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The Legitimacy of Nonprofit Enterprise in Regulated Industries:

Specifying and Testing a Theory of Differential Regulatory Compliance

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Summary of Findings

This report provides a (belated) summary of the findings of this project. The final report of these findings was delayed by (1) the expanding scope of the proposed work, (2) some unexpected problems with the secondary data used for this analysis, and (3) the moves by two of the three investigators from one institution to another. We summarize here the central findings, followed by a discussion of the expanding scope of the research, a summary of the methods used, and a more detailed reporting of the findings. We conclude by briefly discussing the implications of these results for assessing ownership-related differences in organizational behavior.

We had initially proposed to examine the magnitude of ownership-related differences in the performance of managed care health plans and hospitals, comparing performance in states that had adopted extensive regulations to those with relatively few such regulations. Our goal was to test a new theory suggesting that in fields in which regulations were difficult to enforce, the adoption of regulations could actually expand the magnitude of ownership-related differences. But we soon discovered that (a) hospital regulations were ill-suited for this test and (b) there was an unexpected pattern in the enactment of managed care regulations – in states in which there were more for-profit health plans, state officials were more likely to adopt managed care regulations than in otherwise comparable jurisdictions in which managed care operated primarily under nonprofit auspices.

After exploring the possible causes and implications of these ownership-related differences in policy adoption, we returned to our initial goals for the research. Recent research suggested that managed care regulations that focused on aspects of health plan practice that primarily affected clinicians would be more readily enforceable than those that focused on the concerns of plan enrollees, since physicians were more likely than patients to be aware of such policy changes (since they can directly affect their livelihood) and more likely to have the resources to act – individually and collectively – to facilitate the enforcement of such regulations. Consequently, we expected that the impact of managed care regulation on physicians would tend to be isomorphic with respect to ownership, causing reduction in the magnitude of ownership-related differences in health plan practices. Conversely, those aspects of managed care that affect the well-being of health plan enrollees are more difficult to enforce, and thereby potentially inducing expansions in the magnitude of ownership-related differences.

Using data from a 1999 survey of physicians and a 2002 survey of medical consumers, we measure the magnitude of ownership-related differences in performance observed by these two sets of respondents in states with more or less extensive managed care regulations. We matched the focus of regulations to the particular experiences that were being reported by respondents and measured the prevalence of regulations at two different points in time, corresponding to the dates when these surveys were fielded.

Our findings (reported in more detail below) are broadly consistent with these hypotheses, though with one

unexpected twist. Of the four aspects of managed care practice affecting physicians, in states with extensive regulations the differences between nonprofit and for-profit plans are roughly comparable to those in less regulated states for three outcomes and significantly smaller for the fourth. This is ***partially*** consistent with the prediction that enforceable regulations will reduce the magnitude of ownership-related differences.

By contrast, the ten measures of problematic experiences reported by health plan enrollees showed a rather different pattern. For three of the four categories of regulation that we examined, respondents in more regulated states reported significantly ***larger*** differences in performance between nonprofit and for-profit health plans. (The one exception to this pattern involved regulation of referrals, which may be relatively easier to enforce because these regulations induce structural changes in health plans, which are more readily observed by patients than are other aspects of managed care regulation.) For the three forms of regulation where this pattern holds, the magnitude of the effects are quite large – roughly a doubling of the size of the reported impact of prevailing differences in nonprofit and for-profit health plan practices.

The Scope of Research As Originally Proposed

In this section of the report we summarize the basic logic of a new theory of differential regulatory compliance, identifying several distinctive hypotheses about the various circumstances under which one might expect ownership-related differences in performance to emerge in regulated industries, such as health care.

The Core Logic of a New Theory: Compliance with regulations can be expensive. Effective enforcement creates incentives that outweigh those costs, making compliance in the organization's financial interest. One would expect that both nonprofit and for-profit service providers would respond to enforceable regulations. The theory here is simple. If enforcement is frequent and penalties are severe, organizations will comply with regulations as fully as possible. Regulations that cannot be enforced create no self-interested incentives for compliance. Profit-maximizing organizations should ignore these regulations to avoid the cost of compliance.[i]

Why would regulations that are hard to enforce be enacted at all? Legislators may simply underestimate the challenges of enforcement. Regulations may also be enacted even if it is known that they cannot be enforced, because the enactment has symbolic value to important constituencies. Third, in an era of divided government, governors may be philosophically opposed or unwilling to commit resources to enforcing regulations that legislators value. Fourth, if the problems related to service delivery are sufficiently severe or the clientele particularly vulnerable, even partially enforced regulations may be considered valuable for society. In combination, these factors suggest that many – even most – regulations will be only imperfectly enforceable, even if they are addressing issues that are of considerable importance.

