately 332 patient deaths in the average low technology hospital per year. A perpetual four percent improvement in the average risk-adjusted mortality rate would reduce this number by approximately 13.3 deaths per hospital per year. As it is, the temporary improvement
that we observed in $Month(+1)$ equates to approximately 1.1 patient deaths averted per low technology hospital per Joint Commission site visit. Given that we observed a total of sixty-five site visits in hospitals categorized as low technology at the time of their site visits, the temporary improvement appears to have averted approximately 72 deaths over the course of the study period.

Finally, we acknowledge that the shift in policy toward unannounced site visits appears to have exerted little effect on cyclical patterns of patient outcomes. Of course, it would be unfair to condemn the entire policy as ineffective based solely on these findings. At the very least, the policy has likely had a positive influence on the perceived value of Joint Commission accreditation among outside stakeholders (e.g., patients, payers, etc.). Indeed, many of these stakeholders may assume (correctly or otherwise) that unannounced inspections yield more accurate indications of the relative worth of the inspected hospital. In this sense, their perception of the legitimacy (Suchman, 1995) of the Joint Commission accreditation process is likely to improve as a result of the policy shift. Because it is this collective perception of legitimacy that fuels and sustains accreditation bodies like the Joint Commission, any improvement in these perceptions is a non-trivial outcome.

**Limitations and Opportunities for Future Research**

To be certain, our study exhibits some notable limitations. First and foremost, the study design assumes relative stability in both hospitals and the Joint Commission over the entire ten year observation period. In reality, both entities are likely to evolve over time. The Joint Commission, for example, periodically adjusts its policies, practices, and
standards to better achieve its objectives (Joint Commission, 2012). Similarly, hospitals periodically evolve as a means of survival in their competitive and institutional environments (Lee & Alexander, 1999; Ruef & Scott, 1998). We mitigate these issues to some extent by including hospital, year, and month fixed effects. Even so we must assume, though we cannot know for certain, that the impact of a Joint Commission site visit in April 2001 is sufficiently similar to the impact of a site visit in October 2004 (or any other time) to allow direct comparison.

We must also acknowledge that our decision to study inpatient mortality opens the door to concerns of endogeneity. To be sure, the probability of inpatient death is likely to be influenced by a number of factors that we could not control in our model. Yet, to be truly endogenous, a given factor would have to influence both the outcome and the treatment (in this case, the content and timing of the Joint Commission site visits). Though a skeptical observer might argue that some hospitals might exercise greater selectivity in admitting patients during Joint Commission site visits in an effort to give the appearance of better care, the likelihood of such action seems remote given the diversity of patient diagnoses and the quantity of personnel involved in the patient care process. Moreover, the observed effect in our analysis occurred in the month following the site visits when, presumably, there is little to be gained by selectively admitting patients. In short, we are confident that our analytical model captures the essence of the relationships that we proposed at the beginning of the paper.

Finally, we recognize the limitation inherent in our decision to formulate our observation windows by calendar month. Whereas we had actual dates (i.e. days and months) for each Joint Commission site visit, we could only observe the calendar month
of discharge for each individual patient due to the existing parameters of the HCUP data. Consequently, we had to assume that all site visits during a given inspection month exerted equal effect on risk-adjusted mortality rates (rates observed both within the inspection month and in the months immediately surrounding the inspection month) regardless of the temporal placement of the site visit within the inspection month. In reality, one might reasonably assume that an inspection at the end of a calendar month would have a potentially different impact on mortality rates during the inspection month and the following month than an inspection that occurs at the beginning of the calendar month.

          Given these limitations, there is substantial opportunity to build on the results outlined above. For example, though we’ve identified clear associations between Joint Commission site visits, inpatient mortality rates, and the technological status of the hospital, we have offered only theoretical arguments for why such associations might exist. Empirical research is clearly needed to support these assertions and strengthen our conceptual model. Likewise, there is great opportunity to employ our model to empirically examine a wide variety of patient outcomes beyond mortality. Preventable readmissions may be a good place to start given the fact that readmission rates may be used as a basis for reimbursement by the Medicare program under the Affordable Care Act (United States Department of Health and Human Services, 2012b). Joint Commission Standard IM.6.10, EP7 mandates that discharge summaries accompany all discharged patients, and that each summary include six key informational components (Kind & Smith, 2008). Research has shown that the risk of re-hospitalization decreases when patients are assessed post-discharge by physicians who are in possession of the
Moreover, incomplete discharge summaries have been shown to adversely impact follow-on care for some patients (Spatz, Engel, Hölzel, & Jauch, 2001; Coleman, 2003; Kripalani et al., 2007). It is possible, therefore, that rates of readmission may likewise show improvement following reassertion of Joint Commission Standard IM.6.10, EP7 during a site visit.

**Conclusion**

The results of this study offer three distinct contributions to the literature. First, our findings reiterate in an unconventional way that Joint Commission standards are, in fact, effective at improving mortality rates (as evidenced by improved rates within some hospitals during accreditation cycles when patient care operations are most likely to be in closest alignment with Joint Commission standards). Second, we demonstrate that patient outcomes in less technologically advanced hospitals tend to ebb and flow with the inspection cycle while outcomes in more technologically advanced hospitals remain relatively stable. Finally, we demonstrate that the shift toward unannounced site visits has done little to dampen this fluctuation. Again, we do not mean to imply that the policy change has been ineffective, particularly in terms of strengthening the perceived legitimacy of Joint Commission accreditation. Rather, we argue that if perpetual alignment with standards among accredited hospitals is the objective, then current accreditation practices may be inadequate, at least for some hospitals.

A first step toward addressing this disparity might be to extend membership on the Joint Commission board of commissioners to executives or clinicians from a broader
cross-section of hospital types. As displayed in Table 3.3, the board is dominated by executives and clinicians drawn from hospitals and systems that differ substantially from the majority of hospitals in the country. Greater diversity on the board may ultimately contribute to the formulation of accreditation processes that better match the capabilities of the accredited hospitals. Perhaps just as importantly, such efforts toward greater diversity of board membership may be rewarded with an increased perception of the legitimacy of the Joint Commission accreditation process among hospitals.
Organizations operating within highly institutionalized fields must strive not only to maintain legitimacy within their larger fields, but must also strive to be judged as legitimate by their employees. As the erosion or loss of legitimacy at either level can diminish organizational sustainability and even survivability (Hamilton, 2006; Dowling & Pfeffer, 1975; Rao, 1994; Tyler, 2006), the two domains effectively function as distinct masters to whom organizational leaders must attend. The broad question motivating this study is whether employees’ judgments of their organizations’ legitimacy are impacted as their organizations take action to maintain institutional legitimacy. Though institutional legitimacy may be gained through a variety of avenues, we focus specifically on the legitimacy gained through organizational accreditation.

We examine these issues by channeling three distinct research streams representing three descending levels of analysis. First, we draw on Institutional Theory (Meyer & Rowan, 1977; DiMaggio & Powell, 1983) to describe how accreditation bodies pressure organizations to engage in isomorphic change and to propose that predictably cyclical accreditation/reaccreditation inspections may create correspondingly predictable waves of isomorphic response within organizations. Second, we cite the Behavioral Theory of the Firm (March & Simon, 1958; Cyert & March, 1963) to argue that such cyclical isomorphic movement may influence the direction of attention within organizations (Ocasio, 1997) to the point where individuals may be periodically “jolted”

---

7 This paper was co-authored with Jonathan R. Clark (The Pennsylvania State University) and Loring J. Crepeau (Defense Equal Opportunity Management Institute). It was written and formatted with a goal of publication in a broad-based management research journal.
(Lieberman & Eisenberger, 2004) to reassess the legitimacy of their organizations. Finally, we draw on the legitimacy judgment literature (Tost, 2011) with its foundations in social psychology to describe and predict the specific mechanisms by which these jolts might trigger legitimacy reassessment among individuals.

Our empirical analysis focuses on Department of Defense hospitals (specifically hospitals operated by the United States Navy). This decision offers a number of favorable research conditions. First, Navy hospitals operate in two highly institutionalized spheres – the hospital industry and the United States military – both of which ensure compliance with their respective institutional norms and practices through periodic onsite inspection. Moreover, the two inspections tend to occur simultaneously on an approximately triennial basis, creating a predictably cyclical and conceivably potent intervention for this study. Second, the active duty military personnel who work in these hospitals are assigned to the hospitals using a system that, while not completely random, approaches random assignment. These personnel also tend to move from hospital to hospital relatively frequently (i.e. every two to three years), creating a convenient frame of reference for interpreting the effects of the intervention on the individual. We can assume with some confidence, for example, that the typical individual arrives for duty at a given hospital, forms an initial judgment of that hospital’s legitimacy, reassesses that judgment when the hospital is inspected (assuming the “jolt” to the organization is strong enough), and leaves the hospital before the organization is inspected again. Finally, these hospitals routinely administer organizational climate surveys, a large portion of which we use to assess individual legitimacy judgments.

---

8 The views expressed in this paper are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or the United States government.
At the core of this study is the conceptually distinct manner by which institutions and individuals grant legitimacy to organizations. Thus, we begin with a discussion of how the legitimacy construct is viewed among institutional theorists and how cyclical accreditation inspections may trigger predictable waves of isomorphic response within organizations. We then contrast institutional legitimacy with the type of legitimacy that individuals bestow on their organizations and discuss a model by which individual legitimacy judgments are formed and employed. Finally, we discuss how cyclical isomorphic movement within organizations might trigger reassessment of legitimacy judgments among individuals, presenting hypotheses that specifically examine (1) whether reassessment is likely to be triggered during accreditation cycles, (2) whether new judgments are likely to be retained and put into use, and (3) whether the status of the individual in the organization moderates these hypothesized relationships.

**Conceptual Framework**

**Bestowing Legitimacy (The Institutional Perspective)**

Various definitions of legitimacy have emerged within the Institutional Theory literature with varying degrees of overlap (Deephouse & Suchman, 2008). Yet a common theme across these definitions is the idea that legitimacy is gained when an entity enjoys cultural support or is seen as appropriate within a given context (see Suchman, 1995, for a broadly applicable definition of institutional legitimacy). Colyvas & Powell (2006) recognize legitimacy as perhaps the most important construct to emerge from institutional research. This statement may be particularly relevant where institutional legitimacy is largely cognitive (i.e. stemming from an absence of challenge)
rather than instrumental (legitimacy that is rooted in self-interest), moral (legitimacy that is based on conformity to moral or ethical principles), or regulative (legitimacy that is established through law). Legitimacy becomes increasingly cognitive as fewer and fewer question the appropriateness of a given structure or action, or where adoption of the structure or action becomes necessary or inevitable (Suchman, 1995). At the logical extreme, legitimacy is completely cognitive when it becomes virtually unthinkable for things to be otherwise (Zucker, 1983). In more neutral terms, cognitive legitimacy may be viewed as “a source of value independent of instrumental utility” (Scott, 1987, p. 499).

