## LIBRARY Michigan State University

This is to certify that the dissertation entitled

Health Profession Regulation and Public Policy:
State Medical Boards as Policy Actors
presented by

Susan L. Silberman
has been accepted towards fulfillment
of the requirements for
Ph.D._degree in Political Science

## Caroshbissect <br> Major professor

Date $\qquad$

PLACE IN RETURN BOX to remove this checkout from your record. TO AVOID FINES return on or before date due.
MAYGE RECALLED with earlier due date if requested.

| DATE DUE | DATE DUE | DATE DUE |
| :---: | :--- | :--- |
| MAR 15 2006 |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | 1100 a/curcomovepesp.14 |

# HEALTH PROFESSIONS REGULATION AND PUBLIC POLICY: STATE MEDICAL BOARDS AS POLICY ACTORS 

By
Susan L. Silberman

A DISSERTATION
Submitted to
Michigan State University in partial fulfillment of the requirements
for the degree of

## DOCTOR OF PHILOSOPHY

Department of Political Science
2000

# ABSTRACT <br> HEALTH PROFESSIONS REGULATION AND PUBLIC POLICY: STATE MEDICAL BOARDS AS POLICY ACTORS 

## By

Susan L. Silberman

Regulation of health professions changed in the 1990s. The politicalinstitutional arrangements between social interests, the state and economic actors, are different from what they were twenty years ago. Among the reasons for these changes is the turbulence that characterizes the health care world. States have also become more active in the health arena with devolution. State leaders - governors, legislators and attorneys general - are more actively engaging social issues than was the case in the past.

Change has occurred relatively fast. Previous stakeholders have been joined by new entrants who desire a voice in the process. As a consequence there have been tangible changes in federal and state health laws and policies. The scope of policy conflict has expanded. Some of the changes in law and policy result directly from changes in health care management and the structure of the health care market. Others emerge from new regulatory policies adopted by states.

This study looks at change and how it affects one state health policy actor - state medical boards. Changes in the health delivery system have put health oversight and regulatory agencies, such as medical boards, under increasing
scrutiny and pressure. In response to more public attention, medical boards have changed the way they conduct their business.

This study examines why some state medical boards are leaders in change while others are not. It considers the institutional structure of medical boards, their relationships with the legislature and interest groups, and their policy and routine behaviors. The research questions are: What is the role of the enabling coalition in the institutional design of state medical boards? What is the role of institutional design in predicting legislative involvement in agency policy activities? What factors influence a state medical board's nonprogrammed policy decisions and behavior? What factors influence a medical board's programmed decisions and behavior?

The study addresses the research questions using original data drawn from a 50 -state survey of medical boards, data collected by the Federation of State Medical Boards (FSMB), and a series of four analytical case studies that include interviews with board members, staff and informed observers.

Overall the research findings indicate that there is one primary influence on state medical boards - legislators. Both at the individual level and through their involvement in specific medical board issues, state lawmakers have a critical effect on medical boards and their activities and behaviors. Medical associations, governors and board autonomy, among other things, are less important factors in medical board structure, behavior and activities. The two most active policy players in medical board matters are legislators and state medical societies.
$3$

Copyright by SUSAN L. SILBERMAN 2000

Scis

## ACKNOWLEDGMENTS

As I have worked on this dissertation, I have benefitted from the help, support and insight from a variety of friends and family. As a consequence, this project, like most research endeavors, has progressed in fits and starts, being pushed, pulled and finally propelled along toward completion. This motley collection of supporters have helped me survive my graduate program, living in exile for eight years in Michigan and emerge with my degree in hand and sanity intact.

I want to thank my two department colleagues, Shelly Arsneault and Kathy Dowley. The two of you led the way -- by example. Both of you convinced me it could be done and I could finish too! Initially from Michigan and later from Kentucky and New York, your encouragement and support kept me going.

The "girls" in the department - Iris Dunn, Rhonda Burns, Karen Battin, Elaine Estrich, and Shirley Gordon -- have provided friendship and humor. During our morning coffee chats and lunches, all of you were constant reminders about the REAL priorities in life - family, friends, and community. You helped ensure I did not take myself nor graduate school too seriously - because it is just one short chapter in the book of life.

Friends in East Lansing, Ann Arbor, Jackson and Tucson have provided safe harbors to rest and relax. Cindy Eby, my first friend in Michigan - I have

${ }^{-}$
learned so much from you. Who else knows how to make felt from human hair? You are truly amazing! Denise Rabi Lumbert you have been my gym buddy, best girlfriend and all around partner in crime. Edella Schlager, you went first and showed me that a doctoral degree in political science was the right choice. I have benefitted enormously from all your experience, insight and wisdom. You were my first reader; the project is stronger for your suggestions.

In the Michigan State Political Science department, Carol Weissert has been an adviser and mentor. You taught me about academic research, grant writing, scholarship and professionalism. By working with you on a variety of projects over the years, I have honed and developed my skills. Your support has been critical to my reaching completion. Perhaps the most important lesson you have provided has been as a role model; you find a way a balance a stimulating professional career and a happy, healthful home life with a partner and children. You are evidence that it can be done!

In my beloved hometown, Washington, D.C., my families -- of birth and chosen - have continued to await my return. My parents, Joan and David and siblings Karen and Steve have not always understood why it took so long. But their belief in my ability to reach my goal never wavered. Kelly Barsdate, circumstances made you my sister and nothing changes that. Lori Milstein, after fifteen years, e-mail enabled our friendship to grow and deepen. I'm home now!

Living in Michigan provided the opportunity to deepen three important relationships with family. George and Janet Eyster, the friendship and support
E.0.: :

$$
\text { - } こ こ \rightarrow \text { - }
$$

noi re.E

$$
p r a, z=z
$$

$$
\because:
$$

$$
\text { arer } e^{-}
$$

Youre.e
BuES-E

$$
\begin{aligned}
& \text { mar } \\
& \text { sives }
\end{aligned}
$$

$$
\begin{gathered}
\text { Les } \\
\text { as } n= \\
\text { as }
\end{gathered}
$$

you provided us were unexpected gifts. The opportunity to become close friends with parents is unique. Who would have thought you both would become our favorite double date! Both of you taught me to be a Big Ten sports fan and the importance of learning to drywall! It is no exaggeration to say Sandy and I would not have gotten through these years without you both. Helen Lerner, you provided a loving cocoon away from all the craziness of my responsibilities. With you, I could let down my hair, kick back and laugh. We took care of each other and had a great time doing it!

Sandy Eyster, my partner and friend, has been a tutor-in-residence, statistical guru, and greatest fan. When we left home for Michigan, I was not sure we would reach our goals and still have each other at the end of the process. You have been my greatest source of support, friendship and humor. You have taught me about the joy of a loving relationship; I am a better person because you are in my life. Best of all, we are home now!

My research was supported in part by a grant from the University of California at San Francisco States Initiatives Program funded by the Pew Charitable Trusts and a Student Award Program grant from the Blue Cross and Blue Shield of Michigan Foundation. This assistance enabled me to conduct the mail survey and case study visits. I appreciate the generous support from both sources.

Lastly, the executive officers at state medical boards across the country as well as the professionals in Colorado, Oregon, Maryland, Michigan and
elsewhere who completed the survey and sat with me for interviews. Your insights, wisdom and experiences enabled this project to go forward.

Thanks to all of you!!
"Great is the art of beginning, but greater is the art of ending." Henry Wadsworth Longfellow


## TABLE OF CONTENTS

LIST OF TABLES ..... ix
LIST OF FIGURES ..... xii
CHAPTER 1
INTRODUCTION ..... 1
The Health Care System Today ..... 3
Medical Boards Respond ..... 4
Contributions ..... 6
A Preview of Things to Come ..... 7
CHAPTER 2
THEORETICAL BACKGROUND ..... 9
Regulation: Some Definitions ..... 9
Regulatory Issues, Legislators and Bureaucracies ..... 12
Other Actors ..... 18
Bureaucratic Decisionmaking ..... 21
Predicting Change ..... 22
Summary ..... 25
CHAPTER 3
STATE MEDICAL BOARDS: THEN AND NOW ..... 26
A Brief History of State Medical Boards ..... 27
State Medical Boards Today ..... 29
Medical Boards As Regulatory Boards ..... 33
Conclusions ..... 42
CHAPTER 4
RESEARCH QUESTIONS, METHODS, AND DATA SOURCES ..... 47
The Research Questions and Hypotheses ..... 47
RQ\#1 what is the role of the enabling coalition, measured by the strength of medical societies, in the institutional design of state medical boards (SMBs)? ..... 47
RQ \#2 what is the role of institutional design in predicting legislative involvement in agency policy activity? ..... 50
RQ \#3 what factors influence a state medical board's non- programmed policy decisions and behavior? ..... 52
RQ \#4 what factors influence a medical board's programmed decisions and behavior? ..... 55
Methods and Data Sources: Mail Survey and Case Studies ..... 56
The Four Policy Areas in the Mail Survey: Telemedicine, Managed Care, Alternative Medicine and Making Information Available to the Public ..... 62
Descriptive Analysis ..... 66
CHAPTER 5
INSTITUTIONAL STRUCTURE AND LEGISLATIVE AND INTEREST GROUP RELATIONSHIPS ..... 77
Institutional Structure and Interest Group Relationships ..... 77
The Dependent Variables ..... 80
The Independent Variables ..... 86
The Analyses ..... 88
Medical Society Involvement in Selection. ..... 88
Medical Society Influence ..... 93
DO Boards ..... 93
Institutional Structure and Legislative Involvement ..... 94
The Dependent Variables ..... 96
The Independent Variables ..... 97
The Analyses ..... 97
Predicting Legislative Involvement ..... 97
The Impact of the Enabling Coalition and Institutional Design ..... 106
A Closer Look at the States: Medical Society Strength and Influence ..... 109
Medical Society Strength ..... 109
Medical Society Influence ..... 116
Conclusion ..... 122
CHAPTER 6
MEDICAL BOARD BEHAVIOR IN "NON-PROGRAMMED" POLICY DECISIONS ..... 125
The Hypotheses ..... 125
The Dependent Variables ..... 130
Defining and Measuring Policy Activism ..... 130
The Independent Variables ..... 133
The Analyses ..... 137
Aggregated Models: Policy Activism ..... 137
Medical Boards Only ..... 146
Disaggregated Data: The Four Individual Policy Areas ..... 150
Results ..... 156
A Closer Look at the States: Legislative Involvement ..... 159
Individual Legislators ..... 161
Committee Role. ..... 164
Legislative Oversight ..... 166

APPEN
$A=$
$A=$
$A=$
$S$
$A=$
$S$
$A=$
$A$
$A$
$A=$
$A_{2}$
$A_{2}$
$S$
$A_{2}$
$r_{2}$
$S E$
The Budget Process ..... 167
Conclusion ..... 170
CHAPTER 7
MEDICAL BOARD BEHAVIOR IN "PROGRAMMED" ROUTINE DECISIONS ..... 174
The Hypotheses ..... 174
The Dependent Variable ..... 179
The Independent Variables ..... 181
The Analyses ..... 183
Disciplinary Action ..... 184
A Closer Look at the States: Board Autonomy \& the Governor's Role ..... 197
Board Autonomy ..... 197
Governor's Role. ..... 202
Conclusion ..... 206
Programmed and Non Programmed Models ..... 208
CHAPTER 8
CONCLUSION ..... 210
Study Findings ..... 211
Applications to Theory ..... 214
Study Limitations ..... 216
Study Contributions ..... 217
Implications for Policy ..... 219
APPENDICES ..... 221
Appendix A
A State Medical Board and its Relationships ..... 223
Appendix B
Survey of Policies and Actions of State Medical Boards ..... 225
Appendix C
Survey Letters ..... 234
Appendix D
Interview Protocols ..... 237
REFERENCES ..... 246

## LIST OF TABLES

Table 1
Medical Board Status Within State Structure ..... 35
Table 2
Medical Board Membership and Terms ..... 38
Table 3
Medical Board Members: Sources of Appointment and Nomination ..... 43
Table 4
Perceived Medical Board Accountability ..... 67
Table 5
Perceived Influence of Medical Society on Medical Board Activities ..... 69
Table 6
Perceived Medical Board Policy Activism ..... 71
Table 7
Perceived Constraints Medical Boards Face ..... 73
Table 8
Perceptions about how Medical Boards Initiate Change ..... 75
Table 9
Institutional Structure and Legislative \& Interest Group Relationships Descriptive Statistics ..... 83
Table 10
Correlations: Medical Society Involvement and Influence ..... 85
Table 11
Predicting Institutional Structure: Agency Autonomy Four Models Logit \& OLS Results - MDs and DOs ..... 90
Table 12
Predicting Institutional Structure: Agency Autonomy Four Models Logit \& OLS Results - MDs Only ..... 91
Table 13
Correlations: Legislative Involvement ..... 99
Table 14
Predicting Legislative Involvement: Perceived Individual Legislators' Influence Five Models OLS Results - MDs and DOs ..... 100
Table 15
Predicting Legislative Involvement: Perceived Individual Legislators' Influence Five Models OLS Results - MDs Only ..... 101
Table 16
Predicting Institutional Structure \& Legislative Involvement: Legislative Role in 4 Policy Areas Five Models OLS Results - MDs and DOs ..... 102
Table 17
Predicting Institutional Structure \& Legislative Involvement: Legislative Role in 4 Policy Areas Five Models OLS Results - MDs Only ..... 103
Table 18
Medical Board Appointment, Nomination and Membership Case Study Overview ..... 110
Table 19
Case Study Overview Medical Society Strength and Influence: Distribution of Responses ..... 112
Table 20
Non-programmed Policy Decisions \& Behavior Descriptive Statistics ..... 134
Table 21
Predicting Board Policy Actions \& Behavior: Policy Depth Four Additive Models OLS Results - MDs \& Dos ..... 138
Table 22
Predicting Board Policy Actions \& Behavior: Policy Scope Four Additive Models Logit Results - MDs \& DOs ..... 143
Table 23
Predicting Board Policy Actions \& Behavior: Policy Depth Four Additive Models OLS Results - MDs Only ..... 147
Table 24
Predicting Board Policy Actions \& Behavior: Policy Scope Four Additive Models Logit Results - MDs Only ..... 148
Table 25
Correlations: Medical Board Behavior and Four Policy Areas ..... 151
Table 26
Predicting Board Policy Actions \& Behaviors: Four Policy Areas Full Models OLS Results - MDs \& DOs ..... 153
Table 27
Predicting Board Policy Actions \& Behaviors: Four Policy Areas Full Models OLS Results - MDs Only ..... 154
Table 28
Case Study Overview: Non - Programmed Decisions and Behavior ..... 163
Table 29
Programmed Decisions \& Behavior Descriptive Statistics ..... 182
Table 30
Predicting Programmed Board Actions \& Behavior: Discipline Four Additive Models OLS Results - MDs \& DOs ..... 185
Table 31
Correlations: Medical Board Behavior and Discipline ..... 187
Table 32
Predicting Programmed Board Actions \& Behavior: Discipline Four Additive Models OLS Results - MDs Only ..... 188
Table 33
Case Study Overview: Programmed Decisions and Behavior ..... 199


## LIST OF FIGURES

Figure 1
State-by-State Policy Activity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 65
Figure 2
Number of Policy Areas State Boards Active . . . . . . . . . . . . . . . . . . . . . . . . . 135


$\therefore \alpha=$

ごき


> I am not an advocate for frequent changes in laws and constitutions, but laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths discovered and manners and opinions change, with the change of circumstance, institutions must advance also to keep pace with the times.

## Thomas Jefferson

1. Introduction

Health profession regulation has changed in the 1990s. The politicalinstitutional arrangements that Eisner (1993) calls regimes, between social interests, the state and economic actors, are different from what they were twenty years ago. Among the reasons for these changes is the turbulence that characterizes the health care world. Health care delivery systems have changed from fee for service to risk-based capitated approaches. In health professions education, the need for specialists has been eclipsed by the demand for primary care and prevention services. Intergovernmental relations have shifted with more responsibilities being delegated to the state level.

States have also become more active in the health arena with devolution. They are innovating and trying new approaches to welfare reform (Nifong 1997, Tilly 1999, Tweedie 1997 ), Medicaid (Eckl 1996) and other social policy areas (Mahtesian 1997, Seefeldt et al., Street 1998). State leaders -- governors, legislators and attorney generals -- are engaging social issues as never before (Belluck 1998, Leonard 1999, Lott 1998, Mitchell 1999, Weissert and Schram

1996, 1998, Whitman 1995). They are developing new models for managed care, becoming more concerned about quality issues, and taking on corporate interests all with an eye for the bottom line.

Change has occurred relatively fast. Previous stakeholders have been joined by new entrants who desire a voice in the process. As a consequence there have been tangible changes in federal and state health laws and policies. Using Schattschneider's (1960) terminology, one might say that the scope of conflict has expanded. Some of the changes in law and policy result directly from the market while others emerge from new regulatory policies adopted by states.

This dissertation examines one state regulatory agency and its relationships with interest groups and state legislatures (see Appendix A). It investigates an organization's institutional structure, policy activities and routine behaviors. Exploring these relationships seems particularly useful given the opportunity to examine varying responses in the 50 states. The study looks at change and how it affects one state health policy actor - state medical boards. Historically, medical boards were subservient to the medical profession. They were part of a self-governing professional order that protected the autonomy of physicians and served their economic interests (Ameringer 1999). In this initial incarnation, medical boards were like many other types of regulatory boards they were typically made up of members of the very profession they were charged with overseeing. They served as gatekeepers guarding entry to the
medical profession but rarely disciplined doctors for substandard care.

## The Health Care System Today

Changes in the health delivery system have put health regulatory agencies, such as medical boards, under increasing scrutiny and pressure. The cost of health care has risen dramatically. After a recent brief period of slow growth, experts are now predicting total spending for health care in the United States will more than double between 1997 and 2007. During this period, costs are anticipated to climb from $\$ 1$ trillion to $\$ 2.1$ trillion; 17 percent of the gross domestic product in 2007 will be spent on health care costs (Pear 1998). Surprisingly, the increase will be driven by private spending -- not a rise in costs but rather an increased demand for and use of services.

Beyond issues of cost, concerns have also been raised about access, quality, and accountability. As recently as the end of 1999, the Institute of Medicine, an arm of the National Academy of Sciences, concluded that as many 98,000 Americans die unnecessarily every year from medical mistakes made by physicians, pharmacists and other health care professionals. If the figure is correct, medical errors may be the fifth leading cause of death in the United States, behind heart disease, cancer. stroke, and lung disease (Weiss 1999). These deaths, along with serious nonfatal reactions to other medical errors, cost the nation as much as $\$ 29$ billion a year. The report's authors call for a major overhaul of how the nation addresses medical errors. The creation of a new

federal Center for Patient Safety, within the Department of Health and Human Services, to track and prevent patient injuries was one of the report's recommendations. A few days later, President Clinton announced steps to curb medical errors by requiring all health plans that insure federal workers to adopt new safeguards. Moreover, every government-run health program will explore ways to improve patient safety (Goldstein 1999).

## Medical Boards Respond

In response to more public attention, medical boards have changed the way they conduct their business. In Virginia, when a local doctor stole painkillers from patients, depriving them of sedatives while undergoing painful gastrointestinal examinations, the Board of Medicine took the unusual step of trying to contact possible victims (Glod 2000). The Michigan Board of Medicine is setting up a computer system to track where physicians are employed. This will allow the state to coordinate criminal convictions of medical professionals (for example on charges of drunk driving) and ensure the medical board can serve physicians with orders of license suspension. The new system is expected to be in use by the end of 2000. In Fall of 1996, the Massachusetts Board of Registration in Medicine was the first medical board in the nation to put information about physicians' disciplinary and malpractice records on the Internet. The Massachusetts board set the standard for other medical boards; other boards around the nation have followed suit including the Maryland Board
of Physician Quality Assurance. Clearly, some state medical boards have embraced change and function as leaders or at least partners in change; in other cases they are followers, even laggards.

I examine why some state medical boards are leaders in change while others are not. I consider the institutional structure of medical boards, their relationships with the legislature and interest groups, and their policy and routine behaviors. The research questions are: What is the role of the enabling coalition in the institutional design of state medical boards? What is the role of institutional design in predicting legislative involvement in agency policy activities? What factors influence a state medical board's non-programmed policy decisions and behavior? What factors influence a medical board's programmed decisions and behavior?

I address the research questions using original data drawn from a 50 state survey of medical boards, data collected by the Federation of State Medical Boards (FSMB) ${ }^{1}$, and a series of four analytical cases that include interviews with board members, staff and informed observers.

[^0]
## Contributions

The findings of this research will be useful on several levels. First, I am applying theoretical approaches developed for federal agencies to a set of state regulatory agencies. The opportunity to evaluate these theories across the 50 states can add to their veracity, significance, and rigor. This study is an initial effort in that direction.

Second, I am developing and exploring the concept of policy activism. The information presented in this study will help illuminate the rationale behind state action. The case studies will provide "in the trenches" accounts of a personal nature.

Third, it illustrates the expanding scope of conflict in the area of health care workforce regulation. Schattschneider (1960) argued that changing ingrained power relationships can only occur when more people are involved in the process and the issue becomes salient to more people. The involvement of legislators and the public have a role to play in this expansion of the scope of conflict.

[^1]> of why states adopt health profession regulation reform and provides useful information for future efforts to encourage such reforms.

A Preview of Things to Come
Following this introduction, the literature review chapter introduces some definitions of regulation and highlight the literature on federal regulation, legislators and bureaucracies. Additionally, there will be a short discussion of state studies that predict change.

The third chapter provides an overview of medical boards. It includes a brief history of state medical boards and discusses the decline of organized medicine and the emergence of a new professional order. Also, it presents information on the structural characteristics of medical boards today.

The fourth chapter discusses the methodology for the study. It provides an overview of each empirical chapter, with the research questions, the models for each chapter and the dependent and independent variables. The chapter details the data collection efforts through a mail survey and a series of four analytical case studies. The chapter concludes with initial analyses of the findings from the mail survey; these early investigations provide background but do not relate directly to the hypotheses being tested.

Chapters five, six and seven report the results of the hypotheses testing. Chapter five looks at issues of institutional structure and legislative and interest group relationships. Chapter six focuses on policy activism by medical boards.

Chapter seven centers on the routine behavior and actions of state medical boards. The end of each chapter contains a case study section. In these sections, I consider whether or not the findings from the quantitative analysis are upheld at the individual state level. I ask a basic question: do the case studies confirm the empirical results? if not, why not?

The final chapter summarizes the key findings from the study. I discuss the implications of the study and consider how the results add to the current literature. The chapter concludes with recommendations for both researchers and state medical boards about medical board reform.

## 2. Theoretical Background

To fully understand the role of the interest groups, the role of institutional design, and what factors influence a board's policy and routine behavior, it is necessary to examine the details of issues and get inside the processes that have led them to be on the policy agenda. In this analysis, individuals are conceptualized as behaving in a rational, self-interested fashion in trying to translate their preferences into institutional outputs (Rothenberg 1994). The utility of the rational choice perspective for studying institutional behavior is especially appropriate where the economic rewards at stake are considerable for those being regulated (medical professionals in this case). A political economy framework is advantageous because it emphasizes how individual incentives and preferences are aggregated.

## Regulation: Some Definitions

Broadly defined, regulation involves the authoritative bounding of behavior by government (Williams 1997). Regulations are usually adopted on the assumption that their overall benefits will outweigh their overall costs. That is, the explicit or implicit justification for most regulation is that its benefits justify the imposition of costs on specific groups or populations. In the case of state medical boards, intervention in the private market is justified to ensure safety, competence and quality of care.

Vogel (1981) differentiates between two broad kinds of regulation:


#### Abstract

economic and social. Economic regulation deals with prices, outputs, terms of competition and entry or exit. Some federal economic regulatory agencies include the Security Exchange Commission, Interstate Commerce Commission, and the Civil Aeronautics Board. The specific focus of social regulation is on "regulation affecting health, safety and the environment" (Vogel 1981, 238). Social regulation seeks to protect parties to private market transactions from making decisions that they will regret (Joskow and Noll 1978). Such regulation involves imposing concentrated costs on a particular group in order to secure widely distributed benefits. The intervention is justified based on market imperfections that are due to costly and inexact information about the consequence of economic decisions. Using these definitions, health profession regulation falls within both categories of regulation -- economic and social. Health profession regulation can be seen as economic regulation when it relates to competition, prices and entry issues. It is social regulation when it deals with the externalities and social impact of economic activity (Williams and Matheny 1983). In areas like health care reform, these externalities and impacts often include difficult-to-define quality of life issues that require regulators to affect the economy in non-market dimensions. How does one measure or put a price on human life? Ultimately, social regulation is a policy area within which the structures of the state, the private market and democracy collide (Williams and Matheny 1983).


Regulations dealing with the environment and health entail a great degree
of decision-making uncertainty (Joskow and Noll 1978, McCubbins 1982) and an enhanced level of conflict (McCubbins 1982). The relations between legislatures and agencies should be different for health and environmental regulatory issues than for economic regulation. Under environmental and health regulation there should be: 1) a broader scope of substantive authority delegated to the administrative agencies and 2) more procedural requirements for decision making such as more public hearings and comment, more points of access to agency decision making by outside parties, more access to judicial review, and more strenuous burdens of proof and standards of evidence (McCubbins 1985). Additionally, the legislature is more likely to adopt stricter oversight for environmental and health regulatory agencies. Other scholars, such as Moe (1989, 1990), disagree with McCubbins. Instead, they argue that with more uncertainty, the legislative majority will try to insulate the agency from future interference by writing specific laws with less delegation of authority and fewer oversight provisions ${ }^{2}$.

In his well-known book on regulation, Wilson (1980) argues that regulatory politics are best understood by analyzing the distribution of costs and benefits among a group or population. Using this approach, health profession regulation policies can be characterized as client politics. In client politics the benefits of a prospective policy are concentrated to a few people or groups (e.g.,

2 Teske and Bhattacharya (1995) test these conflicting hypotheses as they apply to telecommunication policy. They confirm Moe's expectations about the scope of the laws and oversight requirements.
organized medicine) and the costs are distributed widely among the population. In such cases, the former groups have much more motivation to organize and pressure the political system to provide the benefit. Since the costs of the policy are widely distributed and most likely inconsequential for any single individual, opposition groups have little incentive to form - if indeed they even hear of the policy. The goal of client politics is to obtain a small but profitable change in law without attracting attention. Client politics produces regulatory legislation and subsidies that in effect spare the organized interest the full rigors of economic competition. Thus client politics occur away from public scrutiny and are usually only noticeable to those who will directly benefit from the changes.

Regulatory Issues, Legislators, and Bureaucracies
Regulatory issues and bureaucratic behavior have been widely researched at the national level. Terry Moe (1985) argues that bureaucratic behavior concerns the most basic issues of politics and organization. "What can we expect of the relationship between regulatory agencies and the groups they are supposed to regulate? To what extent and toward what ends are these agencies controlled by elected politicians? What are the determinants of agency autonomy, and how is it exercised in the making of policy?" (Moe 1094).

Regulatory agencies are first and foremost bureaucracies. The essence of bureaucracy is to stabilize policy in a permanent apparatus designed to achieve action (Wood 1990). However, public bureaucracies are dynamic,

$$
\begin{aligned}
& 1 \\
& y
\end{aligned}
$$

adaptive entities; they respond to diverse changes in political environments
(Wood and Waterman 1994).
Finding the balance between stability and responsiveness is the crux of designing effective bureaucracies. The initial design of the bureaucratic agency is key and enabling coalitions ${ }^{3}$ make certain that the agency meets its current and anticipated future needs by building structural arrangements into legislation at the time of enactment (Moe 1989, 1990). Because for most issues there are sets of organized interest groups already in existence, the content and direction of public policies are determined by how the groups in the upper reaches of political decision making participate in political choice (Moe 1990).

Interest groups take an active part in the politics of structural choice. Moe (1990) writes,

They understand that the advantages they seek from government depend crucially on precisely those fine details of structure that cause voters' eyes to glaze over. Structure is valuable to them; and they have every incentive to mobilize their political resources to get what they want. They are very likely, as a result, to be the only source of political demands and pressures when structural issues are at stake. Structural politics is interest group politics (129).

Politicians have strong incentives to be sensitive to the interests and demands of organized groups. These groups represent an active constituency; they are involved in exchange relationships with others. As well-informed and

[^2]strategic players, they make demands and follow up with appropriate rewards and sanctions. To understand the evolution and design of public bureaucracy, it is necessary to begin with organized interest groups and their relationships with elected politicians (Moe 1989). In the words of Moe, "the [interest] groups are the prime movers in the politics of structural choice" (Moe 1990, 130).

The enacting legislature has an incentive to protect the benefits it delivers to its constituents from subsequent legislatures, as well as administrators. It makes institutional choices that determine administrative structure and process that, in turn, affect the ability and willingness of future legislators to influence administration to further their own ends. Horn (1995) notes three key areas where legislators determine institutional alternatives: legislators determine the form of institutional alternatives; they specify the participation and decision rights of various parties; and they influence the financing of administrative activity and the rules governing the employment of administrators. Decisions in these areas play a part in determining the incentives facing administrators and therefore influence how administrators exercise their discretion. However, because of the commitment problem, the durability of legislative benefits reduces the value of legislation. Incumbent legislatures cannot realistically commit future legislatures to maintaining a certain course of action.

Horn (1995) uses a transaction cost approach to explain the behavior of the enacting legislature and its choice for institutional arrangements. Legislators choose among institutional instruments so as to minimize the sum of their
transaction costs in any situation. High transaction costs effectively ensure that incumbent legislators will not intervene into the policy making decisions of an agency unless a constituent has notified them of a potential fire alarm ${ }^{4}$ problem or there has been a change in the legislative coalition.

Given the initial design, Congress will then set an agency's agenda "to perform like an automatic pilot" (Calvert, Moran and Weingast 1988, 500) making precisely those decisions it desires. Congress does not have to closely monitor or scrutinize agency proceedings at a detailed level. What Calvert, Moran and Weingast (1988) call the principle of anticipated reaction applies whereby "bureaucrats anticipate and pursue congressional interests because Congress possesses positive rewards for service and negative sanctions for failure to serve" (Calvert et al., 1988, 498). An agency's decision making is sensitive to the composition of its oversight committee and its budget appropriations (Weingast and Moran 1983). For example, Calvert, Moran and Weingast (1988) found that changes in FTC policy could be traced to changes in the preferences of commerce committee members and three new appointments to the commission, including a new chair. Finally the Senate's power to approve or disapprove appointments to regulatory commissions serves as

[^3]another tool to insure agency cooperation (Calvert, Moran and Weingast 1988, Moe 1982, Wood and Waterman 1991).

The initial institutional arrangements created by enacting legislators persist when they serve the interests of subsequent legislative coalitions. If policy preferences of a committee remain stable, then agency policy should remain stable (Weingast and Moran 1983). Institutional arrangements are reconsidered when the problems legislators face change with new circumstances and developments such as a change in committee composition. High transaction costs prohibit legislators from intervening into activities for which there are no fire alarms engaged. Incumbent legislators will not intervene unless 1) administrators are perceived as being out of control or other mechanisms for controlling the agency problems are ineffective, or 2 ) the original legislative deal does not suit the current configuration of active private interests and the enacting legislature makes it impossible to meet the changing needs without changing the legislation (Horn 1995).

Changes in the external environment might also cause an alteration to institutional arrangements (Noll 1985). Legislators may be galvanized to action from exogenous shocks. Moe (1985) refers to exogenous shocks as those changes in party control of Congress or the executive that have an immediate effect or may cause incremental change as a new equilibrium is found.

Exogenous variables may come from the hierarchical political authorities (Calvert, Moran and Weingast 1988), the economic environment in which they
operate (Hammond and Knott 1988), or changes caused by new technologies (Noll and Owen 1983).