Although for-profit organizations would largely discount such regulations, their nonprofit counterparts,

however, might respond to the intent of even unenforced regulations, for three distinct reasons. First, because nonprofit agencies are more oriented to various nonpecuniary rewards, even in the absence of regulation they may have adopted services that provide community benefits or delivered services of a quality above that sustainable through competitive markets.[ii] To the extent that regulations are intended to promote these sorts of community benefits or encourage a higher quality of service delivery, the practices of nonprofit agencies may be more compatible with regulatory goals. If this is the case, their costs of compliance will tend to lower than those faced by for-profit competitors.

Second, the creation of regulations signals that certain societal needs are not being addressed through market forces alone. Past research has established that even in highly competitive markets, commercial nonprofits are more committed to these public needs (or to providing public goods) than are their for-profit counterparts.[iii] Third, even unenforced regulations have normative content. Nonprofit agencies may be more responsive to such normative appeals in establishing their practices and procedures, though evidence on these motivational differences remains scanty and somewhat ambiguous.[iv]

Notice that these multiple sources of differential compliance suggest several distinctive conditions under which nonprofit performance would be more compatible with regulatory intent. The first factor identified above suggests nonprofit behavior would have been more consistent with regulations, even before those regulations were enacted. This we will refer to as the hypothesis of "passive regulatory compliance". In contrast, the second and third factors suggest that nonprofits will respond to regulations by changing their behavior. As new regulations "signal" changing societal needs and preferences, nonprofit administrators will accordingly revise their notions of the public good. We will refer to this henceforth as the hypothesis of "adaptive regulatory compliance". It's important to recognize that either form of differential compliance may have societal benefits and thus be relevant for public policy. But the two hypotheses have quite different implications for our theoretical understanding of the nonprofit sector. They also call for different methods of testing. We will explore these differences later in the proposal.

A notable aspect of the theory of DRC is that its predictions are diametrically opposed to those suggested by conventional interpretations of institutional isomorphism, which propose that regulations (like other forms of coercive authority) will induce more homogeneous practices and thus diminish ownership-related differences in performance.[v] These predictions of converging behavior have seriously undermined the legitimacy of the nonprofit sector in heavily regulated service industries. Although regulations that are enforced may indeed produce isomorphism, the theory of DRC predicts that under certain circumstances incomplete enforcement can lead to regulation-induced *differences* in the performance of nonprofit and for-profit organizations.

Application of the Theory to the Health Care Sector: There are several reasons why health care should prove a

fruitful domain for testing the theory of DRC. First and foremost, the health care field is so central to contemporary nonprofit involvement in American society that it exerts a disproportionate influence on the overall legitimacy of the nonprofit sector in the United States. Nonprofit health care facilities account for over half the revenue and more than 40 percent of the paid employment in the nonprofit sector.[vi] Health care is a field in which nonprofit and for-profit organizations both play an important role in the delivery of services. It is also a field in which, over the past decade, the legitimacy of nonprofits has come under increasing fire. One such criticism builds on concerns about misappropriation of surplus, arguing that nonprofit health care organizations are best understood as "doctors' workshops" operating for the benefit of their affiliated physicians.[vii] As criticism of nonprofit health care intensified, state regulation has spread in scope and intensity.[viii] (We suspect that these two trends are not entirely coincidental.) Critics question whether many of these regulations can be enforced, creating the conditions under which ownership-related differences in compliance might appear.

Past research on ownership-related differences in the delivery of health services has produced findings that are broadly consistent with the theory of differential regulatory compliance. But there is sufficient variance across services and measures of performance that it is impossible to accurately predict – without actually conducting this study – the nature of the relationship between ownership and regulatory compliance in medical care. More specifically, the studies cited above of the nursing home industry have generally established that (a) there are significant ownership-related differences in many dimensions of quality, and that (b) the majority of the studies of regulatory compliance indicate that nonprofit nursing homes have significantly fewer regulatory violations than do otherwise comparable for-profit facilities.

But it has long been established that these clear differences in quality found among nursing homes do <u>not</u> extend to other health services.[ix] Studies of hospital quality have been quite mixed, leading several key scholars to include that there are no significant ownership-related differences.[x] Studies of the quality of care provided by health plans have been equally inconsistent.[xi] Despite extensive regulation of both hospitals and health plans, little is known about their compliance with regulations, enforced or not. Because many of these regulations are intended to improve clinical practice, the lack of consistent ownership-related differences in quality suggest that ownership will not be related to passive compliance. But other research has documented ownership-related differences for both hospitals and health plans in their pursuit of community benefit.[xii] Following the logic of our theory of differential regulatory compliance, one might thus expect nonprofit hospitals and health plans to respond more to the signals of public good embodied in regulations, producing higher levels of adaptive compliance among nonprofits.