Such legitimacy is a primary ingredient of the “myth” of institutionalization – a myth that gains cognitive steam as institutionalized “ceremonies” such as accreditation inspections emerge to ensure compliance with commonly legitimized standards (Meyer & Rowan, 1977). Indeed, institutional entities such as accreditation bodies exert pressure on organizations to comply with institutionalized standards as a cost of obtaining legitimacy in the larger field (DiMaggio & Powell, 1983). Though early work by institutional theorists assumed that organizations within a given field would respond to such pressures in similar ways, more recent work has acknowledged that organizations facing comparable institutional pressures may nonetheless pursue markedly different paths in order to satisfy institutional demands (Oliver, 1991; Edelman, 1992). Regardless of the particular path taken, organizations facing institutional pressures must achieve some minimal degree of compliance with institutional standards or risk losing legitimacy (Greenwood et al., 2008; Kraatz & Zajac, 1996). A loss of institutional legitimacy is a non-trivial concern, as it could potentially lead to marginalization in the market or even organizational demise (Ashforth & Gibbs, 1990; Hamilton, 2006).
The Cyclical Isomorphism Model

Isomorphism is the “constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions” (DiMaggio & Powell, 1983; p. 149). Accreditation inspections offer clear examples of such constraining forces. Again, these inspections are ceremonies in which the inspected organization attempts to prove its legitimacy by demonstrating performance of commonly legitimized standards in the field. The inspecting entity (itself a commonly legitimized institutional fixture) assesses the degree to which the inspected organization achieves alignment with the standards. If performance is deemed acceptable then the inspecting entity bestows legitimacy on the organization by granting its accreditation. Organizations may seek to minimize such inspections as a way of limiting the degree of control exerted by the institutional entity (Meyer and Rowan, 1977). The institutional entity, for its part, may be forced to limit its inspections due to resource constraints, relying instead on the initiative of the inspected organizations to maintain institutionalized standards between inspections.

In other words, organizations seeking to attain or maintain legitimacy through accreditation may be required to submit to ceremonial inspection only infrequently. The limitation inherent to this logic, of course, is that organizations are required to demonstrate their legitimacy only occasionally. As such, the greatest return on a given organization’s investment of time, money, or other resources toward alignment with accreditation standards is likely to be realized when an inspection occurs or is likely to occur. At other times, such singular investment might be counterproductive, at least in terms of maintaining the organization’s ability to dynamically and creatively address
other pressing environmental pressures. In economic terms, the opportunity cost of
directing organizational attention specifically toward alignment with accreditation
standards increases as the threat of inspection decreases.

The Behavioral Theory of the Firm supports this assertion. Given the fact that
leaders in organizations cannot possibly address every issue or challenge that arises, they
must routinely exercise discretion in determining (1) which of the many issues to address
and (2) the relative depth and breadth of attention that they must direct toward issues that
are addressed (March & Simon, 1958; Cyert & March, 1963). Ocasio (1997) suggests
that leaders tend to direct attention toward priorities deemed to hold the greatest
“legitimacy, value and relevance to the organization” (p. 198) at any given time. As
certain priorities increase in perceived value, leaders may direct a proportionally greater
degree of attention toward them. In doing so, they must correspondingly direct a lesser
degree of attention toward other priorities. It follows logically that leaders would be
particularly likely to direct attention toward accreditation standards when the return on
such an investment of attention would be greatest.

Conversely, leaders may be more likely to direct attention away from specific
accreditation standards and toward more diverse priorities when the need to demonstrate
legitimacy wanes (Ocasio, 1997). Such a scenario may be particularly likely when the
legitimacy gained through accreditation is viewed through a cognitive lens. In other
words, when the legitimacy gained through accreditation is “a source of value
independent of instrumental utility” (Scott, 1987, p. 499), then it becomes an end in itself
rather than a means of achieving other worthwhile objectives (e.g., improved quality,
etc.) If this happens, leaders may specifically direct organizational attention toward
accreditation standards only when it is needed to secure institutional legitimacy. When institutional legitimacy is secured, organizational attention may wander toward more diverse priorities and initiatives.

These assertions suggest that isomorphism triggered by organizational accreditation processes is not a gradual ascent toward homogeneity but rather an oscillation wave in which organizations move in and out of homogeneity with the frequency of institutional inspection (see Figure 4.1). It is the purposeful and specific – yet temporary – direction of attention toward accreditation standards during accreditation inspection periods that we anticipate will trigger a reassessment of legitimacy judgment among members of organizations. To make this case, however, we must first define legitimacy at the individual level and discuss the process by which individuals form and put into use judgments of organizational legitimacy.

Figure 4.1 – The Cyclical Isomorphism Model

<table>
<thead>
<tr>
<th>Pressure to Demonstrate Legitimacy Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Withdrawn</td>
</tr>
<tr>
<td>Convergence around institutionalized standards</td>
</tr>
<tr>
<td>Heterogeneity</td>
</tr>
</tbody>
</table>
Bestowing Legitimacy (The Social Psychology Perspective)

The cognitive legitimacy described above is noteworthy for its lack of truly substantive content. In contrast, the type of legitimacy bestowed upon organizations by individuals tends to be highly substantive, at least during the initial formation of the legitimacy judgment (Tost, 2011). Tyler (1997) describes such legitimacy as “the belief that authorities are entitled to be obeyed” (p. 323, emphasis added). Major and Schmader (2001), in contrast, suggest that legitimacy emerges from “subjective perceptions of the fairness or justice of the distribution of socially distributed outcomes” (p. 180). Taken together these definitions suggest (1) that individuals may make value judgments as to whether the leaders in their organizations deserve to be obeyed and (2) that these judgments will be informed, in large part, by whether the leaders (and, by association, the greater organizations) are perceived to be fair and just distributors of desired outcomes.

Three broad categories of desired outcomes are described in the social psychology literature. First, an organization is more likely to be judged as legitimate when it is perceived to value and advance the instrumental interests and needs of its members (Hollander, 1980; Hollander & Julian, 1970). Second, the organization may be judged as more legitimate on relational grounds when its leaders effectively communicate to its members that they deserve dignity and respect, and that they hold favorable status within the organization (Tyler, 1997, Tyler & Lind, 1992). Finally, the organization may be judged as more or less legitimate on moral grounds if the organization is perceived to be engaging in activities that affirm or undermine the personally held morals and values of its members (Tost, 2011).
The Legitimacy Judgment Model

Tost (2011) offers a useful framework for understanding the process by which individuals form and revise judgments of legitimacy. The model is, in essence, a simple feedback loop. We describe the specific stages of the feedback loop in more detail in the following paragraphs.

**The judgment formation stage.** In the judgment formation stage, individuals either actively or passively process information in the environment. Active judges consciously evaluate the organization on the basis of the instrumental, moral, and relational factors described above. Passive judges, on the other hand, rely on validity cues offered by peers, or simply accept their organizations as legitimate as long as the organizations broadly conform to their expectations. Because individuals have a tendency to conserve cognitive energy, the passive mode generally predominates (Gilbert, 2002; Kahneman & Frederick, 2002; Lieberman, 2003) though individuals may experience a need or desire to engage in more purposeful evaluation if validity cues are not readily available or if their broad cultural expectations are somehow unmet (Tost, 2011).

**The use stage.** In the use stage, the legitimacy judgment comes to function as a sort of cognitive lens through which the individual perceives organizational actions and assigns relative value to those actions. As Tost (2011) says, “the entity is no longer judged; instead, the existing judgment is deployed” (p. 697). For example, individuals who ascribe greater legitimacy to their organizations during the judgment formation stage may be more inclined to trust their leaders during periods of organizational change. Conversely, leaders of organizations that are viewed as less legitimate by their employees
may experience difficulty in motivating the employees to embrace organizational change. That is, until something occurs to trigger a reassessment of the original judgment.

**The judgment reassessment stage.** Occasionally, situations occur that prompt individuals to actively reconsider their initial legitimacy judgments. Social cognitive neuroscientists equate such situations to the sounding of “mental alarms” that motivate individuals to switch from passive to active evaluation of their surroundings (Lieberman & Eisenberger, 2004). Just as institutional theorists have argued that major changes within fields occasionally act as jolts that prompt institutional change (Battilana, Leca, and Boxenbaum, 2009) we argue that major jolts within organizations might trigger the mental alarms that motivate reassessment of the organizational environment. Logically, such jolts would need to fall well outside the realm of expected outcomes in order to trigger reassessment (Tost, 2011). The judgment reassessment stage ends when the individual reenters the use stage, as indicated by a switch from active evaluation along the three dimensions described above to passive acceptance of a given legitimacy judgment. Of note, the individual may either put into use the new judgment, or he or she may discard the new judgment and reinstate the original judgment. In either case, the individual will proceed as he or she did before, cognitively (i.e. passively) employing the preferred judgment as a lens through which he or she evaluates future organizational action.

**Hypotheses**

**The Jolt**

To trigger reassessment of legitimacy, we assert that the “jolt” to the organization that is introduced by the accreditation process would have to be unusually potent. This
potency likely depends on two primary factors. First, we expect that organizational attention would have to be directed to an unusual degree in order to signal to the individual that organizational priorities have changed. More importantly, we expect that the direction of attention toward accreditation standards would not trigger reassessment unless such direction of attention specifically impacts individuals along the instrumental, relational and/or moral dimensions outlined above. Let us first consider degree of attention.

Certain characteristics of accreditation inspections make it particularly likely that organizational leaders would direct a high degree of attention toward accreditation standards when an inspection occurs or is likely to occur. First, accredited organizations that fail inspections may lose their legitimacy, which may adversely impact their sustainability or even survivability (Hamilton, 2006). By association, the leaders of the failing organizations may face diminished professional opportunities as a result of the failure. Stated differently, organizational leaders have a vested interest in directing attention toward compliance with accreditation standards when the threat of having to demonstrate compliance with such standards increases.

In addition, the standards upon which accreditation inspectors gauge compliance are often clearly specified and available to the organizations in advance (see Joint Commission, 2012, as an example). The expectations placed on the organization become even clearer when inspectors uncover deficiencies and non-compliant organizations are given specific assignments to remedy those deficiencies. Moreover, the non-compliant organizations may also be given very specific time frames in which compliance must be demonstrated. Even without assigning specific time frames for compliance,
organizations that have cycled through the accreditation process in the past may recognize that the pressure to demonstrate compliance is likely to be temporary.