There have been some efforts to examine the role of legislators in decision-making in state agencies (not necessarily regulatory agencies). For example, Miller (1987) reported when state administrators were asked their perceptions of the influence of various actors in major policy decisions of their agencies, legislators were viewed as more influential than governors and other policy actors. Using the same data set, Brudney and Hebert (1987) found that legislative influence was consistently high across different types of state agencies, rivaled only by the governor whose influence was much more variable across agencies. Bowling and Wright (1998) concluded that roughly 50 to 60 percent of state agency heads have daily or weekly contact with legislators or legislative staff. This far exceeds similar contacts with governors and executive staff. Furthermore, state agency heads reported that of the legislation enacted into law and affecting an executive agency half originated in or was initiated by the legislature.

In one of the few studies of legislator influence over state regulatory agencies, Teske and Bhattacharya (1995) determined that legislators influence regulatory policy as well. In telecommunications, legislators play an important role even while they write vague laws that do not clearly define bureaucratic regulatory scope.

Perhaps more to the point, Wright and Cho (1998) found that legislators
are more active initiators of program changes in state agencies than governors. In a 1994 survey of state administrators, they found that 65 percent of administrators attributed shifts in program priorities to policy initiatives or actions originated by legislators (compared to 57 percent in 1978). Governors were cited as originators of shifts in program priorities by 55 percent of respondents (compared to 41 percent in 1978). Wright and Cho note that "(w)hile administrative agencies are formally a part of the 'executive' branch, they are clearly and understandably responsive to legislator initiatives" (4).

## Other Actors

While Horn (1995), among others, notes that legislators are the centers of attention when examining institutional form, not all scholars agree that the legislature has primary control over the bureaucracy (Moe 1987, 1989, 1990, Teske 1990, Teske et al. 1995, Wilson 1989). Also, crucial to the American institutional system are: the courts, the president, and interest groups.

The judiciary affects bureaucratic behavior through its review of administrative rulemaking procedures and processes (Eisner 1993, Kerwin 1994). Moreover, with the growth of regulatory court cases, judges have an additional opportunity to impact the regulatory bureaucracy.

Moe (1987) emphasizes the role of the president as an influential player in determining administrative responsiveness. It is the president who wields appointment power, although with the advice and consent of Congress. With the
ability to name the head of every regulatory agency as well as top administrators in the cabinet, the president can affect regulatory behavior across administrations (Moe 1982). At the state level Teske $(1990,1995)$ finds a similar pattern. In his studies of telecommunication regulation, governors become more involved when issues are more salient. The types of laws states enact are also influenced by party control and the interests of core supporters.

Meier (1985) argues that the president has three additional avenues to influence regulatory behavior: oversight, budgets and leadership. Regulators know that their action will be reviewed by others in the executive branch as well as by lawmakers. The rational regulator will seek to anticipate the oversight and circumscribe regulatory output accordingly. With regard to budgets, regulatory budgets must go through the appropriate executive department as well as the Office of Management and Budget (OMB). Thus, the president and his agents have multiple opportunities to direct the efforts of a regulatory body. Leadership by the president may also influence regulatory behavior. A president may halt issuance of regulations he finds particularly objectionable; he is responsive to a more diverse constituency and has broader policy concerns (Teske et al. 1995). Thus the president has formal and informal powers at his disposal as he seeks to steer the regulatory bureaucracy.

Interest groups also take an active role in bureaucracies and the politics of structural choice as noted earlier (Moe 1989, 1990). Furthermore, they play an important role in the capture theory of regulation that posits that as the only

stable political force in the agency's environment, the dominant interest group eventually forces the agency to accommodate its needs. The agency is essentially captured by the industry and begins to regulate in the interests of the industry. While a more sophisticated version of the capture explanation may be plausible, it has been largely discredited as empirical studies have demonstrated that regulatory agencies are frequently vigorous in carrying out their missions (Noll and Owen 1983, Quirk 1981). So while interest groups are important actors in influencing administrative agencies, the agencies also respond to a more complex set of stimuli than just the industry they are trying to regulate. The interest group environment is complex, more often resembling a crude form of pluralism (Berry 1993).

Interest group pressures are mitigated and mediated by external and internal pressures from within and without the agency. Studies have found that factors such as the size (Stigler 1971), resources (Berry 1977), level of commitment (Meier 1979), amount of prestige (Rourke 1984), number of groups (Rourke 1984), breadth of the coalition (Feldstein 1988, Quirk 1980) and a group's standing (Berry 1984) all affect the ability of interest groups to influence structural choice as it relates to agency design and attain desired policy outcomes. Additionally, issue salience is a factor in determining the other actors that will enter the fray (Gormley 1983). Thus, a lack of issue salience works to the advantage of the regulated industry; there will be little opposition to its demands. Moreover, non-salient issues effectively circumscribe

Schattschneider's scope of conflict.
The role of interest groups and institutions in regulatory output has also been studied at the state level. The results of the effect of interest groups are mixed with some studies finding strong industry influence (Gormley 1983, Scholz and Wei 1986, Williams and Matheny 1984) and others finding little industry impact (Lynk 1981, Meier 1988). Teske (1991) examined both interest group and institutional factors as predictors of two state regulatory actions following the 1982 AT \& T divestiture. He found that institutional variables were better predictors of state public utility commission decisions to change rates and increase competitive entry than interest group variables.

When considering bureaucratic organizations, it is important to remember that they are not black boxes; bureaucracies are organizations peopled with actors who have goals, resources and strategies of their own (Niskanen 1971. Wilson 1989, 1990). As a consequence, agency members have motivations of their own that may conflict with other institutional actors.

## Bureaucratic Decisionmaking

The manner in which an agency approaches its functions and duties is, in large part, at its own discretion. That is, once legislators establish an agency's mission and general responsibilities, lawmakers will rarely micro-legislate to such a level as defining an agency's standard operating procedures.

Simon (1960) conceives of two types of activities for a bureaucracy:
"programmed" and "non-programmed" functions. Programmed activities are the routine and repetitive responsibilities an agency performs. There is a definite process or set of steps for handling these issues. "Decisions are made by reference to approved practices rather than by consideration of alternatives on their merit. Thus, choice is fixed, and no search activity is involved." (Fry 1989, 203). Novel, unstructured, and unusually consequential activities are considered "non-programmed" decisions. There is a singularity to these issues - they do not occur with regularity. "Non-programmed decisions are made in response to novel stimuli for which no structural response exists. Consequently, non-programmed decision making requires some search activity" (Fry 1989, 204). A bureau typically addresses these matters in an ad hoc manner. These decisions affect the quality of the work an agency produces (Gormley 1983) and have an enormous impact on an administrative organization. Programmed and non-programmed activities determine how an agency will respond to societal interests and which interests will be heard.

## Predicting Change

Getting on the public agenda does not occur easily. As E. E. Schattschneider wrote more than 30 years ago, "the flaw in the pluralist heaven is that the heavenly chorus sings with a strong upper-class accent" $(1960,35)$. He was alluding to the ability of powerful concentrated interests to continually benefit from the political and economic system. Schattschneider knew that all
theories of politics have to do with the question of who can get into the fight and thus onto the agenda and who is to be excluded. He believed that the expansion of the scope of political conflict was essential to the democratic process. By enlarging the scope of participation it is possible to change the distribution of power around a specific policy issue. This occurs because in any given issue there are always more people who sit on the sidelines and are disinterested than there are those who are actively involved and have a stake in the policy outcome. But "if people outside the policy system can be convinced that the policy in question has impacts beyond the existing set of participants, they can be brought into the conflict" (Baumgartner and Jones 1993, 19). So as long as the possibility of mobilizing the previously indifferent by redefining the issues exists, no system based on the shared interests of the powerful is safe. Losers may be able to change their position into a winning one if they can appeal to the right participants. This is crucial because it means the ability to get on the public agenda is potentially open to anyone (Baumgartner and Jones 1993, 35).

Horn (1995) uses the logic of a transaction cost approach ${ }^{5}$ to argue that

[^4]changes in the composition of legislative coalitions may bring change in many areas -- including non-programmed policy decisions and behavior (e.g., policy activism). At the state level, if state legislators desire change in medical board policy, there should be pressure on medical boards for policy change. State legislative interest in issues affecting medical boards will increase the saliency of other medical board issues. It will place medical board actions under the microscope and bring increased attention to other board activities such as forming a committee or task force, issuing policy statements, holding hearings, adopting positions, and other policy formation actions.

Other factors affecting a medical board's policy activism may include a change in state political leadership (Calvert. Moran and Weingast 1988, Moe 1985), changes in new technologies or economic environments (Hammond and Knott 1988, Noll and Owen 1983), increases in public membership (Ameringer 1999, Graddy and Nichol 1989, 1990), the levels of institutional autonomy and oversight over budget issues (McCubbins 1985, Rosenthal 1998), and the extent of gubernatorial and legislative attention toward the medical board in the past (Bowling and Wright 1998).

Finally, it is worth noting that when considering the effects of change and how it may affect the behavior of an organization, matters of institutional form are significant. Institutional form encompasses a number of an organizations's dimensions. Weisbrod (1998) notes that it is important not to over control for
legislators because they determine institutional form.
other variables thereby dampening the effects of key variables of interest.

## Summary

Prior research and theory indicate that institutional design issues are quite complex. Change does occur in the regulatory environment, but not without outside involvement. Structural choice matters begin with interest groups and legislatures but grow to include chief executives, the judiciary, bureaucrats and subsequent legislators. All these actors as well as other external and internal forces try to insinuate themselves into the policy activities and decisions of regulatory agencies. Bureaucratic behavior can be separated into programmed and non-programmed activities; each have different implications for which interests will participate and be heard. Moreover, the literature shows that because of the prohibitive transactions costs, the Congress (or a state legislature) will not make institutional changes affecting regulatory agencies unless there are new circumstances or developments affecting the political coalition and/or active private interests. Without such "exogenous shocks," the initial institutional arrangements and processes, set up to benefit the enacting coalition, remain in place. However, when they do decide to act, state legislators can be very influential indeed.

## 3. State Medical Boards: Then and Now

This chapter provides an overview of medical boards. First, I discuss boards' missions and the environment that they inhabit. Second, I present a brief history of medical boards. Third, I consider the current environment in which medical board operate. Fourth, I describe some of the structural characteristics of state medical boards.

The mission of medical boards is to protect the public by ensuring quality medical care through licensure and discipline. The rationale at the heart of occupational regulation is consumer protection (Gross 1984). A state medical board exercises this responsibility by allowing only authorized and qualified people to practice medicine. It serves as a gatekeeper to the medical profession; it is the state medical board that stands between the health professional and the patient.

Paradox characterizes the environment in which medical boards operate. On the one hand, it is the mission of a medical board to protect the health, safety and welfare of the community it serves. On the other hand, licensing restricts the freedom of the individual. Another contradiction for medical boards is ambiguity between the regulators and the regulated. State medical boards create a panel of experts who are supposed to administer the requirements of the statute. The boards are usually made up of members from the medical profession: either medical doctors (MDs) or doctors of osteopathy (DOs) ${ }^{6}$ and several public lay

6 MDs and DOs are the two primary types of physicians. Doctors of osteopathy are distinguished by the emphasis they place on the musculoskeletal system and its importance in maintaining good health. The method of treatment for both types of physicians including surgery and the use of drugs are otherwise the

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |

members. These practitioners are appointed to regulate the occupation in which they obtain their living. They are thus both the regulator and the regulated.

Friedman (1962) noted that,
These men and women, most of whom are only part-time officials, may have direct economic interest in many of the decisions they make concerning admission requirements and the definition of standards to be observed by licensees. Licensure establishes the kind of regulation in which the state assigns power to the members of the profession (140-141).

One is left with the question quis custodiet ipsos custodes (who shall regulate the regulators?).

## A Brief History of State Medical Boards

Professional licensing is one of the oldest forms of regulation. Medical licensure dates back to the seventeenth century when the first American states introducing licensure were still British colonies: Virginia in 1639, Massachusetts in 1649, and New York in 1665 (Broscheid 1997). In Maryland, the state legislature incorporated a society of physicians in 1798 granting it licensure authority. Texas established the first state board of medical examiners in 1875 (Ameringer 1999).

By the turn of the century most states had enacted laws calling for the licensure of physicians. State, local, and national societies and associations voluntarily established and enforced codes of ethics and standards of competence. States again re-entered the regulatory domain to protect the public from

[^5]incompetency, fraud, and quackery. By 1925 all the states had enacted legislation stating that no person may practice the profession of medicine unless he has complied with certain conditions and then applied for and received a license (Council of State Governments 1952).

Besides licensing, medical boards were charged with the authority to discipline physicians. However, they rarely did so; instead they relied on state and local medical groups to control misconduct. An AMA survey of state medical boards and state medical societies from the 1950s found that "almost without exception, discipline was a local matter, and since county societies handle discipline, the states have little or no knowledge of what is being done" (Ameringer 1999, 22).

In the 1970s the self-governed, self-regulated and self-disciplined field of medicine was forced to change as complaints about large fees, impersonal service, bureaucratic red tape, and technical skills increased. Meanwhile, the health industry grew exponentially. Emerging new health technologies and new federal and state health programs subsidizing both the supply and demand for health care further exacerbated the situation. Medical care costs had risen faster than general inflation since the enactment of Medicare and Medicaid in 1965 and presidents from Nixon on proposed ways to control health care costs to the government (Weissert and Weissert 1996). The jump in the number of malpractice suits was significant; between 1970 and 1975 the quantity doubled (Gross 1984). The public's deep-seated resentment toward physicians forced state legislatures to limit

liability and reconsider the autonomy of the medical profession.
State medical boards were traditionally little help for a disgruntled public. Their lack of disciplinary action against poor practitioners was particularly glaring considering the "high incidences of unnecessary and risky surgery, an overreadiness to prescribe inappropriate or dangerous medication, and the overuse of dangerous diagnostic measures, which contributed to an escalation of physiciancaused illnesses" (Gross 1984, 82). The rise of consumerism and its affiliated movements of self-help and self-care led the public to critically examine physician conduct. The media contributed too, by bringing particularly egregious cases of sexual misconduct, incompetence and substance abuse to the public's attention. In state legislatures, the malpractice crisis led officials to reconsider the operations and structure of medical boards. Among the new laws enacted were those increasing public representation on medical boards, placing medical boards under sunset provisions, and strengthening their investigation and enforcement divisions (Graddy and Nichol 1989, 1990, Gross 1984). At the executive level, the functions of individual licensing boards were centralized (Graddy and Nichol 1990).

## State Medical Boards Today

The regulatory activities of medical boards influence a large section of the economy and touch most citizens. In 1994, 13.9 percent of the gross domestic product of the United States or $\$ 938$ billion was spent on health care. In the late 1980s and early 1990s, spending for health care rose more rapidly than the GDP

(Burner and Waldo 1995, 234). In 1995, there were 756,000 doctors of medicine and osteopathy in the United States. The health service industry employed more than 9.5 million people in 1996 (U.S. Bureau of Census 1997, 122). Clearly, state medical boards have the ability to regulate a large portion of social activity.

In the 1990s, external changes have affected state medical boards. The growth of managed care has dramatically changed the way physicians and other health professionals provide their services. Between 1990 and 1996, the number of Americans enrolled in HMOs increased 85 percent, to an estimated 68 million (Center for the Health Professions 1998). Increasing local competition for patients, mergers and consolidation of hospitals, and the growing participation of consumers in health care decision-making are also redefining the health delivery system and directly affecting the expectations for physicians and their oversight boards. Medical boards deal directly with issues surrounding the provision of medical care in health maintenance organizations, such as whether a medical director should be licensed to practice medicine.

Recently, medical boards have been making national headlines. The highest profile case involved the Arizona Board of Medical Examiners and Blue Cross Blue Shield of Arizona (BCBSAZ). In 1997, the Arizona Court of Appeals affirmed a lower court decision that found that the medical director of BCBSAZ was in fact an employee -- not a provider of insurance as Blue Cross contended -- who made medical decisions for his organization. The Arizona medical board was found to have jurisdiction and authority to take action against the medical director

of a managed care provider. The Court determined that the medical director was involved in patient care and practiced medicine when making health care decisions (FSMB 1997a). In early 1998, the state supreme court denied an appeal, upholding the lower board's decision. (FSMB 1998b). This opens the door for states across the nation to require medical directors of insurance companies as well as other non-physician health care professionals to obtain medical licensure within the state.

In March 2000, a lawsuit similar to the Arizona case was filed in Texas. An HMO - UnitedHealthcare - is suing the Texas State Board of Medical Examiners for disciplining their medical director (Oppel 2000). The board found that by denying skilled nursing services to a patient whose physician requested it, the medical director failed to provide proper medical care.

In recent years, the news media has focused attention on egregious physician behavior. In Oregon, a case of sexual misconduct by an obstetrician over many years brought the medical board unwanted notoriety as well as calls from the state legislature to put its house in order. In Colorado, a woman whose son was the victim in a malpractice case has become an advocate of opening up the medical board's disciplinary process to public scrutiny. She has become a champion of public adjudication and joined with a consumer rights group to bring their issue to the state legislature. ${ }^{7}$ A Michigan physician who had practiced

[^6]
medicine in Ohio and Canada was discovered to have forged a medical education certificate (Schulz 1998). These types of cases keep medical boards and their actions salient to the public. However, discipline is only one of the responsibilities of medical boards and deals with individual actions, not public policy.

More evidence of the turbulent times for state medical boards is the turnover among their executive directors. Between 1995 and 1997, 20 executive directors of state medical boards left their positions. ${ }^{8}$ In one state, there have been three executive directors during the two-year period. As recently as March 1997, the Arizona board fired its executive director after he made statements saying that the state actions on complaints were substandard. He urged the medical board to be more pro-active, reviewing physician behavior and practice on a regular basis. Commenting on the Arizona firing, one observer suggested in an interview that a group of physicians whose licenses had been revoked had organized politically and pressured the board of directors for the removal. Another medical board official discussing the high rate of turnover indicated that the more active a state medical board is in the areas of discipline and policy the more pressure is brought to bear on the board of directors to oust the executive director. Following the firing, the chair of the Arizona Senate Health Committee told reporters she might

[^7]call the board before her committee, saying "I think it's important that we know what the board does and how they do it" (Erikson 1998).

The time for an enhanced policy role for medical boards seems to be at hand. As Andrew and Sauer put it (1996, 236): "boards of medicine have the potential to be the custodians of the public interest through regulation." But they go on to note, to be an effective organization, a medical board "must manage its agenda to foster a focus on policy oversight, rather than simply on individual regulatory actions." Only this way can a medical board "meet the challenge to board viability as regulators of the medical profession . . . and make a difference."

## Medical Boards as Regulatory Boards

Regulatory entities take many forms including boards, commissions, and independent agencies. In this section I consider the nature of medical boards as regulatory organizations. Are medical boards stereotypical of other regulatory boards, especially those at the federal level? In what ways are state medical boards representative of regulatory boards and in what ways are medical boards different? How do state medical boards fit into the regulatory infrastructure? By exploring the nature of state medical boards, I will locate them within the greater regulatory structure. It should be noted that I will not be discussing the role of the legislature in this section; the remainder of the dissertation deals with that.

In many ways, state medical boards are similar to independent federal
commissions. Like federal commissions, state medical boards are administrative units that receive power from the legislature to regulate, in this case occupational activities. Like their federal counterparts, state medical boards have executive, legislative and adjudicatory functions (Gross 1984). They operate within the executive branch -- 48 independent agencies (see Table 1), have rulemaking capacity and the ability to form judgments relative to denial, suspension or revocation of licenses as well as discipline licensees. Like the federal entities, state boards were created to be insulated from the political process (Moe 1982). Knott and Miller (1987) write, "the politically independent regulatory commission was a structural form that could be created in moments when public support was high, and then would remain as an island of nonpartisan influence even when public support waned" (51). Unlike other state agencies, the decisions of most medical boards are not subject to supervision or review by the governor, the legislature or executive department offices ${ }^{9}$. Like commissions, the internal decision-making processes of medical boards are governed by elaborate systems of rules and norms, so direct outside political interference is rare.

Regulatory agencies in Washington and the states were created with broad and vague delegation of statutory power. As a rule, the legislature does not

[^8]Table 1 - Medical Board Status Within State Structure

| Independent |  | Semi- <br> Autonomous | Subordinate | Advisory |
| :---: | :---: | :---: | :---: | :---: |
| AL | MT | AK | CT | IL |
| AZ-M \& AZ-O | NV-M \& NV-O | FL-M \& FL-O | DC | NY |
| AR | NH | MD | NE | UT-M \& UT-O |
| CA-M \& CA-O | NJ | MA | TN-M \& TN-O |  |
| CO | NM-M \& NM-O | RI |  |  |
| DE | NC | VA |  |  |
| GA | ND | WA-M \& |  |  |
| HI | OH |  |  |  |
| ID | OK-M \& OK-O |  |  |  |
| IN | OR |  |  |  |
| IA | PA-M \& PA-O |  |  |  |
| KS | PR |  |  |  |
| KY | SC |  |  |  |
| LA | SD |  |  |  |
| ME-M \& ME-O | TX |  |  |  |
| MI-M \& MI-O | VT-M \& VT-O |  |  |  |
| MN | WV-M \& |  |  |  |
| MO | WV-O |  |  |  |
| WI |  |  |  |  |

1 = Independent: Board exercises all licensing and disciplinary powers, though some clerical services may be provided by a central agency. Total $=48$.
$2=$ Semi-autonomous: Board exercises most key powers, central agency provides most clerical and administrative services, makes some decisions. Total $=9$.
3 = Subordinate: Board exercises few key powers, central agency provides services and makes most decisions. Total $=5$.
4 = Advisory: Board acts in a purely advisory role to a larger agency. Total $=4$.
micro-legislate. In their book The Politics of Deregulation. Derthick and Quirk (1985) note that Congress provided a broad and vague grant of statutory power to commissions. "The term 'public interest' recurred in these statutes. This was, in principle, the touchstone of commission action; the theory on which it rested was that experts would regulate with that standard as a guide. Congress [or state legislatures] could have enacted detailed regulatory statutes, but preferred that experts with broad delegations of regulatory authority act on its behalf" (Derthick and Quirk 1985, 62). Similarly, the mission of almost every state medical board includes a statement about providing for the health, safety and welfare of the citizens of the state. The implication is that the medical board regulates to protect the public.

Reliance on experts is another commonality between federal and state regulatory boards (Bledsoe and Karno 1989.). However, occupational licensing is unique in that the state licensure process assigns power to experts who are members of the profession being licensed (see Table 2). Licensing boards are mostly composed of practitioners from the occupation they are charged with regulating. These part-time officials are professionals with a direct economic interest in many of the decisions they make regarding administration and standards. Self-regulation is the norm in the occupations; practitioners claim only their own members can judge those who work within the profession.

Table 2 provides an overview of the membership composition of state
medical boards ${ }^{10}$. The majority of members come from within the profession. Indeed, in two states (AL and LA) and Puerto Rico allopathic physicians are the only board members. In four states (AL, LA, MS, TN-O) and Puerto Rico, there are no public members serving on the medical and osteopathic boards. But, most medical board have at least one public member. Some states, like California, Delaware, Minnesota, Nevada and others have one third of total members representing citizen concerns. Overall, there is a wide variance among medical boards on membership.

In the last few years, there has been an increase in the number of "public" board members on both federal and state regulatory boards or commissions. Noll (1985) notes that direct citizen participation in regulatory affairs is rare; it usually parallels a rise in the political salience of the regulatory issue. This has been the case with citizen participation on state medical boards. Public members are appointed in an effort to provide "lobbyists for the people" (Gross 1984, 99), to ensure that the views of the public would gain a hearing, and to discourage capture of the regulatory board by the regulated profession (Graddy and Nichol 1989). However, the effectiveness of this reform has been mixed. Shimberg (1979) concluded that public board members were ineffective, lacked motivation and felt dissatisfied with their board work. Moreover, governors used the

[^9]Table 2 - Medical Board Membership and Terms

| State | Total Members | MD | DO | Public | Others | Length of Terms in years | Consecutive Terms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AL | 15 | 15 | 0 | 0 | 0 | 5 | 2 |
| AK | 7 | 5 | 0 | 2 | 0 | 4 | 2 |
| AZ-M* | 12 | 9 | NA | 2 | 1 | 5 | 2 |
| AZ-O | 5 | NA | 4 | 1 | 0 | 5 | 2 |
| AR | 13 | 10 | 1 | 2 | 0 | 8 | No limit |
| CA-M | 19 | 12 | NA | 7 | 0 | 4 | 2 |
| CA-O | 7 | NA | 5 | 2 | 0 | 3 | 3 |
| CO | 11 | 7 | 2 | 2 | 0 | 4 | No limit |
| CT | 12 | 7 | 0 | 4 | 1 PA | 4 | 2 |
| DE | 16 | 10 | 1 | 5 | 0 | 3 | 2 |
| DC | 11 | 8 | 0 | 3 | 0 | 3 | 1 |
| FL-M | 15 | 12 | NA | 3 | 0 | 4 | 2 |
| FL-O | 7 | NA | 5 | 2 | 0 | 4 | 2 |
| GA | 13 | 10 | 2 | 1 | 0 | 4 | No limit |
| HI-M | 9 | 7 | NA | 2 | 0 | 4 | 2 |
| ID | 10 | 6 | 1 | 3 | 0 | 6 | 1 |
| IL | 16 | 10 | 2 | 2 | 2 | 2-4 | No limit |
| IN | 7 | 5 | 1 | 1 | 0 | 4 | No Limit |
| IA | 10 | 5 | 2 | 3 | 0 | 3 | 3 |
| KS | 15 | 5 | 3 | 3 | 4 | 4 | 3 |
| KY | 13 | 10 | 1 | 2 | 0 | 4 | No limit |
| LA | 7 | 7 | 0 | 0 | 0 | 6 | No limit |
| ME-M | 10 | 7 | NA | 3 | 0 | 6 | No limit |
| ME-O | 9 | NA | 6 | 3 | 0 | 6 | No limit |

Table 2 (cont'd)

| State | Total Members | MD | DO | Public | Others | Length of Terms in years | Consecutive Terms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MD | 15 | 11 | 0 | 4 | 0 | 4 | 2 |
| MA | 7 | 5 | 0 | 2 | 0 | 3 | 2 |
| MI-M | 14 | 10 | NA | 3 | 1 | 4 | 2 |
| MI-O | 8 | NA | 5 | 2 | 1 | 4 | 2 |
| MN | 16 | 10 | 1 | 5 | 0 | 4 | 2 |
| MS | 9 | 8 | 1 | 0 | 0 | 6 | No limit |
| MO | 9 | 6 | 2 | 1 | 0 | 4 | No limit |
| MT | 11 | 5 | 1 | 2 | 3 | 4 | No limit |
| NE | 8 | 5 | 1 | 2 | 0 | 5 | 2 |
| NV-M | 9 | 6 | NA | 3 | 0 | 4 | 2 |
| NV-O | 5 | NA | 4 | 1 | 0 | 4 | No limit |
| NH | 7 | 5 | 0 | 1 | 1 | 5 | 2 |
| NJ | 21 | 9 | 2 | 4 | 6 | 3 | No limit |
| NM-M | 8 | 6 | NA | 2 | 0 | 4 | No limit |
| NM-O | 5 | NA | 3 | 2 | 0 | 5 | No limit |
| NY | 25 | 18 | 2 | 2 | 3 | 5 | 2 |
| NC | 12 | 8 | 0 | 3 | 1 PA | 3 | 2 |
| ND | 10 | 8 | 1 | 1 | 0 | 4 | 2 |
| OH | 12 | 7 | 1 | 3 | 1 | 5 | No limit |
| OK-M | 9 | 7 | NA | 2 | 0 | 7 | 2 |
| OK-O | 8 | NA | 6 | 2 | 0 | 7 | No limit |
| OR | 11 | 7 | 2 | 2 | 0 | 4 | 2 |
| PA-M | 11 | 6 | NA | 2 | 1 | 4 | 2 |
| PA-O | 8 | NA | 5 | 2 | 1 | 4 | 2 |
| PR | 9 | 9 | 0 | 0 | 0 | 4 or 5 | --- |

Table 2 (cont'd)

| State | Total <br> Members | MD | DO | Public | Others | Length of <br> Terms in <br> years | Consecutive <br> Terms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RI | 13 | 5 | 2 | 6 | 0 | 3 | 2 |
| SC | 10 | 8 | 1 | 1 | 0 | 4 | 2 |
| SD | 6 | 4 | 1 | 1 | 0 | 5 | No limit |
| TN-M | 10 | 9 | NA | 1 | 0 | 5 | No limit |
| TN-O | 5 | NA | 5 | 0 | 0 | 5 | No limit |
| TX | 18 | 9 | 3 | 6 | 0 | 6 | No limit |
| UT-M | 7 | 6 | NA | 1 | 0 | 5 | 2 |
| UT-O | 5 | NA | 4 | 1 | 0 | 5 | 2 |
| VT-M | 14 | 9 | NA | 3 | 2 | 3 | 2 |
| VT-O | 5 | NA | 3 | 2 | 0 | --- | - |
| VA | 17 | 11 | 1 | 2 | 3 | 4 | 2 |
| WA-M | 20 | 13 | NA | 6 | 1 | 5 | No limit |
| WA-O | 7 | NA | 6 | 1 | 0 | 5 | No limit |
| WV-M | 15 | 9 | NA | 3 | 3 | 5 | 2 |
| WV-O | 5 | NA | 3 | 2 | 0 | 3 | No limit |
| WI | 14 | 9 | 1 | 3 | 1 | 4 | 2 |
| WY | 7 | 4 | 1 | 2 | 0 | 4 | 3 |

* States with separate boards for MDs and DOs are designated with the suffix of M or O .
appointments to fill "patronage" positions with little regard for using the slots to increase consumer voices on the boards. On the other hand, Graddy and Nichol (1989, 1990) found that the public member reform increased consumer representation in legislative decisions about license reform and is associated with more serious disciplinary action by health profession boards.

Due to the inconclusiveness of the effect of pubic board members in the literature, I am considering the impact of public members on board behavior. In Chapters six and seven, I investigate whether public members affect a medical board's non-programmed and programmed policy decisions and behavior.

On average, board members serve just over four years per term. Most members (in 33 states) may serve for two consecutive terms. However, in 25 states there are no limits on the number of terms a member may serve.

The chief executive wields appointment power to boards and thereby shapes the general direction of regulatory policy. By appointing those who share his regulatory philosophies, the chief executive vests power with board members. At the state level, appointment power to medical boards is shared among actors (see Table 3). In forty-five states, the governor has sole appointment power; in fifteen states the governor needs legislative confirmation of his appointments; and in six states entities other than the governor control the appointment process (FSMB 1995). Thus, at the state level, the power of appointment is somewhat mixed.

## Conclusions

This chapter has provided a brief overview of state medical boards. Medical boards began as extensions of state medical societies. Over the years, the boards have gained a measure of independence as the structure of organized medicine has changed. A medical board's autonomy is closely related to its growth as a regulatory body. As medical boards have taken on more responsibilities, their relationships with other state actors have grown more complex. In the forthcoming chapters, I will explore these relationships. But first I review the study methodology, research questions and some initial empirical findings.