Identifying Unexpected Patterns in Regulatory Adoption Related to Ownership

When we first compiled that data on the adoption of state managed care regulations, there appeared to be a relationship between these adoptions and the presence of for-profit health plans in that jurisdiction. In order to subject this apparent pattern to more rigorous testing, we needed to collect additional data on the market shares of nonprofit and for-profit health plans for each state and every year for which this information was available. Although we had data on regulatory enactments 1980-2000, we were only able to get data on ownership shares in the states from 1985-2000 – and even then, not for Alaska. Consequently, that yielded a panel data set (a pooling of cross-sectional data from multiple years) incorporating 49 states, each for 16 years. Over this time period, there was roughly a 32 percent chance that a state would adopt regulations in any given year, increasing significantly over this time period (from 1995 onward, there is a 62 percent probability that states will enact regulations in any given year). When states enacted at least one regulation, there was a better than two-third chance that they would adopt multiple regulations.

Our primary dependent variable for the analysis of regulatory adoption was a count of the number of regulations enacted in any one year. To control for influences on regulatory enactments that might have been correlated with the prevalence of for-profit health plans, we incorporated a relatively simple set of additional explanatory variables (since there were a limited number of observations in the data set): several political characteristics of the state (citizen ideology, Democrat governors, Democrat control of one or both houses of the legislature), health system characteristics (doctors, hospital beds and specialists per capita), interest group measures (lobbyists for health and insurance interests, as a percent of total lobbyists at the state capital), managed care measures (HMO penetration, lagged by one year and number of HMOs, since less concentrated industries (more plans) will have less lobbying power, or at least a larger collective action challenge). And, most essentially for our current purposes, the for-profit market share among managed care plans, also lagged by one year.

With panel data, there are some questions about how to appropriately specify the models (fixed versus random effects to account for inter-state and over-time variation). Although the convention is typically to favor fixed effects models, we concluded that the random effects are actually more general, since they allow for correlated variance among states or time periods. But there is some conceptual ambiguity about which specification is best and the typical specification tests offer mixed results. Consequently, we estimated a number of different model specifications to test the sensitivity of our findings to model specification.

We report here five different model specifications, starting with fixed effects as the more conventional: (1) fixed effects for states only, (2) fixed effects for time periods and states, (3) random effects taking into account cross-sectional variance (with a time trend variable), (4) random effects taking into account both cross-sectional and time variance (also with a time trend variable), (5) adding a time trend to the state fixed effects model, so that

makes for five specifications in total.

The baseline results are reported in Exhibit 1. Democratic control ***never*** matters with this specification (although partisan control is a predictor for the total accumulation of regulations over time.). Nor does the supply of health care providers matter (though here again, they do predict the total accumulated regulations). For simplicity, we only present the results for the other variables in the accompanying table(s), including both coefficient and t-statistics for the models (there are 695 observations in all models, since one year of data is lost due to lagged measures)

A number of the variables that predict regulatory adoption do so in a manner consistent with expectations, leading us to have reasonable confidence in the findings. States in which there was a prevailing conservative ideology were consistently less likely to adopt regulations, though the prevalence of insurance and health care lobbyists had only a sporadic relationship to the spread of managed care regulation. Enrollment in managed care is – not surprisingly -- positively associated with regulatory engagement, as one would expect from standard models of agenda setting in political science. In some specifications, the number of health plans is positively related to regulation, though whether this reflects the influences of a more competitive market (driving some plans to engage in questionable practices) or the fragmented political power of a collection of smaller health plans cannot be determined with our data.

Exhibit 1
Factors Predicting the Adoption of State Managed Care Regulations
(Dependent Variable is the Number of Regulations Adopted in Any One Year)

Explanatory Variables (Subset of Full Model)	**Model Specification (t statistics in parentheses)**				
	State Fixed Effects	**State and Time Fixed Effects**	**State Fixed Effects**	**State Random Effects**	**State and Time Random Effects**
Citizen Ideology (Conservative)	-0.044	-.036	-0.044	-.027	-.007
	(2.75)	(2.10)	(2.71)	(2.13)	(0.87)
Insurance Industry Lobbyists (Pct of Total)	.004	.114	.012	.057	.020
	(0.04)	(1.15)	(0.02)	(0.72)	(0.51)
Health Care Lobbyists (Pct of Total)	.085	.032	.073	0.110	.027
	(1.37)	(0.53)	(1.16)	(2.11)	(0.74)
HMO Enrollment (Pct., Lagged One Year)	.071	-0.0003	.068	.054	-.007
	(3.66)	(0.02)	(3.47)	(3.13)	(0.55)
Number of HMOs	.120	.022	.122	.023	0.01
	(3.09)	(0.62)	(3.13)	(1.18)	(1.13)
For-Profit Enrollees (Pct., Lagged One Year)	.026	.027	.026	.025	.023
	(1.70)	(2.10)	(1.72)	(1.73)	(1.84)
Year (Time Trend)			.061	.142	0.217
			(0.78)	(3.80)	(2.44)

We find a modest positive effect of for-profit presence and regulatory adoption. Roughly speaking, these coefficients suggest that going from a state with zero for-profit share to one that is completely for-profit leads to a doubling of the number of regulations adopted. But this specification presumes that the effects of HMO penetration and for-profit control are unrelated to one another, whereas in practice if may matter if the high penetration markets are also most dominated by for-profits. An alternative specification that incorporated this interaction (Exhibit 2) reveals that it does matter – the impact of for-profit ownership is about half again as large when it's in a state with high levels of managed care penetration. It seems to be this combination that is particularly likely to induce new regulatory initiatives.