In short, leaders in organizations may be more likely to direct a high degree of attention toward accreditation standards when they (1) know exactly what is expected of their organizations to demonstrate compliance and (2) recognize that the pressure to demonstrate compliance is only temporary. When combined with the potentially disastrous consequences for non-compliance, it becomes even more likely that this would occur. Yet such direction of attention is likely to be insufficient by itself to trigger judgment reassessment. To trigger reassessment, such direction of attention would have to “jolt” individuals on a personal level along moral, instrumental, and relational lines. We will consider each of these separately.

**Instrumental legitimacy.** A given organization is more likely to be perceived as legitimate by its members when it is perceived to value and advance the instrumental interests and needs of the individual (Hollander, 1980; Hollander & Julian, 1970). As organizations direct greater attention toward accreditation standards, various instrumental aspects of the individual’s work environment may be jolted with sufficient force to trigger a reassessment of the organization’s instrumental legitimacy. For example, the role of the individual in the work team or in the department might shift if the department head or team leader determines that current practices are inadequate to meet accreditation standards. Such action may serve to increase individual role clarity – an instrumental need – as diverse actors adopt a common script (Ivancevich & Donnelly, 1974).

On the other hand, such action may potentially introduce role ambiguity, at least temporarily, until new processes are firmly established (Biddle, 1986). Similarly, as
individual roles are adjusted, some department heads and team leaders may offer specific training to their subordinates – another instrumental need – though others may neglect training altogether and simply expect their subordinates to pick things up as needed (see Fernandez & Rainey, 2006, for a discussion of the importance of training during periods of organizational change). Finally, given the high organizational stakes involved in accreditation inspections, the relative value of individual successes and the relative detriment of individual failures may be amplified by managers when it comes to awarding such instrumental needs as promotions and salary increases.

Relational legitimacy. Members of organizations may also be more likely to reassess the relational legitimacy of their organizations during accreditation cycles. Organizations gain greater relational legitimacy in the eyes of their members when they “affirm individuals’ social identities and bolster their sense of self-worth” (Tost, 2011: p. 690; see also Tyler, 1997, Tyler & Lind, 1992). Such affirmation commonly occurs (or, in some cases, fails to occur) as supervisors acknowledge the work of their subordinates. Indeed, research suggests that the recognition of both successes and failures carries tremendous weight in influencing subordinate perceptions of fairness and justice in organizations (Luthans, 2000; Leung, Su, & Morris, 2001). Because accreditation inspections are emotionally laden events (Gaddis, Connelly, & Mumford, 2004) due to the inherent stress associated with them and the increased visibility of any successes or failures, we would expect that individuals would be particularly sensitive to the distribution of praise and criticism during such times.

For example, individuals who are specifically recognized from among their peers for exemplary work during an accreditation inspection might take greater satisfaction
than they normally would in such recognition given the stress of the site visit. On the other hand, individuals who expect praise during such times may be even more disappointed than they normally would if they perceive (1) that organizational leaders do not adequately recognize or appreciate their efforts or (2) that their peers receive greater recognition than they do. The negative impact of criticism during such times may be particularly distressing given the fact that negative emotional reactions tend to exert disproportionately stronger effects on individual attitudes than positive ones (Gaddis, Connelly, & Mumford, 2004; Taylor, 1991). The effect may be even more detrimental if the negative feedback is viewed as inconsiderate and unsupportive or if the person giving the feedback displays negative emotions (Baron, 1990; Ilgen, Peterson, Martin, & Boeschen, 1981; Weisinger, 1989).

**Moral legitimacy.** Beyond the instrumental and relational factors described above, members of organizations may judge the legitimacy of their organizations on moral grounds (Leach, Ellemers & Barreto, 2007). An example of this phenomenon at work on a broader scale comes from Skitka, Bauman, and Lytle’s (2009) study of perceived legitimacy of the U.S. Supreme Court. These researchers observed that the degree of individual moral conviction on the subject of physician-assisted suicide observed prior to the court’s ruling on the subject was predictive of the individual’s judgment of the court’s legitimacy following the ruling. In a similar manner, members of organizations may ascribe a greater or lesser degree of moral legitimacy to their organizations depending on whether the organizations are seen as engaging in activities that affirm or undermine their personally held morals and values.
Accreditation inspections, we argue, serve to reassert within organizations the core values espoused by the larger institution. Of course, for such values to resonate with the individual and trigger reassessment of moral legitimacy, the individual would need to possess some degree of moral investment in these same core values. In the context of this study, a physician may be more likely to positively reassess the moral legitimacy of his or her hospital during an accreditation inspection if (1) he or she places moral value on providing high quality patient and (2) views enforcement of hospital accreditation standards as the appropriate strategy for achieving improvement in this domain. Conversely, a mid-level administrator in the same hospital who values resource sustainability above all else might be prompted to reassess the hospital’s legitimacy in a more negative light if he or she observes that the attention directed toward quality is detrimental to the long term stability of hospital operations.

In summary, we anticipate that as leaders in organizations direct attention toward compliance with accreditation standards, the likelihood that individuals will actively reassess the legitimacy of their hospitals along any of these dimensions will increase. Though individual responses to such organizational action may be framed by the individual’s relative degree of sensitivity to specific instrumental, relational, and moral triggers, we assert that the stage is set during accreditation cycles for judgment reassessment to occur. Thus, we offer our first hypothesis:

*Hypothesis 1: The “jolt” to the organization that is triggered by accreditation inspections will be sufficiently potent to trigger reassessment of organizational legitimacy among members of the organization.*
**Judgment Reassessment**

Again, a number of factors may moderate the main effect of the “jolt” on (1) the likelihood that an individual would actively reassess his or her judgment of the organization’s legitimacy and (2) the nature and direction of the reassessed judgment. As described above, the potential scenarios that may trigger judgment reassessment are virtually innumerable as are the individual responses to those scenarios. As such, we will not venture to hypothesize the direction of the effect in this study. A more broadly meaningful exercise would be to consider individual characteristics that might predispose members of organizations to engage in judgment reassessment in the first place.

One potential characteristic is the individual’s status as either a leader or a non-leader in the organization. Broadly speaking, organizational leaders direct attention within organizations. In contrast, it is the non-leaders who execute programs under the direction of the leaders. We would expect that non-leaders would be particularly sensitive to changes in the direction of organizational attention as they exert little control over the direction of attention but must deal with the outcomes of changes in attention patterns. Leaders, on the other hand, are tasked to ensure the optimal performance and ongoing survival of their organizations. Consequently, any changes within organizations likely reflect the strategic and tactical decisions of the organizational leaders and would not necessarily be perceived as straying from the status quo. Thus, we offer our second hypothesis:
Hypothesis 2: Non-leaders will be more likely than leaders to reassess organizational legitimacy during accreditation cycles.

Judgment Use

Individuals who actively and purposefully engage in judgment reassessment may put the new judgment into use, or may discard it if circumstances within the organization dictate that the original judgment was more appropriate (Tost, 2011). Generally speaking, we expect that individuals would retain the new judgment only if the organization is able to sustain the conditions under which the new judgment was formed (at least long enough for the individual to perceive it as the new “normal”). The cyclical isomorphism model described previously suggests, however, that leaders specifically direct attention toward accreditation standards only as long as the threat of an accreditation inspection is high. As the institutional pressure to conform to these standards wanes, leaders within these organizations may redirect attention toward the diverse, yet routine, priorities endemic to their immediate environments. When this happens, many of the positive or negative factors that may have triggered judgment reassessment may fade as well.

Of course, not every perceived change will, of necessity, be negated once organizational attention is redirected away from accreditation standards. Some instrumental needs such as individual promotion, for example, may continue to be met adequately or even exceptionally well even months after an accreditation inspection. On the whole, however, we would expect that any new judgments regarding organizational legitimacy would tend to be discarded as organizational attention is gradually redirected.
toward routinely diverse priorities and organizational life slips back toward the status quo following an accreditation inspection. Stated more succinctly, our final hypothesis is as follows:

_Hypothesis 3: Members of organizations that engage in judgment reassessment during an accreditation cycle will tend to revert back to their original judgments of organizational legitimacy as the threat of inspection wanes._

### Setting, Data, and Methods

#### Setting

We examine these phenomena within twenty-three United States Navy hospitals located in the United States and on military bases around the world. The Navy adopted Joint Commission accreditation for its hospitals in order to demonstrate a standard of quality comparable to hospitals in the civilian sector. As in the civilian sector, the Joint Commission reaccredits Navy hospitals on an approximately triennial basis. Unlike the civilian sector, however, Navy hospital revenue streams are not directly impacted by adverse accreditation decisions (see the Social Security Act of 1965, which decreed that formal accreditation satisfies the federal health and safety requirements necessary for hospitals to participate in the Medicare program). Thus, within Navy hospitals we observe a more pure effect of institutional pressure to achieve accreditation rather than an effect driven by both institutional and resource dependence needs.

Navy hospitals also face pressure from the larger military community to maintain codified military standards relating to personnel, facilities, security, and many other
programs. These pressures are perhaps most salient during periodic Medical Inspector General (MED IG) inspections, which tend to occur in tandem with Joint Commission inspections. Consequently, for one to two weeks every three years, Navy hospitals face a highly concentrated dose of pressure to conform to institutional standards related to their status as both hospitals and military commands. For the sake of simplicity, we hereafter refer to Joint Commission / MED IG inspections collectively as “accreditation inspections.” Though we readily acknowledge that the two inspections represent fundamentally distinct activities, they nevertheless elicit similar organizational responses that may potentially impact individuals in similar ways.

If a Navy hospital fails an accreditation inspection, it risks losing its legitimacy within the greater military and medical communities. Given the unique characteristics of Navy hospitals (e.g., little direct competition, etc.) it is unlikely that the de-legitimized hospital would ever close its doors as a result of a failed inspection. Even so, failure may significantly impact stakeholder confidence in the ability of the Navy hospital to achieve its mission to provide quality healthcare to its patients. Perhaps more significantly, the members of the failing hospital who are found to be at fault for the failure face the prospect of poor personnel evaluations and, consequently, diminished opportunity for promotion through the military ranks. Nowhere in the military organization is that threat more salient than at the level of the Commanding Officer, whose role is largely symbolic (Pfeffer & Salancik, 1978). For the Commanding Officer, failing an accreditation inspection may potentially lead to his or her removal and replacement. Thus, the Commanding Officer may perceive an unusual degree of pressure to pass the inspection, which may in turn result in an unusual degree of attention directed toward compliance
with institutionalized accreditation standards when the threat of inspection becomes more salient.