S

Table 3 - Medical Board Members: Sources of Appointment and Nomination

| State | Appointment/Election | Nomination |
| :---: | :---: | :---: |
| AL | Elected by Medical Association of AL membership | From state medical association |
| AK | Appointed by Governor, confirmed by legislature | From any individual/organization |
| AZ-M | Appointed by Governor | From state/county medical associations or any individual/organization |
| AZ-O | Appointed by Governor | From state Osteopathic association and any others |
| AR | Appointed by Governor | From state medical and osteopathic associations |
| CA-M | 1 public member appointed by Senate rules Committee, 1 by Assembly Speaker, remaining members by Governor | No official nominating process |
| CA-O | Appointed by Governor | From state osteopathic association and current board |
| CO | Appointed by Governor | From any individual/organization |
| CT | Appointed by Governor | From any individual/organization |
| DE | Appointed by Governor | From state/county medical associations |
| DC | Appointed by Mayor with consultation of City Council | From any individual/organization |
| FL-M | Appointed by Governor, confirmed by Senate | From any individual/organization |
| FL-O | Appointed by Governor, confirmed by Senate | From any individual/organization |
| GA | Appointed by Governor, confirmed by Senate | By case law, Governor cannot select from nominees of association |
| HI-M | Appointed by Governor, confirmed by Senate | From any individual/organization |
| ID | Appointed by Governor | From state medical/osteopathic associations and direct appointment |

Table 3 (cont'd)

| IL | Appointed by Director, Department of <br> Professional Regulation; confirmed by <br> Governor | From any individual/organization |
| :--- | :--- | :--- |
| IN | Appointed by Governor | From various professional <br> organizations/institutions |
| IA | Appointed by Governor, confirmed by <br> Senate | From any source |
| KS | Appointed by Governor | From state medical, osteopathic, <br> chiropractic associations |
| KY | Appointed by Governor | From state medical/osteopathic <br> associations and (for lay members) <br> health advocacy groups |
| LA | Appointed by Governor | From state medical association |
| ME-M | Appointed by Governor | From any individual/organization |
| ME-O | Appointed by Governor | From state osteopathic society and <br> current board |
| MD | Appointed by Governor | 11 physicians from lists compiled by <br> state medical society via balloting <br> process that provides all licensed <br> physicians an equal vote; ; public <br> members, 2 appointed w/advice, <br> consent of Senate; plus 1 risk <br> manager from state hospital <br> association |
| MA | Appointed by Governor | From any individual |
| MI-M | Appointed by Governor | From various professional <br> organizations/institutions |
| MI-O | Appointed by Governor | From various professional <br> organizations/institutions |
| MN | Appointed by Governor | From any individual/organization |
| MS | Appointed by Governor, confirmed by <br> Senate | From state medical association <br> MO |
| Appointed by Governor | From any individual/organization |  |
| MT | Appointed by Governor | From any individual/organization |

Table 3 (cont'd)

| NE | Appointed by Board of Health | From any individual/organization |
| :---: | :---: | :---: |
| NV-M | Appointed by Governor | No official state nominating process |
| NV-O | Appointed by Governor | From state osteopathic society |
| NH | Appointed by Governor and State Council | Nominated by Governor |
| NJ | Appointed by Governor | NA |
| NM-M | Appointed by Governor | From state medical society |
| NM-O | Appointed by Governor | From state osteopathic society |
| NY | Appointed by NY State Board of Regents Board of Discipline: Appointed by Commissioner of Health | From any individual/organization |
| NC | Appointed by Governor | From state medical society |
| ND | Appointed by Governor | From state medical society and any individual/organization |
| OH | Appointed by Governor | NA |
| OK-M | Appointed by Governor | From state medical society |
| OK-O | Appointed by Governor | From state osteopathic society |
| OR | Appointed by Governor | From state medical and osteopathic associations |
| PA-M | Appointed by Governor | From state medical society or any other organization |
| PA-O | Appointed by Governor | From state osteopathic society or any other organization |
| PR | Appointed by Governor with advice/consent of Senate | From association of medical professions |
| RI | Appointed by Governor | From any individual/organization |
| SC | 6 MDs elected from Congressional district MD and 1 public member appointed by | s: 1 MD and 1 DO elected at large; 1 overnor, confirmed by Senate |
| SD | Appointed by Governor | From state medical and osteopathic associations |
| TN-M | Appointed by Governor | From state medical society |

Table 3 (cont'd)

| TN-O | Appointed by Governor | From state osteopathic society |
| :---: | :--- | :--- |
| TX | Appointed by Governor, confirmed by <br> Senate | From any individual/organization |
| UT-M | Appointed by Director, Department of <br> Commerce; confirmed by Governor | From various professional <br> organizations/institutions |
| UT-O | Appointed by Director, Department of <br> Commerce; confirmed by Governor | From various professional <br> organizations/institutions |
| VT-M | Appointed by Governor | From any individual/organization |
| VT-O | Appointed by Governor | From any individual/organization |
| VA | Appointed by Governor | From various professional <br> associations |
| WA-M | Appointed by Governor | From state medical society |
| WA-O | Appointed by Governor | From state osteopathic society |
| WV-M | Appointed by Governor with <br> consultation/confirmation of Senate | From any individual/organization |
| WV-O | Appointed by Governor | From state osteopathic society |
| WI | Appointed by Governor | From any individual/organization |
| WY | Appointed by Governor, confirmed by <br> Senate | From any individual/organization, <br> including Board of Medicine |


4. Research Questions, Methods, and Data Sources

In this chapter, I present the research questions for the study as well as a visual model of the relationships I examine. Additionally, I discuss the study methodology and data sources. I review information about the mail survey and case studies detailing the rationale behind the four study states. I describe the case study protocols and clarify the differences among the four separate protocols. I explain the four policy areas that were part of the mail survey. Finally, I describe some of the preliminary data from the mail survey, analyze it, and provide information on the structure of medical boards as well as their policy roles.

## The Research Questions and Hypotheses

The research questions for this analysis are: 1) what is the role of the enabling coalition, measured by the strength of medical societies, in the institutional design of state medical boards?; 2) what is the role of institutional design in predicting legislative involvement in agency policy activities?; 3) what factors influence a state medical board's non-programmed policy decisions and behavior?; and 4) what factors influence a medical board's programmed decisions and behavior?

RQ\#1 what is the role of the enabling coalition, measured by the strength of medical societies, in the institutional design of state medical boards (SMBs)?

This research question examines the effect of enabling coalitions on institutional
structure. These groups of organized interests work with legislators to bring about change in an area that is beneficial to them. Thus enabling coalitions are the force behind structural politics. Moe (1990) notes that organized interest groups are active informed participants in structural politics. They have policy goals which depend on administrative structure. Interest groups value structure and they use their resources to get what they want. As a consequence they are frequently the only source of political pressure when structural issues are at stake. Thus structural politics is also interest group politics.

Because legislators are politicians, they are especially concerned about their electoral popularity and thus are highly responsive to their constituencies (Mayhew 1974). Their positions on issues are induced by the positions of others. To understand why structural choices turn out as they do, one does not start with politicians. Instead, one begins with how interest groups decide what kinds of structures they want politicians to provide (Moe 1990).

The exact nature of institutional form is a matter of legislative choice (Horn 1995). Thus, the legislature will determine the institutional structure, with input from organized interests. Ameringer (1999), Horn (1995), Moe (1989 1990) and others argue that the initial enabling coalitions established the state medical boards to serve their needs -- in this case to be heavily reliant on state medical societies (professional associations for physicians) for support and often membership selection and to be relatively independent of the state legislature.

Moe (1990) posits that for most issues, a set of organized interest groups
already exist. In the case of state medical boards, these groups are state medical societies. The state societies were the forces behind the creation of medical boards (Ameringer 1999, Gross 1984); they were the enabling coalitions that worked with legislators to pass the legislation. These state societies value structure and have the incentive to mobilize their political resources to get what they want. Frequently, they are the only source of political demands when structural issues are at stake (Moe 1989, 1990).

HO1: The stronger the medical society role in selecting medical board members, the more autonomy the SMB will have. ${ }^{11}$

HO2: The stronger the medical society as an interest group (relative to other interest groups in the state), the more autonomy the SMB will have.

The model for this research question looks something like the following:

$$
\text { Enabling coalition } \Rightarrow \text { Institutional design }
$$

The particular aspect of institutional design examined here is autonomy; it is granted by the legislature to an agency at the agency's inception. It relates to the level of independence an administrative agency has the authority to exercise. It also encompasses who has the right to participate directly in

[^10]$\bar{j}$
$t_{n}=$
$0: 1$
decision making. I am measuring autonomy using Horn's three institutional design criteria: participation, financing and employment. The independent variable is the strength of medical societies. It is being measured in two separate ways. First, I am examining the role of medical societies in selecting and nominating state medical board members. Second, I am investigating the strength of medical societies relative to other state interest groups. State medical associations are a proxy for the original enabling coalitions. They were instrumental in obtaining the grant of public authority for the early state medical boards (Ameringer 1999).

## RQ \#2 what is the role of institutional design in predicting legislative

 involvement in agency policy activity? This research question considers the impact of institutional design described in RQ\#1. There is a great deal of diversity in how public agencies are designed. They may vary with regard to governance, financing, and employment arrangements. Yet, once an agency's form is determined, it will affect the level of legislative involvement.Once structural choices are made, institutions take shape. How institutions are designed affects how politicians will interact with them in the future. Moe (1989) argues that legislators tend not to invest in general policy control. "Instead, they value 'particularized' control: they want to be able to intervene quickly, inexpensively, and in ad hoc manners to protect or advance the interests of particular clients in specific situations" (Moe 278-279). This sort of control has direct payoffs; it is generally carried out behind the scenes; and
does not involve or provoke conflict. It generates political benefits without political costs. Moreover, it fits well with a bureaucratic structure designed for conflict avoidance: an agency that is highly autonomous in the realm of policy yet highly constrained by complex procedural requirements offers many opportunities for particularistic interventions.

Medical boards fit Moe's notion of an agency designed to avoid conflict. At enactment, legislators design agencies to protect the benefits they are delivering to their constituents while simultaneously ensuring that subsequent legislatures and administrators are unable to interfere with those benefits. These institutional choices determine an agency's level of autonomy. By prescribing the agency's administrative structure and processes, mandating expenditures and determining the type of civil service protection employees will receive at enactment, the enabling legislature makes it more difficult for future legislatures who may have different policy preferences to influence an agency's administrative decisions. In some ways subsequent legislators are closed out of the administrative process and are unable to be involved in much of an agency's functioning -- unless the lawmakers are willing to legislate reforms that change an agency's administrative structure and processes.

Like many regulatory agencies, medical boards are granted a great deal of autonomy yet are constrained by the many procedures they are required to follow (McCubbins 1985). Similarly, medical boards are subject to stricter oversight provisions than other regulatory agencies. The oversight and the
appropriations processes offer subsequent legislatures an opportunity to insert themselves into an agency's responsibilities. Medical boards will receive more than their fair share of attention from lawmakers due to the number of procedures they are required to follow and the oversight attention they receive.

HO3: The greater the autonomy of the SMB, the less extensive legislative involvement in SMB activities.

The model for this research question looks something like the following:

$$
\text { Institutional design } \quad \Rightarrow \quad \text { Legislative involvement }
$$

The dependent variable is legislative involvement. The concept considers the relationship between legislators and state medical boards. Is the legislature involved in the activities and actions of the medical board? If so, in what ways is it involved? Legislative involvement is being measured in two ways, both come from the mail survey. The first measure is individual legislator interest.

Respondents were asked to assess the level of influence individual legislators have on medical board activities. The second measure is the legislative role in four policy areas. In this research question, institutional design is the independent variable. It is measured, as noted above, using Horn's (1995) three criteria for agency autonomy: participation, financing, and personnel. Decisions in these areas help determine the level of autonomy and type of incentives administrators face and thereby how they exercise their discretion in relation to agency policy activities.

RQ \#3 what factors influence a state medical board's non-programmed
policy decisions and behavior? This research question examines the relationship between medical boards and state legislatures focusing on why some boards become active in non-programmed policy areas. I draw from federal regulatory theory and empirical work to create hypotheses about medical board policy activism. I hypothesize that medical boards have become more policy active in new non-programmed areas due to factors such as autonomy, relationship with the legislature, a shifting legislative coalition, new entrants, and level of gubernatorial influence. These variables have increased the overall visibility of state medical boards.

This research question (and the next one) is predicated on the idea that an agency's non-programmed and programmed decisions are markedly different from one another. That is, the factors that affect an organization's policy behavior are measurably different from the factors that affect an agency's nonpolicy or routine behavior. Simon (1960) argues that non-programmed functions are unique and individual. They require ad hoc, adaptive and problem solving actions. I equate non-programmed activity with policy issues because they are singular in substance and timing. Kingdon (1995) would say a policy window has opened; an issue has gotten on the agenda. Because of the distinctive properties of a medical board's policy decisions, I expect a medical board's policy activism to be affected by outside forces such as political pressures and changes to its external environments. Similarly, the level of a medical board's autonomy should also affect a board's policy behavior.

HO4: The greater the autonomy of the SMB, the less policy scope and depth in medical board activities.

HO5: The more the legislature is involved with the SMB, the more policy scope and depth in medical board activities.

HO6: The greater the leadership change in the state legislature, the more policy scope and depth in medical board activities.

HO7: The greater the managed care penetration in the state, the more policy scope and depth in medical board activities.

HO8: The more the governor is involved with the SMB, the more policy scope and depth in medical board activities.

The model for this research question includes two of the variables mentioned above -- legislative involvement and institutional design -- as well as exogenous factors. It examines how these variables affect policy activism. The model looks like the following:

Institutional design $\quad \Rightarrow \quad$ Non-programmed policy activism


Legislative involvement
Exogenous factors
The dependent variable is policy activism. My conception of policy activism is the idea that some state medical boards have a role in formulating policies. That is, beyond a board's regulatory functions (programmed activities), it is also directly involved in policy (non-programmed activities). Policy activism is explained by legislative variables, institutional factors, external stimuli and gubernatorial influence.
and behavior? This research question explores the routine behavior and activities of medical boards that are part of an agency's regulatory mission, such as disciplinary and licensure functions. It examines a different side of medical board behavior. Programmed functions, according to Simon (1960), include an organization's regular and routine behaviors. I hypothesize, as noted above, that a medical board's routine activities will be affected by its autonomy, relationship with the legislature, and level of gubernatorial influence. I do not anticipate that the exogenous variables will affect this type of decision making; I include the variables in the analysis for comparison purposes with the model above.

HO9: The greater the autonomy of the SMB, the more disciplinary actions will be taken by the medical board.

HO10: The less the legislature is involved with the SMB, the more disciplinary actions will be taken by the medical board.

HO11: The leadership changes in the state legislature will have no effect on the disciplinary actions taken by the medical board.

HO12: The managed care penetration in the state will have no effect on the disciplinary actions taken by the medical board.

HO13: The more the governor is involved with the SMB, the fewer disciplinary actions will be taken by the medical board.

The model for this chapter looks something like the following:

$$
\text { Institutional design } \quad \Rightarrow \quad \text { Programmed policy }
$$

The dependent variable is board behavior in programmed activities. The measure I am using for a board's programmed behavior is disciplinary actions. The number of disciplinary actions taken by a medical board is provided by the Federation of State Medical Boards (1998a). I am using a mean number of disciplinary actions taken over a period of four years. A more extensive discussion of the variable appears in Chapter 7. I use the same independent variables from the previous model to predict a board's programmed activities. I will compare the models and the findings at the end of Chapter 7.

The full model for these research questions looks like the following:


## Methods and Data Sources: Mail Survey and Case Studies

A starting assumption of this research is that no single analytical technique or source of information can adequately capture the complexities of the issues under examination. Yin (1994) states that more than one strategy can
be used in any given study, to this extent, the various strategies are not mutually exclusive (9). As a consequence, I will use several different approaches: an empirical analysis drawn from a 50-state survey of state medical board executive directors; in-depth interviews with state medical board members, staff and close observers in four states; and an examination of written documents. The combination of tools draws on primary and secondary information from a variety of sources. The different techniques and data sources should be complementary and yield additional insights into health profession regulation by state medical boards.

The research has two main components. The first is a systematic identification of characteristics and responsibilities of the 50-state medical boards and their recent policy-related activities. Information was collected on board structure, composition, responsibilities, state political climate, and recent board activities in the policy arena. This material came from two sources: 1) a mail survey sent out to the executive directors of all state medical boards across the country provides information on public policy activities and political barriers; and 2) 1995-1996 Exchange, a biennial report published by the Federation of State Medical Boards, that provides information on the structure and operation of licensing boards. The mail survey elicits information on the board's activities in four separate salient policy areas. Moreover, the survey also seeks information on the board's budget. other groups and state entities that it may work with, how the board initiates policy change, the constraints it faces in
pursuing change, the branch of government it feels most accountable to and how it assesses its level of effectiveness in the policy world. (A copy of the survey is provided in Appendix B).

A mail survey of executive officers of 64 medical and osteopathic state medical boards was conducted in Fall 1997 and Spring 1998. There were 51 medical boards, 11 osteopathic board and one health professional conduct board surveyed using the list provided by the Federation of State Medical Boards. The initial and follow-up letters are included in Appendix C. Sixty-two responses were received for a response rate of 95 percent. ${ }^{12}$ Forty-seven states are represented in the data set. Two of the three non-responding board executive directors said it was their policy not to complete surveys. I was unable to reach the executive director of the third board after many attempts. The survey response from the health professional conduct board was later dropped from the analysis because the board is not listed in the Federation's publication examining licensing, structure and disciplinary functions of the medical and osteopathic boards. The data set includes responses from the District of Columbia and Puerto Rico.

Multi-variate analysis (OLS and Logit) was conducted on the survey data

[^11]to test the hypotheses. The data were analyzed in two ways. Initially, the entire population of cases was analyzed using osteopathic boards as a control variable. Only the allopathic medical boards were used in the second analysis. This method was chosen to examine the differences between osteopathic and allopathic state medical boards.

Since survey data cannot fully account for the dynamics of policy change, it is necessary to further investigate policy activism and change using an additional method. Therefore, the second component of the research methodology is a set of four analytical case studies of states where medical boards have served as change agents. The case study method is most appropriate when "how" and "why" questions are being posed. "The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result" (Schramm 1971, 6). It can be argued that these questions of a more explanatory nature are well suited to the use of the case study technique "because such questions deal with operational links needing to be traced over time. rather than mere frequencies and incidence" (Yin 1994, 1). Moreover, this research studies contemporary events where the actions of the actors are beyond the control of the investigator. Under these circumstances, documents that recount and explain the events and processes are examined. Additionally, interviews with many of the people involved in the process are conducted to better understand the complexities of policymaking
decisions. A case study method lends itself particularly well to these research strategies.

There are four case study states. The first three states -- Colorado, Maryland, and Oregon -- were chosen because they are among the most active states across the four policy areas (from the mail survey). Michigan is the fourth case study state; it was chosen because it is not a particularly active state in policy matters. Moreover, I received a grant from the Blue Cross Blue Shield Foundation of Michigan to help support this portion of the research. The case study analyses will appear at the end of each of the three empirical chapters. I will use the case studies to further investigate the findings from the quantitative analyses. Specifically, I will compare and contrast the quantitative results with material gathered from case study interviews. Generally, the case studies are organized around the three research questions. They are used to extend and answer questions raised by the empirical analysis. In some cases the case studies findings support and reinforce the empirical analysis and in other cases the case studies and empirical analysis contradict each other.

The case studies are based on in-person interviews with medical board staff and members, key state legislators, legislative staffers, governor's staff, agency heads, interest groups, other health regulatory board staff and other informed observers in the four states. I use the interviews to elaborate on the research questions. In doing so, I learn more about medical society strength, legislative involvement, the processes under which policy change was sought,
the factors that affect a board's routine decisions and behavior, the identity of key actors, their motivations and political strategies, and the success in attaining a change in policy or non-policy matters.

The case studies are made up of four separate protocols (see Appendix D); each focuses on different policy actors. The first protocol is aimed at the medical board executive officer and the board staff. It was used to obtain information on the board's mission, its visibility, level of autonomy, policy activities and its relationships with other groups. The second protocol is for legislative staff; it includes questions about recent health profession legislation, budgeting issues, and legislative oversight efforts. A third protocol is specifically for elected officials. This shorter protocol solicits information on specific bills the members have sponsored or on which they have held hearings. A final protocol is for interviews with board observers. This group may include board members of the medical board, governors' staff, executive agency administrators, staff and board members from the health professions, academics, interest group liaisons, consumer groups' representatives and other well placed and informed individuals from around the state. This protocol contains broader questions and focuses on individual impressions and perceptions about the medical board's activities, its mission, its relationships with other state actors, level of autonomy, its visibility and its recent decisions and behaviors in the policy and non-policy arena.

The interviews took place in the winter and spring of 1998. The total
number of people interviewed was 41. In Colorado I spoke with 10 participants: in Maryland I interviewed 8 respondents; in Michigan I questioned 11 officials; and in Oregon I met with 12 interviewees. Most of the interviews were in person; in three cases the interviews took place over the phone due to scheduling problems.

The Four Policy Areas in the Mail Survey: Telemedicine, Managed Care. Alternative Medicine and Making Information Available to the Public

In the mail survey, executive officers were asked to report on their medical boards' activities in four policy areas. The policy areas are telemedicine, managed care, alternative medicine. and public information. These four policy areas were selected following conversations with Federation staff, medical board directors and staff and well-informed observers of state medical boards from across the country. ${ }^{13}$

Telemedicine ${ }^{14}$ is an area where the Federation of State Medical Boards has been very active. The Federation established an ad hoc committee on telemedicine in 1995 to study the issue and develop model legislation. In 1996. the Federation adopted a model act and encouraged its member boards to adopt the act that calls for a special purpose license for out-of-state physicians

[^12]practicing telemedicine in the state (FSMB 1997c). While a number of states have examined the Federation and other approaches, in the survey 10 states reported that they had taken no policy action on the subject (the choices for policy action are discussed in more detail in Chapter 6).

Managed care affects medical boards through the licensure of physicians and the accountability of physicians who make decisions in a managed care setting. The public's increased concern about quality of health care and the recent Arizona court decision discussed earlier have moved this issue to the fore in a number of states. If the Arizona interpretation is followed in other states, the significance to medical boards and to the burgeoning managed care system is great since it expands the definition of practicing medicine to a situation where the traditional physician-patient relationship does not exist. Fifty-one percent of respondents (31) reported they had taken some policy action in this area.

The practice of alternative or nontraditional medicine is a thorny one for many state medical boards that have traditionally licensed allopathic and osteopathic physicians and generally ignored other practitioners. ${ }^{15}$ With some one-third of the American public using some form of alternative medicine or unconventional therapy (Nifong 1996), it appears that state legislatures and medical boards cannot ignore these practitioners much longer. The popularity of this form of medicine is particularly strong in the Northwest. In 1996, the state of

15 This too is changing as a handful of states are now licensing naturopathic physicians (Knickerbocker 1996).

Washington began implementing a law requiring health care insurers to pay for nontraditional care including acupuncture, chiropractic and massage therapy and Seattle is home for the country's first government-subsidized naturopathic health clinic (Knickerbocker 1996). A number of medical boards have begun to deal with this issue that often has popular appeal. Twenty-four of the respondents reported they had taken some policy action in this area.

The final policy area examined in the survey was making information on physicians available to the public. This has been a controversial issue in a number of states. However, in 14 states, medical boards have moved to make information on physicians available to the public "on-line."16 Many physicians object to this availability, arguing that the public might misinterpret information to make it seem the physician is incompetent or that a young physician making one mistake might see his or her career ruined. Nevertheless, 29 of the respondents reported taking some policy action in this area

Figure 1 describes the level of state activity in the four policy areas. There are nine state boards that reported some activity in each of the four policies examined; six state boards reported no activity in any of the four. Most state boards (18) were active in three of the four areas. There were more activities in telemedicine and managed care than in the other two areas. The range for both was 0-7 and the mean number of activities was 2.0 for telemedicine and 1.1 for

[^13]

Figure 1
State-by-State Policy Activity

Source: 1997 surveys of state medical board directors
managed care. For alternative medicine and public information, the range was 0 - 5 and the means were .85 for public information and .62 for alternative medicine.

## Descriptive Analysis

In this section, I present some descriptive data from the research.
Drawing on the mail survey, I will discuss structural issues and the policy role of the boards. I will provide a series of tables detailing various characteristics and processes of the state medical boards

State medical boards, as noted above, have an amalgam of legislative, judicial and executive powers. Most medical boards are considered part of the executive branch of state government. Yet, mail survey results indicate that medical boards are ambiguous about which branch of government deserves their loyalty first (see Table 4). When asked to respond to the branch of government they feel most accountable 16 states ( $26 \%$ ) indicated the executive branch, 9 states (15\%) indicated the legislature, and 7 states (11\%) indicated neither branch. The overwhelming majority of medical board officers -- from 24 (39\%) states -- felt equally accountable to both the legislature and the executive branches. This speaks to the power that both the executive and the legislature possess relative to the medical boards. Similarly, it demonstrates that while many regulatory boards were created to be insulated from the political process, in reality they are not so insulated that they are unaware of the large shadows

## Table 4 - Perceived Medical Board Accountability ${ }^{17}$

Government Branch
Number of States (\%)
Legislative ..... 9 (15)
Executive ..... 16 (26)
Equally accountable to both ..... 24 (39)
Neither ..... 7 (11)
No response ..... 5 (8)

Source: Mail survey data

17 The question asks respondents: To which branch of the government does your medical board feel most accountable?
cast by the executive and legislative branches of government.
Another group that casts a large shadow over medical boards are state medical societies and associations. Regulatory agencies have traditionally been considered captured by the interests they represent and charged with overseeing. However, in recent years, reforms have taken hold and the relationships between the regulated and the regulators have clarified. Health profession regulation has had its share of reforms. Yet, state medical societies and associations still hold a great deal of power relative to medical boards. One reason is that state medical societies are among the ten most powerful state level organized interest groups in the nation (Thomas and Hrebenar 1995 and 1999). Their members are spread out across geographic areas, they are generous contributors to local candidates. and they vocally lobby state officials on matters of importance to them (Meier 1985)

Medical boards feel the presence of state medical associations (see Table 5). When asked to assess the influence of the state medical society in the activities of the medical boards. the majority of respondents indicated medical associations influenced medical board activities; the mean response was 3.15 . Forty-three medical boards (67\%) believe medical societies affect their actions. Only $6(10 \%)$ medical boards responded that the state medical society has no influence over their activities. Clearly, medical associations still are powerful organizations in the area of health profession regulation.

Still another way that organized medicine asserts itself in medical board

Table 5 -Perceived Influence of Medical Society on Medical Board Activities ${ }^{18}$

\author{
Assessment Level Number of States (\%) <br> $1=$ No influence 6 (10) <br> \section*{2} <br> 6 (10) <br> 3 <br> 21 (34) <br> 4 18 (30) <br> 5 = Great influence 4 (7) <br> $9=$ No response 6 (10) <br> \section*{50-State Mean $=3.15$} <br> Source: Mail survey data <br> [^14]}
matter is through the physician board members. Medical board members are still overwhelmingly physicians. In fact, in four states (AL, LA, MS and TN-O) and Puerto Rico allopathic and osteopathic physicians are the only medical board members. Contrary to the national trend of appointing more pubic lay members to health profession boards, these four states and one dependent territory still only permit physicians to serve on the medical board. The make up of medical boards and their members will be further elaborated on in Chapter 5.

The way in which medical boards approach policy issues varies a great deal. Some boards eagerly enter the policy arena while others prefer to avoid it. Among the most interesting questions from the mail survey was a two-part policy question. It asked respondents to: 1) assess their own state board in terms of initiating and promoting emerging state policies, and 2) assess where, ideally, the official would like the state board to position itself on those issues. There was a five-point response scale with 1 being a reactive position and 5 being a pro-active position; the mean response for the first part of the question was 3.35 and 4.14 for the second part of the question (see Table 6). The majority of boards - 36 (76\%) - indicated they are fairly active on policy matters. The more interesting data came in the second part of the question. An overwhelming number of boards -- $54(88 \%)$-- indicate that ideally they would like to be more pro-active on initiating and promoting emerging state policies. Only 2 boards $(3 \%)$ indicated they would prefer to be in a reactive position on policy matters. This implies that state medical boards would like to be more actively engaged --

## Table 6 - Perceived Medical Board Policy Activism

## Assessment Level

|  | Current | Ideal |
| :--- | :---: | :---: |
| 1 = Reactive position | $5(.08)$ | $1(.02)$ |
| 2 | $6(.10)$ | $1(.02)$ |
| 3 | $18(.30)$ | $11(.18)$ |
| 4 | $20(.33)$ | $19(.31)$ |
| $5=$ Pro-active position | $8(.13)$ | $24(.39)$ |
| $9=$ No response | $4(.07)$ | $5(.08)$ |
|  | $50-S t a t e ~ M e a n=3.35$ | $50-S t a t e ~ M e a n=4.14$ |

Source: Mail survey data
than they currently are -- in the policy arena. Yet, they feel for some reason they cannot do so.

Medical boards face a variety of constraints as they pursue their regulatory mandate. The mail survey queried respondents about the constraints they face when they desire to initiate change. Medical board executives were asked to rank their top three choices (see Table 7) ${ }^{19}$. In the first tier of constraints, the top three barriers cited were lack of legislative support, followed closely by bureaucratic barriers and limited staff resources. In the second tier of constraints, the top three ranking constraints boards face are (again) lack of legislative support, bureaucratic barriers, and limited staff resources. In the third tier level of constraints, bureaucratic barriers was followed by limited staff resources. A lack of legislative support was tied with limitations of the public health code for third place. Overall, the mail survey results indicate that the legislature and the bureaucracy loom largest as barriers to medical board efforts to initiate change.

There was an "other" category where respondents had the opportunity to identify their own barriers. Nine states identified "other" as a constraint they face. Among those states, seven wrote in responses: one specifically cited their state medical association's opposition: two responded that organized interests

[^15]
# Table 7 - Perceived Constraints Medical Boards Face ${ }^{20}$ 

## Constraints

Lack of legislative support

## Bureaucratic barriers

Limited staff
resources

Limitations in the public health code

Gubernatorial
reluctance or opposition

Current or potential judicial involvement

Other

Source: Mail survey data
First ranked Second ranked Third ranked

13

10

9

1

3

0

3

11

10

7

2

5

1

1
3

20 The question asks respondents: If the board wants to initiate changes, what are the biggest constraints it faces? Please rank the top three choices, with 1 being the first choice. Only 39 of the 61 boards responded to this question. The limited data are reported because of the importance of the question and the issues it affects.
generâ
pubiic chang
or witr
identif?
chang=
introd
to char
consu:
depar
boarss

Ques: -
organ
heipir
revea
accol.
Simile
SOClet
oppose their efforts or seek to amend their legislative bills; two indicated a general lack of resources; one board said it faced no constraints; one cited public apathy as a constraint; and one cited public comments as a barrier to change initiatives.

When medical boards pursue change in state policy, they may work alone or with different partners in their efforts. The survey asked respondents to identify the top three approaches they use when wanting to initiate state policy change (see Table 8). Working with an individual legislator to draft and introduce legislation was the top strategy used by medical boards in their efforts to change state policy. The second strategy used by boards was a tie between consulting with the state medical society and consulting with the state health department. These results also help shed some light on the constraints medical boards face in initiating policy change. In both this question and the above question, the results were similar. The legislature, the bureaucracy and organized interests - especially the medical society -- are powerful players in helping to create change or serving as a barrier against it.

This preliminary review of some of the data from the mail survey has revealed some important patterns. Structurally, state medical boards feel accountable to both the legislature and the executive branches of government. Similarly, the boards' activities are strongly influenced by state medical societies. In the policy arena. state medical boards desire to be more pro active

# Table 8 - Perceptions about how Medical Boards Initiate Change ${ }^{21}$ 

| Approaches to Change | First ranked | Second ranked | Third ranked |
| :---: | :---: | :---: | :---: |
| Draft and introduce the legislation | 4 | 4 | 1 |
| Draft and work with legislative staff to introduce the legislation | 5 | 5 | 4 |
| Draft and work with individual legislators to introduce the legislation | 10 | 5 | 6 |
| Consult the governor | 1 | 4 | 5 |
| Consult the state medical society | 8 | 8 | 8 |
| Consult the state health department | 8 | 4 | 0 |
| Consult with neighboring state boards | 0 | 4 | 3 |
| Consult with national medical society | 0 | 0 | 1 |
| Discuss with consultants in the medical field | 0 | 1 | 1 |
| Other | 2 | 2 | 3 |
| Never initiate change | 2 | 0 | 0 |
| Source: Mail survey data |  |  |  |

Source: Mail survey data

21 The question asks respondents: Which of the following approaches would it use, if the board wants to initiate change in state policy? Please rank order the top three choices, with 1 being the first choice. Only 40 of the 61 boards responded to this question. But I am reporting the limited data because of the importance of the question and the issues it affects.
than tr
resour
Howe.
Thervic
impori
activit
the ne
deptn

221
state
press
medie
chores
ray
need.
Progra
depar
Parsir
many
${ }^{\prime}$ Enar
than they are on policy matters. Legislators, the bureaucracy, and limited staff resources are identified as constraints on the policy' efforts of medical boards. However, when boards do initiate policy change. they work closely with individual legislators, state medical societies and state health departments. ${ }^{22}$ The relationships between state medical boards and these actors are very important. I expect they will affect institutional structure issues as well as activities and behaviors of medical boards in policy and non-policy realms. In the next three chapters: I will examine some of these relationships in more depth.