We have incorporated this unexpected set of findings into our book-length manuscript on the future of nonprofit health care in the United States. The central insight is that a larger share for profit-making organizations creates at least the perception (and our other findings presented below suggest, the reality) of problematic practices in managed care, inducing an expanded set of regulatory protections. But since these regulations may themselves significantly hamstring the ability of managed care plans to improve the quality of medical care,[xiii] the role of for-profit plans may actually be counterproductive for the overall performance of the health care system.

Exhibit 2
Factors Predicting the Adoption of State Managed Care Regulations, Interacting For-Profit Market Share and Managed Care Penetration Rate

Explanatory Variables (Subset of Full Model)	Model Specification (t statistics in parentheses)				
	State Fixed Effects	State and Time Fixed Effects	State Fixed Effects	State Random Effects	State and Time Random Effects
Citizen Ideology (Conservative)	-0.042 (2.58)	-.032 (1.90)	-0.015 (2.55)	-.025 (2.00)	-.005 (0.69)
Insurance Industry Lobbyists (Pct of Total)	.008 (0.07)	.118 (1.19)	.014 (0.13)	.061 (0.78)	.027 (0.68)
Health Care Lobbyists (Pct of Total)	.077 (1.24)	.023 (0.39)	.067 (1.06)	0.102 (1.95)	.023 (0.64)
HMO Enrollment (Pct., Lagged One Year)	.069 (3.55)	-0.003 (0.13)	.067 (3.39)	.051 (3.00)	-.009 (0.72)
Number of HMOs	.115 (2.99)	.020 (0.57)	.118 (3.03)	.022 (1.17)	0.011 (1.23)
For-Profit Enrollees (Pct., Lagged One Year)	-.019 (0.76)	-.014 (0.63)	.-018 (0.72)	-.022 (0.88)	-.020 (0.98)
Interaction of For-Profit and HMO Market Share (Lagged One Year)	.004 (2.21)	.004 (2.28)	.004 (2.18)	.004 (2.40)	.004 (2.61)
Year (Time Trend)			.054 (0.69)	.143 (3.84)	0.218 (2.49)

Refining the Empirical Methods: Testing the Impact of Regulation on Ownership-Related Differences in Performance

We had originally proposed to test the theory of DRC for two types of health care organizations (hospitals and health plans), using two types of external informants (consumers and physicians). However, budget restrictions required that we abandon our original plans to field a new survey of physicians and instead rely on our access to a unique survey of physicians' experiences with managed care that we had developed in collaboration with the American Medical Association.[xiv] As we continued to refine our thinking about how best to assess our theoretical predictions, we concluded that it made more sense to focus exclusively on the impact of regulations on ownership-related differences among managed care plans and abandon the proposed analysis of hospitals. This conclusion was based on several observations:

- Most of the regulations influencing hospital practices were national in origin (related to Medicare or JCAHO certification), limiting the extent of interstate variation that was essential for assessing the impact of regulations,
- Those regulations that did vary by state did not map very closely to the sort of outcomes that we could measure through our survey of consumer experiences, and
- Recent findings from the health services research literature suggested that we could more sensibly differentiate between more and less enforceable regulations by comparing those that were targeted to clinician and patient experiences, for reasons that we will now explain.

Clarifying Some Distinctions in the Likely Impact of Managed Care Regulation: Since we first proposed research, there have been a number of additional studies published about the impact of managed care regulation on the practices of health plans and their impact on the delivery of medical care.[xv] Perhaps the most striking pattern in this research has been the contrast between the measurable impact of regulations targeted to clinicians and to patients. Studies suggest that managed care regulations have had little measurable impact on the experiences of plan enrollees, but a more substantial impact on practice experiences of their doctors.[xvi]

In the absence of resources that provide regulators the capacity to closely monitor managed care practices, the enforceability of regulations will depend on both their focus and target group. When regulators cannot actively assess managed care practices, most violations of regulations will be identified in the first instance by the affected parties, whose report of noncompliance could trigger state agencies to take remedial action. We hypothesize that clinicians will be better informed than patients about managed care regulations because these changes directly affect their livelihood. By contrast, many consumers may be unaware of state managed care regulations, and only patients with serious and persistent chronic conditions can be expected to be sufficiently familiar with the nuances of managed care regulations to be able to identify when their plan is not in compliance.[xvii]

Consequently, the comparison of experiences reported by clinicians and by patients provides an opportunity to test the claim that ownership will mediate the impact of regulations that are more difficult to enforce. More specifically, we operationalize this notion by testing the hypothesis that the impact of managed care regulations on consumer experiences will exhibit the divergence of nonprofit and for-profit behavior predicted by the DRC, whereas the impact of comparable regulatory initiatives on clinicians will reflect the sort of institutional isomorphism predicted by conventional models of organizational ecology.