Aside from these draconian consequences for non-compliance, the pressures associated with accreditation inspections in Navy hospitals tend to be highly prescriptive and episodic, making it even more likely that Commanding Officers would choose to de-prioritize competing demands, if only temporarily, to achieve compliance. For example, both the MED IG and the Joint Commission publish highly detailed requirements that hospitals either meet or do not meet (Joint Commission, 2012; Naval Inspector General, 2012). To ensure compliance with these requirements, the Joint Commission and the MED IG conduct inspections approximately every three years. Thus, Commanding Officers in Navy hospitals understand (1) exactly what will be required of their hospitals in order to pass the inspections and (2) the general time frame in which compliance with accreditation requirements must be demonstrated. This time frame may be further clarified when hospitals found to be non-compliant during inspections are given specified periods of time in which to remedy all deficiencies before accreditation is granted.

To examine the hypothesized moderating effect of individual status, we divide the military personnel in our study into two broad groups, commissioned officers and enlisted personnel. In reality, a rather spacious divide exists between these two populations along a number of traditional and professional dimensions. In very practical terms, the differences are no less significant. First and foremost, commissioned officers occupy positions of leadership within military commands. Though senior enlisted personnel also occupy positions of leadership, the type of leadership they exercise is quite different from the type of leadership exercised by commissioned officers. Whereas
senior enlisted leaders tend to exercise personnel leadership (i.e. responsibility over the training, discipline, and morale of their subordinate sailors), commissioned officers tend to exercise program leadership (i.e. responsibility for the success of key programs and initiatives within the organization). It is the commissioned officers who direct attention within organizations. In contrast, it is the enlisted personnel (including the senior enlisted leaders) who execute programs under the direction of commissioned officers.

Of note, though our original dataset included observations for both military and civilian personnel, we chose to limit our analysis to military personnel in an effort to strengthen the internal validity of the study. Whereas civilian personnel likely exhibit systematic differences from hospital to hospital and region to region, military personnel are assigned to hospitals using a system that, while not completely random, approaches random assignment. Thus, by limiting the study to military personnel, the results of the study may be interpreted in a more broadly meaningful way.

**Key Variables**

**Dependent variable.** The data we examine come from the United States Department of Defense, Defense Equal Opportunity Management Institute (DEOMI). DEOMI administers its Organizational Climate Survey (DEOCS) to members of military commands when requested by commanding officers of those commands (commanding officers generally request administration of the DEOCS every one to two years). We obtained longitudinal DEOCS data covering the period from 2008 through 2010 for the twenty-three Navy hospitals in our study. Our dataset contained 22,259 individual survey
responses obtained via seventy-eight separate administrations of the DEOCS in the twenty-three Navy facilities.

As its name suggests the DEOCS measures organizational climate, which Ostroff, Kinicki, and Tamkins (2003) broadly define as “an experientially based description of what people see and report happening to them in an organizational situation” (p. 566). As the unit of analysis in this study is the individual rather than the organization, however, we appeal to Moran and Volkwein’s (1992) more specific description of the “perceptual/psychological approach” (p. 26) to climate in which climate is thought to emerge from individual responses to situational stimuli – responses that emerge and manifest themselves in ways that are psychologically meaningful to the individual (see James, Hater, Gent, & Bruni, 1978). From this perspective, individual need fulfillment (i.e. instrumental, relational, moral need fulfillment) may be viewed as driving individual perceptions of the climate in the organization. Thus, though the DEOCS is not constructed to measure perceived legitimacy per se, when analyzed at the individual level it offers a useful and concrete mechanism for assessing shifts in perceptions of psychological climate – shifts that are likely to be strongly correlated with shifts in individual legitimacy judgments.

We selected a total of eight distinct survey items from the DEOCS to create our legitimacy judgment variable (labeled Legitimacy in our model). We specifically chose these items because they offer a reasonable balance of instrumental, relational, and moral themes (see Table 4.1). Though individual responses to each of the selected items could potentially be informed by any of the legitimacy triggers – or all of them simultaneously – we indicate in parentheses beneath each survey item our assessment of the most
Table 4.1 – Survey items included in the legitimacy judgment variable

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Principal Component Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assuming I could stay until eligible for retirement, I do not see many reasons to do so. (Instrumental)</td>
<td>0.511</td>
</tr>
<tr>
<td>Becoming a part of this organization was definitely not in my best interests. (Instrumental)</td>
<td>0.715</td>
</tr>
<tr>
<td>Often, I find it difficult to agree with the policies of this organization on important matters relating to its people. (Instrumental/Relational)</td>
<td>0.701</td>
</tr>
<tr>
<td>This organization is loyal to its members. (R) (Relational)</td>
<td>0.821</td>
</tr>
<tr>
<td>This organization is proud of its people. (R) (Relational)</td>
<td>0.812</td>
</tr>
<tr>
<td>The values of this organization reflect the values of its members. (R) (Relational/Moral)</td>
<td>0.735</td>
</tr>
<tr>
<td>I find that my values and the organization’s values are very similar. (R) (Moral)</td>
<td>0.751</td>
</tr>
<tr>
<td>I am proud to tell others that I am part of this organization. (R) (Moral)</td>
<td>0.799</td>
</tr>
</tbody>
</table>

(R) Responses were reverse-coded to remain consistent in tone with the other survey items.

Prominent legitimacy judgment trigger(s) at work within the specific items. The second column in the table presents the results of principal component factor analysis of the eight survey items. The analysis revealed that the eight items load onto a single factor, with factor loadings greater than 0.50 (a majority of items exhibited factor loadings greater than 0.70). Further analysis of these eight items yielded a Cronbach’s Alpha measurement of 0.8715, indicating strong scale reliability.
For each of the eight items, respondents were asked to indicate their level of agreement with the statement using a Likert scale (1 = Totally agree with the statement, 2 = Moderately agree with the statement, 3 = Neither agree nor disagree with the statement, 4 = Moderately disagree with the statement, 5 = Totally disagree with the statement). To make interpretation of the analytic results more intuitive, certain responses were re-coded such that movement toward 5 for each item indicated positive movement and movement toward 1 indicated negative movement. In other words, we did not recode the three negatively phrased survey items as movement toward disagreement constitutes a positive response. We combined and averaged the responses from the eight distinct survey items to create a single measure of *Legitimacy* for each respondent.

**Independent variables.** We began constructing our key independent variables by obtaining all Joint Commission inspection dates for the subject hospitals using the public domain Joint Commission website. We then verified that all MED IG inspections for these hospitals occurred concurrently with the Joint Commission inspections by obtaining MED IG inspection documentation for each of the hospitals through the Freedom of Information Act (FOIA). Using these inspection dates as a guide, we created a binary variable, *Inspection*, to indicate which of the 22,259 observations in our sample occurred during a hypothesized judgment reassessment window, and which occurred during the stage when we would expect that existing judgments would be most likely to be employed (1 = Reassessment Window, 0 = Use Window). For our base model, we defined the reassessment window as 15 days prior to the inspection to 75 days following the inspection. We chose these dates to (1) allow for the possibility of anticipatory effects and (2) account for the fact that the reassessment stage would likely persist for a
period of weeks following the inspections. We examine the robustness of this choice later in the paper.

To test for the interactive effects of leadership status, we created a binary variable (Enlisted) that categorized respondents as either enlisted personnel (Enlisted = 1) or commissioned officers (Enlisted = 0). Finally, we control for the individual respondent’s age, gender and job satisfaction using survey items from the DEOCS. Of note, in controlling for individual job satisfaction, we created a single job satisfaction variable using five separate survey items. Principal component factor analysis revealed that the five survey items load onto a single factor, with factor loadings greater than 0.70 (Cronbach’s Alpha = 0.8293).

Empirical Model

As noted above, our study examined observations of legitimacy judgment obtained from organizational climate surveys administered within twenty-three United States Navy hospitals over a three year period (January 2008 to December 2010). We do so by examining a model of the following form:

\[
\text{Legitimacy}_{ijt} = f(\gamma_t, \alpha_j, \text{Inspection}_{jt}, \text{Enlisted}_{ijt}, X_i, \epsilon_{ijt})
\]

(1)

Where \(\gamma_t\) represents year fixed effects to account for unobserved temporal patterns; \(\alpha_j\) represents medical facility fixed effects to account for time invariant organizational factors that may influence legitimacy judgment; \(X_i\) represents a vector of individual characteristics, including job satisfaction, age and gender; and \(\epsilon_{ijt}\) represents the residual.
We examine this model using Ordered Logistic Regression techniques given the discrete and ordered characteristics of our dependent variable. Again, our re-ordering of *Legitimacy* implies that a positively signed coefficient will indicate movement toward agreement with the statements while a negatively signed coefficient will indicate movement toward disagreement with the statements. In other words, a negative coefficient indicates that individual judgments of organizational legitimacy are, on average, deteriorating while a positive coefficient indicates that individual judgments of organizational legitimacy are improving.

In order to test the moderating influence of status on the relationship between accreditation inspections and legitimacy judgments, we amend (1) to include the interaction between *Inspection* and *Enlisted*. In addition, given that each separate administration of the survey yielded widely varying numbers of responses and to ensure that the number of responses in any particular survey did not unduly influence the estimates in our models we weighted each individual response according to the relative yield of its respective survey administration. Finally, we clustered all standard errors by survey administration.

**Results**

**Results of the Base Model**

Table 4.2 outlines the results from our analysis of the base model. In column 1, we present the main effects of *Inspection* without interactions. Column 2 introduces the interaction of *Inspection* and *Enlisted*. In both analyses, our model controlled for a number of variables including the respondent’s gender, age, and job satisfaction. Though
the main effects of gender, age, and job satisfaction were not of direct interest to the present study, their clear significance (notably for job satisfaction) nevertheless introduces the notion that these variables may contribute in non-trivial ways to shaping individual legitimacy judgments, particularly during accreditation periods. Indeed, these findings present a promising direction for future theoretical and empirical study.

Table 4.2 – Regression testing the main effects and interaction of accreditation and status.