22 I am making an assumption about causal order with regard to the role of state medical societies. I believe that medical associations exert their strongest pressure during the period the legislature is enacting laws to create state medical boards as state agencies. State medical societies are part of the enabling coalition; they are among the prime movers in the politics of structural choice (Moe 1990). While medical associations are powerful players and they may affect medical board decisions and behaviors, due to casual order and the need for model parsimony, medical societies are not included in the nonprogrammed and programmed chapters of this paper. Similarly, state health departments are not included in these chapters either due to concerns for model parsimony. Also there is so much variation in state administrative structures, many medical boards do not fall under the jurisdiction of a state health department.

5. Institutional Structure and Legislative and Interest Group Relationships

As state agencies, medical boards are conceived and created by lawmakers and influential organized interests. How these organizations are structured determines the type of relationships legislators and interested parties will have with the agency in the future. Moreover, the agency's structure affects how it will pursue its mission and carry out its responsibilities within the state bureaucracy. Clearly, matters of organizational form are crucial for a state medical board.

This chapter will examine legislative and interest group involvement in questions of organizational form. The research questions are: 1) what is the role of the enabling coalition, measured by the strength of medical societies, in the institutional design of state medical boards? and 2) what is the role of institutional design in predicting legislative involvement in agency policy activities?

## Institutional Structure and Interest Group Relationships

The exact nature of an organization's institutional form is a matter of legislative choice with input from organized interests (Calvert, Moran and Weingast 1988, Horn 1995, Moe 1989, 1990). State medical societies were the force behind the creation of licensing boards (Ameringer 1999). As the enacting coalition, organized medicine -- in conjunction with legislators -- was instrumental in determining institutional design.

Organized medicine created a professional order to keep conflict private and competition in check. It consisted of institutions that physicians established to serve their interests - professional associations, medical boards, medical schools and hospitals (Ameringer 1999). As Meier (1985) points out, "the initial demand for regulation comes from the occupation" (177). The regulatory entity is created, by the legislature, and made up of practitioners from the regulated occupation. According to occupational members, the best judge on issues of competence and professional conduct are one's professional colleagues. The laws often empowered the occupation to appoint or nominate the members to serve on the respective professional boards. Thus, the occupation not only demanded regulation but tried to select the regulators. In this manner, state medical boards serve as the public arm of state medical societies; they act as gatekeepers for the profession. "They licensed the qualified, banished the unqualified, and shielded the profession from external review" (Ameringer 1999, 14).

Today, medical societies are very influential in medical board activities. They still serve as members on medical boards. Indeed, they make up the majority of state medical board members. Moreover, state medical societies and physicians also continue to play a role in selecting board members. State medical societies are responsible for the nomination of potential medical board members. They recommend physicians to governors for appointment to state medical boards. Medical societies have continued interest in medical boards
because these boards still hold the power to regulate, license and discipline physicians. Ultimately, state medical boards determline if and under what circumstances physicians may continue to practice medicine.

It is to the medical society's benefit to ensure the medical board is autonomous. An autonomous agency is independent. It has the ability to control more of its primary functions, make important regulatory decisions, and allocate and spend its funds as it sees fit. Horn (1995) stipulates that agency autonomy is based on three criteria: financing, employment conditions and participation. An autonomous medical board is well protected from other interested parties while still being strongly influenced by its physician board members (Ameringer 1999). I expect the medical society to strongly influence medical board activities.

HO1: The stronger the medical society role in selecting medical board members, the more autonomy the SMB will have.

Lobbying has changed dramatically in the past 30 years. Interest groups are now vital forces in the political process. At the state level, they play a prominent role in policy making (Thomas and Hrebenar 1990). In recent years, organized interests have grown in number; the range of interests represented at the federal and state level has expanded and the intensity with which lobbying occurs has increased. State medical societies have changed too and consequently so have their relationships to medical boards.

State medical societies are among the more powerful organized interests
within states (Thomas and Hrebenar 1990). Indeed, physicians are consistently ranked among the most influential interests in the fifty states. Between the late 1980s and the early 1990s, the ranking of physicians and state medical associations increased from eleventh to sixth overall across the states (Thomas and Hrebenar 1995). That is, the effectiveness of medical associations has grown relative to other organized interests in the past few years. I predict that medical associations are more powerful relative to other state interest groups. As a consequence, they have the ability to bring their power to bear on issues that affect them. Because they are important players in state politics, medical societies will try to ensure that medical boards are free of pressure from outside interests while at the same time the boards are responsive to association priorities.

HO2: The stronger the medical society as an interest group (relative to other interest groups in the state), the more autonomy the SMB will have.

## The Dependent Variables

The first research question deals with how organized interests affect institutional structure. The dependent variable is state medical board autonomy. It is measured using Horn's (1995) three criteria for the institutional design of autonomous agencies: financing, participation, and employment. I have operationalized these institutional variables as: budget autonomy, public
representation on the board and control over four employment conditions at medical boards ${ }^{23}$.

Horn argues that decisions about institutional structure are important in determining the incentives facing administrators and therefore influence how administrators exercise their discretion. An agency's independence and autonomy are affected by the extent of its budget autonomy, the type of outside interests that may participate in its decisions, and the employment conditions governing its administrators.

Budgetary autonomy influences agency decisions (Svorny and Toma
1998). The budget autonomy variable is an index. Taken from the 1995-1996

Exchange, published by the FSMB, budget autonomy is a three-item additive index of whether a board develops its own budget, adopts its own budget, and has a reserve fund. The variable is coded as dichotomous. If a board has none or 1 of the powers, it is coded as 0 ; if the board has 2 or 3 of the powers, it is

23 In earlier tests, I also examined using a board activities scale to measure agency autonomy. The board activities scale was an 11 item additive index made up of activities within the authority or responsibility of a medical boards. The eleven items are: adopt rules/regulations, prepare/select exams, conduct exams, issue licenses, approve licensure from other entities, evaluate applicant's education, evaluate applicant's professional performance, set fees, investigate disciplinary matters, hear disciplinary matters, and make disciplinary decisions. The data came from 1995-1996, Exchange. In earlier tests, I ran the board activities scale variable and found there was little difference between this variable and the Horn autonomy variables. I decided to use the Horn variables as they fit the theory better. Also it seemed better to consistently use the Horn variable throughout these models as well as the models in the two forthcoming empirical chapters.
coded as $1^{24}$. The range is 0 to 1 ; the mean is .58 (see Table 9) ${ }^{25}$.
Public representation on medical boards may affect boards becoming more involved in policy issues. Added public involvement, as Schattschneider notes, expands the scope of conflict. While public members have not had an impact on board policies and disciplinary functions (Graddy and Nichol 1989, 1990), public presence could be important when medical expertise is less crucial. I examine Horn's participation concept in terms of the percentage of public board members on each SMB. Public representation on boards has increased in recent years. It is one of the reforms introduced to make occupational and professional boards more responsive to its clients. Taken from the 1995-1996 Exchange, the variable has a range from .00 to .46 with a mean of $.22^{26}$ (see Table 9).

24 The three-item index was re-coded as a dichotomous variable because when. it was graphed it demonstrated a curvilinear relationship.

25 I also considered operationalizing Horn's financing concept as fee schedule. Fee schedule measures a board's ability to set it own fees and the extent of legislative involvement in the fee setting process. Also taken from 1995-1996, The Exchange, fee schedule is a five-item additive index measuring whether the board's fees are set by the board itself, the executive department or the legislature. It also includes whether fees are set within guidelines provided by the legislature and whether the legislature's approval is required in the fee setting process. The range is 1 to 3 ; the mean is 1.97 . In earlier tests, I ran the fee setting variable and found there was very little difference between this variable and budget autonomy. I decided to use the budget autonomy variable because it fits the theory better.

26 I also looked at operationalizing Horn's participation variable as the interest group role in the nomination process of board members. Taken from $1995-$ 1996, The Exchange, this is a dichotomous variable coded 1 if the state medical or osteopathic society is a source of potential nominees to the SMB. The range

Table 9 - Institutional Structure and Legislative \& Interest Group Relationships Descriptive Statistics
N Range Mean Std. Deviation

| Variables |  |  | .79 |  |
| :--- | :---: | :---: | :---: | :---: |
| 1) Medical society strength | 59 | $0-2$ | .78 |  |
| 2) Medical society involved <br> in nomination | 61 | $0-1$ | .49 | .50 |
| 3) Budget autonomy | 59 | $0-1$ | .58 | .50 |
| 4) Employment conditions | 59 | $0-4$ | 2.07 | 1.67 |
| 5) \% Public members | 61 | $.00-.46$ | .22 | .10 |
| 6) DO board | 61 | $0-1$ | .20 | .40 |
| 7) Horn composite | 61 | $-2.14-1.17$ | -.025 | .73 |
| 8) Individual legislators' <br> influence | 55 | $1-5$ | 2.69 | 1.14 |
| 9) Legislative role in 4 |  |  |  |  |
| policy areas |  |  |  |  |

[^16]A civil service system will help the enacting legislature solve commitment and agency problems (Horn 1995). With such a system in place, administrators are more responsive to the interests represented at enactment (including the legislature), likely to act independently, and more successful in limiting the influence of the incumbent legislators. As a proxy for Horn's employment arrangements, an additive index was created to reflect the power of SMBs to employ personnel. It is an index of four powers that boards may possess: power to employ, power to set compensation, power to evaluate and the power to discharge. The data source is the 1995-1996 Exchange. The employment conditions variable range is 0 to 4 with a mean of 2.07 (see Table 9).

In order to more concisely capture the importance of an agency's autonomy, I have created a composite variable for agency autonomy. It is a combination of the three Horn variables discussed above. Each of the three Horn variables were standardized, then combined and the mean was taken to create the new composite autonomy variable ${ }^{27}$. The variable range is -2.14 to 1.17 with a mean of -.025 (see Table 9 ).

The correlations among the three Horn variables varied. There is a strong and positive correlation between budget and employment (see Table 10). However, the relationships are not maintained among the preceding variables

[^17]Table 10-Correlations: Medical Society Involvement and Influence

|  | Employment <br> Conditions | Public <br> Members | Horn <br> Composite | DO Boards | Medical <br> Society in <br> Nomination <br> Process | Interest <br> Group <br> Influence |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Budget | $.470^{* *}$ | .032 | $.668^{* *}$ | .058 | $.265^{*}$ | .136 |
| Employment <br> Conditions |  | .073 | $.817^{* *}$ | .164 | $.371^{* *}$ | .137 |
| Public Members |  |  | $.548^{* *}$ | $.296^{* *}$ | $-.218^{*}$ | -.027 |
| Horn Composite |  |  |  | $.234^{*}$ | $.201^{*}$ | .104 |
| DO Boards |  |  |  |  | $.338^{* *}$ | $-.234^{*}$ |
| Medical Society in <br> Nomination Process |  |  |  |  |  | -.026 |
| Interest Group <br> Influence |  |  |  |  |  |  |

[^18]
## proo <br> $m e$ <br> inv

and public members. These relationships are very weak. The Horn composite, not surprisingly, is strongly and positively correlated with all three of its component parts.

## The Independent Variables

Medical board autonomy can be explained by the role of the enabling coalition as measured by the strength of medical societies. I am using two dimensions from which to consider the societies' strength. First, from the FSMB, the data reflect whether the state medical society was involved in the nomination process of board members. The variable is dichotomous; it is coded 1 if the medical society was involved in the nomination process and 0 if it was not involved in the board nomination process. The variable mean is .49 (see Table $9)$.

The second dimension from which to measure medical society strength is interest group power relative to other interest groups in the states. For this measure, I use the Hrebenar-Thomas (1990) study of interest group power. It examines interest group power in the 50 states over the past two decades. The study categorizes interest groups into two sections. The first cluster consists of those groups that are consistently among the most influential interest groups in the later half of the 1980s. The second cluster includes those interest groups that are rising but not among the first rank, those declining in power and those that are active occasionally. The states where medical societies are listed as
consistently influential are considered active; they are coded as 2. Those states where the societies are rising, declining or occasionally active are coded as 1. Societies that are not listed in either category are coded as 0 . The variable mean is .78 (see Table 9).

Theory indicates that the enabling coalition has a strong role in institutional design. State medical societies were a leading voice when state medical boards were created. Ideally, the strength of medical societies at the time of enactment could be used to predict institutional structure of state medical boards. However, these data is not available. For this reason, I am using the strength of medical and interest groups from the Hrebenar-Thomas studies of the 1980s in the empirical analyses. I am assuming that interest groups -specifically state medical societies - play the same role over time. That is, medical societies will continually try to influence the decisions and actions of state agencies. While state agencies change and grow as the rules that govern their activities evolve, the interest group role is consistent throughout. State medical societies want state medical boards to make decisions and take actions that are helpful to association members. They try to influence how a state medical board changes. One example is medical societies' opposition to increasing the number of public members on state medical boards. When the medical societies realized the reforms were inevitable, they worked hard to minimize the actual number of public members added to each board.

The control variable is the final variable. It differentiates between
allopathic and osteopathic boards. Medical boards vary in terms of their size, scope of responsibilities, the population they regulate and the political issues with which they must grapple. The control variable ${ }^{28}$ will be coded as dichotomous: 1 if it is a DO board. The variable mean is .20 (see Table 9).

## The Analyses

In this section, I present the ordinary least squares and logit regression results of the models. There are two different models. One is for both osteopathic and allopathic boards and the other is for allopathic only boards. The results for the combined model and the allopathic only model will be presented as a series of separate models. I am using this method to isolate and focus on the four different measures of agency autonomy. I am reporting significance using one-tailed tests because I have directional hypotheses.

## Medical Society Involvement in Selection

The first research question deals with the strength and influence of medical societies. In this research question, the dependent variables are the four measures of agency autonomy: budget, employment conditions, public members and the standardized mean composite of the three Horn variables

28 In earlier tests, I also examined the level of a state bureaucracy's professionalism (Barrilleaux 1999). I analyzed professionalism as a control variable and as an interaction term with employment conditions, budget autonomy, individual legislators, the governor, the results of the 1994 election in state houses, and legislators' role across the four policy areas. Professionalism was not relevant as a control variable nor in any interaction terms and thus is not included in this analysis.
(hereafter referred to as Horn composite). Ordinary least squares analysis was performed on three of the variables; logit analysis was conducted on the budget variable as it is dichotomous. The adjusted $R$ square for the models, reported in Tables 11 and 12, are quite low. There were no problems with heteroskatisicity or multi-collinearity according to the diagnostic tests ${ }^{29}$.

In the first hypothesis, I focus on the role of the medical society in the board member selection process. I predicted that the stronger the medical society role in selecting medical board members, the more autonomy the state medical board would have. Initial examination of the correlations indicate a positive and significant relationship between appointment role of the medical society and two of the autonomy variables (see Table 10). The OLS and logit results support the hypothesis (see Tables 11 and 12). The medical society involvement variable is significant across all four dependent variables. Interestingly, the significance levels are higher for each of the individual autonomy measures than for the Horn composite variable. The results for the control variable (DO boards) are mixed. It was significant in the public members and Horn composite models but not in the budget and employment conditions models.

29 Scatter plot analysis of residuals against predicted values of $Y$ indicate minimal heteroskedasticity. The variance inflation factors (VIF) for the models did not exceed a value of 1 .
Composite
$.268+$
.133
$.319+$
$-.278^{\star}$
59
.060
2.231
 $* * *$ Significant at $\leq .001 ; * *$ Significant at $\leq .01$; * Significant at $\leq .05$; and + Significant at $\leq .10$.

- The budget variable column reflects logit results. The Pseudo $R$ Square is .078 and the Chi Squen

bs y pełsn!p
L
©
©
Table 12 - Predicting Institutional Structure: Agency Autonomy Four Models Logit \& OLS Results - MDs Only
Budget- Employment

|  | Budget• | Employment <br> Conditions | Public Members | Horn Composite |
| :--- | :---: | :---: | :---: | :---: |
| Medical Society <br> Involved in <br> Nomination | $1.110^{*}$ | $.832^{*}$ | $-.065^{* *}$ | .212 |
| Interest Group <br> Influence | .436 | $.405+$ | .013 | $.175+$ |
| Constant | -.488 | $1.289^{* * *}$ | $.221^{* * *}$ |  |
| N = | 47 | 47 | 47 | $-.291^{*}$ |
| Adjusted R Sq | . | .069 | .071 | 47 |
| Signif F | . | 2.693 | 2.755 | .028 |

[^19]In another test of this hypothesis, in the MD Only models, the relationships among the variables are slightly different than others for the combined models. This series of models analyzes only allopathic boards. There are 47 cases in these analyses (see Table 12). Like the above combined models, I am presenting these analyses as a series of separate models to allow me to focus on Horn's theories of agency autonomy. Diagnostic tests revealed no problems with heteroskatisicity or multi-collinearity ${ }^{30}$.

In the MD only analyses, Hypothesis \#1 is supported for three of the four autonomy measures. Only the Horn composite variable is not significant. Interestingly, the significance levels are lower in the MD only models. The public members model is not in the direction predicted.

Overall, when examining both the combined and MD only models, the models predicting autonomy are a very poor fit. The findings for the three institutional variables are significant when considering medical society involvement in the board member selection process. This implies that as a medical society's involvement in the member selection process increases, a medical board's autonomy also increases. The Horn composite variable was significant in the combined allopathic and osteopathic model but not the allopathic only model. The difference between the two models is the presence of the control variable for osteopathic physicians. It is possible that the DO

30 Scatter plot analysis of residuals against predicted values of $Y$ indicate minimal heteroskedasticity. The variance inflation factors (VIF) for the models did not exceed a value of 1 .
board variable heightens a medical board's autonomy.

## Medical Society Influence

In the second hypothesis, I predicted that the stronger the medical society is as an interest group, the more autonomy the state medical board would have. At the correlation level, there are no significant relationships between the four dependent variables and the independent variable (see Table 10). There is a correlation between interest group influence and the control variable for osteopathic boards. The OLS and logit results for the combined allopathic and osteopathic model do not support the hypothesis (see Table 11). The variable measuring interest group influence was not significant in any of the four models. Thus it appears that medical society influence does not help predict board autonomy. This contradicts federal studies that have found that interest groups take an active role in influencing an organization's autonomy (Moe 1989, 1990). The results for the osteopathic control variable, as before, are mixed. The results for Hypothesis \#2 are mixed in the MD only models (see Table 12). In the employment conditions and Horn composite models, interest group influence is significant.

## DO Boards

The control variable for osteopathic board was significant in two of the four models. The coefficient was highly significant in the public members model. It was also significant in the Horn composite model. Based on these findings it is difficult to make many conclusions about the control variable. After examining
the results for the next research question, more conclusion can be made about the osteopathic board variable.

Overall the findings for the first research question are mixed. Analysis revealed the expected results for the role of the medical society in the selection process for medical board appointments. The results for the influence of medical societies were not as predicted. Findings for the control variable are mixed. The coefficient was significant in half of the models analyzed.

One explanation for the disappointing results, with regard to the medical society influence measure, may have to do with the coding method used by Thomas - Hrebenar. They separate the interest groups into two clusters: those groups that are consistently active and those groups that are rising, declining and or occasionally active. The second cluster contains groups with widely varying levels of influence. There are important differences among groups that are rising, declining and only occasionally active. Yet, these differences are not captured by the coding. This second cluster accounts for one third (33\%) of the data in the coefficient. It is a lot of data to lose due to unclear coding. It may account for some of the unpredicted findings.

Institutional Structure and Legislative Involvement
The second research question examines the effect of institutional design on legislative involvement in board policy activities. Most scholars who have studied the role of legislators in state agency decision making (Bowling and

Wright 1998, Brudney and Hebert 1987, Miller 1987, Wright and Cho 1998) found that legislators were identified as very influential in the policy decisions of bureaucracies. Does the level of an agency's autonomy predict legislative involvement? Are legislators less likely to become involved with autonomous organizations?

McCubbins (1985) found that health and environmental regulatory agencies are delegated a greater scope of authority from the legislature than economic regulatory agencies. Moreover, social regulatory entities are subject to more procedural requirements for decision making from the legislature. An organization such as a state medical board will have more autonomy but will need to hold more public hearings and comment periods, have its decision making more open to outside parties, be open to more judicial review and require more strenuous burdens of proof and standards of evidence (in disciplinary and licensure matters). Along with greater delegation of authority, the legislature institutes stricter oversight provisions to constrain the bureaucracy (McCubbins 1985).

An autonomous state medical board is independent. It has the ability to control more of its primary functions, make important regulatory decisions, and allocate and spend its funds as it sees fit. At its creation, a medical board is granted more autonomy as a consequence the legislature and individual legislators are less involved in its day-to-day, regulatory and policy activities. In these hypotheses, I expect there to be an inverse relationship between
autonomy and legislative interests. I anticipate that less individual and legislative involvement to be determined by greater financial autonomy, more public members on the medical board and greater control over employment conditions.

HO3: The greater the autonomy of the SMB, the less extensive legislative involvement in SMB activities.

## The Dependent Variables

The model for the second research uses legislative involvement as the dependent variable. Teske (1990) among others found that legislators influence regulatory policy. The two measures for legislative involvement are individual legislators' interest and the legislative role in four specific policy activities. While the mail survey asked about perceived influence of many actors other than legislators, because of the theory cited and concerns for parsimony I did not test for the effects of these other actors on the autonomy measures.

The first dependent variable measure examines the influence of individual legislators in the activities of the medical board. Taken from the mail survey, the question asks respondents how they would assess the influence of individual legislators in the overall activities of the medical board. The variable range is 1 to 5 with $1=$ no influence and 5 = great influence. The mean is 2.69 (see Table 9). The second measure, legislative role in four policy activities, is constructed through an additive index of variables. Also from the mail survey, the question asks respondents if legislators played a role in the board's actions regarding four
specific policy areas. The variable range is 0 to 4 ; the mean is .64 (see Table $9)$.

## The Independent Variables

For the second research question the independent variable is the institutional design issue of medical board autonomy. As discussed earlier, it is taken from Horn (1995). It consists of three separate variable concepts: budget autonomy, public member representation and a board's employment conditions. The Horn composite variable is also analyzed. The descriptive information on these variables is listed above and in Table 9. The control variable for osteopathic medical boards is used in these models too.

## The Analyses

In this section, I present the ordinary least squares and logit regression results of the models. As above, there are two different models; one is for both osteopathic and allopathic boards and the other is for allopathic only boards. The results for each model will be presented as a series of separately to isolate and focus on the four different measures of agency autonomy. Significance is reported with one-tailed tests because I have directional hypotheses.

## Predicting Legislative Involvement

In this research question, I examine legislative relationships with state medical boards. The dependent variable in these analyses is legislative
involvement. It is measured in two separate ways. First, I examine the influence of individual legislators on medical board actions. Second, I consider the legislative role across the four policy areas. The two dependent variable measures are positively related at . 19 - a fairly weak relationship (see Table 13).

The third hypothesis considers how autonomy affects legislative involvement. Ordinary least squares analysis ${ }^{31}$ was performed on the four agency autonomy measures. The independent variables are the three autonomy measures and the Horn composite. At the correlation level, there are no significant relationships between the independent and dependent variables (see Table 13). The adjusted $R$ square for the models, reported in Tables 14, 15, 16, and 17, are extremely low. There were no problems with heteroskatisicity or multi-collinearity according to the diagnostic tests ${ }^{32}$.
A. Individual Legislators. The combined allopathic and osteopathic OLS models are presented in Table 14. These models predict individual legislators' influence with the three autonomy measures and the composite measure.

Models A - C include one of the three autonomy measures and the control

[^20]Table 13 - Correlations: Legislative Involvement

|  | Employment <br> Conditions | Public <br> Members | Horn <br> Composite | DO Boards | Legislative <br> Role in 4 <br> Policy Areas | Individual <br> Legislators' <br> Influence |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Budget | $.470^{* *}$ | .032 | $.668^{* *}$ | .058 | .150 | -.073 |
| Employment Conditions |  | .073 | $.817^{* *}$ | .164 | .053 | -.166 |
| Public Members |  |  | $.548^{* *}$ | $.296^{* *}$ | .160 | .041 |
| Horn Composite |  |  | $.234^{*}$ | .149 | -.058 |  |
| DO Boards |  |  |  | $-.188+$ | -.090 |  |
| Legislative Role in 4 <br> Policy Areas |  |  |  |  | $.194+$ |  |
| Individual Legislators' <br> Influence |  |  |  |  |  |  |

Table 14 - Predicting Legislative Involvement: Perceived Individual Legislators' Influence Five Models OLS Results - MDs and DOs
odel \#E

-.219
-.060
2.738
55
-.029
249 Model \#D
-. 009
웅
$\stackrel{\mathscr{\infty}}{\infty}$ N
$.348 \quad .763$
*** Significant at $\leq .001$; ** Significant at $\leq .01$; * Significant at $\leq .05$; and + Significant at $\leq .10$.
Table 15 - Predicting Legislative Involvement: Perceived Individual Legislators' Influence

| Five Models OLS Results - MDs Only |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model \#A | Model \#B | Model \#C | Model \#D | Model \#E |
| Budget | -. 181 |  |  | -. 097 |  |
| Employment Conditions |  | -. 075 |  | -. 066 |  |
| Public Members |  |  | 1.552 | . 934 |  |
| Horn Composite |  |  |  |  | . 065 |
| Constant | 2.889 | 2.936 | 2.430 | 2.780 | 2.751 |
| $N=$ | 42 | 42 | 43 | 42 | 43 |
| Adjusted R Sq | -. 017 | -. 010 | -. 001 | -. 053 | -. 022 |
| Signif F | . 300 | . 608 | . 957 | . 316 | . 089 |

Table 16 - Predicting Institutional Structure \& Legislative Involvement: Legislative Role in 4 Policy Areas Five Models OLS Results - MDs and DOs
Model \#D
324
8
2.255*
-.681*
웅 $\quad$ ㅇ
1.505
-
Model \#
2.391*
$-.665^{*}$
.248
61
.055
$2.746+$
$1.144 \quad 2.746+$
.647
59
.005
$\stackrel{7}{8}$
+カレs


*** Significant at $\leq .001$; ** Significant at $\leq .01$; * Significant at $\leq .05$; and + Significant at $\leq .10$.

102
variable. Model D contains all three autonomy measures and Model E contains only the composite variable. None of the three measures for autonomy nor the Horn composite measure are significant. Only the control variable is significant at the .10 level in two of the models. In another test of this hypothesis, in the medical board only models, the results are similarly disappointing (see Table 15).
B. Legislative Role Across the 4 Policy Areas. In this analysis of the second research question, the dependent variable is the legislative role in the four policy areas. Like the proceeding models, diagnostic tests indicate no problems with heteroskatisicty or multi-collinearity ${ }^{33}$. Results for these analyses are reported in Tables 16 and 17.

Correlation analysis shows there are no significant relationships between the dependent and independent variables. Only the control variable for osteopathic boards is significant. Similarly, none of the autonomy variables are in the expected direction. As legislative role in the four policy areas increases, a state medical board's autonomy also increases but since the coefficients are insignificant, little can be made of these findings.

In hypothesis \#3, for the combined allopathic and osteopathic OLS model, the agency autonomy variable, public members coefficient is positive and significant at the .05 level (see Model C on Table 16). Indeed, the public

[^21]members variable is significant alone as well as when all three agency autonomy parts of variables are analyzed together in Model D. The Horn composite measure is also significant and positive at the .10 level. The budget and employment conditions measures are not significant. It should be noted that none of the autonomy variables are in the direction predicted. I predicted an inverse relationship between legislative involvement and agency autonomy. Instead, the analysis fails to reject the null hypothesis of no effect in the hypothesized direction. In all five models, the control variable for osteopathic boards is negative and significant.

In another test for hypothesis \#3, in the allopathic only models, the patterns seen in the combined models above continue (see Table 17). The public members variable continues to be significant in Models C and D at the . 01 level. Additionally, the Horn composite variable is also significant at the . 05 level.

The models for the second research question are an even poorer fit than those for the first research question. The level of agency autonomy does not appear to strongly affect the extent of legislative involvement with a state medical board. Only public membership and the Horn composite affect legislative involvement measured as legislative role across the four policy areas. However, neither coefficient is in the predicted direction. None of the three measures of autonomy - budget autonomy, employment conditions, and public members - affect the influence of individual legislators on medical board actions.

The Impact of the Enabling Coalition and Institutional Design
These models have examined institutional structure, legislative involvement and interest group relationships. The findings have been mixed. For the first research question, examining issues of autonomy, the results support a medical board's increasing autonomy when the medical society is involved in selecting its board members. However, the results for the influence of medical societies as interest groups proved to be disappointing. In the second research question, examining legislative involvement, few of the independent variables are significant. Only public membership and the Horn composite are significant when considered with the legislative role across the four policy areas. Unfortunately, these relationships are not in the predicted direction.

Findings indicate that the greater the public membership on a medical board, the less extensive legislative involvement in board actions. In this case, it appears public members serve as a proxy for lawmakers. A board with more public members has more autonomy and receives less interference from legislators. Increased public representation on professional boards has been one of the reforms instituted by lawmakers to make boards more accountable for their actions and open board processes to public scrutiny. The findings support the idea that with more public members, lawmakers are less involved in board actions.

In summary, the findings for the Horn composite coefficient are more difficult to understand. Like the public member variable, it was also significant in
both the combined and MD only models where legislative involvement was measured as legislative role in the four policy areas. Like public members, the Horn composite was also not in the predicted direction in either model. So the question remains, why was the Horn composite significant while the other autonomy variables were not? Most especially, why wasn't the model with all three autonomy variables significant while the Horn composite model was significant? The difference between the Horn composite model and the model with all three autonomy variables is that Horn composite coefficient had been standardized. That is, it was created by taking each of the three autonomy variables, standardizing, combining and taking the mean. It is possible that because the composite weights each individual autonomy measure, that this more accurately reflects the true nature of the variables. When all three autonomy variables are in a model, one may interact with another and throw off the measure.

Another way to explain the meaning of the Horn composite is to look back at the variables in the individual legislators' influence models. While none of the coefficients are significant in these models, all the autonomy variables are in the predicted direction except public members and the Horn composite in the MD only model. If one dismisses the result from the MD only model due to the small n , one is left with the public members variable as an anomaly. Perhaps, the significant findings for the Horn composite coefficient -- in the legislative role in the four policy areas models - are also an anomaly. That is, when considering
the contradictory results for the Horn coefficient it may be due to measurement error. As noted above, operationalizing Horn's concepts was difficult; I may not have found valid measures.

## DO Boards

The control variable for osteopathic board was significant in two of the five models (see Table 14). This is a similar pattern seen in the agency autonomy models. The osteopathic board variable was significant in the budget model (Model A) and in the model with the three Horn coefficients (Model D). Based on these findings it appears that osteopathic and allopathic boards are very different entities. The relationships osteopathic board have with the legislature and interest groups are unlike those of their allopathic counterparts. One reason for this might be that DO boards have lower profiles than medical boards. There are far fewer osteopathic physicians practicing medicine than allopathic physicians. Also, osteopaths are not as politically powerful as allopathic physicians as a consequence they hold less sway with politicians. It is possible osteopaths have been more successful in establishing their own autonomy and they are less salient medical practitioners than their allopathic colleagues. Case study interviews support the idea that, in general, osteopaths go about their business quietly and are less contentious than their allopathic counterparts.