Data Sources Used for the Analysis: As originally proposed, we make use of the Consumer Experiences Survey to assess the differences in patient experiences in states with different levels of managed care regulation. Consumer reports were collected in a national survey of 5,000 privately insured Americans, fielded in the summer of 2002. Consumers were asked about their experiences with the health plan in which they were enrolled for most of the previous year. Our data on physician experiences is drawn from the 1999 version of the AMA's Socioeconomic Monitoring Survey of physicians. A subset of 3,681 physicians who responded to this survey were asked questions about their involvement in managed care plans. Because a number of physicians had no such involvement or practiced solely in hospital settings, we had data on experiences with managed care plans for approximately 1,750 clinicians.

Identifying and Classifying Regulations: Since 1990, states have passed a plethora of such regulations.[xviii] Although these cover a wide number of different aspects of plan practices,[xix] they tended to be adopted in clusters. This made it generally unrealistic to try to assess the impact of any single regulation; because they tended to be adopted in tandem with others, it would be easy to mistake the impact of one intervention for the others that were adopted at the same time. As a result, we clustered regulations into eight broad categories, as summarized in the left hand column of Exhibit 3.

Measuring Respondents' Experience Relevant to Each Category of Regulations: Both the consumer and physician surveys contained a number of questions about their experiences with respect to health plans (for consumers who had switched plans in the course of the year, this was the health plan in which they were enrolled the longest during that year; for physicians who were affiliated with multiple health plans, this was the plan in which they had the largest number of patients). A subset of these can be matched to the intended effects of particular regulations. These are presented in the middle and right-hand columns of Exhibit 3. We therefore have at least one outcome for five of the eight clusters of regulations; the other three were dropped. For three regulatory clusters, we have measures of both clinician and consumer experiences.

Ownership Distribution in Each Survey: During this time period, roughly a third of all enrollees in managed care plans were enrolled in plans that operated under nonprofit auspices. Our physician survey yielded 33.0% of respondents whose primary health plan operated as a nonprofit. (We were able to match ownership for about 90% of the respondents, who were asked to name their primary MCO, not actually report on the ownership of that plan.) On the CES, 38.6% of our respondents were enrolled in plans that we identified as nonprofit (we were able to identify ownership for about 85% of respondents, who again were asked to name their plan, not identify its ownership. Actually they were asked to identify ownership in another part of the survey and could not do a very good job of it, but that's a story for a different paper.) Consequently, out of the 1,756 physicians respondents with identified ownership, 580 were affiliated with nonprofit plans. Of the 4,159 consumer respondents with identified ownership, 1,606 were enrolled in nonprofit plans.

Regulations By Ownership: As can be seen from Exhibit 4, there is a reasonable distribution of respondents in both nonprofit and for-profit plans of varying levels of regulatory coverage, for both physicians' and consumers' reports. Were the analysis to rely on individual regulations, there would clearly be some minor trouble spots (highlighted in yellow). In some cases these involve regulations that were too rare during this time period (see UR practices and whistle blower protections for the AMA data) in other cases, regulations that diffused so rapidly that they had become too common, leaving no comparison group for respondents who had not been affected by the regulations (particularly mandated benefits for the CES respondents; gag clauses dropped out for the same reason and didn't even make the table).

Findings: Comparing the Magnitude of Ownership-Related Differences in Experiences with Health Plans: Physicians vs. Consumers; Regulated vs. Unregulated States

Recall that our prediction was that enforceable regulations, as proxied here by regulations directed at managed care practices that most affect physicians, would lead to a convergence of performance between nonprofit and for-profit health plans. By contrast, we predicted that regulations that were most difficult to enforce, captured here by aspects of consumer experiences, ***might*** be associated with a divergence of behavior between nonprofit and for-profit organizations, and thus an expansion of the magnitude of ownership-related differences in performance.

Measures of consumer and clinician experience with managed care plans are reported in Exhibit 5 and Exhibit 6, respectively. The aggregate performance of nonprofit and for-profit health plans in all jurisdictions (setting aside, for the moment, the regulatory regime under which the plans operate), reveal persisting ownership-related differences (the third and fourth columns from the left in both exhibits). Of the ten outcomes reported by consumers, eight have statistically significant differences favoring nonprofits[1]; the other two also suggest better

[1] For the eight measures that report on the prevalence of problems of various types, a higher percentage is obviously a signal of worse performance. For the two outcomes that reflect successful resolution of the problems ("effective with problems" and "problems resolved") a higher percentage reflects superior performance.

performance by nonprofits, but the magnitude of the ownership-related differences is not statistically significant. These differences are not small, typically for-profits have 20-30 percent more problems than otherwise comparable nonprofit plans.[2]

To test our core hypotheses, we need to distinguish among regulations that are more and less enforceable. To this end, it's important to recognize that not all the aspects of health plan performance reported by physicians actually involve clinician experiences – their reports regarding misleading advertising and patients' confusion about benefits are indirect measures of consumer experience and therefore fall into our second category of measures. By contrast, physicians' reported experience with utilization review, contracting with health plans and the quality of care that they provide for their patients is centrally related to their clinical practice; one would expect them to be motivated to be aware of these regulations and act in ways to make them relatively easier for state officials to report.