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection Window (days from inspection)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspection</td>
<td>0.185**</td>
<td>-0.000118</td>
</tr>
<tr>
<td></td>
<td>(0.0856)</td>
<td>(0.129)</td>
</tr>
<tr>
<td>Enlisted</td>
<td>-0.540***</td>
<td>-0.571***</td>
</tr>
<tr>
<td></td>
<td>(0.0557)</td>
<td>(0.0558)</td>
</tr>
<tr>
<td>Enlisted x Inspection</td>
<td>0.252**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.128)</td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>1.718***</td>
<td>1.717***</td>
</tr>
<tr>
<td></td>
<td>(0.0352)</td>
<td>(0.0351)</td>
</tr>
<tr>
<td>Female</td>
<td>-0.288***</td>
<td>-0.287***</td>
</tr>
<tr>
<td></td>
<td>(0.0539)</td>
<td>(0.0538)</td>
</tr>
<tr>
<td>Age 1</td>
<td>-0.0767</td>
<td>-0.0790</td>
</tr>
<tr>
<td></td>
<td>(0.0527)</td>
<td>(0.0532)</td>
</tr>
<tr>
<td>Age 2</td>
<td>0.191***</td>
<td>0.190***</td>
</tr>
<tr>
<td></td>
<td>(0.0656)</td>
<td>(0.0657)</td>
</tr>
<tr>
<td>Age 3</td>
<td>0.575***</td>
<td>0.572***</td>
</tr>
<tr>
<td></td>
<td>(0.0840)</td>
<td>(0.0836)</td>
</tr>
<tr>
<td>Age 4</td>
<td>0.609***</td>
<td>0.601***</td>
</tr>
<tr>
<td></td>
<td>(0.168)</td>
<td>(0.168)</td>
</tr>
<tr>
<td>2009</td>
<td>0.0934</td>
<td>0.0974</td>
</tr>
<tr>
<td></td>
<td>(0.0651)</td>
<td>(0.0659)</td>
</tr>
<tr>
<td>2010</td>
<td>0.150***</td>
<td>0.152***</td>
</tr>
<tr>
<td></td>
<td>(0.0567)</td>
<td>(0.0569)</td>
</tr>
<tr>
<td>Facilities</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Survey Administrations</td>
<td>78</td>
<td>78</td>
</tr>
<tr>
<td>Observations</td>
<td>22,259</td>
<td>22,259</td>
</tr>
</tbody>
</table>

Robust standard errors are clustered by survey administration and reported in parentheses

*** p<0.01, ** p<0.05, * p<0.1
We hypothesized that the jolt introduced by accreditation inspections would be sufficiently potent to trigger a reassessment of the organization’s legitimacy by members of the organization. The main effect of *Inspection* in our base model is significant ($\beta = 0.185$, $p < 0.05$) indicating that judgment reassessment is occurring during the defined reassessment window, thus providing support for Hypothesis 1. Of note, the coefficient was positive, indicating improved perceptions of legitimacy during this period.

Hypothesis 2 introduced the notion that the individual’s status in the organization might moderate the effect of the jolt on the likelihood that the individual would engage in a reassessment of the organization’s legitimacy. More specifically, we hypothesized that enlisted personnel would be more likely than commissioned officers to reassess organizational legitimacy in the wake of an accreditation inspection. In column 2 we do, in fact, observe significant interaction between *Inspection* and *Enlisted* ($\beta = 0.252$, $p < 0.05$) suggesting that the positive effect we observe in the main model is primarily driven by enlisted personnel. Thus, Hypothesis 2 was supported in our analysis.

**Robustness Analysis**

We note that the primary explanatory variable in our base model, *Inspection*, indicates whether the legitimacy judgment is observed during the pre-defined 90-day reassessment window. In order to test the robustness of this choice and to determine the duration of the effect we observe in the base model, we constructed an additional model in which we defined six distinct observation windows at points farther and farther removed from the inspection (see Table 4.3). We defined these six windows as -75 to -16 days from inspection (Window 1), -15 to +15 days from inspection (Window 2), +16 to
Table 4.3 – Robust analysis of effect duration

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Legitimacy</th>
<th>(2) Legitimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window 1 (-75 to -16 days from inspection)</td>
<td>0.106</td>
<td>0.123</td>
</tr>
<tr>
<td>Window 2 (-15 to +15 days from inspection)</td>
<td>-0.0114</td>
<td>-0.0296</td>
</tr>
<tr>
<td>Window 3 (+16 to +75 days from inspection)</td>
<td>0.365***</td>
<td>0.0758</td>
</tr>
<tr>
<td>Window 4 (+76 to +135 days from inspection)</td>
<td>0.481***</td>
<td>0.648***</td>
</tr>
<tr>
<td>Window 5 (+136 to +195 days from inspection)</td>
<td>-0.0223</td>
<td>0.0236</td>
</tr>
<tr>
<td>Window 6 (+196 to +255 days from inspection)</td>
<td>0.0323</td>
<td>0.120</td>
</tr>
<tr>
<td>Enlisted</td>
<td>-0.541***</td>
<td>-0.551***</td>
</tr>
<tr>
<td>Window 1 x Enlisted</td>
<td>-0.0248</td>
<td>(0.0634)</td>
</tr>
<tr>
<td>Window 2 x Enlisted</td>
<td>0.0220</td>
<td>(0.173)</td>
</tr>
<tr>
<td>Window 3 x Enlisted</td>
<td>0.411***</td>
<td>(0.119)</td>
</tr>
<tr>
<td>Window 4 x Enlisted</td>
<td>-0.233</td>
<td>(0.172)</td>
</tr>
<tr>
<td>Window 5 x Enlisted</td>
<td>-0.0625</td>
<td>(0.0761)</td>
</tr>
<tr>
<td>Window 6 x Enlisted</td>
<td>-0.138</td>
<td>(0.174)</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>1.717***</td>
<td>1.716***</td>
</tr>
<tr>
<td>Female</td>
<td>-0.286***</td>
<td>-0.286***</td>
</tr>
<tr>
<td>Age 1</td>
<td>-0.0797</td>
<td>(0.0534)</td>
</tr>
<tr>
<td>Age 2</td>
<td>0.187***</td>
<td>0.188***</td>
</tr>
<tr>
<td>Age 3</td>
<td>0.574***</td>
<td>0.570***</td>
</tr>
<tr>
<td>Age 4</td>
<td>0.616***</td>
<td>0.599***</td>
</tr>
<tr>
<td>2009</td>
<td>0.0723</td>
<td>0.0753</td>
</tr>
<tr>
<td>2010</td>
<td>0.0899*</td>
<td>0.0882*</td>
</tr>
</tbody>
</table>

Robust standard errors are clustered by survey administration and reported in parentheses

*** p<0.01, ** p<0.05, * p<0.1

| Facilities | 23 | 23 |
| Survey Administrations | 78 | 78 |
| Observations | 22,259 | 22,259 |
+75 days from inspection (Window 3), +76 to +135 days from inspection (Window 4), +136 to +195 days from inspection (Window 5), and +196 to +255 days from inspection (Window 6) respectively.

Using the results of this analysis, we observe no significant effect in the first two observation windows. We then observe a positive and highly significant effect in the period between +16 and +75 days from the inspection ($\beta = 0.365$, $p < 0.01$). These findings indicate that the effect that we observe in our base model appears to be driven almost entirely by factors that become salient only after the accreditation inspection is complete, lending greater support for a potentially causal relationship. Interestingly, when we look to the period between +76 and +135 days from the inspection, the effect appears to grow even larger and remains highly significant ($\beta = 0.481$, $p < 0.01$). The effect then disappears in the two subsequent observation periods. Together, these findings reiterate that judgment reassessment is occurring, but that individuals tend to discard these more positive judgments within three to four months of the accreditation inspection. Thus, Hypothesis 3 was supported in our analysis.

Of note, we observe in column 2 of Table 4.3 that the moderating effect of individual status is strong and highly significant in the period between +16 and +75 days from the inspection ($\beta = 0.411$, $p < 0.01$). It then disappears in the following observation period when the effect for commissioned officers (displayed as the main effect in Window 4) becomes strong and highly significant ($\beta = 0.648$, $p < 0.01$). These results suggest that changes in legitimacy judgments among enlisted personnel drive the effect we see in our base model. However, it is the effect on commissioned officers that perpetuates (and, in fact, increases) observed judgment reassessment through Window 4.
In light of these findings, it appears that the moderating effect of status that we hypothesized above may, in fact, be more nuanced than previously thought. Indeed, it appears that the moderating effect may not be driven by one party engaging in reassessment and the other not engaging in reassessment. Rather, it appears that the moderating effect is the result of one party, commissioned officers, delaying reassessment (see Figure 4.2).

**Figure 4.2 – Diagram illustrating the potential moderating effect of status**

![Diagram](image)

**Discussion**

**Theoretical Contributions**

The fundamental questions motivating this study ask (1) whether the “jolt” introduced by the accreditation inspection process would be sufficiently potent to trigger a reassessment of legitimacy judgment at the individual level, (2) whether the individual is likely to retain and put into use his/her newly formed legitimacy judgment of the
organization, and (3) whether the individual’s relative status within the organization would moderate any relationship between accreditation inspections and judgment reassessment. Our analysis suggests that accreditation inspections can, in fact, jolt organizations with sufficient force to trigger judgment reassessment among members of the inspected organizations. In the specific context of this study, the jolt resulted in reassessment that was, on average, positive. However, as we pointed out previously, certain circumstances at work within specific organizations and organizational fields could potentially produce negative judgment reassessments among some individuals. In any case, the fundamental principle holds. Judgment reassessment appears to be preceded by a jolt, assuming the jolt is sufficiently potent to trigger the reassessment. Moreover, our analysis suggests that new legitimacy judgments tend to be discarded as organizational life returns to the status quo in the weeks and months following accreditation inspections.

One particularly interesting finding that emerged from our analysis relates to the interactive effect of status. We originally hypothesized that status would moderate the relationship such that judgment reassessment would occur primarily among non-leaders, with leaders displaying few judgment reassessment tendencies. Our base model appeared to confirm this hypothesized interaction. However, when we robustly examined the duration of the reassessment period, we found that leaders in our study (i.e. commissioned officers) did, in fact, engage in judgment reassessment but that their reassessment was delayed, relative to non-leaders (i.e. enlisted personnel).

One potential explanation for this phenomenon is the possibility that the two groups form legitimacy judgments using different dimensions of legitimacy. For
example, if enlisted personnel are more likely than commissioned officers to judge legitimacy based on relational factors, then enlisted personnel may be more likely than commissioned officers to reassess legitimacy just after an inspection when senior leaders tend to distribute the most praise and recognition. Conversely, if commissioned officers are more likely than enlisted personnel to judge legitimacy based on instrumental factors such as operational stability then we wouldn’t expect commissioned officers to engage in reassessment until isomorphic movement has slowed and operations within the organization have stabilized.

Unfortunately, exploring such phenomena more fully is beyond the capabilities of our data though such analysis would add considerable nuance to the preliminary findings presented here and would offer a logical next step in the process. Indeed, a thorough, qualitative analysis of a single Navy hospital, with a specific focus on how commissioned officers and enlisted personnel assess legitimacy along the three dimensions, particularly as the hospital cycles through the accreditation process, might offer additional explanations and prompt new directions for theoretical development and empirical analysis.