A Closer Look at the States: Medical Society Strength and Influence
One finding of the preceding empirical analysis is the positive effect that medical society strength (as measured by role in selecting board members) has on a board's autonomy. Conversely, the influence of medical societies does not appear to affect the autonomy of state medical boards. In this section, I will more closely examine the relationship between medical boards and medical societies. Specifically, I will consider the question: how does the strength and influence of medical societies affect medical board behavior?

## Medical Society Strength

According to case study interviews, a primary relationship for medical boards is with their state medical association. As representatives of the professions, medical societies have a great deal of influence with physicians. Additionally, medical societies are among the most influential interest groups within states. Doctors are powerful and effective lobbyists in the statehouse. Their power is based on their financial contributions as well as their ability to mobilize and bring their power to bear on their elected representatives. The medical society's support or opposition on an issue can determine its fate in many state houses. For this reason, a medical board can benefit from a strong professional relationship with the medical society in its state.

Medical board members are usually elected or appointed by the governor. In all four study states, board members are appointed by the governor (see Table 18). However, the four study states vary in where the nominations for

Table 18 - Medical Board Appointment, Nomination and Membership Case Study Overview

|  | Colorado | Maryland | Michigan | Oregon |
| :---: | :---: | :---: | :---: | :---: |
| Governor Appointed | yes | yes | yes | yes |
| Nomination | from any individual or organization | * | from various professional groups | from state MD or DO society |
| Total Members | 11 | 15 | 14 | 11 |
| MD <br> Members | 7 | 11 | 10 | 7 |
| DO <br> Members | 2 | 0 | 0 | 2 |
| Public <br> Members | 2 | 4 | 3 | 2 |
| Other Health Professional | 0 | 0 | 1 | 0 |
| Length of Terms | 4 yrs . | 4 yrs . | 4 yrs . | 4 yrs . |
| Consecutive Terms | no limit | 2 | 2 | 2 |
| Officers Selected | Biennially, elected | Governor appointed chair every 4 yrs, others as needed, elected. | Annually, elected | Annually, elected |

* In Maryland medical board nominations occur as follows: 11 physicians are nominated from lists compiled by the state medical society via a balloting process that provides all licensed physicians an equal vote; 3 public members of whom 2 are appointed with advice and consent of Senate; plus 1 risk manager from state hospital association.

Source: Federation of State Medical Boards, 1995-1996 Exchange, 1995.
board membership originate. In Colorado, nominations may come from any individual or organization. Maryland has a more complex process. Eleven physicians are chosen from lists compiled by the state medical society via a balloting process that provides all licensed physicians an equal vote; three public members are appointed two of which must receive Senate consent; and one risk manager from the state hospital association. Michigan's board members are nominated from various professional organizations, including the state medical and osteopathic associations as well as specialty groups such as radiologists, anesthesiologists, family practice physicians, and internists among others. In Oregon, board members are nominated from the state medical and osteopathic society.

The influence of state medical associations on medical boards actions can be great. There is a natural tension in the relationship between the two groups. The medical association represents the profession and protects physicians; the medical board represents and protects the public and regulates physicians. Among the four study states, survey respondents indicated medical society influence was moderate to high (see Table 19). Two state boards reported medical society influence as 4 and two boards reported it as 3 . From this data, it appears that medical societies have the ability to influence medical board activities.

The strength of medical societies and the extent of their influence can be seen in their relationships state medical boards. Among the four case study

Table 19 - Case Study Overview Medical Society Strength and Influence: Distribution of Responses

|  | $1=$ No <br> Influence | 2 | 3 | 4 | $5=$ Great <br> Influence |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Medical Society <br> Influence |  |  |  |  |  |


|  | Yes | No |
| :--- | :---: | :---: |
| Medical Society as Constraint to Policy <br> Changes $^{1}$ | 1 | 3 |
| Consult State Medical Society to Initiate Policy <br> Change |  |  |


|  | Not In Either | Rising, Declining or <br> Occasionally Active | Most Influential |
| :--- | :---: | :---: | :---: |
| Interest Group <br> Influence | 1 | 2 | 1 |


|  | No <br> Policy <br> Areas | One <br> Policy <br> Area | Two <br> Policy <br> Areas | Three <br> Policy <br> Areas | All Four <br> Policy <br> Areas |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Interest Group Interest <br> in Policy Area | 1 |  | 2 | 1 |  |

${ }^{1}$ Source: Mail survey. Since respondents were assured anonymity in the survey, the states are not identified in this table.
${ }^{2}$ Source: Thomas-Hrebenar (1990) study.
states, relations with the state medical association varied. Most tend to ebb and flow. In Oregon, the medical association had been a key ally for the medical board initiating the revision of the Medical Practice Act granting the board more authority. However, relations soured when the "board took strong action on a number of disciplinary matters." Since then the association has pulled away from the medical board and the board's success at the state capital has dramatically decreased.

The Maryland medical board and medical association are closely intertwined. This is because the association functions as the peer review organization (PRO) ${ }^{34}$ for the board. With the medical society making disciplinary decisions for the medical board, the lines between the two entities blur. It becomes difficult to distinguish between the regulator and the regulated. Recently, the relationship has come under scrutiny. According to a respondent, a state Senator held a hearing where "the executive director of the medical board and the Secretary of Health and Mental Hygiene were beat up due to the medical society being the PRO in Maryland. He thought that was ludicrous." Interestingly, the legislature enacted the law making the medical association the PRO, thus the concerned Senator has the power to change it. Until changes are

[^22]made, the medical association's influence in medical board activities remains especially strong.

Colorado's board has the best relationship with its medical society of any of the other study states. A member of one organization indicated "the two groups work together to address difficult issues. They ask frank questions of one another and get honest answers." Moreover, the staffs are in regular contact and serve as resources for each other according to observers. In 1994, the medical association decided to use some of its influence and strength to revise the state's Medical Practice Act. It sponsored a legislative initiative to create a task force made up from its member, medical board staff, physicians, and hospital and industry representatives. An interviewee recalled,

The group began working together to completely rewrite the state's medical practice act. A task force was set up and participants literally went through line-by-line and rewrote the act. It took almost two full years before the task force had a final report. It was sold to the medical association as the best thing for medicine even though it did contain a lot of things they would not like.

Michigan provides an example of the enormous influence medical societies have on medical board actions. In 1999, the Michigan medical board was grappling with an administrative rule change. The rule change would allow physicians to delegate independent prescription authority to their advance nurse practitioners and physician assistants. The rule change was very controversial and had already failed twice in the legislature, due largely to opposition by the state medical society and its physicians members. The bill's Senate sponsor,
still committed to the idea, recommended an administrative change through the rules process.

Over the course of one year, the medical board voted on the rule three different times, reversing itself with each subsequent vote. Medical board members were subject to a tremendous lobbying effort coordinated by the medical society. An observer recalled, "the medical society pulled out all the stops with publicity. Physicians on the board were lobbied intensely by their peers." Board members told stories of the pressure they faced with calls from colleagues. According to a well-placed official, "the third vote was driven by MSMS [Michigan State Medical Society]; physicians on the medical board desired to please them." The second vote had passed the rule change. However, physician board members were inundated with calls from outraged colleagues; they requested a third vote to rehear it again. One observer noted, "members were told a third vote would not carry any weight. The rule had already passed and the Governor was set to sign it. Their vote would not affect the final outcome."

Medical society strength may encourage board actions in some areas as seen in the Michigan example above - but as important is the society's ability to discourage board action. Mail survey data indicates that one of the four medical boards identified its state medical association as a constraint on its actions (see Table 19). Indeed, one of the case study states indicated that the medical society functioned to dampen its efforts to change state health policy.

One way a medical board may try to circumvent medical society opposition is to solicit society input on policy matters. By consulting with the medical association before it seeks to initiate policy change, a medical board alerts the association of its intentions and invites their opinions on the matter. Findings from the mail survey reveal that state medical boards do actually consult with their medical associations as they attempt to change state health policy (see Table 19). Two of the four study states confer with the medical society on policy issues. In effect the state medical boards coopts the medical association and thereby sidesteps their potential opposition. Moreover, because of the strength and influence of the medical association, the medical board can help itself by seeking the support and advise of the society as it pursues its policy change agenda.

Medical societies and medical boards work together on a regular basis. Due to the associations' strength and ability to mobilize their physician members, medical societies have the ability to affect medical board activities. They may encourage change and reform or may act as a barrier against it. In the words of one respondent, "in some ways, the job of the medical board is to keep the medical association happy."

## Medical Society Influence

State medical associations are among the most powerful interest groups at their legislatures. Since 1980, physicians and state medical associations have been among the top ten most powerful organizations in statehouses
(Thomas and Hrebenar 1999). In 1998, state medical associations were ranked as "most effective in 18 states and somewhat effective in 13 states" (Thomas and Hrebenar 1999). The strength of medical societies can be quite formidable. Among the four case study states, one state is ranked as having the strongest medical society (see Table 19). In two of the case study states, the medical associations are ranked as moderately powerful while in the final study state, the medical association was not ranked in either group.

Colorado offers an example of an influential medical society, working effectively with its medical board, to bring an issue to lawmakers. It was the medical society that was a primary mover behind a recent telemedicine bill. Telemedicine has been a difficult policy issue in Colorado. Over four years, the medical board tried to get some version of a telemedicine bill through the legislature. It faced opposition from the professions and organized health interests. Only after the board worked out a compromise with the medical society, did the association take the issue on as its own. A state official remembers, "they convinced a strong, well-respected moderate Republican representative to sponsor the bill, carry it through the committee and work for it on the floor." Moreover, according to another observer, "the medical society worked hard with hospitals, the insurance industry, and radiologists to overcome their opposition to the legislation." The telemedicine bill become law at the end of session in 1998.

Other examples of the influence of state medical societies are seen in the
additional case study states. In Maryland, opposition by the state medical association effectively doomed a physician profiling effort by the medical board. Even with the support of the Senate President, Secretary of the Department of Health and Mental Hygiene (a physician), and the Senate Finance Chairman, the controversial bill died. An Annapolis observer noted, "the medical society came out against the effort and made so much noise that the medical board stepped back from its efforts." When asked to evaluate the bill's demise, a respondent commented, "ultimately the board needs medical society support for what they decide to do. It is very important. The medical society has that much influence." In Oregon, the medical board must work with the medical society to get its legislative priorities passed in Salem. A respondent noted, "when the board wants something they look to the association as ally to change law." Another state official concurred, saying "I get the sense that the medical association does things for the board that the board cannot do themselves."

This was the case on a recent pain management bill. For two years the board and society disagreed on the issue; they could not reach a compromise. A bill died in the legislature because, according to an observer, "the Speaker was responding to medical association pressure. The medical society is very powerful in Oregon." Another state official concurred, saying "the pain management bill failed in the House; the medical association opposed it." After the initial failure, the medical board developed a bill that was more acceptable to the society. It passed the following year "because the medical association did
not oppose or support it." In Oregon, according to a long time statehouse observer, "The medical association is the driving force. The board realizes, on most policy issues with heavy political outlay, the association will drive it one way or another. In this state, the perspective of medicine is articulated by the state medical association." Similar comments by other respondents included, "The medical association pulls all the strings in Oregon, the board is not allowed out there really" and "The association really carries health policy here in Oregon." To be effective and obtain policy change, the medical board must work with the medical association. The association is powerful and influential enough to ensure failure or passage of health policy bills in Oregon.

The Michigan State Medical Society (MSMS) was a key player in defeating a bill granting independent prescription authority. In two separate legislative sessions, a senior, high-ranking, and well-respected Republican Senator attempted to pass a bill extending prescription authority to advance practitioner nurses and physician assistants. The Senate sponsor, a physician, was so well thought of by organized interests and his peers, "no one ever doubted he'd get the votes." Yet, even his sponsorship and shepherding of the bill was not enough to secure its passage.

The bill started out as a simple five word change to the existing statute. It grew to become eight pages as health profession groups, mostly the state medical society, weighed in with their own ideas. An initial supporter of the bill said,

The medical society instituted a huge grass root lobbying effort. They got the docs across the state all riled up. Legislators were slammed with calls from constituents. Lots of docs even came to the Capitol to talk with their representatives. They also orchestrated a letter writing campaign. The medical society and its members came down for the hearing and testified against the bill. The Senator had lots of support initially, but it all fell away once the society members started calling. It was gone overnight. It was a huge victory for them.

Under these circumstances, the legislation failed. One observer opined "the medical society did all they could to destroy it." The medical society appeared to have dodged a bullet. However, as noted above, later that year the Senate sponsor suggested the medical board use the rules process to pursue an administrative change.

These examples demonstrate the enormous influence of medical associations. They illustrate that medical societies are rational actors, pursuing areas that provide direct benefits to their members. Medical societies involve themselves in policy areas of interest to them; they weigh in with their opinions and seek to influence the policy discussion. Data from the mail survey further elaborates this point (see Table 19). Medical board executives were asked to identify whether interest group interest played a role in the board's actions in the four policy areas. One case study state executive responded that interest groups were prominent in its action in three policy areas; in two other case study states officials indicated the interest groups influenced their actions in two policy areas; and the final state representative responded that interest groups did not play a role in any of its actions. These findings confirm that medical society
influence affects board behavior. In these instances, medical society influence causes medical boards to pursue action in certain policy areas.

The case study findings are somewhat different than the empirical findings earlier in the chapter. The data from the study states support the initial hypotheses about the strength and influence of medical societies on medical board actions. Medical societies have a strong role in selecting medical board members and have the ability to affect board behavior. Medical associations have enough power that they may act as a barrier for board initiatives, can serve as collaborators on disciplinary and administrative matters, and pressure boards to reverse themselves on rule changes. The influence of medical associations in the legislative arena affects state health policy and the actions of medical boards. Medical societies have the ability to initiate or change state health policy as well as stymie policies they oppose.

Ultimately, the case studies demonstrate that medical society strength and influence cause behavioral changes in medical boards. In some cases, boards anticipate society opposition and seek their input on policy matters; in other instances boards reach compromises with associations to achieve their goals; and in some circumstances boards lose in their initial attempts, regroup and negotiate for a middle ground. In rare examples, medical boards receive protection from other state entities - such as the governor or a cabinet department - in their reform efforts. However medical boards pursue their mission and exercise their mandate, they rely heavily on the patronage of
medical societies. Medical associations offer strength, status, and influence that medical boards do not possess and these qualities pave the way for success in the political and legislative arenas.

## Conclusion

This chapter has examined institutional structure and legislative and interest group relationships. Specifically, I have considered two issues. First, I have analyzed the effect of medical societies on the autonomy of state medical boards. Second, I have assessed the effect of autonomy on legislative involvement in medical board actions.

Empirical results are mixed. The OLS and logit findings support the notion that a medical society's role in selecting board members increases the board's autonomy. Clearly, appointment power is important in predicting medical board autonomy. However, the quantitative data do not support the hypothesis that the stronger the medical society is as an interest group in the state, the more autonomous the medical board will be. The case study data with respect to the role of the medical societies give credence to the two hypotheses. The data from the study states indicate that both the influence and strength medical societies are important in determining medical board actions. The quantitative findings with regard to autonomy are somewhat unclear. Two of the measures were significant but the relationships were not in the expected direction.

The case study findings highlight some of the shortcomings of the empirical analysis. They demonstrate that medical societies are still among the most powerful and persuasive interest groups at the state legislature; medical interest groups can definitely get things done. If medical boards have medical associations as patrons this helps their cause. Clearly, medical boards are involved in some high profile health issues and can receive help from medical associations.

The case study data also has underscored the nature of relationships between medical boards and medical associations. That is, these relationships are constantly changing. As different issues move onto the political agenda and become more salient and prominent, there is push and pull between these two groups. In some instances, the medical society will support and work with the medical board, in other cases the two entities will disagree and in some cases the group are able to find a middle ground. The empirical data does not capture the ebb and flow of the relationships between medical boards and medical associations.

The different results between the case studies and the empirical data may be caused by a variety of methodological factors. First, measurement error may be present. Operationalizing Horn's theory on the determinants of agency autonomy has been challenging. While I did try to operationalize each variable more than one way, these other measures were no more significant in the regressions than the variables in the final models. There are many different
ways to operationalize Horn's concept. Finding an accurate one is quite difficult.
A second reason for the difference between the empirical results and the case studies may be the nature of the study. This is a small n study with only 62 total cases. Due to missing variables, the total $\boldsymbol{n}$ for the full models ranged from 42 to 61 . These models do not offer a lot of cases from which to draw results. However, most models are close to the population of the study.

Finally, there is the possibility that Horn's theory is incorrect. His explanation for bureaucratic autonomy may not translate to empirical work. Stipulating that autonomy is determined by employment conditions, financing arrangements and level of participation may be false. There is a lot less variation of employment conditions among bureaucratic workers given civil service protection. Regardless of level of financial autonomy, the legislature and chief executive may insert themselves into a medical board's financial matters. Public members on medical boards are reported to defer to physician members especially on more technical issues around quality care and procedures. All this is to say that Horn's criteria for autonomy may be wrong.

In the following chapters, I will more closely scrutinize the actions and behaviors of medical boards. I will examine the non-programmed policy decisions and programmed routine behaviors of medical boards. Among the potential causes of medical board actions are institutional factors, political involvement and exogenous changes.


#### Abstract

6. Medical Board Behavior in "Non-Programmed" Policy Decisions

For years, state medical boards remained largely out of public view, quietly licensing physicians and occasionally sanctioning them as well. In recent years, however, a number of these boards have become policy active expanding their scope of regulation, using technology to provide timely information to the public, and even firing their executive directors with increasingly regularity. This chapter explores why these boards have changed, drawing from theory and empirical work in federal regulatory agencies to hypothesize that autonomy, relationship with the legislature, a shifting legislative coalition, new entrants and level of gubernatorial influence have forced agencies to become policy active in new non-programmed areas including initiating legislation, holding hearings and increasing their overall visibility. The research question for this chapter is: What factors influence a state medical board's nonprogrammed policy decisions and behavior? I will examine three key factors: institutional autonomy, political involvement, and exogenous changes in the state environment.


## The Hypotheses

Horn (1995) argues that agency autonomy is based on three criteria: financing, participation and employment arrangements. Decisions in these areas play a part in determining the incentives facing administrators and therefore influence how administrators exercise their discretion. That is, the
extent of an agency's budget autonomy, the type of outside interests that may participate in an agency's decisions, and the rules governing employment conditions for agency administrators all define an agency's independence and autonomy. These factors in turn will affect a medical board's non-programmed decisions and policy behavior.

I predict that there is a negative relationship between autonomy and nonprogrammed decisions. That is, the more autonomous the medical board, the less policy scope and depth will be seen in medical board activities. State medical boards are staffed by bureaucrats who ideally are committed to carrying out the precise mission of the board. A medical board's first responsibility is to regulate physicians via licensure and discipline to ensure public safety. Policy issues are secondary. In many cases, board officials view policy matters as disruptive or intrusive to a board's primary function and its regular activities.

HO4: The greater the autonomy of the SMB, the less policy scope and depth in medical board activities.

I anticipate the legislature will be interested in the non-programmed, nonroutine policy activities of medical boards. Frequently, these are controversial and contentious issues with broad ramifications for citizens.

With the legislature more involved in medical board activities, the process is also more open to other actors. This expands Schattschneider's political scope of conflict. Through contact with legislators many other interests are able to make themselves heard on medical board matters. These groups are
interested in medical board issues; they may include hospitals, insurance companies, and other health professionals such as nurses and medical specialists. When legislators become more involved with medical boards, these other groups gain indirectly access to medical board issues as well.

On the other hand, Moe (1989) writes, "the more control legislators are able to exercise, the more groups will depend on them to get what they want..." (278). Under such circumstances, the regulated interests (e.g., medical professionals), can work with lawmakers to have an opportunity to influence the non-programmed policy choices of medical boards. A medical board's nonprogrammed activities present an opening for professional interests to exert their influence behind the scenes over policy issues that are salient to them. Such actions do not involve conflict, provide direct payoffs, and generate political benefits for organized medicine. As a consequence, it can be considered an example of client politics.

HO5: The more the legislature is involved with the SMB, the more policy scope and depth in medical board activities.

The concept of legislative involvement will be measured in two ways. I expect there will be a greater legislative role in the four policy areas and more influence by individual legislators. That is, as legislative role in the policy areas increases, policy scope and depth will increase; and as the influence of individual legislators increases, policy scope and depth will increase. These are mutually reinforcing relationships.

Moe (1985), Weingast and Moran (1983) and others have shown that regulatory activity does not occur in a vacuum. Legislators can be galvanized to action from changes in the political coalition or the private sector. With changes in political leadership, different political parties and legislators control committees. The consequence for policy decisions can be dramatic (Calvert, Moran and Weingast 1988). I predict that the greater the leadership changes in the legislature, the more a board will become active in non-programmed areas.

HO6: The greater the leadership change in the state legislature, the more policy scope and depth in medical board activities.

I expect leadership changes in either legislative chamber to give rise to more policy scope and depth in medical board activities.

Along with changes in political leadership, a change in the environment that a regulatory agency operates may affect how it considers its policy decisions (Hammond and Knott 1988, Noll and Owen 1983). This is another instance of Schattschneider's expanded scope of conflict. For state medical boards and other in the health care system, an important change has been the rapid development and spread of the managed care industry throughout the country. With the growing presence of managed care, questions of accountability, access, cost and quality of care have emerged. Medical boards are involved in these issues because they license, regulate and discipline physicians. The increased presence of managed care in a community may certainly affect medical board policy decisions. For example, with the finding by
the state supreme court of Arizona (mentioned in Chapter 3) that the medical director of the state Blue Cross Blue Shield was an employee who practiced medicine, state medical boards across the country must make policy decisions on how to proceed. I anticipate that external pressure from managed care will manifest itself in two different ways. First, there could be a direct effect of the events on the medical boards and their consequential policy decisions. Second, the external pressure may affect state legislators who in turn would encourage policy change to medical boards.

HO7: The greater the managed care penetration in the state, the more policy scope and depth in medical board activities.

I anticipate that the larger the percentage of a state's population enrolled in managed care systems, the more policy scope and depth in board activities.

The power of the executive to influence the actions of agencies has been widely examined (Bowling and Wright 1998, Brudney and Hebert 1987, Hebert, Brudney and Wright 1983, Miller 1987, Moe 1982, Wright and Cho 1998). Whether it occurs at the federal or state level, the chief executive affects the policy actions of its regulatory agent. A state executive is more likely to be involved in agency matters if the policy area is salient or the issue is high-profile. In such cases, I predict that gubernatorial involvement will positively affect a board's non-programmed decisions and behavior. In this model (and the one in the following chapter), governor's role is assumed to be endogenous.

HO8: The more the governor is involved with the SMB, the more policy scope and depth in medical board activities.

## The Dependent Variable

The model for this chapter uses the concept of non-programmed policy activism as the dependent variable. Policy activism is operationalized in two ways: as a medical board's policy scope and policy depth. Both dependent variables are constructed as additive indices. They are described in more detail below.

## Defining and Measuring Policy Activism

Legislative activity has long been recognized as important in Congress and state legislatures. It has been measured as counts of elements of activity such as bill introduction, floor amendments and speeches (Hibbing 1991, Sinclair 1989, Smith 1989). Recently, Hall (1996) has argued that analysis of legislative participation beyond analysis of votes is key to understanding "real-world processes" (6). Reeher (1995) has called for more attention to what he calls legislative activism in state legislatures that include both the usual legislative measures and estimates of time spent in committees, with lobbyists, agency representatives and members of the media.

This notion of activism is being applied to the state executive branch - in this case to medical boards. Most studies of federal and state regulatory bodies have focused on their adjudicative roles of writing regulation or their oversight responsibilities of assuring that policies are being carried out (Kerwin 1994, Teske 1991, Wood and Waterman 1991). But there is another important bureaucratic role
for federal and state bureaucracies - that of helping to formulate policies. (See for example, Derthick and Quick 1985, Rourke 1984). ${ }^{35}$ This role-that I call policy activism -- is the focus of this chapter and the dependent variable in these analyses.

Policy activism can be considered a non-programmed activity (Simon 1960). Non-programmed decisions and actions rely on large amounts of human judgement, insight and intuition (Simon 80). Because of the singularity of each policy issue, in substance as well as timing, a medical board may not have a specific set of procedures to deal with each new policy area that arises. Instead, boards must fall back upon its members' general capacity, relying on their ad hoc intelligent, adaptive, and problem-oriented actions. The development of a policy activism variable has been approached in a way similar to that of Hall (1996) whereby I array possible policy activities and develop an index to reflect a composite of those actions or activities.

Non-programmed policy activity is being measured in two different ways: policy depth and policy scope. Two different measures are being used to more fully understand the subtly of policy activism. Policy depth reflects the extent of a medical board's policy work while policy scope identifies the most policy active medical boards and examines their intensity in each policy area.

Policy depth is an additive index made up of a count of the number of policy activities boards engaged across the four policy areas. Like Hall (1996), the policy

[^23]activities are arrayed and an index reflects a composite of those activities. In each of the four policy areas, respondents were given eight possible policy activities (see Appendix B). The range of the index was from a low of 0 to a high of 21 . The mean was 4.6; the standard deviation is 4.64 (see Table 20). The large standard deviation is explained in Figure 1 (see page 65). There are four states that are highly policy active with an additive total of 15 or higher. At the opposite end are six state boards that have reported no policy activity in any of the four policy areas. A majority of the state boards (34) report very little policy activity - 1 through 4 policy activities from a total possible of 32. The disinterest in policy activity was mostly reported by osteopathic (DO) boards. According to the data from the mail survey, two-thirds of the DO boards report no activity in the four policy areas.

Policy scope is a measure developed to reflect those states that were active in each of the four policy areas. The variable was constructed to identify the most highly active state medical boards. Many states were very active in only one or two of the policy areas. This increases their policy depth but indicates they were not active in other emerging policy areas. The variable is dichotomous, scored 0 if the state medical board director reported having taken no action in at least one of the four policy areas. The mean was .16 ; the standard deviation is .37 (see Table 20). Only nine states were active in all four policy areas as seen in Figure 2.

The correlation between the two dependent variables is high --. 724 .
The two measures of non-programmed policy activism - policy scope and policy depth -- are additive indices. Each aggregates the data across the four policy
areas. However, I am also using each individual policy area as a separate dependent variable. These analyses are being conducted to provide some insight into each separate policy area and examine relationship among the variables.

## The Independent Variables

Non-programmed policy activism is explained by many factors. The independent variables include three political involvement variables, three institutional variables, and two variables for external pressure on state medical boards. The final variable -- whether a medical board is allopathic or osteopathic -- is a control variable.

There are three political involvement variables; two relate specifically to legislative activities. The legislative role in policy variable comes from the mail survey ${ }^{36}$. A second legislative activity variable, also from the mail survey, relates to individual legislators' influence. Both variables were used in the previous chapter. Descriptive information is listed in Table 20. The final political involvement variable looks at the role of the state governor in medical board activity ${ }^{37}$. Respondents, in the mail survey, were asked to assess the role of the governor in SMB activities. The scale is 1 to 5 ; the variable mean is 2.56 .

The three institutional variables, from Horn (1995), are budget autonomy,

[^24]37 The measure is from Part II of the survey. It is taken from question 2a, which assesses the influence of the current governor on medical board activities.

Table 20 - Non-programmed Policy Decisions \& Behavior Descriptive Statistics

|  | $N$ | Range | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: |
| Dependent Variable |  |  |  |  |
| Policy depth | 61 | .00-21 | 4.57 | 4.64 |
| Policy scope | 61 | 0-1 | . 16 | . 37 |
| Telemedicine | 61 | 0-7 | 1.95 | 1.76 |
| Alternative medicine | 61 | 0-5 | . 623 | 1.05 |
| Managed care | 61 | 0-7 | 1.15 | 1.59 |
| Public information | 61 | 0-6 | . 853 | 1.30 |
| Independent Variables |  |  |  |  |
| 1) Legislative role in 4 policy areas | 61 | 0-4 | . 64 | 1.03 |
| 2) Budget autonomy | 59 | 0-1 | . 58 | . 50 |
| 3) Employment conditions | 59 | 0-4 | 2.07 | 1.67 |
| 4) \% Public members | 61 | . $00-.46$ | . 22 | 10 |
| 5) State legislative leadership change in 1994 | 58 | 0-1 | . 26 | 44 |
| 6) HMO penetration | 59 | . $000-.470$ | . 21 | 13 |
| 7) DO board | 61 | 0-1 | . 20 | 40 |
| 8) Governor's influence | 55 | 1-5 | 2.56 | . 96 |
| 9) Individual legislators' influence | 55 | 1-5 | 2.69 | 1.14 |



Figure 2
\# of Policy Areas St. Bds. Active
Source: 1997 survey of state medical board directors
percentage of public board members, and employment conditions. The concepts are discussed in more detail in the previous chapter. Descriptive information for the three institutional variables appears in Table 20.

There are two variables for external pressures on state medical boards. Managed care growth considers the effect of HMOs on a state's health policy environment. The variable is from InterStudy; it represents the percentage of a state's population covered by $\mathrm{HMOs}^{38}$. The data reflect HMO enrollees in January $1997^{39}$. The variable range is from .000 to .470 ; the mean is .21 (see Table 20).

Leadership change in the state legislature is the second external variable. The variable reflects change in political leadership in state legislatures following the 1994 election. This election was chosen because there is a lag between the turnover and the legislative activity of the newly elected coalition. The data come from the National Conference of State Legislatures (1994) and the Council on State Governments (1996). The variable is dichotomous; states where at least one chamber of the legislature changed party control following the 1994 election are coded 1. The variable means is .26 .

The final variable is a control variable. It differentiates between allopathic and

[^25]osteopathic medical boards. It was discussed in more detail in the previous chapter. The descriptive information appears in Table 20.

## The Analyses

In this section I will present the ordinary least squares and logistic regression results of the models. I will use OLS on the policy depth variable and logit on the policy scope variable. There are two different models. One model is for both osteopathic and allopathic boards; I refer to it as the combined model. The other model is for allopathic boards only. The results for the combined and allopathic only models will be presented as a series of additive models. This method is being used to isolate and focus on agency autonomy. It should also be noted that I am reporting significance using one-tailed tests because I have directional hypotheses.

## Aggregated Models: Policy Activism

Ordinary least squares analysis was performed on the policy depth dependent variable. The adjusted $R$ square for the final OLS model is .545 (see Table 21).

Diagnostic tests revealed no problems with heteroskatisicity or multi- collinearity. ${ }^{40}$
A. Policy Depth. In the first iteration of the combined OLS model, I examine the effect of Horn's three institutional variables (see Table 21) on policy depth (the number of policy activities boards engaged across the four policy areas). The overall

[^26]|  | Horn's Institutional Variables | Horn \& Legislative Variables | Horn, Legislative \& Exogenous | Hom, Legislative, Exogenous \& Governor |
| :---: | :---: | :---: | :---: | :---: |
| Budget autonomy | 1.184 | . 305 | . 029 | -. 259 |
| Public members | 7.00 | -. 301 | . 090 | . 544 |
| Employment conditions | . 339 | . 349 | . 343 | .438+ |
| DO Board | -4.378** | -2.127* | -1.678 | -1.932+ |
| Individual Legislators |  | .788* | .723+ | 1.046* |
| Legislative role in 4 policies |  | $2.866^{* * *}$ | 3.031*** | $3.189^{* * *}$ |
| HMO penetration |  |  | -1.320 | -2.520 |
| Leadership change in '94 |  |  | -1.451 | -1.547+ |
| Governor |  |  |  | -.996* |
| Constant | 2.533 | . 345 | 1.021 | 2.862 |
| $\mathrm{N}=$ | 59 | 53 | 50 | 49 |
| Adjusted R Sq | . 088 | . 540 | . 523 | . 545 |
| Significant F | 2.400 | 11.177 | 7.710 | 7.400 |
| *** Significant at $\leq .001 ; * *$ Significant at $\leq .01$; * Significant at $\leq .05$; and + Significant at $\leq$ 10. |  |  |  |  |
| 41 Policy depth four policy areas | is an additive respondents | of possible po given a list of | activities/action possible activ | Within each /actions. |

fit of this model is poor; the Adjusted $R$ Square is .088 . The results indicate that none of the institutional variables is significant in determining policy depth of medical boards. Hypothesis \#4 is not supported. Moreover, none of the relationships are in the direction predicted. That is, more budget autonomy, more control over employment conditions and more public members on board appear to lead to increased policy depth by medical boards -- not less. These same patterns were seen at the correlation level. In this iteration, the control variable coefficient for osteopathic boards is significant and negative.