Based on our hypotheses, one would therefore expect that the outcomes reported in the first, second, fifth and sixth rows of Exhibit 6 should display a convergence between nonprofit and for-profit performance as one moves from states with limited managed care regulation to those in which regulation is more extensive. For clinician reports regarding whether the health plan compromises their standards of quality, this is precisely what one observes. In states with little regulation (measured either by regulation of referrals or of utilization review practices), ownership-related differences are quite large – clinicians affiliated with for-profit plans are about 16 percentage points more likely to report problems than are their counterparts in nonprofit plans. By contrast, in states with extensive regulation these ownership related differences are half (for regulation of UR) or a fifth (for regulation of referrals) as large. But this same convergence is not evidence for the other three outcomes, all of which have ownership-related differences of about the same size in states with more or less regulation.

The pattern is strikingly different for consumer experiences mediated by three types of regulation (Exhibit 5). Setting aside, for the moment, the regulation of referrals one sees a consistent pattern: the magnitude of ownership-differences is consistently larger (often two to three times larger) in regulated than in unregulated states. Consider regulation of health plan benefits as a starting point. In states with limited regulation of benefits (two right-hand columns), enrollees in for-profit plans report more problems than those in nonprofit plans, but this difference is small (about two percentage points) and not statistically significant. In more regulated states, by contrast, the difference is almost twice as large (four percentage points) and statistically significant.

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[2] The outcomes reported in Exhibits 5 and 6 do not control for characteristics of the health plans other than ownership, nor do they adjust for differences in the respondents who report on nonprofit versus for-profit plans. Incorporating measures of these characteristics into multivariate regression models yields results similar to those reported here.

The same pattern holds for regulations directed at utilization review and consumer information. Consider a few examples as illustration. In states with little regulation of health plans' utilization review, enrollees in for-profit plans are more likely to report problems getting approval for needed medical care, but again this difference is small (1.4 percentage points) and not statistically significant. In states with extensive regulation, the difference is three times as large (4.4 percentage points) and statistically significant. The same holds true for the total number of problems reported by enrollees: comparing states with less regulation of utilization review to those with more, the magnitude of ownership-related differences grows from 0.1 problems per year to 0.28 problems per year. Ownership-related differences in the prevalence of enrollees reporting that they had lost trust in their health plan in the previous year was only 1.8 percentage points in states with limited regulation of consumer information, but 4.2 percentage points in states with extensive regulation. Here again, only the latter difference was statistically significant.

But it is important to note that this pattern of consumer experiences does not appear to extend to regulations of referrals. In this case, the findings mimic those reported by clinicians for quality of care: there appears to be a convergence of ownership-related differences in more regulated states. Again, take one case as an illustrative example. In states with limited regulation, the difference in the prevalence of referral problems reported by enrollees of for-profit and nonprofit health plans is quite large (9 percentage points) and statistically significant. In states with more extensive regulation of referrals, by contrast, the magnitude of ownership-related differences in referral problems is 3.6 percentage points and not statistically significant.

Conclusions and Implications

The findings presented above are partially supportive of our theory of differential regulatory compliance, though not entirely consistent. Regulations appear to either produce a convergence or leave unchanged ownership-related differences in outcomes that are experienced by clinicians. By contrast for three of the four types of regulation examined here, ownership-related differences in consumer outcomes are ***larger*** in regulated than in non-regulated states. Substantially larger, at that – typically two to three times as large in regulated states.

But why doesn't this same pattern hold for consumer experiences that are influenced by state regulation of referral arrangements? We cannot answer this question definitively with the data we have available, and so must instead offer a more speculative judgment. It is possible that consumers are more aware of regulations governing referrals, since these often affect the structural features of health plans (such as whether a plan offers services on a point-of-service basis – that is, allows enrollees to go outside of the panel of providers formally affiliated with the plan, if they are willing to pay a higher percentage of the medical fees.). Consequently, they may be able to act as enforcement agents for these regulation in ways that they cannot for regulations governing, say utilization review, which most consumers learn about only after the fact (that is, when their clinician tells them that their plan has not approved a particular treatment). But why this pattern does not extend to regulation of consumer information is unclear.