From a theoretical perspective the validity of Tost’s (2011) legitimacy judgment model is clearly on display in our analysis. Again, we can assume with some confidence that the typical respondent arrives for duty at a given hospital, forms an initial judgment of that hospital’s legitimacy (most likely in a more passive manner), reassesses that judgment when the hospital undergoes an accreditation inspection, retains or discards the new judgment, and leaves the hospital before it is inspected again. Though many of the factors we considered here were specific to our study context, we would expect the basic
processes to play out in a similar way in a variety of organizational contexts and within diverse institutional fields.

Further, our analysis provides compelling preliminary support for the cyclical isomorphism construct we introduced at the beginning of the paper. Though our empirical model did not specifically measure direction of organizational attention in relation to accreditation inspections, the results we observe in terms of reassessed legitimacy judgment underscore the likelihood that change is occurring within organizations, and that such change is cyclically associated with accreditation inspection periods. Though more research is needed to definitively connect these constructs, our findings are encouraging.

**Practical Applications**

In addition to their theoretical contributions, we assert that our findings offer much practical utility to executives and managers, particularly those working within highly institutionalized fields. First, as the individual’s judgment of legitimacy is strongly associated with job satisfaction, organizations may be better positioned to realize a strong return on their investment to retain (or even attract) quality employees when such efforts are specifically undertaken in the weeks just after an accreditation inspection (assuming legitimacy judgments have improved). At the very least, organizations might see greater success in cultivating a positive organizational environment, particularly during accreditation cycles, when such efforts are launched with a specific focus on the three dimensions of legitimacy described above.
Within the context of this study, our findings suggest that Navy hospitals enjoy the particularly fortuitous – though apparently fleeting – position of effectively serving two masters. For a period of several weeks following inspections, individuals appear to judge their organizations as more legitimate. Likewise, because none of the hospitals in our sample failed an accreditation inspection, we can surmise that the accrediting bodies were satisfied as well. The implication of these findings is that any efforts among our sample hospitals to “get back to business as usual” following accreditation inspections would, in fact, be counterproductive. Rather, leaders in such organizations could realize significant long term benefits by embracing the organizational change brought about by the inspections.

This is, of course, more easily said (or written) than done. Accreditation inspections are inherently stressful on a number of levels. Consequently, managers may tend to assuage stress among subordinates by reassuring them that they simply need to get through the inspections, or that things will be better once the inspections are behind them. Even so, managers who are cognizant of the moral, instrumental, and relational factors that trigger reassessment of legitimacy may be well positioned to nourish new legitimacy judgments long enough for them to be accepted and put into use. Indeed, a primary component of the legitimacy judgment model is that organizations need not perpetually maintain certain standards, programs or procedures for individuals to maintain a certain legitimacy judgment. Rather, the model suggests that to be perceived as legitimate, organizations need only conduct themselves in a legitimate manner (however legitimacy is defined) long enough for the individual to enter the use stage (Tost, 2011). Though there is no specific standard regarding the amount of time
necessary for a newly reassessed judgment to be put into use, one might reasonably assume that if leaders are able to perpetuate conditions even for a month or two longer than they currently do, the likelihood of the judgment being put into use would increase.

**Limitations and Opportunities for Future Research**

As with all studies of this nature, the present study is not without its limitations. We recognize, for example, the inherent limitation of analyzing data that was obtained using a survey instrument that was not specifically designed to measure the outcomes of interest in our study. As stated above DEOCS data, when aggregated and analyzed at the organizational level, offers commanding officers a broad measure of organizational climate rather than a specific measure of instrumental, relational and/or moral legitimacy. We overcome this limitation to some degree by (1) analyzing data at the individual level and observing general judgment trends over time, and (2) combining eight survey items into a single measure rather than attempting to disentangle the specific instrumental, relational and moral components of legitimacy judgment. Even so, we acknowledge that our analysis offers only a preliminary indication of how accreditation inspections might impact individual perceptions of organizational legitimacy. Consequently, there is ample room to extend this analysis using sharper measures of legitimacy judgment.

Additionally, while we have taken steps to reduce the possibility of confounding and endogeneity, the design of our study nevertheless constrains our ability to draw conclusive causal relationships between institutional pressures associated with accreditation and individual judgments of organizational legitimacy. This limitation is mitigated somewhat by the fact that we analyzed responses from seventy-eight separate
administrations of the DEOCS, and the fact that survey respondents were distributed among the twenty-three participating hospitals in a quasi-random manner. Moreover, the lack of an observed effect in the days surrounding the actual inspection may actually bolster the argument for causality by clearly establishing temporal precedence (i.e. a change in perceived legitimacy comes only after the actual accreditation inspections are completed). Even so, we recognize that our findings cannot be construed as anything more than predictive or associative.

Another limitation in this study stems from the fact that our observation of legitimacy judgment was unbalanced over time. In other words, the nature of our data forced us to categorize respondents into broad time windows relative to their hospitals’ inspection dates. In doing so, we recognized that there may be significant differences between respondents who submitted surveys sixteen days after an inspection and those who submitted surveys 75 days after an inspection. Again, an in-depth ethnographic assessment of personnel working in an inspected organization might significantly enhance our knowledge in this regard.

Also, by limiting this study to military personnel, we acknowledge the challenge of applying our findings to other populations. Stated more succinctly, our gain in internal validity may, arguably, be overshadowed by a loss in external validity. In general, though military personnel differ in some ways from the greater human population, we assert that such differences are minimized in the military healthcare community. The non-transference argument would be particularly salient if the proposed study focused on a military population that engages in work that is fundamentally different from work engaged in by members of the civilian community (e.g., driving tanks, conducting
training on hand-to-hand combat, etc.) However, we believe that the provision of healthcare in the military is sufficiently similar to the provision of healthcare in the civilian sector that any differences between these populations are largely inconsequential as they relate to this particular study.

We further recognize the fundamental difficulty of attempting to link outcomes at the individual level to phenomena at work at the organization and institutional levels. Indeed, the distance between these two levels of analysis increases the possibility of other factors concealing the effects we wish to observe. However, viewed from another perspective, our results juxtaposed against this same distance may suggest that our findings actually underestimate the true correlation between institutional pressures associated with accreditation inspections and the likelihood of an individual engaging in purposeful reassessment of the organization’s legitimacy. In any case, while there may be mediating factors, the strength of our findings and the methodological steps we have taken to mitigate endogeneity and bias (e.g., individual level covariates, year and organization fixed effects, clustered standard errors) give us a level of comfort that the results we have presented are meaningful.

Finally, we must acknowledge that our analysis did not distinguish between professions within organizations, though such distinction would add considerable dimension to this discussion. For example, in Navy hospitals medical doctors and hospital administrators are both commissioned officers, though they function in vastly different roles and, correspondingly, they may view organizational accreditation through vastly different lenses. Indeed, it is possible that members of these disparate professional subgroups are differentially prone to engage in judgment reassessment when their
organizations submit to accreditation inspections. Though the empirical results presented here offer compelling preliminary support for the hypothesized relationship between accreditation cycles and changes in individuals’ judgments of the legitimacy of their organizations, additional study is clearly needed to ascertain the manner and extent to which specific professional ties frame legitimacy judgments.

Conclusion

Organizations operating within highly institutionalized fields serve two masters. On the one hand, such organizations must strive to demonstrate alignment with institutionalized standards in order to be perceived as legitimate by institutional entities such as accrediting bodies. On the other, such organizations must strive to be judged as legitimate by their employees. In effect, the erosion or loss of legitimacy at either level can diminish organizational sustainability (Hamilton, 2006; Dowling & Pfeffer, 1975; Rao, 1994; Tyler, 2006). Thus, organizations that fail to adequately attend to either master risk crippling their ability to thrive in their respective environments.

This article integrated three distinct research streams representing three descending levels of analysis to argue that the “jolt” introduced by institutional accreditation processes at the organizational level would be sufficiently potent to trigger reassessment of the organization’s legitimacy among members of organizations. Additionally, our analysis examined whether the individual is likely to retain and put into use his or her newly formed legitimacy judgment of the organization, and whether individual status moderates these relationships. Though there is much that remains to be discovered, the findings presented here suggest that a potent “jolt” at the organizational
level may, under certain circumstances, trigger reassessment of organizational legitimacy, and that cyclically isomorphic behavior associated with accreditation inspections might predict such reassessment.

Future theoretical and empirical research should consider the independent and interactive effects of moral, instrumental, and relational legitimacy, particularly within the context of institutionally induced organizational change. Additionally, we challenge researchers to consider (1) the extent to which strong professional affiliations impact the likelihood that individuals will engage in purposeful reassessment of organizational legitimacy judgment and (2) the manner by which such affiliations frame legitimacy judgments.
CHAPTER 5

CONCLUSION

A practical challenge facing any researcher is to effectively answer the question, “so what?” Though each of the three academic papers presented here offers bits of an answer to this question, these bits, when taken in isolation, represent only partially assembled pieces of a larger puzzle. Thus, the final chapter of the dissertation is dedicated to synthesizing the notable theoretical and empirical contributions to the academic literature offered in these papers and to comprehensively discussing the practical implications of these contributions for policy makers, accrediting bodies and hospital leaders. Finally, as the work represents but a first step toward understanding cyclical isomorphism and the micro-effects of hospital accreditation, the chapter concludes with a discussion of opportunities to expand on the ideas presented here and to explore new avenues of research.

Contributions to the Academic Literature

First and foremost, this dissertation contributes to the literature by integrating in a novel way three streams of research representing the descending levels of analysis. Though each of the streams falls squarely in the domain of management scholarship, proponents of each stream have become increasingly isolated over the years, effectively creating distinct disciplines. Management scholars are aware of these schisms and routinely issue challenges calling for greater integration of these and other paradigms. Yet, integration remains relatively uncommon in the management literature due, perhaps,
to the theoretical distance that must now be covered in order to effectively link two (or more) of the highly specified sub-disciplines.

In envisioning the present work, it became clear early on that attempting to establish a direct link between institutional phenomena and individual responses to such phenomena would be impractical at best and misleading at worst. Linking institutional pressures such as those associated with accreditation to organizational attention patterns, on the other hand, presented a more feasible and meaningful approach. Likewise, establishing connections between shifts in organizational attention patterns and changes in patient outcomes and individual legitimacy judgments offered a reasonable and compelling strategy.