When the two legislative involvement variables are added to the OLS model, the model fit improves a great deal. The Adjusted $R$ Square increases to .54. Both of the legislative involvement variables are significant and positive. Legislators are involved in the four policy areas and this leads to more policy depth. The influence of individual legislators also leads to more policy depth. The relationships were initially seen at the correlation level and are maintained at the multi-variate level. Legislative role in the four policy areas is highly significant at the .001 level. That is, more legislative involvement in the four policy areas increases policy depth. The influence of individual legislators on board actions is also significant, albeit at a slightly lower level, . 05 (see Table 21). Thus it appears more legislative involvement leads to more policy depth by medical boards. Both relationships are in the hypothesized direction. Hypothesis \#5 is supported by the data. The control variable for osteopathic physicians continues to be significant in this model.

In the third iteration of the OLS model, I add the two exogenous variables.

Both legislative involvement variables continue to be significant. In this model, neither the change in chamber control following the 1994 election nor HMO penetration are significant. In this case, the multi-variate findings differ from the election change coefficient. Moreover, neither relationship is in the hypothesized direction. That is, leadership changes in the state legislature and more enroliment in managed care plans by a state's population lead to less policy depth by medical boards. The model fit decreased a bit in this iteration; the Adjusted $R$ Square is .523 . The findings do not support Hypotheses \# 6 and 7.

In the final version of the OLS model, the gubernatorial variable is added. It appears that the influence of the governor on medical board actions is significant to a board's policy depth. Yet, the relationship is not in the direction hypothesized and thus it is necessary to reject the null hypothesis of no effect in the hypothesized direction. In the full model, both legislative involvement variables continue to remain significant. The exogenous variable for a change in state legislative control is also significant but not in the hypothesized direction. In this model iteration, agency autonomy as measured by employment conditions is significant. However, the relationship is not in the direction expected. The Adjusted $\mathbf{R}$ Square for the full model is .545 . The control variable for osteopathic physicians is also significant.

Due to concerns about endogeneity in the construction of the policy depth variable, I also created a second dependent variable. It was constructed by adding the actions of medical boards from Part One (e.g. A1, B1, C1, and D1) of the mail survey. States that had taken no actions were not included in new variable. The
results of the analysis on the full model with the new dependent variable found similar patterns of significance as those reported in Table 21. In the new analysis, both legislative variables -- legislative role in the four policy areas and the influence of individual legislators -- continued to be significant at .001 and .10 respectively. Additionally, the 1994 election change (significant at the .10 level) was also important in determining policy depth. The adjusted $\mathbf{R}$ Square for this model is $\mathbf{3 7 4}$.

To allay concerns that the effect of others actors was not being overlooked, some additional analysis was conducted. Three additional variables were added to the full model: the role of public interest groups, the influence of legislative leadership and the strength of the medical society on a board's actions. It should be noted that this model is not parsimonious with $\mathrm{N}=49$ and 12 independent variables. Similar to earlier findings, both legislative coefficients are highly significant at the . 001 level while the influence of the governor is significant at the .05 level. Of the three new variables added to the model, only the legislative leadership coefficient was significant at the .05 level. The adjusted $R$ Square is .535 for the model.

These models have demonstrated the important role of legislators in medical board policy. Legislative involvement is consistently significant in all the model iterations. Overall, the agency autonomy variables performed poorly. None appear to affect a medical board's policy depth. The role of the governor is significant but the relationship is not in the expected direction. The results for the exogenous factors were disappointing. The control variable for osteopathic boards was significant across the models.
B. Policy Scope. Logit analysis is used for the policy scope dependent variable. Policy scope measures only those medical boards that were involved in policy action in all four policy areas surveyed. This model is also presented as a series of four additive models. The first iteration of the model examines Horn's (1995) theories of agency autonomy. The Pseudo R Square for this iteration of the model is .062 (see Table 22). In this model the public members variable is significant at the .05 level (see Table 22). However, the relationship is not in the direction hypothesized. The odds of being a highly active board increases by a factor of slightly less than 2 with each additional $10 \%$ of public member representation ${ }^{42}$. The other two variables do not help predict the odds of being a highly active board. These findings do not support Hypothesis \#4. The control variable is not significant in this model iteration.

In the second iteration of the logit model, the legislative involvement variables are added. Both of these variables are significant and the relationships are in the directions predicted (see Table 22). The pattern seen initially at the correlation level holds at the multi-variate level. Legislative role across the four policy areas is very highly significant at the .001 level while the influence of individual legislators in board activities is significant at the .01 level. For every additional policy area where the legislature is involved, the odds of the board being active increases by a factor of almost $4 .{ }^{43}$ A one standard deviation increase in the influence of individual legislators in board activities will increase the odds of a board being highly active by a factor of

```
42 e 
43 e 1*1.38}=\mp@subsup{e}{}{1.38}=3.974\cong4
```

|  | Horn's Institutional Variables | Horn 8 <br> Legislative Variables | Horn, Legislative 8 Exogenous | Horn, Legislative, Exogenous \& Governor |
| :---: | :---: | :---: | :---: | :---: |
| Budget autonomy | -. 111 | -1.290 | -1.243 | -1.873+ |
| Public members | 6.887* | 4.30 | 4.538 | 2.980 |
| Employment conditions | . 087 | . 397 | . 298 | . 550 |
| DO Board | -1.434 | -. 075 | . 076 | -. 496 |
| Individual Legislators |  | .851* | .788* | 1.58*** |
| Legislative role in 4 policies |  | $1.376^{* *}$ | $1.449^{* * *}$ | $2.104^{* * *}$ |
| HMO penetration |  |  | -1.818 | -2.590 |
| Leadership change in '94 |  |  | -. 565 | -. 766 |
| Governor |  |  |  | -1.460** |
| Constant | -3.140 | -6.575 | -5.756 | -4.163 |
| $N=$ | 59 | 53 | 50 | 49 |
| Pseudo R Sq | . 062 | . 280 | . 285 | . 332 |
| Chi Square | 3.93 | 20.66** | 19.91** | 24.37** |
| *** Significant at $\leq .001$; ** Significant at $\leq .01$; * Significant at $\leq .05 ; \&+$ Significant at $\leq .10$. <br> * Policy scope is dichotomous, coded one if the medical board reports at least one activity in each of the four policy areas. |  |  |  |  |
|  |  |  |  |  |

almost $3 .{ }^{37}$ Hypothesis \#5 is supported in this model. In this iteration of the model, the three autonomy variables are not significant nor is the control variable significant in predicting highly active state medical boards. The Pseudo R Square is .280.

The two exogenous factors are added in the third iteration of the combined allopathic and osteopathic logit model. Both legislative involvement variables remain significant in this model iteration (see Table 22). For each additional policy area where the legislature is involved, the odds of the board being active increases by a factor of a little more than $4 .{ }^{38}$ A one standard deviation increase in the influence of individual legislators in board activities increases the odds a board being highly active by a factor of almost $3 .{ }^{39}$ Neither exogenous variable is significant nor are the relationships in the directions expected. Thus the results do not support Hypotheses \#6 and 7. The control variable is not significant in this model. The Pseudo R Square increases slightly to . 258 .

In the full logit model, the variable for gubernatorial involvement is added to the analysis. The legislative involvement variables continue to be significant in determining the odds of being a highly active medical board (see Table 22). Also, , the relationships are in the directions predicted. While the gubernatorial involvement measure is also significant in predicting highly active medical boards, the relationship is not in the direction hypothesized. The model iteration does not support Hypothesis

[^27]\#8. The budget autonomy variable is significant and the relationship is in the expected direction. With a more autonomous budget a medical board's odds of being highly active decreases 85 percent when compared to a board with less budget autonomy. ${ }^{40}$ The other two autonomy variables are not significant. In this final model, the two exogenous factors are also not significant nor is the control variable. The Pseudo R Square for the full model is .332 .

The findings for the policy scope combined logit models are remarkably similar to those for the policy depth combined OLS models. None of the models is a particularly good fit. The legislative involvement variables are consistently significant across the additive models. Clearly, legislators are important when predicting a medical board's policy actions in both depth and scope. The agency autonomy measures were disappointing. Only two variables were significant; the public members coefficient was significant in the initial model and the budget autonomy coefficient was significant in the full model. The role of the governor was significant but the relationship was not in the hypothesized direction. The coefficients for the exogenous factors were not significant nor were the relationships in the predicted direction. The coefficient for the osteopathic board was not significant in any of the model iterations that is in direct contrast to the findings for the policy depth models. However, the coefficients were negative in both sets of analyses.

The findings for the policy scope combined logit models are remarkably similar to those for the policy depth combined OLS models. None of the models is a

```
471- e}\mp@subsup{}{}{\textrm{bx}}=1-\mp@subsup{e}{}{-1.8727}=1-.153=.847\cong.8
```

particularly good fit. The legislative involvement variables are consistently significant across the additive models. Clearly, legislators are important when predicting a medical board's policy actions in both depth and scope. The agency autonomy measures were disappointing. Only two variables were significant; the public members coefficient was significant in the initial model and the budget autonomy coefficient was significant in the full model. The role of the governor was significant but the relationship was not in the hypothesized direction. The coefficients for the exogenous factors were not significant nor were the relationships in the predicted direction. The coefficient for the osteopathic board was not significant in any of the model iterations that is in direct contrast to the findings for the policy depth models. However, the coefficients were negative in both sets of analyses.

## Medical Boards Only

These models analyze only allopathic medical boards. There are 38 cases analyzed in the final two models. Like the above combined model, I am presenting these analyses as a series of four additive models (see Tables 23 and 24). However, for brevity's sake, I will be discussing the findings in terms of their similarities and/or differences relative to the findings from the combined models. The adjusted $\mathbf{R}$ square for the final OLS model is .502 ; the pseudo $\mathbf{R}$ square for the final logit model is .351 . Diagnostic tests revealed no problems with heteroskatisicity or multi-collinearity for either model ${ }^{48}$.

[^28]|  | Horn's Institutional Variables | Horn \& Legislative Variables | Horn, Legislative \& Exogenous | Horn, <br> Legislative, Exogenous \& Governor |
| :---: | :---: | :---: | :---: | :---: |
| Budget autonomy | 1.226 | . 776 | . 479 | -. 073 |
| Public members | 10.524+ | -1.007 | . 338 | . 654 |
| Employment conditions | 415 | . 320 | . 304 | . 395 |
| Individual Legislators |  | 1.096* | 1.028* | 1.479** |
| Legislative role in 4 policies |  | $2.921^{* * *}$ | 3.095*** |  |
| HMO penetration |  |  | -2.387 | -3.340 |
| Leadership change in '94 |  |  | -1.409 | -1.766 |
| Governor |  |  |  | -1.273* |
| Constant | 1.631 | -. 625 | . 088 | 2.435 |
| $N=$ | 48 | 42 | 39 | 38 |
| Adjusted R Sq | . 041 | . 509 | . 466 | . 502 |
| Significant $F$ | 1.664 | 9.514 | 5.731 | 5.662 |
| ${ }^{* * *}$ Significant at $\leq .001 ; * *$ Significant at $\leq .01 ;$ * Significant at $\leq .05 ; \&+$ Significant at $\leq .10$. <br> * Policy depth is an additive index of possible policy activities or actions. Within each of the four policy areas, respondents were given a list of eight possible activities or actions. |  |  |  |  |
|  |  |  |  |  |


|  | Horn's Institutional Variables | Horn \& Legislative Variables | Horn, Legislative \& Exogenous | Hom, Legislative, Exogenous \& Governor |
| :---: | :---: | :---: | :---: | :---: |
| Budget autonomy | -. 823 | -2.211* | -1.870+ | -1.885+ |
| Public members | 11.629** | 10.631* | 14.789** | 10.144+ |
| Employment conditions | . 271 | .608+ | . 364 | . 481 |
| Individual Legislators |  | .746+ | . 474 | 890+ |
| Legislative role in 4 policies |  | $1.212^{* * *}$ | 1.395** | $1.699^{* * *}$ |
| HMO penetration |  |  | -2.65 | -2.223 |
| Leadership change in '94 |  |  | -2.379+ | -2.457+ |
| Governor |  |  |  | -1.048+ |
| Constant | -4.326 | -7.599 | -6.568 | -4.321 |
| $N=$ | 48 | 42 | 39 | 38 |
| Pseudo R Sq | . 132 | . 305 | . 329 | . 351 |
| Chi Square | 7.33+ | 18.46** | 19.16** | 20.57** |
| *** Significant at $\leq .001$; ** Significant at $\leq .01$; * Significant at $\leq .05$; and + Significant at $\leq$$\text { . } 10$ |  |  |  |  |
| 49 Policy sco activity in each | is dichotomous the four policy | d one if the | cal board rep | at least one |

A. Policy Depth. The analyses for the dependent variable policy depth uses OLS regression (see Table 23). The findings for the four MD Only additive models are quite similar to those for the combined MD and DO models. The legislative involvement measures are consistently significant across the four models. The relationships are also in the direction predicted. It appears that the role of the legislature is very important in predicting a medical board's policy depth. The coefficient for gubernatorial influence was also significant although the relationship was not in the hypothesized direction.
B. Policy Scope. The results for the MD Only policy scope models are quite different from the findings for the combined models. In these models the agency autonomy coefficients are almost all significant. That is, each autonomy variable is significant in at least one of the model iterations (see Table 24).

The legislative involvement measures are, for the most part, still significant. However, while the legislative role across the four policy areas coefficient is as significant in the MD Only model as in the combined model, the results for the influence of individual legislators is mixed. In the combined model, the influence of individual legislators was significant in all three additive models. In the MD Only model, the individual legislator coefficient is significant in 2 of the 3 models and at lower levels of significance. Moreover, both relationships are in the expected direction.

Another difference between the combined and MD Only models is seen when examining the coefficients for the exogenous factors. In the combined models, neither
coefficient was significant in any of the models. In the MD Only models, the coefficient for leadership change is significant in both model iterations. However, the coefficients for both exogenous variables are still not in the hypothesized direction.

Gubernatorial influence is significant in both the combined and MD Only models. While the variable is important in predicting highly active medical boards, the relationship is not in the direction predicted in either model. It appears that as a medical board's policy scope increases the influence of the governor decreases.

## Disaggregated Data: The Four Individual Policy Areas

I also analyzed each of the four policy areas -- telemedicine, alternative medicine, managed care and public information -- as a dependent variable. At the correlation level, the four policy areas are positively and significantly correlated with one another - ranging from . 43 to .61 (see Table 25). Also each policy area is highly and positively correlated to the two policy activism measures - policy scope and policy depth - ranging from .49 to .87. Tables 26 and 27 show the OLS combined and MD only results for each of the four policy areas.
A. Telemedicine. The adjusted $R$ square for the model predicting policy depth is .427 . Both legislative involvement measures are significant and in the hypothesized direction (see Table 26). The two exogenous variables are significant although neither relationship is in the predicted direction. Both are negative not positive. Gubernatorial influence is also significant but not in the predicted direction. One of the autonomy variables - employment conditions - is significant but it is not in the
Table 25 - Correlations: Medical Board Behavior and Four Policy Areas

|  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Budg | 470** | . 032 | . 150 | -. 073 | -360** | 025 | -. 029 | . 058 | . 022 | 166 | .177+ | . 119 | 122 | 109 |
| 2. Empl |  | . 073 | . 053 | -. 166 | - 090 | 022 | 032 | . 164 | . 036 | 131 | 123 | -. 024 | 195+ | 083 |
| 3. Pb Mem |  |  | . 160 | 041 | 115 | 185+ | . 097 | 296* | 194+ | 062 | -. 063 | -. 001 | 114 | 167+ |
| 4. Leg Role |  |  |  | 194+ | $318^{*}$ | 035 | 264* | -.188+ | 588** | 725** | 587** | 686** | 601** | .505** |
| 5. Ind Leg |  |  |  |  | 158 | - 162 | . $363^{* *}$ | -. 090 | 297** | 284* | 220* | 211+ | 170 | 338** |
| 6. HMO |  |  |  |  |  | 169 | -. 019 | -. 009 | 170+ | 190+ | 012 | . 075 | 329** | 199+ |
| 7. '94 Elt |  |  |  |  |  |  | -. 115 | 184+ | -. 061 | -. 126 | $-245^{*}$ | -. 086 | -. 070 | . 032 |
| 8. Gov |  |  |  |  |  |  |  | -.175+ | . 068 | . 133 | . 147 | . 136 | 175+ | -. 043 |
| 9. DO Bd |  |  |  |  |  |  |  |  | -. 108 | -.304** | -.389** | -.177+ | -177+ | -.199+ |
| 10. Scpe |  |  |  |  |  |  |  |  |  | . $724^{* *}$ | 598** | 585** | 492** | .702** |
| 11. Dpth |  |  |  |  |  |  |  |  |  |  | .873** | 749** | 826** | .775** |
| 12. Timed |  |  |  |  |  |  |  |  |  |  |  | 613** | 606** | .529** |
| 13. Alt Med |  |  |  |  |  |  |  |  |  |  |  |  | .453** | .428** |
| 14. Mgd Cr |  |  |  |  |  |  |  |  |  |  |  |  |  | .542** |
| 15. Pb Inf |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[^29]expected direction. Finally, the control variable for osteopaths is significant. In the MD Only model, the legislative involvement coefficients and the HMO penetration coefficient are significant (see Table 27).
B. Alternative Medicine. The model fit for alternative medicine is 499 - the best across the four policy areas (see Table 26). Analysis of the full model reveals similar patterns for alternative medicine as were seen above with telemedicine. Both coefficients for legislative involvement are significant and in the relationships are in hypothesized direction. The two exogenous variables are also significant although neither relationship is in the predicted direction. In this analysis, none of the three institutional coefficients are significant although all the relationships are in the expected direction. In the MD Only model, both the legislative involvement and the exogenous variables are significant (see Table 27).
C. Managed Care. The model predicting managed care is a poor fit, .297, the lowest across the four policy areas (see Table 26). In the OLS model, coefficients for legislative role in the four policy areas and HMO penetration are significant and the relationships are in the expected direction. In the MD Only model, legislative role across the four policy areas is significant (see Table 27).
D. Public Information. In this model both legislative involvement coefficients are significant and in the hypothesized direction; the adjusted $R$ square is .35 (see Table 26). The gubernatorial variable is also highly significant although not in the direction predicted. The only institutional variable that is significant is the public member coefficient. The osteopath control variable is also significant. In the MD Only model, the legislative involvement coefficients and the gubernatorial measure are

Table 26 - Predicting Board Policy Actions \& Behaviors: Four Policy Areas Full Models OLS Results - MDs \& DOs

|  | Telemedicine | Alternative Medicine | Managed Care | Public Information |
| :---: | :---: | :---: | :---: | :---: |
| Budget autonomy | -. 020 | -. 214 | -. 032 | . 007 |
| Public members | -1.376 | -1.222 | . 720 | 2.421+ |
| Employment conditions | 195+ | -. 001 | . 128 | . 116 |
| DO Board | -1.112* | . 271 | -. 358 | -.733+ |
| Individual Legislators | .358* | .166+ | . 024 | .498** |
| Legislative role in 4 policies | 969*** | 865*** | .785*** | .571** |
| HMO penetration | -2.732+ | -1.905* | $2.728+$ | -. 611 |
| Leadership change in '94 | -.746+ | -.409+ | -. 570 | . 179 |
| Governor | -.329+ | -. 133 | -. 38 | -.495** |
| Constant | 2.236 | . 773 | -. 036 | -. 110 |
| $N=$ | 49 | 49 | 49 | 49 |
| Adjusted R Sq | 427 | . 499 | . 297 | . 346 |
| Significant F | 4.971*** | $6.323^{* * *}$ | 3.258** | 3.817** |

Table 27 - Predicting Board Policy Actions \& Behaviors: Four Policy Areas Full Models OLS Results - MDs Only

|  | Telemedicine | Alternative Medicine | Managed Care | Public Information |
| :---: | :---: | :---: | :---: | :---: |
| Budget autonomy | . 168 | -. 169 | -. 135 | . 062 |
| Public members | -1.881 | -. 924 | 1.319 | 2.140 |
| Employment conditions | . 175 | -. 051 | . 118 | . 154 |
| Individual Legislators | .489* | .209+ | . 129 | .653*** |
| Legislative role in 4 policies | $1.026^{* * *}$ | 945*** | .765** | .611** |
| HMO penetration | -2.991+ | -2.443* | 2.701 | -. 607 |
| Leadership change in '94 | -. 772 | -.727* | -. 436 | . 169 |
| Governor | -. 350 | -.227+ | -. 114 | $-.582^{* *}$ |
| Constant | 1.970 | 1.031 | -. 167 | -. 399 |
| $\mathrm{N}=$ | 38 | 38 | 38 | 38 |
| Adjusted R Sq | . 287 | . 535 | . 246 | . 341 |
| Significant F | 2.861** | $6.315^{* * *}$ | 2.505* | 3.390** |

significant (see Table 27).
The analyses of the four policy areas as separate dependent variables has demonstrated that the level of medical board activity in each area varies. None of the models fit especially well. Overall, the role of legislative involvement is important in determining medical board activity. Of the two exogenous variables, HMO presence is a better predictor of medical board activity but in different directions on one policy issue; leadership change was important for telemedicine and alternative medicine only. The findings for the autonomy coefficients were disappointing; they do not appear to influence board actions and behavior across the four policy areas. Only employment conditions for telemedicine and public members for public information were significant. The results for the influence of the governor and the osteopath control variable were also mixed. Interestingly, the policy area with the most significant results is telemedicine. This is also the policy area where state medical boards have taken the most actions as was discussed in Chapter 4.

Across the four policy areas, the major findings of both the combined and allopathic models are similar. Generally, the model fit is poor. The legislative involvement variables are very important in determining medical board policy activity. Results for the exogenous and gubernatorial variables are mixed. The results for the autonomy coefficients are disappointing; few are significant in determining medical board policy activity.

## Results

These models have examined what factors affect a medical board's policy depth and policy scope. The findings for both policy depth and policy scope as well as the four separate policy areas are quite similar. The analyses found that legislative involvement is very important in identifying highly active medical boards. Both the legislative role across the four policy areas coefficient and the influence of individual legislators in board activities coefficient were significant in the combined and allopathic only OLS and logit models as well as the four separate policy areas. These results confirm the relevance of an active state legislature (or individual legislators) in encouraging state medical boards to become more policy active. The results indicate that when the legislature is involved in medical board policy activities, medical boards are more likely to be active in a wider variety of policy areas and take more actions within each policy area.

The findings for the three institutional variables taken from Horn's (1995) theory were somewhat mixed. Results differed between the two dependent variables and among the four separate policy areas. In the combined OLS model and the telemedicine model, employment conditions was significant in one of the four model iterations -- the full model. However, the employment conditions measure was not significant in the allopathic only model. Importantly, in both the combined and allopathic only OLS models ${ }^{51}$ and three of the four separate policy models, the

51 There are small differences between the allopathic only and the combined models. These are due to conditional effects that depend on the type of board - allopathic only or combined osteopathic and allopathic.
relationship was not in the expected direction. Instead, it appears that more autonomy over employment conditions leads medical boards to take more actions within each policy area that they are involved. It is possible that with more autonomy, boards believe they have more authority to engage policy issues.

Neither budget autonomy nor public member representation affect the policy depth of a medical board's policy activities. The public members coefficient was important in the public information model. Given the nature of the coefficient and the policy area it is not surprising that as public members increase so does a medical board's public information policy activity.

For the logit models, budget autonomy was significant and in the direction hypothesized for both the combined and allopathic only models. In the allopathic only model, the public members coefficient was significant across all four model iterations but the relationship was not in the direction predicted. Employment conditions, in the logit model, was not significant in determining a medical board's policy scope. Overall, the results for the three institutional measures were mixed; the predictive value for these measures was weak.

The role of the governor seems to affect a medical board's policy activities and behaviors. In both the combined and the allopathic only OLS and logit models, gubernatorial involvement was significant in determining a medical board's policy depth and policy scope. However, in both the OLS and logit models, the relationships were not in the direction hypothesized. A similar pattern is seen in the four separate policy areas. Gubernatorial influence was significant in two of the combined models and two of the allopathic only models. However, the relationships were not in the
predicted direction. It may be that an active governor dampens a board's activism or an inactive governor increases a board's activism. Given a governor's political power and profile in the state, the latter explanation make the most sense here. One explanation may be the nature of medical boards as regulatory agencies. Unlike more high profile regulatory agencies such as banking and insurance, professional regulatory organizations are much lower in profile. Their policy issues tend to be less salient relative to other state policy matters. Moreover, a medical board's policy issues tend to be of a more technical nature (e.g. telemedicine, alternative medicine, managed care etc.) that makes them less accessible to the general public and thus less open to public scrutiny. Under such circumstances, it may not be surprising that the governor takes a less active role in most medical board policy matters.

The findings regarding the two exogenous factors were also unclear. While the change in control of a state legislative chamber following the 1994 election was significant in the combined OLS model, it was not significant in the allopathic only OLS model. In the four separate policy areas results were also mixed. Additionally, in both the combined and allopathic only models and three of the four separate policy areas, the relationships were not in the predicted direction. The measure for HMO penetration was not significant in any of the OLS policy activism models. It was significant in the majority of the separate policy areas. But when the data is aggregated, the relationships did not hold. Thus it appears that managed care penetration does not affect a medical board's policy depth. Results are a bit different for the logit models. In the combined logit model, neither HMO penetration nor changes in control of the state legislature following the 1994 election were significant.

In the allopathic only logit model, the results of the 1994 election were significant but the relationship was not in the direction predicted. Thus it is unclear the effect of exogenous factors on a medical board's policy scope.

The results for the control variable for osteopathic physicians differed between the two dependent variables and among the four separate policy area models. In the combined OLS model, the control variable for osteopathic physician was slightly significant. The presence of osteopathic physicians on a medical board appears to affect a board's policy depth. However, in the combined logit model, the control variable was not significant. In this case, it appears that the presence of osteopathic physicians on a medical board does not affect a board's policy scope. Among the four separate policy areas, osteopathic boards were significant in the telemedicine and public information policy areas. The control variable coefficient was negative in the majority of the four policy area models. This indicates that osteopathic medical boards are less likely to be active in non-programmed policy activities.

## A Closer Look at the States: Legislative Involvement

A major finding of the empirical analyses has been the important role legislators play in medical board activities. In this section, I will examine the two different aspects of legislative involvement. The question is: how does legislative involvement affect medical board policy activism? The question flows from the preceding empirical work ${ }^{52}$. Legislative involvement may manifest itself through four separate avenues: at

[^30]the individual legislator level, through legislative committees, legislative oversight and the budgetary process.

The four states where case study visits were conducted - Colorado, Maryland, Michigan and Oregon -- have widely varied legislative structures. Michigan is the only state viewed as a highly professional legislature with full-time and well-paid legislators and adequate staff. Michigan's professionalization measure is 65 percent that of Congress, Colorado is 30 percent, Maryland 20, and Oregon 18 (Squire $1992{ }^{53}$ ). While Michigan has a full-time legislature with two year sessions, Colorado meets annually for 120 days, Maryland meets annually for only 90 days and Oregon has a biennial session that runs an average of six months. Michigan, Colorado and Oregon have adopted term limits for their state lawmakers.

The four states also differ greatly in their political cultures. "The Michigan legislature is a conservative body," according to one respondent. "It is a battle ground to resolve the state's two big schisms. One is geographic - between east and west and the other is racial -- between Blacks and Arabs in the Detroit area and the Dutch and Germans in the rest of the state." The Maryland legislature was also characterized by one observer as very conservative. It is "more inclined to underregulate and under-license not to over-regulate. That makes it more difficult to promulgate regulations yearly, " he said. Colorado has a conservative legislature; it has been controlled by Republicans for 23 years. Interestingly, for 21 of those years

[^31]the governor has been a Democrat. Oregon is a more liberal state and is known for its progressive policies including its Oregon Health Plan that provides access to affordable health insurance for all state residents. A main component of the program revised the state's Medicaid program with the intent of providing medical care to more uninsured Oregonians.

## Individual Legislators

One factor that emerged consistently across the four study states was the importance of individual legislators. Given their backgrounds, previous work experience and the districts they represent, each legislator brings discrete interests and areas of specialization to his or her job. These unique elements play a large part in determining the agendas of each legislator.

Survey data found that at the individual level, legislators are very influential in medical board activities (see Table 28). One of the case study states reported individual legislators' level of influence as a 4 (based on a 1 to 5 scale with 1 being no influence and 5 being great influence), two states responded 3 and one state answered their individual legislators influence was 2 . The mean response across all 55 survey participants was 2.69. Clearly individual legislators wield power in medical board activities.

Evidence from the four case study states supports the role of powerful legislators and the legislative leadership. A health official in Maryland referred to the group of "nurse-legislators" in the General Assembly. "They speak for many health matters as they come up and bring issues to the legislature as well." Another Maryland respondent said the bills taken up by a particular committee were largely
determined by its vice chair who had previously worked as a health professional.
Frequently, it is legislators' individual interests, not their committee assignments, that drive their bill sponsorship. In Colorado, the legislator who was a major force behind an alternative medicine bill was assigned to the Veterans Affairs and Education Committees. In Michigan, a member of the House Judiciary Committee served as chair of an ad hoc committee to reform health occupation legislation.

Legislators can control committee agendas as well as the process a bill goes through as it moves toward enactment. In Maryland, one controversial health bill came up very late in the session. This would usually mean it has little chance for approval. However, this bill got through the entire legislative process in less than two weeks. A state official remembers it did not go to the Health Subcommittee. Instead, it was adopted by the full committee and it went directly to the full Senate. An observer recalls, "it failed on its first vote but was quickly reconsidered and passed. The Chair of Finance and his supporters rounded up the necessary votes."

Powerful legislators, especially those in leadership positions, can play important roles. Survey respondents reported that the influence of legislative leadership is an important element in medical board policy activities (see Table 28). One of the case study states reported the level of influence of the legislature's leadership as a 5 (based on a 1 to 5 scale with 1 being no influence and 5 being great influence), two states responded 4 and one state answered 3. The mean response across all 53 survey participants was 2.89 . Based on these results, it is clear that a legislature's leadership wields a great deal of power in medical board activities.

Anecdotal evidence from the case studies supports the important role of

Table 28 - Case Study Overview: Non - Programmed Decisions and Behavior

|  | CO | MD | MI | OR | 50-State <br> Mean |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Level of State <br> Professionalism | .30 | .20 | .65 | .18 | .21 |

Source: Squire 1992.

|  | 1 = No <br> Influence | 2 | 3 | 4 | 5 = Great <br> Influence | 50-State <br> Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Influence of <br> Individual <br> Legislators |  | 1 | 2 | 1 |  | 2.69 |
| Influence of <br> Legislature's <br> Leadership |  |  | 1 | 2 | 1 | 2.89 |

${ }^{1}$ Source: Mail survey. Since respondents were assured anonymity in the survey, the states are not identified in this table.
individual legislators. In Oregon, a powerful Senator felt the state's leading medical university was not "doing enough." He arranged for the curriculum dean and other university officials to meet with a special taskforce that was discussing pain management. A respondent noted, "He wanted those university ethicists involved." In Maryland, the President of the Senate became personally involved when a physician profile bill died. One observer remembered how the senator took hold of the issue. "The new bill actually came from a lobbyist, but he was close to the senator. The senator also pulled in the Secretary of the Health and Mental Hygiene Department. He knew the Secretary was a physician, had credibility and would be sensitive to the issue."