In short, our findings hint that ownership may mediate the propensity for regulated organizations to respond to the enactment of regulations that cannot be readily enforced. If this general pattern holds – and one would need far more extensive data than we could muster here to make a compelling case for this to policymakers – this provides an additional reason for favoring a nonprofit role in regulated industries, since they render the regulations themselves more effective. Apart from these policy implications, our findings also suggest the need to control for regulatory regimes when assessing the magnitude of ownership-related differences in performance, since most of the industries in which nonprofit and for-profit service providers compete are extensively regulated, albeit with regulations that are not always effectively enforced. Demonstrating the generality of this pattern will require additional research applied to the variety of services that are provided by competing nonprofit and for-profit agencies.

Exhibit 3

Categorizing Managed Care Regulations and Measuring Their Effects

Type of Regulation	Outcomes Related to These Regulations	
	Patient Experiences (Consumer Experiences Survey, 2002)	**Physician Experiences (AMA Survey, 1999)**
Referral Requirements		
OBGYN Access Regulation	1. Problems Accessing Needed Services 2..Problems Getting Referrals (Specialists or Hospital) 3. Report Any Problem with Health Plan 4. Count of All Reported Problems	1. Clinician forced to compromise standard of care
Specialist as Primary Care MD		
Standing Referrals for Chronic Illness		
Out of Network Allowed (& Point-of-Service mandates)		
Consumer Information		
Plan Disclosures	1. Plan mislead enrollee in some way 2. Plan did something that made enrollee lose trust in it.	1. Plan's advertisements are misleading 2. Patients confused about benefits
Ombuds Program		
Report Cards on Plans		
Delays in Utilization Review		
Time Limits: Complete Process		
Time Limits: Internal Review		
Utilization Review Practices		
Graduated Internal Review	1. Problems getting treatment approved by health plan 2. Plan was effective at dealing with enrollee complaints 3. Complaints resolved satisfactorily	1. Poor communication about UR criteria 2. Clinician forced to compromise standard of care 3. UR criteria are poorly done
Evidence-Based Criteria		
Can See UR Criteria in Advance		
Can See UR Criteria after Denial		
Peer Reviewer for MD		
MDs Dropped from Plan		
Whistle Blower Protections		1. Perceived risk of being dropped from plan if bucking UR limits
Due Process in Termination		
Mandated Coverage/Benefits		
ER: Prudent Layperson	1. Needed to pay more for medical care than expected (coverage problems)	
ER: Screening and Stabilization		
Minimum hospital stay for childbirth		
Minimum hospital stay for mastectomy		
Appeals Process		
External Mediation/Arbitration Required		
Pharmaceutical Practices		
Off label drug prescription		
Out -of-Formulary drug prescription		

Exhibit 4

Distribution of Respondents By Plan Ownership and Regulatory Exposure

Type of Regulation	Percent of Respondents Who Are In:			
	AMA Data (1999)		CES Data (2002)	
	Pct. Regulated	Pct in Nonprofits Who are Regulated	Pct. Regulated	Pct in Nonprofits Who are Regulated
Referral Requirements				
OBGYN Access Regulation	81.0%	77.4%	90.2%	91.2%
Specialist as Primary Care MD	35.8%	28.3%	38.5%	38.5%
Standing Referrals for Chronic Illness	46.8%	45.7%	62.1%	62.3%
Out of Network Allowed (& point of service)	54.9%	44.7%	59.4%	55.8%
Consumer Information				
Plan Disclosures	1.0%	1.6%	90.0%	90.9%
Ombuds Program	25.6%	31.2%	68.8%	66.7%
Report Cards on Plans	53.9%	49.7%	65.5%	64.0%
UR Practices				
Graduated Internal Review	44.6%	33.6%	75.4%	79.5%
Evidence-Based Criteria	49.9%	31.9%	45.1%	43.6%
Can See UR Criteria in Advance	26.4%	22.9%	44.7%	35.6%
Can See UR Criteria after Denial	12.4%	13.8%	22.0%	17.6%
Peer Reviewer for MD	10.2%	14.0%	13.6%	19.1%
MDs Dropped From Plan				
Whistle Blower Protections	17.0%	11.2%	18.0%	15.9%
Due Process in Termination	37.9%	30.0%	36.1%	37.2%
Mandated Benefits				
ER: Prudent Layperson	83.0%	79.3%	92.4%	91.0%
ER: Screening and Stabilization	80/1%	69.3%	86.3%	76.6%
Minimum hosp stay: Childbirth	90.3%	82.2%	93.3%	85.6%
Minimum hosp. Stay: Mastectomy	58.2%	48.1%	66.6%	62.3%

Exhibit 5

Comparing Magnitude of Problematic Consumer Experiences, by Ownership of Health Plan (High versus Low Regulation States)