A search of the academic literature revealed little evidence that either of these propositions had been explored to any degree in the management or health policy communities. Thus, in a broad sense, the dissertation offers an informative and useful way of integrating Institutional Theory, the Behavioral Theory of the Firm, and the legitimacy judgment literature (with its foundations in social psychology). Furthermore, by integrating these streams of research and by empirically examining the validity of key propositions emerging from this integration, the dissertation offers three additional and distinct contributions to the literature. Each of these specific contributions is described in more detail below.

**Cyclical Isomorphism**

Chapter Two presented theoretical arguments that accreditation practices in the hospital industry may trigger waves of isomorphic response among accredited hospitals.
This proposition departs somewhat from classic Institutional Theory, which suggests that institutional entities exert relatively steady pressure on diverse organizations such that the organizations gradually come to resemble one another over time as the organizational field matures (DiMaggio & Powell, 1983). To be sure, hospital accreditation practices may lead to a general state of homogeneity among accredited hospitals as these hospitals are unlikely to stray too far from the institutionalized norms espoused by the accrediting body between site visits. Even so, the statistically significant changes in the micro-outcomes noted in Chapter Three and Chapter Four suggest (1) that some degree of cyclical isomorphic movement may nevertheless be occurring during reaccreditation periods and (2) that this isomorphic movement may impact accredited hospitals in non-trivial ways.

Together, these propositions and findings offer a unique perspective on institutional isomorphism and, consequently, contribute to the academic literature in a novel way. Though the cyclical isomorphism construct described here emerged from the hospital industry, its potential applicability in other industries is promising. The higher education industry, for example, relies heavily on reputation as a means of attracting quality students and securing financial support from the community. As in the hospital industry, graduate programs operating in diverse fields seek accreditation as a way of demonstrating compliance with commonly legitimized standards of education delivery and, ultimately, securing their own legitimacy in their respective fields (see CAHME, 2013, as an example of this phenomenon in the healthcare management education sector). Graduate program reaccreditation may mirror hospital reaccreditation in that it may trigger a general redirection of attention toward accreditation standards, if only
temporarily, during reaccreditation inspections. Thus, applying the cyclical isomorphism model in the context of higher education may reveal interesting fluctuations in outcomes of interest to educators such as student performance and faculty satisfaction.

**Cyclical Isomorphism and Patient Outcomes**

There are literally hundreds of published papers that have attempted to link various changes in healthcare operations to changes in patient outcomes. Again, this abundance of work is not particularly surprising given the fact that patient outcomes are a primary mechanism by which the effectiveness of hospitals and other healthcare providers is measured. Yet the study presented in Chapter Three is one of only two known studies to examine changes in mortality rates associated with accreditation inspections (see Moffett & Bohara, 2005, for the other study) and the first to longitudinally examine changes in monthly risk-adjusted mortality rates in a fixed set of hospitals over an extended period of time. As such, it sheds substantial light on a heretofore largely unexplored phenomenon. In addition, the mortality study employs methodology that is at once robustly sophisticated and broadly applicable. As inpatient mortality is one of dozens of outcomes that could be observed, there is substantial opportunity to employ similar models to explore the effects of hospital accreditation on a wide variety of outcomes.

**Cyclical Isomorphism and Individual Legitimacy Judgments**

As broadly influential as Institutional Theory has become over the past thirty-five years, research in this domain has focused almost exclusively on the macro-
organizational outcomes of institutionalization while largely ignoring the effect of institutional isomorphism on members of isomorphic organizations. Though this trend has begun to shift in recent years with greater exploration of individual-level institutional entrepreneurship (see DiMaggio, 1988; Battilana, 2006) such work has focused on the ability of certain individuals to influence the institutional environment rather than the other way around. Indeed, very little has been studied or written by institutional theorists examining the positive or negative outcomes of institutional isomorphism – particularly isomorphism spawned by coercive institutional pressures – among those individuals who are not positioned to act as institutional entrepreneurs. Likewise, few scholars of social psychology or organizational behavior have attempted to establish a link between isomorphic organizational change and individual responses to that change. Thus, the theoretical propositions offered in Chapter Two represent a new way of thinking about the potential interaction between the institution and the individual. Moreover, the analysis in Chapter Four lends compelling empirical support for the idea that individuals may be impacted by factors at the institutional level.

It is also important to highlight the unique contribution offered in the use of Tost’s (2011) legitimacy judgment model to assess the impact of accreditation inspections on members of organizations. The model suggests, among other things, that individuals may reassess the legitimacy of their organizations if the jolt to the organizational environment is strong enough. Though theoretically compelling, the model had heretofore been untested. Thus, the analysis presented in Chapter Four, in addition to answering the specific research questions posed therein, contributes to the academic literature by demonstrating the validity of a published theoretical model. To be
sure, the environment in which it was tested was highly contextual. Even so, the fundamental principles of the model were effectively demonstrated – individual legitimacy judgments appeared to shift upon application of a potent organizational jolt. Moreover, the tone of the legitimacy judgments appeared to regress toward the mean in the weeks following the jolt, suggesting that individuals may discard new judgments if organizational conditions do not continue to justify them.

**Implications for Policy Makers, Accrediting Bodies, and Hospital Leaders**

The theoretical propositions and empirical findings presented in this dissertation offer a number of real and immediate implications for policy makers, accrediting bodies, and hospital leaders. As the practice of accrediting hospitals is not likely to fade away, any direct or indirect micro-effects of accreditation – particularly those tied to the potential procurement or loss of valuable resources or those that impact the health and wellbeing of patients – should capture the attention of all three of these audiences.

**Implications for Policy Makers**

The analysis presented in Chapter Three demonstrates, albeit in an unconventional way, that fastidious alignment with accreditation standards can contribute to a reduction in risk-adjusted mortality rates in hospitals. At the same time, the findings highlight the notion that current accreditation practices may fall short of ensuring perpetual alignment with accreditation standards – at least among hospitals with little resource slack – even when site visits are unannounced. Stated more directly, the findings suggest a highly choppy and episodic alignment trajectory for some hospitals,
with a general state of misalignment being the status quo (see Figure 5.1). If this is the case then current hospital accreditation practices may have real value only during the few weeks immediately surrounding accreditation inspections.

**Figure 5.1 – Model of hospital trajectory suggested by research findings**

These findings raise two pressing questions for policy makers. First do current accreditation practices engender and facilitate the achievement of a level of quality among hospitals that is sufficient to justify their participation in government programs such as Medicare? In other words, if formal accreditation is the mechanism by which program eligibility is determined, is the mechanism sufficient? In reality, the answer to this question may be a qualified yes if policy makers deem that fluctuations in patient outcomes such as those noted in Chapter Three represent acceptable variation. Thus the second (and more immediately relevant) question is whether current accreditation practices can be improved such that policy makers might place greater confidence in their
capacity to effectively identify hospitals that meet quality standards over time. The answer to this question may also be yes.

Clearly, the ideal end state of hospital accreditation for policy makers (and certainly for patients) would be for hospitals to remain in perpetual alignment with accreditation standards (see Figure 5.2). However, the research on organizational attention patterns presented in Chapter Two suggests that the degree of organizational attention needed to achieve such perpetual alignment may not be possible in every case. Further exacerbating this challenge is the fact that accrediting bodies must devise standardized protocols that ensure unbiased evaluation but that are also feasibly enforceable in the face of internal resource constraints. Though more frequent evaluation of struggling hospitals might conceivably induce more consistent alignment with standards among struggling hospitals, most accrediting bodies likely lack the manpower and other resources necessary to conduct inspections on a more frequent basis.

Figure 5.2 – Optimal model of hospital trajectory

Accreditation Granted

Hospital Inspected

Hospital alignment with accreditation standards
Even if resources were available to conduct more frequent inspection, however, it is not clear that the need for realignment would ever completely disappear. Hospital leaders will likely continue to face a greater number of diverse pressures and demands than their available resources can address. Moreover, accrediting bodies (with their vested interest in bolstering their own legitimacy in the field) will likely continue to find ways to encourage improvement, even when minimum standards are met. Thus, a hospital trajectory such as the one presented in Figure 5.3 might represent a realistic alignment pattern.

**Figure 5.3 – Realistic model of hospital trajectory**

In practice, a reasonable long term objective for all parties might be to strive for a trajectory that falls somewhere between the model presented in Figure 5.2 and the model presented in Figure 5.3. In the interim, adjusting the trajectory of the struggling hospital from one that resembles Figure 5.1 to one that resembles Figure 5.3 would be a
substantial victory. A first step toward achieving such a victory would be to investigate more thoroughly the theoretical link between hospital resource slack and fluctuations in patient outcomes during accreditation inspections. Once investigators successfully identify specific linkages between these and other variables then policy makers may be better able to tailor solutions to achieve improvements.

If, for example, investigators deem that more frequent inspection would be beneficial for certain hospitals, policy makers may consider putting mechanisms in place to subsidize mid-cycle assist visits. Such visits may be designed to assess ongoing alignment with accreditation standards but not necessarily be intended to award formal accreditation. As an added incentive for hospitals to demonstrate alignment during mid-cycle assist visits, policy makers might consider offering a slight increase in Medicare payment rates for a fixed period of time (e.g. a five percent increase in the rate for six months) to hospitals that demonstrate a sufficient degree of alignment with standards during mid-cycle visits. In other words, suboptimal performance noted during such visits would not be punished, but demonstration of alignment would be rewarded in a tangible way.

The ultimate goal of such a program, of course, would be to help hospitals leaders become more adept at balancing organizational attention over time without the added stress of having to formally demonstrate legitimacy at each visit. Of course, this strategy (or any strategy that involves more frequent inspection of hospitals) might simply lead to a corresponding increase in temporary spikes if the incentive for compliance is not linked in some meaningful way to a requirement for ongoing alignment. To this end, policy makers might consider penalizing hospitals by imposing a slight decrease in Medicare
payment rates for a fixed period of time (e.g. a five percent decrease in the rate for six months) when the level of performance demonstrated during a formal reaccreditation inspection falls below the level of performance demonstrated during the most recent assist visit.

Hospital performance could be measured objectively using the accreditation decision (or, in the case of a mid-cycle assist visit, the accreditation decision that would have been made if the visit had been an actual inspection). For example, policy makers might deem a decision of “accredited” or “accredited with requirements for improvement” as equally acceptable outcomes for both mid-cycle assist visits and formal inspections. Thus, if a hospital earns either decision during a mid-cycle assist visit, it might be eligible for increased Medicare reimbursement for six months following the assist visit. Likewise, it might avoid a penalty if it achieves similar results during the next formal inspection. On the other hand, if the hospital earns a decision of “accredited with requirements for improvement” during a mid-cycle assist visit and earns “provisional accreditation” during a formal reaccreditation inspection (even if the decision is ultimately upgraded upon completion of remedial action) the hospital might be required to submit to six months of decreased Medicare payment.