## Committee Role

Another way legislators affect medical board policy is through committee action. Unlike the U.S. Congress with a strong committee system, most state legislatures have less powerful committees. As a consequence, the state legislative committees with jurisdiction over medical board matters are less important and have less say in determining medical board policy. In three of the four study states, the committees of jurisdiction were not major players in health occupations legislation. For example, in the Oregon legislature the Joint Health and Human Resources Committee handles most medical board matters. The co-chair of the committee was asked to introduce a series of bills related to medical board reform. The chair agreed to introduce the bill package with the understanding he opposed the package. As a consequence, at the outset it was known neither the chair not other committee members would sponsor the bills. It was their role to open up the reform package for
public discussion. Indeed, when it came time to take action on the bill, the package was placed in the Business Subcommittee of the Trade and Economic Development Committee that does not usually handle medical board or regulatory issues.

Michigan, a highly professional legislature, was the only state where the committee charged with jurisdiction over medical board matters was deeply involved in these issues. Over a fifteen-year period, the House Health Committee grappled with reforms for health professions licensure and sanctions. One committee member worked on the bill for more than ten years. A respondent commented, "there were big differences between the original report and the final legislation. The bill passed the House in three different sessions and the Senate twice before it became law." Another observer recalled, "It took years to get done. It kept being paired with medical malpractice and would get lost in the process. It started early in the first term of one governor's term and ended in the second term of another governor's term. With changes in the administration there was a change in philosophies toward the legislation too, so it took many forms before it was finally passed."

Across the four study states, there was a great deal of variation in the standing or reference committees that oversee medical boards. The committees that handle medical board matters include health, regulation, human resources, environment, economic, and judiciary committees. In Maryland, the Senate Subcommittee on Health of the Committee on Economic and Environmental Affairs deals with medical board issues except those with ramifications in judiciary or taxation such as abortion. In Michigan, the House and Senate Health Committees have jurisdiction over medical board matters. However, controversial issues such as abortion or assisted-suicide
are handled in judiciary committees.

## Legislative Oversight

Legislative oversight is another tool that legislators use to keep abreast of issues within the state bureaucracy. Through oversight lawmakers have an opportunity to influence and direct state medical board activities. Committees may hold hearings, request audits or conduct sunset reviews. Interestingly, three of the four study states are statutorily subject to sunset reviews - only Michigan is exempt.

All four medical boards reported that very little legislative oversight was actually practiced. One state official said, "they never do it; they are too busy." Another concurred stating "oversight does not happen here." A long time state observer noted, "There is no oversight really. The legislators are so overburdened there is no chance for oversight." Colorado's oversight was characterized, by one state official, as "sporadic, kind of hit and miss." In Colorado, the medical board is required to report annually to the legislature. However, the requirement was eliminated when the lawmakers "decided they wanted to read fewer reports." Michigan is also statutorily required to present an annual report to the legislature. But an administrator admitted, "We do not get calls on our reports. There is no oversight." In both Maryland and Oregon there has been "a pull back of legislative oversight." An Oregon respondent suggested it was related to the recent elimination of sunset review. A Maryland observer believes, "The legislature is not over our shoulder any more but they have taken on the role of watching and they are not going away." A Michigan participant commented, "If oversight is practiced, at all, it occurs through the budget hearings."

## The Budget Process

The budget process was cited as a primary venue where legislative oversight is practiced. Budget hearings were especially troublesome for the four medical boards that are often called on the carpet and made to respond to a variety of unexpected questions. During budget hearings, state medical board officials go to the capitol expecting to explain the rationale for an increase in a program or funding for a new project. Instead, legislators may have other matters they want to discuss. One outside observer recalled,

I cannot tell you how often they (medical board officials) have been completely ambushed at those hearings. The legislators will ask (about) anything from disciplinary actions, licensure activity data, educational outreach efforts, to why a son of a friend did not pass an exam. It is really crazy. There is no possible way medical board staff can prepare for those hearings. They do not even know what materials they should bring!

Another participant referred to budget hearings as a Pandora's box saying "they (legislators) can ask you any kind of question while you are down there." Others complained that the medical board's time before the committee is often taken up by issues legislators heard about from constituents and people who have an axe to grind or have been disciplined by the board.

The budget approval process is another tool legislators use to control state agencies. The four medical boards studied are all cash funded. They raise their own funds through their fee schedules. However, the legislatures in each state determine how the medical boards use their money. One common complaint from all those who work for and with state medical boards is about the legislature's power over their budgets. As one respondent noted, "It is our money. We raise it. We develop a
budget based on those figures. Then they tell us how to spend it." An official from another state mused, "We are a self-supporting board. We do not use general fund monies. We can use all our money although the legislature can move it into different categories. But they cannot take away our money. They just tell us how to spend it." In Oregon, according to one observer, "the legislature kicks around the medical board. (Legislators) threatened to withhold their budget. In 1995, the (medical board budget) was held up till the end of session. It was taken up on the last day of session. It was the last bill considered."

The case studies support and elaborate upon the empirical findings about the important role legislators play in medical board policy. Clearly, state legislatures cast large shadows over medical boards. Based on the case study findings, it is not surprising that legislative involvement persuades medical boards to engage in more policy activity. Indeed, under such circumstances medical boards concern themselves with a wider variety of policy areas and take more actions within each policy area.

## Conclusion

This chapter has examined the non-programmed behavior of state medical boards. Specifically, I have considered the effect of different variables on the policy activism of state medical boards. The three factors I have examined include institutional autonomy, political involvement and exogenous changes.

Empirical results are somewhat mixed. They do however point to the crucial role legislatures play in influencing medical board activity. Both legislative involvement by individual lawmakers as well as the role of the legislators across the
four policy areas were important to policy activism. These findings were further supported by case study data. Legislators demonstrate their policy activity through oversight, their committee roles, and the budget process. Lawmakers have the ability to insert themselves into medical board policy at will.

Findings for the three institutional measures are varied. Budget autonomy was the most promising. In all full models, across the two dependent variable measures, the coefficient was in the expected direction. It was significant in both the policy scope combined and allopathic only full models. Public member representation was important in determining activism in all four policy scope allopathic only model iterations. Additionally, the measure was significant in the first iteration of the combined policy scope model and the MD Only model for policy depth. Results for the employment conditions measure were the weakest of the three institutional variables. It was significant in the full combined policy depth model and the second iteration of the allopathic only policy scope model. Overall, the institutional findings were mixed and the predictive value of the measures were weak.

The influence of the governor was significant on a medical board's policy activities. Across all models, in the combined and allopathic only models and the policy scope and policy depth models, the coefficient was significant. Interestingly, the coefficient was consistently negative across all the models. This is contrary to the relationship predicted. It appears that gubernatorial influence stifles a medical board's policy activity.

Conclusions about the exogenous factors are mixed. HMO penetration was not significant in any iteration in either of the two dependent variable models. The results
for the leadership change coefficients were more varied. The coefficient was significant in both iterations of the MD Only policy models and in the full model iteration for combined policy depth. However, more important than the significance of the coefficients is the direction of the relationship. Across every model iteration, using both dependent variables, in the combined and allopathic only models, the variable coefficients were negative. They were not in the predicted direction. There appears to be an inverse relationship between the two exogenous factors and a board's policy activism. Instead of contributing to a medical board's policy activism, both HMO penetration in a state and leadership change in the statehouse discourage nonprogrammed policy actions by a medical board.

Finally, the results for the osteopathic control variable are interesting. The coefficient was significant in three of four iterations of the policy depth models, including the full model. However, it was not significant in any of the policy scope models. Perhaps more interesting is the direction of coefficient. It was consistently negative across all policy depth models and in three out of four policy scope models. Based on these findings, it appears osteopathic boards are less active in nonprogrammed policy areas. Thus, osteopathic boards are different from allopathic medical boards in that they are less likely to enter the policy arena.

There are a few differences in the findings for the policy depth and policy scope models. Because the policy scope variable examines the most active state medical boards and the extent of their actions within each policy area, the results for these models should be a more intense version of the policy depth findings. This is confirmed when looking at the findings for legislative involvement. While the
legislative involvement variables are highly significant across both dependent variables, the level of significance for the influence of individual legislators is stronger in the combined policy scope models. This is also true when examining the influence of the governor on board actions in the combined model. Because the findings for the institutional variables were mixed, it more difficult to draw conclusions about them. However, the budget autonomy coefficient was in the hypothesized direction across all four combined policy scope models and was significant in only the full combined policy scope model iteration.

The results for the MD Only policy depth and policy scope models are more difficult to explain. When the osteopathic boards are removed from the policy depth models, the findings do not change a great deal. The major change is the level of significance for the influence of individual legislators increases. Given the fact osteopathic boards are less policy active, it is not surprising that the legislative coefficients in the policy depth models demonstrate more significance. However, it is not clear why in the allopathic only model the significance of the employment conditions coefficient and the significance for the leadership change in the statehouse measure are lost.

Removing the osteopaths from the policy scope models has a noticeable affect on the institutional variables. Both the budget autonomy and the public members coefficients become significant. The budget autonomy measure becomes significant in the final three model iterations where in the combined model it was only significant in the full model. The public member coefficient becomes significant in all four model iterations. Institutional factors may have a stronger affect on medical boards that are
involved more intensely in policy actions. Interestingly, the level of significance of the influence of individual legislators and the governor decrease while the importance of leadership change in the statehouse increases in both iterations of the MD Only policy scope models. It is possible that political factors may affect active policy boards less because the medical boards are already out there in the policy arena. That is, encouragement from politicians to become more active in policy is less of a factor on boards that are already quite active in the policy arena. Similarly, less turnover in the legislature means stability for individual legislators and committee assignments; this in turn creates a stable political environment that medical boards operate. Boards may continue to pursue their policy agendas without concern for changing statehouse dynamics.

Overall the results for policy scope and policy depth are relatively similar. Legislative involvement is prominent in affecting non-programmed policy actions. The influence of the governor affect a board's policy actions. Institutional findings are mixed. Exogenous coefficients for leadership change are important in policy actions in the MD Only policy scope models and the full policy depth model. The control variable for osteopaths affect a board's policy depth.

I have used the case studies to further elaborate on the role of legislative involvement in medical board policy activity. The case study results support the empirical findings. Lawmakers have jurisdictional authority over an agency's budget, their programs and policies. They serve as conduits for constituents and others unhappy with medical board actions. They have the capacity to monitor board activities. They also serve to prod medical boards to become more policy active.

State legislators have the ability to affect medical boards' programs and policies - and they do.

In the following chapter, I will investigate the programmed behavior of state medical boards. I will use the same measures - institutional autonomy, political involvement and exogenous changes - to explore a medical board's programmed behavior.

## 7. Medical Board Behavior in "Programmed" Routine Decisions

It is the task of state medical boards to regulate the medical profession, including both osteopathic and medical physicians. At the most basic level, regulation includes issuing licenses, handling complaints and investigations, and meting out discipline. But like other state regulatory agencies, medical boards also juggle related responsibilities. This broader interpretation of regulation covers many areas that Simon (1960) might refer to as programmed activities. Medical boards enforce the medical practice act, promulgate rules, ensure that physicians on probation follow the terms of their suspension, provide information to the public, and report on a variety of activities to law enforcement and other state bureaucracies.

This chapter will explore the programmed behavior of state medical boards. Why do medical boards behave the way they do? What determines a medical board's activities? The research question is: what factors influence a board's programmed decisions and behavior? I will examine the three key factors used in Chapter 6 to predict non-programmed activity: institutional autonomy, political involvement, and exogenous changes. Also, at the end of the chapter, I will compare the empirical results of the programmed and nonprogrammed models.

## The Hypotheses

Programmed activities are the routine responsibilities of bureaucratic
organizations. They are the daily mundane actions and decisions that make up the mission of an administrative agency. For the most part, programmed actions and decisions are not high profile political issues. They may involve decisions about how to allocate a budget, who will be appointed to a commission or board and who should be hired, promoted and fired. Such actions are on-going and rarely attract attention. Due to their nature, programmed activities and decisions, unlike non-programmed activities discussed in Chapter 6, are nonsalient issues. They are less likely to invite political involvement while autonomy may play a larger role.

Disciplinary actions, along with licensing, are a medical board's bread and butter issues. These responsibilities are the primary concern of state medical boards; they are the tasks identified when people are asked to state the mission of a medical board. Thus, when a medical board is created and granted autonomy as an agency, its first business is to regulate physicians via licensure and discipline. I predict the relationship between autonomy defined in Chapter 6 using Horn's three criteria - financing, participation, and employment arrangements - and programmed decisions is mutually reinforcing. That is, the more autonomous the medical board, the more likely the board will take disciplinary actions against physicians.

HO9: The greater the autonomy of the SMB, the more disciplinary actions will be taken by the medical board.

Health and environmental regulatory agencies are more autonomous than
economic organizations (McCubbins 1985). Yet, they are also subject to more procedural requirements. In focusing on a medical board's programmed activities and behaviors, I anticipate the legislature will be less interested in the programmed activities of medical boards - generally programmed activities are less salient issues. Thus without the legislature peering over its shoulder, the medical board will be more likely to pursue disciplinary actions and other related programmed activities ${ }^{54}$. Medical boards have a strong sense of their mission and the programmed activities that are an outgrowth of their mission.

Disciplinary actions and other responsibilities are more likely to be actively pursued without legislative interference. When a board is subject to close scrutiny, it is more likely to be tentative, timid and cautious in its actions. A board whose independence is respected will be more likely to pursue its programmed activities and take more disciplinary actions. (Of course, exceptions would be if some high visibility cases ${ }^{55}$ emerged and the legislature wanted answers from the medical board. Such cases could be worked out in special meetings or in appropriation committees and would not likely affect the number

54 One reader noted that there could be a trade off between programmed and non-programmed activities. The reader suggested that perhaps the boards that are deeply involved in policy issues are simply too busy and lack adequate resources and staff to also engage in nonprogrammed activities. Examination of the correlations for board activities in programmed and non-programmed areas indicate there is no such trade off.

55 Legislators do not usually take an interest in individual disciplinary cases unless it is constituent- related or it is an especially high visibility case (such as the egregious gynecology case in Oregon).
of disciplinary actions).
HO10: The less the legislature is involved with the SMB, the more disciplinary actions will be taken by the medical board.

Regulatory activity does not occur in a vacuum (Moe 1985, Weingast and Moran1983). Changes in political coalitions or the private sector can galvanize lawmakers into action. Under such circumstances, the consequences for policy decisions can be dramatic (Calvert, Moran and Weingast 1988, Weingast and Moran 1983). Earlier work on policy-related activities of medical boards has documented the role of exogenous variables on legislative involvement (Weissert and Silberman 1998b). However, the political leadership may not waste its time on non-salient programmed issues, preferring to let the boards run on "automatic pilot." I predict that there is little reason to think that leadership changes in the state legislature will affect a state medical board's disciplinary actions.

A change in the environment that a regulatory agency operates in may also affect how it considers its policy decisions (Hammond and Knott 1988, Noll and Owen 1983). The managed care health system has developed quickly and spread widely. Its presence in a state raises issues of accountability, access, quality, and cost - all of which affect physicians and patients the two constituents of state medical boards. However, managed care issues should manifest themselves more in policy issues - as seen in the mail survey results (see Tables 26 and 27). Therefore, I predict that there is little reason to think
that the increased presence of managed care in a community will affect a medical board's programmed decisions.

HO11: The leadership changes in the state legislature will have no effect on the disciplinary actions taken by the medical board.

HO12: The managed care penetration in the state will have no effect on the disciplinary actions taken by the medical board.

These hypotheses, predicting no effect, have been included in this chapter for comparison purposes. That is, I will be comparing these results with the results from the previous chapter on non-programmed policy actions. I will compare the models from both chapters, examining the differences between programmed and non-programmed decisions, later.

Like a president, a state chief executive wields many tools to influence an agency (Bowling and Wright 1998, Brudney and Hebert 1987, Hebert, Brudney and Wright 1983, Miller 1987, Moe 1982, Wright and Cho 1998). The extent of executive involvement should affect an agency's decisions and behavior. However, the type of agency being affected is also extremely significant. Hebert, Brudney, and Wright (1983) found that gubernatorial influence was more important in "major" agencies with large budgets and higher numbers of personnel.

Medical boards cannot be considered "major" agencies with their relatively smaller budgets (compared to other executive agencies) and fewer personnel employed. Similarly, medical boards' programmed behavior and
actions are less salient than many other issues and thereby are of less interest to a governor. For these reasons, a governor may not become involved in a medical board's programmed decisions and actions. Only when the medical board may be under duress from egregious doctor cases or some other highprofile matter might there be public pressure for gubernatorial interventions. Under these circumstances, medical boards become very tentative and cautious in their actions as they are aware they are under gubernatorial scrutiny. Thus, I predict that as gubernatorial involvement increases in medical board affairs, fewer disciplinary actions will be taken.

HO13: The more the governor is involved with the SMB, the fewer disciplinary actions will be taken by the medical board.

## The Dependent Variable

The model for this chapter will use disciplinary actions as the dependent variable. The variable is a ratio of disciplinary actions taken by a state medical board. Licensing and disciplinary actions and decisions are part of a board's routine and repetitive responsibilities. They fit Simon's notion of programmed procedures. That is, a medical board has a definite process for handling these issues. There are specific steps, that have a pre-established order and set of techniques set out for staff to follow. They might be considered part of a board's standard operating procedures (SOPs).

The disciplinary data are taken from the Federation of State Medical

Boards' (FSMB) Summary of 1997 Board Actions (1998a). The variable was constructed using the Composite Action Index (CAI). The CAI is an arithmetic mean of four ratios: Total Actions divided by Total Licensed Physicians, Total Actions divided by Practicing In-State Physicians, Total Prejudicial Actions divided by Total Licensed Physicians, and Total Prejudicial Actions divided by Practicing In-State Physicians. ${ }^{56}$ The CAI refers to the mean of these various measures of disciplinary action per one thousand physicians. The term 'actions' means that a violation of medical standard was found to have occurred. The

FSMB uses the CAI because it "permits relevant variables to contribute in a balanced way to a final figure that can be useful in measuring an individual board's disciplinary activity over time." (FSMB 1998a 3).

The models were run with the CAI mean 1994-1997 as the dependent variable. ${ }^{57}$ The first wave of mail surveys, sent out in Fall 1997, queried

[^32]executive directors about their recent actions over the past few years. Thus, it can be argued that the CAI mean 1994-1997 best corresponds to the time frame that the executive directors were reporting. The range of the CAI mean 1994-1997 was from a low of .74 to a high of 21.79 ; its mean was 6.00 (see Table 29).

State osteopathic boards appear to be more active in disciplinary areas than the state medical boards. The mean disciplinary action taken by DO boards is 8.48 ; the mean disciplinary actions by allopathic boards is 5.57 . There are 12 osteopathic boards in the study; 11 osteopathic boards reported disciplinary data (total $N=60$ ). From these 11 boards, 4 boards have disciplinary actions above the mean - and one osteopathic board reported 21.79 disciplinary actions - the highest number of disciplinary actions during the period. Of the seven boards below the disciplinary mean, five are from very sparsely populated states, with fewer than 1,000 physicians practicing in-state. The two remaining states with disciplinary actions below the mean have fewer than 3,000 and fewer than 4,000 practicing licensed physicians in-state respectively.

The Independent Variables
A medical board's programmed decisions and activities are explained by

[^33]
## Table 29 - Programmed Decisions \& Behavior Descriptive Statistics

|  | $N$ | Range | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: |
| Dependent Variable |  |  |  | 3.34 |
| CAI mean 94-97* | 60 | . $61-19.74$ | 6.10 |  |
| Independent Variables |  |  |  |  |
| 1) Legislative role in 4 policy areas | 61 | 0-4 | . 64 | 1.03 |
| 2) Budget autonomy | 59 | 0-1 | . 58 | . 50 |
| 3) Employment conditions | 59 | 0-4 | 2.07 | 1.67 |
| 4) \% Public members | 61 | . $00-.46$ | . 22 | . 10 |
| 5) State legislative leadership change in 1994 | 58 | 0-1 | . 26 | . 44 |
| 6) HMO penetration | 59 | . $000-.470$ | . 21 | . 13 |
| 7) DO board | 61 | 0-1 | . 20 | . 40 |
| 8) Governor's influence | 55 | 1-5 | 2.56 | . 96 |
| 9) Individual legislators' influence | 55 | 1-5 | 2.69 | 1.14 |

[^34]many factors. I am using the same nine independent variables I used in the previous chapter. The ninth variable - whether a medical board is allopathic or osteopathic -- is a control variable. ${ }^{58}$ There are three political involvement variables, three institutional measures, and two variables for external pressure on state medical boards in these models. The three political involvement variables are: legislative role in the four policy areas, the influence of individual legislators on board activities and behaviors, and the influence of the governor on the actions of a medical board. The three institutional variables, derived from Horn (1995), are budget autonomy, public members on medical boards and employment conditions. The two exogenous measures are the HMO penetration within a state and leadership change in the state legislature following the 1994 election. The control variable is a dichotomous one, coded 1 of the medical board regulates osteopathic physicians.

## The Analyses

In this section I will present the ordinary least squares results of the models. Again I will analyze a combined model for osteopathic and allopathic boards and one applied only to allopathic boards. The results for the combined

58 In earlier tests, I also examined the level of a state bureaucracy's professionalism (Barrilleaux 1999). I analyzed professionalism as a control variable and as an interaction term with merit, budget autonomy, individual legislators, the governor, the results of the 1994 election in state houses, and legislators' role across the four policy areas. Professionalism was not relevant as a control variable nor in any interaction terms and thus is not included in this analysis.
model will be presented as a series of additive models. This method is used to isolate and focus on Horn's theoretical work about the importance of institutional factors on agency autonomy. The allopathic only models will be discussed more briefly. Diagnostic tests revealed no problems with heteroskatisicity or multicollinearity in the models ${ }^{59}$. It should also be noted that I am reporting significance using one-tailed tests because I have directional hypotheses.

## Disciplinary Action

The disciplinary dependent variable is positively correlated with two of the institutional variables: budget autonomy and employment conditions at . 30 and .22 respectively. All three autonomy coefficients are in the direction hypothesized. Disciplinary action is also positively correlated with the control variable for osteopathic boards at .34 .
A. Autonomy. In the first iteration of the combined allopathic and osteopathic model, I look solely at the impact of Horn's three institutional variables on programmed decisions. The adjusted $R$ Square for this iteration of the model was low -- . 167 (see Table 30).

The results indicate that budget autonomy is important in determining the disciplinary actions of state medical boards. Budget autonomy is the only institutional variable that is significant. It is positive, as hypothesized. States

59 Scatter plot analysis of residuals against predicted values of $Y$ indicate minimal heteroskedasticity. The variance inflation factors (VIF) for the models did not exceed a value of 1.6.

Table 30 - Predicting Programmed Board Actions \& Behavior: Discipline Four Additive Models OLS Results - MDs \& DOs

|  | Horn's Institutional Variables | Horn \& Legislative Variables | Horn, Legislative \& Exogenous | Horn, Legislative, Exogenous \& Governor |
| :---: | :---: | :---: | :---: | :---: |
| Budget autonomy | 1.913* | $1.556+$ | 1.242 | . 773 |
| Public members | -. 032 | -1.074 | -1.790 | -. 877 |
| Employment conditions | . 016 | . 150 | . 222 | . 061 |
| DO Board | 3.161** | 3.387** | 3.638** | $4.035^{* * *}$ |
| Individual Legislators |  | .597+ | .688+ | . 391 |
| Legislative role in 4 policies |  | . 135 | . 313 | .634+ |
| HMO penetration |  |  | -3.256 | -5.589+ |
| Leadership change in '94 |  |  | . 057 | -. 082 |
| Governor |  |  |  | -. 012 |
| Constant | 4.567 | 2.993 | 3.396 | 4.660 |
| $\mathrm{N}=$ | 58 | 52 | 49 | 48 |
| Adjusted R Sq | . 167 | . 147 | . 116 | . 154 |
| Significant F | 3.849 | 2.463 | 1.788 | 1.950 |

with budgetary autonomy from the legislature on average see their CAI increase by nearly two points over states without autonomy (see Table 30). This result partially supports Hypothesis \# 9.

The other two variables, employment conditions and public members, were not significant and the relationship between public members and disciplinary actions is not in the direction expected. The findings indicate that as public member representation decreases, disciplinary actions by medical boards increase. Interestingly, the correlation between public members and disciplinary actions were positive but rather low -- 15 (see Table 31). Finally, the coefficient for the control variable for osteopathic verus allopathic physicians is highly significant and positive in this initial model iteration (see Table 30).

In the allopathic only autonomy models, budget autonomy was significant in the first model iteration (see Table 32). As budget autonomy increases, disciplinary actions taken by state medical boards also increase. This supports hypothesis 9. The relationship was in the predicted direction in 3 of the 4 models. The results for the employment conditions coefficient mirrored those for the combined model. It was not significant while the relationship was in the predicted direction.

The results for the public members variable in the MD Only model, unlike for the combined model, were significant at .073 in the final model iteration and in the expected direction. The result is more evidence in support of hypothesis 9. It is an interesting finding given the fact the model is examining only
Table 31 - Correlations: Medical Board Behavior and Discipline

|  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Budget | .470** | . 032 | . 150 | -. 073 | -.360** | . 025 | -. 029 | . 058 | .303** |
| 2. Employment |  | . 073 | . 053 | -. 166 | -. 090 | . 022 | . 032 | . 164 | .219* |
| 3. Public Membs |  |  | . 160 | . 041 | . 115 | . $185+$ | . 097 | .296* | . 153 |
| 4. Leg Role |  |  |  | .194+ | .318** | . 035 | .264* | -. 188+ | . 068 |
| 5. Indiv Leg |  |  |  |  | . 158 | -. 162 | .363** | -. 090 | . 127 |
| 6. HMO |  |  |  |  |  | . 169 | -. 019 | -. 009 | -. 122 |
| 7. '94 Election |  |  |  |  |  |  | -. 115 | .184+ | . 034 |
| 8. Governor |  |  |  |  |  |  |  | -.175+ | . 058 |
| 9. DO Bd |  |  |  |  |  |  |  |  | .340** |
| 10. CAlmean |  |  |  |  |  |  |  |  |  |

Table 32 - Predicting Programmed Board Actions \& Behavior: Discipline Four Additive Models OLS Results - MDs Only

|  | Horn's Institutional Variables | Horn \& Legislative Variables | Horn, Legislative \& Exogenous | Horn, Legislative, Exogenous \& Governor |
| :---: | :---: | :---: | :---: | :---: |
| Budget autonomy | 1.092+ | . 776 | . 427 | -. 226 |
| Public members | 1.818 | 1.909 | 3.123 | 4.505+ |
| Employment conditions | . 076 | . 164 | . 137 | . 075 |
| Individual Legislators |  | . 469 | . 425 | . 002 |
| Legislative role in 4 policies |  | . 077 | . 105 | .467* |
| HMO penetration |  |  | -3.520 | -6.265** |
| Leadership change in '94 |  |  | -1.018 | -1.136+ |
| Governor |  |  |  | . 038 |
| Constant | 4.530 | 3.325 | 4.250 | 5.910 |
| $N=$ | 48 | 42 | 39 | 38 |
| Adjusted R Sq | . 009 | -. 035 | -. 046 | . 115 |
| Significant F | 1.149 | . 719 | . 761 | 1.600 |

allopathic medical boards. It implies that the presence of public members on allopathic boards increases a board's disciplinary actions. The finding bolsters reform efforts that include increasing public representation on boards as a way to make boards more responsive to citizen concerns. Also, the finding seems to confirm scholarly studies that found that increased proportions of public members are associated with more serious disciplinary actions by occupational licensing boards (Graddy \& Nichol 1989, 1990). Thus public representation has a positive effect on the number of serious disciplinary actions taken by licensing boards. Moreover, the effect of public members was strongest on allopathic licensing boards. Interestingly, in the combined model, there is a negative relationship between public member board representation and disciplinary actions. However, it should be noted that with a total of 38 cases and only a slight trend in the data, the findings are not particularly meaningful.

In sum, the results for the three institutional variables taken from Horn's theory were varied. The autonomy coefficients demonstrated a great deal of instability. Contrary to the theory, it appears from the two models that medical board autonomy, as measured by financing, participation and employment arrangements, does not consistently affect a board's disciplinary actions. The results for the budget variable are especially surprising. The coefficient was significant in the first two combined models and in the initial allopathic only model. Previous work has determined that economic resources are the only variable with any major influence on a professional licensing board's decision
making (Schneider 1987).
B. Legislative Involvement. The adjusted $R$ square for the model with the two legislative variables is .147; the model fit is poor (see Table 30). Budget autonomy continues to be significant. In this iteration of the model, the influence of individual legislators is positive and significant. However, the relationship is not in the direction predicted. That is, I had predicted a negative relationship between legislative involvement and disciplinary actions. The findings indicate the relationship is positive.

Similar to the findings in the previous chapter on non-programmed policy actions, individual legislators appear to positively affect disciplinary actions taken by medical boards. Results indicate that as the influence of individual legislators increases, the disciplinary actions taken by medical boards also increases. This is contrary to my prediction in hypothesis 10. The negative relationship between public members and disciplinary actions continues in this model iteration and the control variable for osteopathic physicians also continues to be significant.

In the allopathic only model, the legislative involvement variables are less significant than in the combined models. None of the individual legislator coefficients affect a medical board's disciplinary actions. Legislative role across the four policy areas is significant in the final model (see Table 32). The relationships are not in the direction predicted in hypothesis 10 for either of the legislative involvement variables.

Perhaps the mixed findings for legislative involvement can be explained by the fact that medical boards, like other agencies, are aware of the environment in which they operate. If the legislature is involved in a variety of policy areas that are important to medical boards, the lawmakers are also more likely to be aware of other specific work performed by the medical board, such as disciplinary decisions. The influence of individual legislators was significant in determining a medical board's disciplinary actions in the first two combined models. However, it ceased to be important in the final combined model and was not significant in any of the MD Only models.
C. Exogenous Factors. In the third iteration of the model, when I add the two exogenous variables, the adjusted $R$ square decreases to 116 - the poorest fit of all the combined models (see Table 30). As predicted in hypotheses 11 and 12, neither exogenous variable affects a medical board's disciplinary actions. This pattern was seen at the correlation level also.

In this model iteration, budget autonomy is no longer significant. The role of individual legislators continues to be significant but still not in the direction predicted. In this model, the negative relationship between public members and disciplinary actions continues and the control variable is still significant at the . 01 level.

In the final allopathic only model, both exogenous coefficients are significant and negative. Given the significance of leadership change in the statehouse, it appears that with change in party control of a chamber and new
legislators in the majority, medical boards take fewer disciplinary actions. I had predicted in hypothesis 11 that the election results would not affect a board's disciplinary actions.

In summary, the level of managed care penetration in a state appears to negatively affect a medical board's disciplinary actions. In both the combined model and the allopathic only model, there is a negative relationship between managed care penetration and disciplinary actions. As HMO presence in a state increases, a medical board's disciplinary actions seem to decrease. It is possible that in states with more managed care health plans issues of cost, access and quality are major concerns. As a consequence, these issues have more visibility and are higher on the agenda of state agencies, including medical boards. Thus medical boards may be more vigilant to issues of cost, access and quality and less attentive to disciplinary matters.