Outcome	Regulatory Focus	All States		Divided By Regulatory Intensity			
				High Regulation States		Low Regulation States	
		Nonprofit	For-Profit	Nonprofit	For-Profit	Nonprofit	For-Profit
Access Problems	**Referrals**	**7.9%**	**9.0%**	**10.0%**	**9.7%**	**7.7%**	**9.7%**
Coverage Problems	**Benefits**	**23.3%**	**27.8%***	**22.3%**	**26.3%***	**22.3%**	**24.5%**
Can't Get Approval	**Utilization Review**	**11.2%**	**14.6% ***	**10.5%**	**14.9%***	**12.4%**	**13.8%**
Referral Problems	**Referrals**	**21.3%**	**27.3%***	**23.7%**	**26.3%**	**22.5%**	**31.5%***
Misled by Plan	**Consumer Information**	**8.7%**	**11.0%***	**9.0%**	**11.1%**	**8.1%**	**10.5%**
Lost Trust in Plan	**Consumer Information**	**12.2%**	**16.1%***	**13.2%**	**17.4%***	**11.6%**	**13.4%**
Effective With Problems	**Utilization Review**	**67.2%**	**60.3%***	**68.1%**	**59.6%***	**66.3%**	**62.7%**
Problems Resolved	**Utilization Review**	**40.1%**	**37.1%**	**38.8%**	**36.8%**	**47.6%**	**42.7%**
Any Problems	**Referrals**	**47.7%**	**54.1%***	**55.3%**	**57.8%**	**46.8%**	**55.6%***
	Utilization Review			**44.3%**	**51.8%***	**48.6%**	**54.0%***
Count of Problems	**Referrals**	**1.07**	**1.29***	**1.27**	**1.40***	**0.97**	**1.26***
	Utilization Review			**1.04**	**1.32***	**1.12**	**1.22**

Exhibit 6

Comparing Magnitude of Problematic Physician Experiences, by Ownership of Health Plan (High versus Low Regulation States)

Outcome	Regulatory Focus	All States		Divided By Regulatory Intensity			
				High		Low	
		Nonprofit	For-Profit	Nonprofit	For-Profit	Nonprofit	For-Profit
UR Badly Designed	**Utilization Review**	**68.6%**	**83.0%***	**65.1%**	**80.7%***	**72.0%**	**85.5%***
UR Badly Communicated	**Utilization Review**	**54.2%**	**58.9%**	**51.0%**	**58.0%**	**57.1%**	**60.2%**
Advertising Misleading	**Consumer Information**	**60.0%**	**63.9%**	**60.2%**	**62.0%**	**54.7%**	**60.4%**
Enrollees Confused	**Consumer Information**	**82.9%**	**85.9%**	**82.7%**	**87.2%**	**82.0%**	**86.7%**
MDs Risk Being Dropped	**MD De-selection**	**31.1%**	**45.6%***	**35.6%**	**48.5%***	**29.1%**	**43.4%***
Care Compromised	**Referrals**			**34.3%**	**37.3%**	**19.0%**	**35.8%***
	Utilization Review	**24.5%**	**36.7%***	**26.7%**	**34.6%**	**22.2%**	**38.9%***

Endnotes and References

[i] We've stated this starkly to clearly illustrate the logic. In practice, of course, most regulations will be at least partially enforceable. One would thus expect for-profit firms to respond in proportion to this degree of enforceability..

[ii] Andreas Ortmann and Mark Schlesinger, "Trust, Repute and the Role of Non-Profit Enterprise" Voluntas 1997; 8(2): 97-119.

[iii] Susan Rose-Ackerman, "Altruism, Ideological Entrepreneurs and the Non-Profit Firm" Voluntas 1997; 8(2): 120-34; Bruce Kingma, "Public Good Theories of the Non-Profit Sector" Voluntas 1997; 8(2): 135-48.

[iv] Christoph Badelt, "Entrepreneurship Theories of the Non-Profit Sector" Voluntas 1997; 8(2): 162-78.

[v] Paul DIMaggio and Helmut Anheier, "The Sociology of Nonprofit Organizations and Sectors" Annual Review of Sociology 16 (1990): 137-59

[vi] Bradford Gray and Mark Schlesinger, "Health" in The State of the Nonprofit Sector, p.65; Lester Salamon, "The Resilient Sector" in The State of the Nonprofit Sector p.9. Counting volunteers, the nonprofit sector accounts for about a third of all participation in the nonprofit sector.

[vii] This critique dates back to Mark Pauly and Michael Redisch, "The Not-for-Profit Hospital as a Physicians' Cooperative" American Economic Review 1973; 63(1): 87-99. More recently, IRS discouraged certain forms of health plans from incorporating as tax exempt organizations on the grounds that these plans existed largely for the benefit of their affiliated physicians. Mark Schlesinger, Bradford Gray and Elizabeth Bradley. "Charity and Community: the Role of Nonprofit Ownership in a Managed Health Care System" Journal of Health Politics Policy and Law 1996; 21(4): 697-752. Equivalent charges of misappropriate of surplus are sometimes lodged against administrators of nonprofit health plans and hospitals. For our current purposes, it is sufficient to simply acknowledge that the notion that nonprofits act in the public interest is clearly a contested claim.

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