**Implications for Accrediting Bodies**

Accrediting bodies may contribute to the success of such an endeavor by ensuring that accreditation practices mesh well with the abilities of the various types of hospitals that seek accreditation. This is not to suggest that specific accreditation standards should be changed in any way. In fact, a loosening of standards would be counterproductive.
Rather, accrediting bodies may be able to identify opportunities to adjust certain processes in a manner that might make it simpler for hospitals to maintain alignment. One strategy, as mentioned in Chapter Three is to diversify board membership such that a greater diversity of voices may be heard in the process development phase. Additionally, accrediting bodies may achieve substantial inroads with struggling hospitals by simply and openly discussing with hospital leaders the various points outlined in this dissertation. In other words, it might helpful for inspectors to candidly acknowledge the tendency among some hospitals to slide out of alignment rather quickly following an inspection but that maintaining alignment may result in immediate benefits for patients and hospital personnel. For hospital leaders who do not realize that their hospitals might be prone to misalignment between accreditation cycles, such a reminder might avert misalignment, at least for a little while longer.

**Implications for Hospital Leaders**

The findings in Chapter Three illustrate that patient outcomes, particularly clinical patient outcomes, may be positively impacted during accreditation cycles as hospital personnel adjust practices to more closely adhere to accreditation standards. Such improvements are likely to fade, however, if hospital leaders view accreditation – rather than improved patient outcomes – as the primary objective of the accreditation process. Hospital leaders may be able to preserve these improvements if they are aware of them and if they take active measures to perpetuate the practices that contribute to them. This is, of course, a daunting challenge given the myriad demands on organizational attention and in light of the potential subtlety of the improvements. Yet if hospital leaders
understand the potential benefits that might emerge from perpetual alignment with accreditation standards, they may be more likely to continually direct attention toward them.

Fluctuating patient outcomes are not the only concern for hospital leaders. These leaders must also strive to be judged as legitimate by their subordinate personnel. Chapter Four demonstrated that it is possible to satisfy both masters during accreditation cycles. However, as with patient outcomes, an inordinate fixation on accreditation may increase the likelihood that any peripheral gains among hospital personnel may disappear. Thus, hospital leaders that (1) recognize the potential impact of their actions on the legitimacy judgments of their subordinates and (2) attempt to cultivate environmental conditions that perpetuate positive judgments may be able to increase retention of personnel and create happier employees overall. In a similar way, leaders who understand the potential triggers for negative legitimacy judgments such as lack of recognition for unusual effort or excessive criticism for suboptimal performance may be better able to avoid these mistakes during accreditation cycles when the potential impact of such actions is likely to be magnified.

**Directions for Future Research**

This dissertation represents but a first step toward understanding cyclical isomorphism and the micro-effects of hospital accreditation. As such, there are a number of opportunities to expand on the ideas presented here and to explore new avenues of research. Many of these opportunities have already been addressed in the relevant chapters. Hence, they will not be rehashed here. Rather, the remainder of this chapter
will be devoted to outlining two broad opportunities for future research that cross chapter boundaries.

**Accreditation Inspections and Organizational Attention Patterns**

Though Chapter Two offers preliminary evidence that accreditation pressures trigger direction of organizational attention, the findings cannot be construed as robustly empirical. As such, opportunity exists to explore this phenomenon on a broader scale and in a more scientific manner. For example, members of a research team could potentially sit in on executive meetings in various hospitals over several months and track the amount of time dedicated in each meeting to discussing accreditation and various other categories of business. The researchers could then calculate relative weights for each category of business (including accreditation) based on the proportion of meeting time dedicated to discussing each particular category. Using these weights, the team could employ a variation of the Herfindahl–Hirschman Index (HHI), to assess the degree to which a particular hospital displays directed or diffused attention patterns across observation windows (perhaps using the same five week observation windows employed in the simple analysis in Chapter Two). The basic equation is as follows:

\[
HHI = \sum_{i=1}^{n} s_i^2
\]

Where \( s_i \) is the proportion of time directed toward category \( i \) in a given observation window while \( n \) is the number of possible categories of business addressed during that observation window.
When used to assess market dominance, a low HHI indicates broad diffusion of market share across many players whereas a high HHI indicates concentration of market power in a small number of those players. In the context of the proposed study, a high HHI would indicate concentration of attention directed toward a small number of categories (or a single category) while a low HHI would indicate diffusion of attention across a larger number of categories.

Beyond simple observation of changing attention patterns, the research presented here would also benefit substantially from exploration of the specific mechanisms by which changing attention patterns impact patient outcomes and individual legitimacy judgments. Indeed, though various theoretical connections between these variables were proposed in Chapter Two, the studies presented in Chapter Three and Chapter Four could not empirically demonstrate why the phenomena were occurring. Perhaps the best way to address this question would be through qualitative case studies of individual hospitals over time. For example, the same researchers who track attention patterns in executive meetings could conduct interviews with hospital personnel at various points in relation to accreditation inspections. Ultimately, the rich ethnographic data gained through such endeavors might yield significant insight into why and how attention patterns among senior leadership teams impact outcomes for patients and hospital personnel.

**Cyclical Isomorphism and Hospital Survivability**

The theoretical framework presented in Chapter Two proposed that cyclical isomorphic movement in hospitals may potentially impact the ability of hospitals to survive and thrive in their markets. Shifting legitimacy judgments, for example, may
signal a general evolution of organizational climate within a given hospital. If climate improves then personnel may be more loyal. If it deteriorates, then difficult-to-recruit personnel may leave and hospitals may operate at a significant human resource disadvantage. Additionally, increasingly visible changes in rates of patient outcomes may signal to prospective patients, payers, and other interested parties a consequential shift in the quality of care offered by the hospital. Consequently, any changes in patient outcomes may potentially impact hospital competitiveness in the market.

As neither of the empirical studies presented here addressed these propositions directly, opportunity exists to examine them more closely. A reasonable and timely starting point might be an examination of changing readmission rates and the effect of these changing rates on Medicare reimbursement patterns. Again, under new federal law, high rates of readmission may result in reduced reimbursement by the Medicare program (United States Department of Health and Human Services, 2012b). Thus, any cyclical changes in readmission rates triggered by accreditation inspections may result in real and immediate consequences for hospitals.

As rates of preventable readmission were not specifically examined in Chapter Three, a first step might be to conduct a similar study to assess whether accreditation inspections impact patient readmission patterns. Of note the new federal law will, in its early phases, focus primarily on readmissions for patients suffering from heart attacks, heart failure and pneumonia (United States Department of Health and Human Services, 2012b). Accordingly, a study focused specifically on patients with these diagnoses may be particularly relevant. Phase two of such a study might involve examination of Medicare Reimbursement patterns to assess the degree to which reimbursement rates
change in the weeks after accreditation inspections. The theoretical framework presented in Chapter Two suggests that readmission rates, like mortality rates, might improve during accreditation cycles. As such, one might also hypothesize that Medicare reimbursement rates might improve for hospitals that routinely struggle to contain preventable readmission rates. Ultimately, if such a study were to reveal a financial consequence of cyclical isomorphism, it would not only validate the proposed relationship between cyclical isomorphism and hospital survivability but it would also provide compelling impetus for future research given the perpetual financial struggles facing hospitals in the United States.

Additionally, as hospitals face ongoing struggles to attract and retain quality clinicians and ancillary personnel, a further examination of the link between legitimacy reassessment during accreditation cycles and turnover may be particularly informative. Given the findings noted in Chapter Four, one might assume that voluntary turnover might decrease for a period of time following completion of an accreditation site visit. However, as the legitimacy judgment study did not differentiate individuals by profession, one cannot assume whether the impact of cyclical isomorphism might disproportionately affect one group over another. Thus, a useful starting point would be to conduct a similar study focused on a single subset of the hospital population (perhaps registered nurses given the chronic shortage of RNs in the United States and the abundance of studies linking nurse staffing levels to patient outcomes).

As discussed in Chapter Four, changes in legitimacy judgments could be more positive or more negative depending on contextual factors at work within the study sample and within the study setting. In reality, a change in either direction would be
highly informative. Improvement in legitimacy judgments, for example, might signal a need to perpetuate conditions in the hospital such that the improved judgments might be fostered. Deterioration of perceived legitimacy, on the other hand, might signal a need among hospitals leaders to reassess the processes by which they address accreditation pressures in their hospitals.

If analysis were to reveal a change in legitimacy judgments among nurses during accreditation cycles, researchers might observe corresponding changes in nurse retention patterns during the same periods. More specifically, a finding of improved legitimacy might suggest that fewer nurses would voluntarily choose to end the employment relationship while a finding of deteriorating legitimacy might suggest that a greater number of nurses would choose to leave. In either case, such findings would validate the proposition that accreditation inspections impact the survivability of hospitals by contributing, either positively or negatively, to the capacity of the hospitals to retain nurses.

**Conclusion**

This final chapter of the dissertation has been devoted to synthesizing the notable theoretical and empirical contributions offered in the academic papers comprising Chapters Two through Four. Additionally, this chapter comprehensively discussed various practical implications of these contributions for policy makers, accrediting bodies and hospital leaders and suggested a variety of potential avenues for addressing these implications. Finally, as this entire volume represents but a first step toward understanding cyclical isomorphism and the micro-effects of hospital accreditation, the
chapter concluded with a detailed discussion of opportunities to build and expand upon the various ideas and findings presented in this work.
References


Social Security Act, Sec. 1965, 42 U.S. Code 1395bb.


CURRICULUM VITA

TYLER JOHN TOWERS

College of Health and Human Development
Department of Health Policy and Administration
The Pennsylvania State University
604 Ford Building
University Park, PA 16802

Phone: (814) 863-2900
Fax: (814) 863-2905
E-mail: tjt168@psu.edu

EDUCATION

• 2013 PhD Pennsylvania State University. Health Policy and Administration.
• 2003 MHA University of Memphis. Healthcare Administration.
• 1999 BA University of Utah. Mass Communication.

PROFESSIONAL EXPERIENCE

• Commissioned Officer, United States Navy, Medical Service Corps, 2003-present.

HONORS

• Student Research Paper of the Year, American Academy of Medical Administrators, 2012.
• Navy and Marine Association Leadership Award, 2010.
• University of Utah Department of Communication General Scholarship Winner, 1999.

BIBLIOGRAPHY

Refereed Presentations


PROFESSIONAL MEMBERSHIPS

• AcademyHealth
• American College of Healthcare Executives
• American Academy of Medical Administrators