The other exogenous factor, a change in chamber control after the 1994 election, was significant in the full allopathic only model. These coefficients were also negative. As leadership change in the statehouse increases, a medical board's disciplinary actions appear to decrease. The finding seems to indicate that when new legislators are elected and the control of a chamber changes hands, from one party to another, the medical board takes fewer disciplinary actions. One explanation may be that the medical board is waiting to learn about the regulatory approach of new lawmakers and its committee of reference. Weingast and Moran (1983) find that when the interests represented
on a particular committee change, the policy choices of the agency under the committee's jurisdiction will also change. Agencies are remarkably sensitive to changes in committee composition. Another perspective could be that the state agency is waiting for a kind of signal or cue from the new party in control as to how the medical board should proceed. Calvert, Moran and Weingast (1988) found that changes in FTC policy could be traced to changes in the preferences of committee members and three new appointments to the commission, including a new chairman. During the transition period in the state legislature, disciplinary actions may fall off until the medical board has received a signal or cue from lawmakers. Thus the board has a better understanding of how the legislature would like them to proceed.
D. Governor's Influence. In the final combined model iteration, I add the gubernatorial variable. The adjusted R square for the final model is still low at .154 (see Table 30). In this model, legislative role in the four policy areas and HMO penetration are both significant at .093 and .087 respectively. The significance of legislative role in the four policy areas is new to the model. However, like the significance of individual legislators, it is not in the direction hypothesized. Instead, the findings indicate that as legislative role in the four policy areas increases so will a medical board's disciplinary actions. I predicted less legislative involvement in the four policy areas would positively would cause a medical board to step up its disciplinary actions. The coefficient for HMO penetration is also significant.

None of the other variables in this model appears to be important in determining disciplinary actions. Specifically, the governor's role does not appear to affect an SMB's disciplinary actions. This was also seen at the correlation level. However, the relationship in the OLS analysis is in the direction predicted in hypothesis 13. The involvement of individual legislators in board activities is not significant in determining a medical board's disciplinary actions. Leadership change in the statehouse also does not affect disciplinary actions taken by a state medical board.

Most importantly, none of Horn's institutional variables appears to affect disciplinary actions of medical boards in the final model. In the initial iteration of the model, with only the three institutional variables, budget autonomy was significant. It continued to be significant when the legislative variables were added. However, once the exogenous variables and the gubernatorial variable were added, the significance of budget autonomy no longer held. It should also be re-emphasized that the relationship between public members and disciplinary actions was consistently in an opposite direction than I had predicted in all iterations of the model. That is, as public members on a medical board decreased, the board's disciplinary actions decreased but no coefficients were significant.

The control variable for osteopathic versus medical boards is highly significant. In every iteration of the model, the control variable was significant (see Table 30). Most importantly, in the final model, with all the variables, the
control variable was highly significant at the .001 level. The results demonstrate that osteopathic boards appear to be more active on disciplinary matters than medical boards. During case study interviews in Michigan, many interviewees made a point to differentiate between the two types of medical boards. One respondent commented that osteopathic physicians tend to be more critical on disciplinary matters than medical physicians. "They just discipline here . . enforce the rules and decide if there is merit or no merit on a disciplinary case."

In the final allopathic only model, the influence of the governor on medical board matters was not significant. This was consistent with the combined model. However, in this model the relationship was not in the direction predicted in hypothesis 13.

Overall, gubernatorial influence was not significant in determining a medical board's disciplinary actions. It is worth noting that while the variable was not significant, in the combined model the relationship was in the hypothesized direction. In the allopathic only model, the variable was not significant nor was it in the expected direction. The theory about the influence of the governor is mixed. There is evidence that governors may and may not play a positive role in agency decisions (Bowling and Wright 1998, Brudney and Hebert 1987, Wright and Cho 1998). I hypothesized that there was an inverse relationship between gubernatorial influence and an agency's disciplinary decisions. Instead, it appears from the analyses that is not the case.

Generally, there is a poor fit for the combined models. The highest

Adjusted $R$ Square is in the first model iteration - at .167 . The findings for the institutional coefficients were mixed. In the first two iterations of the model, the coefficient for budget autonomy proved significant and the other budget coefficients across all four models were in the predicted direction. None of the employment conditions nor the public member coefficients were significant. Additionally, the public member coefficients were not in the hypothesized direction.

Findings for the other coefficients were mixed. Legislative involvement results were contradictory with the influence of individual legislators important in two out of three models while legislative role across the four policy areas was significant in the final model. However, in both cases the coefficients were not in the predicted direction. HMO penetration, in the final model, was important in determining a board's disciplinary actions. Leadership change in the statehouse was not significant. The influence of the governor on board activities was not significant although there is an inverse relationship between the variables as predicted.

The most significant coefficient in the combined models was the control variable. Osteopathic boards appear to be more active in discipline than their allopathic counterparts. As noted earlier, there may be structural reasons for this difference that go back to the educational training received at osteopathic medical schools. The differences between osteopathic and allopathic physicians were clearly noted during case study interviews. The two groups have separate
medical society groups in many states and definite professional boundaries.

A Closer Look at the States: Board Autonomy and the Governor's Role
A second way to examine the programmed behavior of medical boards is to look more closely at the case study states. In this section, I will consider two questions: why board autonomy and the governor's role do not matter in predicting the programmed behavior of medical boards. I had hypothesized that among the factors that affect a state's programmed behavior are a medical board's level of autonomy and its relationship with the state executive. The empirical findings found that neither autonomy nor the governor were factors in predicting a medical board's disciplinary activity. The case studies are being used to shed some light on these two issues.

## Board Autonomy

Autonomy is an important factor in predicting programmed medical board activities at the case study level. The evidence from the states contradicts the empirical findings. One possible explanation may be the nature of autonomy. Autonomy plays out subtly in ways that may not be captured in the empirical data. Case studies are more likely to pick up these subtleties. Moreover, autonomy may affect the nature of the action brought, how the matter is pursued and the severity of the penalties, but not necessarily the quantity of action taken.

Interview data indicate that autonomy is an important factor in anticipating medical board behavior. For example, the state medical board that is most well-
thought of by legislators, state administrators and other state actors also happens to be the most autonomous. Moreover, it is the most well-respected board and the board that has faced the least public criticism. It has received national recognition for its work, is cited among the best medical boards in the country and is considered an effective regulator in the state.
A. Board Status. The level of autonomy among state medical boards varies. As mentioned in Chapter 3, according to the Federation of State Medical Boards, most medical boards report themselves as independent (49) (see Table 1). An independent board, as defined by FSMB, exercises all licensing and disciplinary powers, though some clerical services may be provided by a central agency (FSMB, 1995). The remaining boards are subordinate (5), semiautonomous (9) and advisory (5). ${ }^{60}$ Of the four case study states, three reported having an independent status (CO, MI and OR) and one indicated it was semiautonomous (MD) (see Table 33). However, it is worthwhile noting that the categories are somewhat vague and the definitions are open to interpretations.

Respondents across the four states differed in their views about the medical boards' autonomy. In one state, all interviewees confirmed the board's independence, especially in policy matters. As a participant reported, "The board's decisions are not reviewable by the governor or anyone else for that

60 The Federation defines a semi-autonomous board as exercising most key powers; a central agency provides most clerical and administrative services and makes some decisions. A subordinate board exercises few key powers while the central agency provides services and makes most decisions. An advisory board acts purely in an advisory role to a larger agency (FSMB, 1995)

Table 33 - Case Study Overview: Programmed Decisions and Behavior

|  | CO | MD | MI | OR |
| :---: | :---: | :---: | :---: | :---: |
| Board Status ${ }^{\mathbf{1}}$ | Independent | Semi-autonomous | Independent | Independent |

Level of Budget Autonomy ${ }^{1}$

|  | Possess None or One Budget <br> Power | Possess Two or Three <br> Budget Powers |
| :--- | :---: | :---: |
| States $^{1}$ | Colorado and Michigan | Maryland and Oregon |


|  | $1=$ No <br> Influence | 2 | 3 | 4 | $5=$ Great <br> Influence | 50 -State <br> Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Influence of <br> Governor |  | 1 | 2 |  | 1 | 2.56 |

[^35]matter. It makes its own decisions." One respondent believes, "I cannot imagine being more autonomous in any other states than they are here. They are not required to report to the legislature nor to their central agency." Another observer concurred saying in this state we have "among the most autonomous boards that I know of."

In the three other study states, medical boards are not as unconstrained. A respondent in one state thought the medical board "was $80 \%$ autonomous in the budget area, 80 to $85 \%$ autonomous in policy matters and $98 \%$ autonomous in disciplinary cases."
B. Budget Autonomy. The empirical analyses found that budget autonomy was an important factor at the bivariate level but not in the full model. The medical board discussed above has a rare level of independence with regard to their budget. The four case study states are mixed with regard to the amount of budget power they possess. Out of three possible budget powers (develop own budget, adopt own budget, and have a reserve fund), two states have one or none of the powers and two states have two or three of the budget powers (see Table 33):

Most medical boards report facing a variety of pressures on budget issues. In many states, it is ultimately up to the governor, the legislature and others to determine how a medical board may spend its money. In one study state, the medical board had suffered a series of high profile "bad doctor" cases and the legislature held the board's budget. As one observer noted, "the budget
was held up till the end of session, it was the last bill, considered on the last day of session." Another respondent recounted how "the legislature had kicked around the medical board for the past two legislative sessions and would threaten to withhold their budget." In a different state, the medical board generates a large amount of money from its fees. But instead of being cashfunded, the board receives its monies from the state General Fund. In this state, the medical board's budget is relatively small. As one observer noted, "most of the money goes into overhead and system maintenance. Commenting on this state's budget autonomy, a respondent said that the medical board officials "had no sense of their budget and their own money. They never ask for their money, where it goes, how it is spent or anything."

Evidence from the case studies indicates a medical board's level of autonomy is especially important when considering its ability to fulfill its mission and practice its statutory responsibilities. Boards with more autonomy, like Colorado and Maryland, seem better able to operate in the complex environment that characterizes state health regulation. Boards with less autonomy, such as Oregon and Michigan, appear to spend a great deal of their time answering to different state entities. The findings about board autonomy confirm scholarly studies that found that boards with access to more economic resources make better quality decisions; increasing budgetary appropriations is an effective method to improve the quality of professional licensing boards, their decisions and their policy making (Schneider 1987).

## Governor's Role

The governor's role is another factor that influences a board's programmed activities. Governors are responsible for appointing board members, usually with input from the legislature and interest groups (see Chapters 3 and 5 with accompanying tables). Thus board members must still answer to the governor -- even if they consider themselves autonomous. As one state administrator reported, if a medical board member becomes an activist in an area where the governor held an opposite opinion, the member would be "taken out behind the woodshed in the short term and not reappointed in the long term." It is the governor who holds the power and controls the situation with regard to board members. Ultimately, board members still represent the governor and serve at the governor's pleasure.
A. Governor's Direct Influence. As the state chief executive, governors can strongly affect medical board activity. Mail survey results indicate that, on the whole, the governor's influence on board matters is strong (see Table 33). One state reported the governor's level of influence as a 5 (based on a 1 to 5 scale with 1 being no influence and 5 being great influence), two other states responded 3 and one state answered their governor's influence was 2 . The mean response across the all 55 survey respondents was 2.56. Based on this evidence, it appears governor's have a hand in influencing their medical boards.

Across the four study states, the governor's role varied. In one state, the governor is a medical board advocate; he is considered "a rabid social democrat
an activist . . . a strong believer in social responsibility." Another observer said, "The governor is very concerned about health access issues; he is very astute and has a real health care connection." One state administrator believes, "The governor understands the mission of the medical board and supports it."

Most study states do not have a governor that is so involved and committed to their issues. Generally, medical board matters are seen as less salient issues, especially the programmed activities that involve physician licensure and discipline. Many boards reported little interaction with the governor. In one state, a respondent thinks the governor "is a lot less good on health issues. Education and welfare are his issues." Another respondent, from a different state said "the medical board does not work with the governor's office. They have no one appointed as a liaison for that role." A state worker in a third study state noted that the governor, as a rule, "tries not to take a stand on any issue till it reaches his desk."
B. Governor's.Indirect Influence. In addition to a direct relationship with the medical board, the governor may be indirectly involved in legislative matters that affect the board and its actions. In one study state an administrator said "the governor tells us what he wants and then gives us flexibility. There is a great deal of trust between the governor's office and the medical board." However, in another state the relationship between the medical board and the governor's office was quite different. Commenting on legislative matters and new legislation affecting the health professions, one respondent said "the
governor played no role; no one from his office offered an opinion. That is the usual thing. You do not usually hear from him until he vetoes something." A similar comment was made about the governor in a third state. "The governor did not like some of the bills in the package. So we reached compromise. In total it took almost ten years because with changes in the administration and the statehouse there was a change in philosophies toward the legislation."

Whether the governor is directly or indirectly involved in board matters, the medical board staff and board members never lose sight of whom they serve. In a state where the medical board is widely respected, an administrator recalled "getting in some hot water with the governor. I was ahead of the governor on this issue. So I was brought in and dressed down. He was really in my face. I was told to back off and I did." In a different state there was disagreement between the medical board members and the administration on a specific matter. Board members wanted "to visit the legislature and testify at hearings . . . But they do not have that authority. The department speaks with one voice; it speaks for the administration." The errant board member would have been chastised by the governor and their reappointment would have been jeopardized. A governor in one study state initiated major structural medical board reforms. Recalled one observer, he was the one who provided for "additional investigators, prosecutors, hearing officers and a new executive director of the reorganized board." In another state, an observer commenting on the governor's influence noted, "You always know where he stands on issues."

In short, the role of the governor in the case study states was a lot more mixed than the empirical data indicates. Governors can be important allies and advocates for medical boards in some states, as the case studies have shown. It is the governor, herself, who determines if she will be an active executive with regard to medical board matters. That is, if health-related issues are an important agenda item for a state executive, medical board issues become more salient, as was seen in one of the study states. Similarly, if medical board activities take on high visibility due to egregious behavior or "bad doctor" cases, an executive is more likely to become involved in these matters. This was the case in a second study state. However, if the governor is engaged in other issues and the medical board is fulfilling its statutory and regulatory responsibilities, a governor's term may pass without any chief executive involvement in medical board activities. The two remaining study states, where the governor is rarely involved in medical board matters, are more the norm. Yet, the overall findings from the case studies indicate that governors do affect medical board activities and behavior. Their roles are more complex and layered than the empirical findings demonstrate.

The case study findings with regard to the importance of autonomy and the governor's role in medical board activities differ from the empirical results. In the four case study states, level of autonomy and the extent of the governor's involvement affect a medical board's programmed activities and behavior. One explanation for the differences between the case study and empirical findings is
the nature of case study research (see discussion in Chapter 4). Due to its "micro" approach to events, case study research lends itself to a better understanding of the complexities of a decision. Another reason for the differences could be the states chosen for further research. Three of the four states were known to have been active in high-profile policy issues of concern to medical boards and potentially these issues are also politically salient to other state actors. Finally, the differences between the empirical and case study findings might be due to the method that I used to operationalize the theoretical concepts. This will be discussed later in the conclusion chapter. Regardless of cause of the differences in the findings, the case studies support the theories that the level of autonomy and the level of involvement by the governor affect a medical board's programmed activities and behaviors.

## Conclusion

This chapter has explored the programmed behavior of state medical boards. Specifically, I have considered the effect of institutional autonomy, political involvement, and exogenous changes on the disciplinary actions taken by state medical boards. The results of the quantitative analyses are disappointing; none of the models fit particularly well. In fact the most parsimonious model - the initial model with the three Horn variables - had the highest adjusted R Square. 167.

Empirical results are somewhat mixed. They point to the importance of
legislative role in the four policy areas as important to disciplinary actions. Thus, legislative pursuance affects both routine duties and policy initiatives of state medical boards. These results were generally connected across both measures of legislative involvement and across both combined and allopathic only models. The findings on the institutional variables were more mixed. In the Horn model, autonomy was positive and significant in both the combined and allopathic only models. Public members was non-significant in both models. However, it was negative in the combined model and positive in the allopathic only model. The employment condition measure was positive and non-significant in both models. The role of the governor was negative and not significant in the combined model.

In the allopathic only models, public member representation was significant, but the sample is small enough that conclusion should not be drawn from these results. The exogenous variables had a stronger than expected effect -- and largely negative. Political change and change in the health care market have a negative effect on disciplinary actions. Only the control variable for osteopathic physicians was consistently and strongly significant across all iterations of the model.

I also have taken a closer look at the four cases study states with special attention to a board's level of autonomy and the influence a governor has on board activities. Case study results contradict the empirical findings in these two areas. Interviews indicate that autonomy is important in programmed board
activities and behavior. The significance of the role of the governor is unclear. In two case study states, the governor played a considerable role in medical board matters, while in the two remaining states the governor was a passive chief executive where medical board matters were concerned.

## Programmed and Non Programmed Models

In comparing the models for both programmed and non-programmed medical board actions, the role of legislative involvement stands out. Across combined and allopathic only models, in both policy and routine matters, the role of the legislature was important. Indeed, lawmakers are very powerful state actors; they have the authority and ability to insert themselves in any medical board issue at will.

The institutional results of both programmed and non-programmed actions are mixed. Both budget autonomy and public members were significant in 7 out of 24 models. However, the public members measure was significant at higher levels than the budget autonomy variable. Employment conditions did not affect a board's programmed or non-programmed actions. There was a great deal of variation in the direction of the coefficients across all the models. Much of it could not be explained. Thus, measurement error seems a definite possibility given these varied and unstable results.

It seems that with a governor looking over its shoulder, a medical board is more cautious about its policy activities. The influence of the governor was consistently significant and negative across all non-programmed models. This is
an unexpected finding. A governor's involvement with the medical board appears to dampen the board's policy activism. In the programmed areas, the governor's influence was not significant in any of the medical board's activities.

The exogenous variable results were also mixed. Managed care penetration was significant in fewer models but at higher levels than leadership change. Surprisingly, the relationship between the HMO penetration and a board's activism in policy was negative; this was also true for managed care presence and routine board matters. Overall, managed care presence mutes both programmed and non-programmed board actions. Leadership change in the statehouse also demonstrated an inverse relationship for both policy and routine board matters. Leadership turnover stifles a board's programmed and non-programmed actions.

The results for the osteopathic control variable was the most significant across both programmed and non-programmed board actions. Interestingly, the coefficient was negative in the non-programmed models and positive in the programmed models. It seems osteopaths approach physician disciplinary matters in a different manner than their allopathic counterparts.
8. Conclusion

This dissertation has examined the institutional structure and the nonprogrammed policy and programmed routine activities and behaviors of state medical boards. Specifically, I have considered the regulatory nature of medical boards and their relationships with interest groups and the legislature. I have looked at how change in the complex world of health professions regulation and the dynamic health care delivery environment has affected the way medical boards' conduct their business.

Using data from a 50-state survey of medical boards, information collected by the Federation of State Medical Boards, and material from four analytical case studies, I have focused on four research questions:

- what is the role of the enabling coalition in the institutional design of state medical boards?
- what is the role of institutional design in predicting legislative involvement in agency activities?
- what factors influence a state medical board's non-programmed policy decisions and behavior?
- and what factors influence a state medical board's routine programmed decisions and behaviors?


## Study Findings

The study results are mixed. Perhaps the most important finding has been the enormous role and consistent influence of legislators. Both at the individual level and through their involvement in specific medical board issues, lawmakers have a critical effect on medical boards and their activities and behaviors. Legislators are involved with medical boards from the time of their creation, as they take shape and grow, till they reach maturity as full-fledged state agencies with all their rights and responsibilities. Legislators are key actors, working with interest groups and others in the enabling coalition, to develop a state medical board. Once conceived as an agency and part of a state's regulatory structure, medical boards still receive attention from the incumbent legislature. Lawmakers are responsible, by statute, for agency oversight and policy and routine matters that affect the board under their committee jurisdictions. Moreover, if the agency has received negative attention in the media, legislators will hear from their constituents about such matters. At every turn, legislators have the ability to affect and influence medical board activities and behavior. Lawmakers are very policy active in state medical board matters.

Interest groups, specifically state medical associations and related health care organizations such as specialty physician groups, hospital associations and insurance companies, are also powerful influences on medical boards. At the inception of medical boards as state agencies, these organizations play a key
role in shaping the boards, determining their functions and rights and responsibilities. By conveying their preferences and concerns to lawmakers, state medical associations in particular, have a hand in prescribing a medical board's institutional structure and design. Once formed, medical boards still work closely with state medical societies. Evidence from the case studies indicates medical boards must contend with the medical associations at a wide variety of forums: at statehouses, as board members and in daily board policy and routine matters. While not as powerful as lawmakers, medical societies are strong and influential; they are policy active and involved in many of a medical board's policy activities.

The influence of the governor on state medical boards varied. In a few of the models the coefficient was significant. However, the relationships were frequently not in the direction predicted. Instead, it appears that a governor's influence checks a medical board's policy activism and encourages its disciplinary actions. Evidence from the case studies supports the mixed quantitative results. In some cases, governors are very involved in medical boards matters. In these states, governors seem committed to health care reform as a major part of their agenda or the medical board has received a great deal of negative media attention thus bringing legislative and gubernatorial reform efforts. However, in most cases, governors are not especially involved in medical board matters nor are they especially policy active as these issues are less salient than other state matters.

The findings on exogenous factors were mixed. Managed care penetration did not affect a state medical board's policy activism. There is an inverse relationship between managed care presence and a state medical board's disciplinary actions. Disciplinary actions decrease when a state's HMO presence increases. There is also an inverse relationship between leadership change in the legislature and disciplinary actions. Generally, there was no consistent pattern with regard to the effect of exogenous factors on a medical board's policy and routine activities and behavior.

Perhaps the most disappointing findings relate to the concept of medical board autonomy. Taken from Horn (1995), autonomy was conceived as a key indicator of a medical board's activities and behavior in policy and routine matters as well as legislative involvement. None of the autonomy measures was consistently important across the models. Instead, results varied across the different models and the relationships were usually not in the hypothesized direction.

Overall the research findings indicate that there is one primary influence on state medical boards - legislators. Medical associations, governors, exogenous factors and board autonomy are less important factors in medical board structure, behavior and activities. In terms of policy activism, legislators are the most active players in medical board matters; state medical societies are also policy active in board matters.

## Applications to Theory

The research is firmly grounded in the neo-institutional literature and theories of legislative choice. It also draws on work from the regulatory and health domains. Some of the theories were supported while others were not.

Studying the 50 state medical boards has provided another example of Schattschneider's expanded scope of conflict in the area of health care workforce regulation. Legislators, the public, organized interests, the chief executive, agency representatives and individual physicians can all be involved in the routine and policy matters affecting medical boards. Indeed, with more actors involved in medical board matters and their routine and policy processes, previously ingrained power relationships change. Medical board issues become more salient to a larger group of people. While lawmakers and state medical societies are still the primary players, there are other voices involved in the process.

The research supports Moe's $(1989,1990)$ theory about the role of organized interests and the extent of their influence. Organized interests are key players in structural choice issues. They have vested interests in these matters and make themselves heard in the legislature as lawmakers consider how to proceed. In the case of medical boards, the state medical societies proved to be powerful participants in institutional matters, influencing a board's autonomy through their role in selecting board members.

McCubbins' (1985) theory that health and environmental agencies will
have more autonomy but will be subject to greater procedural requirements was not upheld in this study. Indeed, there were few positive results about an agency's autonomy. Yet, the case studies supported McCubbins' claim that health agencies' decisions are subject to more points of access by outside parties and more strenuous burdens of proof and standards of evidence. However, unlike McCubbins' theories, medical boards do not appear to be subject to more strenuous legislative oversight. In fact, legislative oversight seems to be practiced rarely. This is partial support for Moe's (1989) claim that the enabling legislative majority will try to insulate an agency from future interference by writing specific laws with less delegation of authority and fewer oversight provisions.

Theories of congressional dominance by scholars like Calvert, Moran and Weingast (1988) among others were supported by the research. In fact, as stated above, the most compelling finding from this study has been the enormous influence and strength of legislators. Unlike federal studies where power is more diffused and evenly shared between lawmakers and the chief executive, this study found that lawmakers essentially have carte blanche with regard to agency matters. They are able to insert themselves at will into any agency issue if they desire to do so. While other actors may play a part in administrative agency politics, the study results indicate that it is the legislature that has the most control.

One limitation of the study is its size. By examining state medical boards, the study is restricted to the 50 states. A small population study does not have a lot of cases to draw from when conducting empirical analysis. Even two or three non-responses affect the study.

A related weakness is the cross-sectional nature of the study. This study captures the medical boards at one point in time, and thus, may understate the role of some boards which may have lagged other states in 1997 but could have become more active soon thereafter. The alternative could also be true. One way to enrich the current study would be to sample at more than one point in time. This would introduce the possibility of explaining the past and predicting the future behavior of medical boards.

Another weakness is the operationalization of the Horn (1995) autonomy concepts. Trying to construct adequate measures for another theorist's concepts can be quite difficult. There may be measurement error associated with the construction of the three autonomy variables. All the variables were created using data from the Federation of State Medical Boards' 1995-1996 Exchange. While I did examine more than one way to operationalize each institutional variable, the other measures provided no more traction than the variables used in the final models.

The nature of a survey is a weakness of the study. Surveys rely on the honesty of the respondent. However, even when granted anonymity, some
respondents may be concerned with how their responses will be interpreted if seen by others. Thus, respondents may answer questions in a less candid manner. This brings the validity of the data collected into question. This is a common problem for any research that relies on survey responses.

## Study Contributions

Perhaps the most important contribution of this research relates to the study methodology. I have applied theoretical approaches on legislative and interest group relationships with and institutional design of regulatory agencies developed for federal agencies to a set of state regulatory agencies. Certainly this is not the first time federally developed theories have been tested at the state level. However, it is fair to say that this is an approach that has not been mined sufficiently. Teske (1994), in particular, has noted the absence of research built on theories of institutional selection and transaction costs that examine state regulatory relationships. This research is one contribution to what hopefully will be the growing literature on state regulatory agencies analyzed through the prism of theories developed to test federal level relationships among the executive, the legislature, the bureaucracy and organized interests.

A second contribution of the research is the development and exploration of the policy activism concept. By enlarging the concept of activism - beyond counts of legislative activity (e.g., bills introduced, floor amendments, speeches, bills sponsored, time spent on committee matters, and time meeting with fellow
lawmakers, legislative staff, the media, organized interests and bureaucrats) - to include policy formulation, it is now possible to account for another way state actors allocate and spend their time. It provides another method from which to analyze the activities of a variety of state actors.

The third contribution of this research is the examination of programmed and non-programmed decision making (Simon 1960). Decision making is an integral part of an organization's function; it is the means by which the purpose of an organization is tied to its actions. Applying Simon's theory of decision making in an organizational environment has helped tease out some of the differences between policy and routine behaviors. Policy decisions involve choices among a variety of alternatives; routine decisions are choices made among fixed or specific practices. The research furthers understanding of an organization's programmed and non-programmed decision making.

Finally, the use of case studies provides useful insights and examples to the research investigation. These "in the trenches" perspectives add color and a real world sense to many of the theoretical arguments and empirical findings. In fact, sometimes the case study analogies contrasted with empirical results. A related contribution of the case studies has been the lessons learned by state agencies about program reform. Some state medical boards have been successful in their efforts to engage new policy areas, work more effectively with other state actors, and carry out their regulatory responsibilities more efficiently. The case studies have helped add texture and depth to the research endeavor.

## Implications for Policy

The research has provided an opportunity to learn lessons from states that are trying to reform their medical boards. The determinants of success have varied across the states. There are many successful strategies to bring about policy change. States have identified some common methods to achieve their desired outcomes.

Among the most important lessons from the case studies is the vital role played by individual legislators. These lawmakers are key to boards interested in pursuing public policy and reform efforts. They can introduce bills, inform other members on the scope and need for reforms and can assure bill passage. A lawmaker whose background, previous work experience or district makes her interested in an area of health regulatory policy should be cultivated. This is especially important because frequently it is a legislator's interests not her committee assignment that drives her bill sponsorship.

The legislative budget process is pivotal. In state legislatures, the budget process frequently appears to have a twofold purpose: to authorize a board's appropriations as well as conduct oversight. While most boards are cashfunded, budgeting language in each state determines the fine print as to how a medical board may use its money. Thus, lawmakers have a great deal of power over board budgets. Oversight is frequently practiced at budget hearings. Medical boards may face arduous questioning about their actions, policies and decisions. If lawmakers are better informed about what medical boards'
missions, roles, responsibilities and activities, the hearings can become less burdensome.

Working in coalitions with state medical societies, other health regulatory actors, legislative staff members, and citizens can help ease the way for many medical board efforts. Forming alliances with other groups and organizations that have similar interests and priorities increases the likelihood of success. Establishing solid working relationships takes time and effort. Cooperation among groups is a long term investment strategy; it reaps high future returns.

Among the more interesting findings of the mail survey was the desire of executive directors to be more pro-active in the policy arena. Well over half of the executive directors, who reported they were not now pro-active, reported they ideally would like to be more pro-active in terms of initiating and promoting emerging state health regulatory policies. To be more effective board officials must step up their efforts to inform legislators, physicians, and the public about their contributions and activities. Stronger relationships with these groups will open channels of communication and ultimately make more efficient and effective state medical boards.

APPENDICES

## APPENDIX A

## Survey of Policies and Actions of State Medical Boards

## Survey on Policies and Actions of State Medical Boards August 1997

## I. Policy Questions

A1) Has your board done any of the following in seeking to participate in developing any rules or regulations with respect to the area of licensure of physicians practicing telemedicine? (Please mark all which apply.)
a. $\qquad$ formed a committee or task force
b. $\qquad$ adopted a board position
c. issued a statement of concern
d. initiated legislation
e. endorsed a position or testified at a legislative hearing
f. lobbied other state administrative officials
g. ___ held a hearing or a meeting
h. ___ taken other actions. Please specify
I. $\square$ taken no action

A2) If so, which of the following played a role in the board's actions regarding licensure of physicians practicing telemedicine? (Please mark all which apply.)
a. $\qquad$ board leadership
b. board staff
c. legislators' interest
d. governor's interest
e. $n$ new legislation or legislative directive
f. citizen complaint or petition
g. interest group interest
h. newspaper/media
I. court case
j. ___ other. Please specify

B1) Has your board done any of the following in seeking to participate in developing any rules or regulations with respect to the area of physicians working in managed care settings? (Please mark all which apply.)
a. ___ formed a committee or task force
b. adopted a board position
c. ___ issued a statement of concern
d. $\qquad$ initiated legislation
e. endorsed a position or testified at a legislative hearing
f. lobbied other state administrative officials
g. ___ held a hearing or a meeting
h. taken other actions. Please specify
I. $\qquad$ taken no action

B2) If so, which of the following played a role in the board's actions regarding physicians working in managed care settings? (Please mark all which apply.)
a. ___ board leadership
b. board staff
c. legislators' interest
d. $\qquad$ governor's interest
e. new legislation or legislative directive
f. citizen complaint or petition
g. $\qquad$ interest group interest
h. newspaper/media
I. court case
j. other. Please specify

C1) Has your board done any of the following in seeking to participate in developing any rules or regulations with respect to the area of licensure of physicians who practice alternative medicine? (Please mark all which apply.)
a. ___ formed a committee or task force
b. adopted a board position
c. __ issued a statement of concern
d. $\qquad$ initiated legislation
e. $\qquad$ endorsed a position or testified at a legislative hearing
f. $\qquad$ lobbied other state administrative officials
g. $\qquad$ held a hearing or a meeting
h. $\qquad$ taken other actions. Please specify $\qquad$
I. $\square$ taken no action

C2) If so, which of the following played a role in the board's actions regarding licensure of physicians who practice alternative medicine? (Please mark all which apply.)
a. ___ board leadership
b. ___ board staff
c. __ legislators' interest
d. $\qquad$ governor's interest
e. new legislation or legislative directive
f. citizen complaint or petition
g. $\qquad$ interest group interest
h. newspaper/media
I. court case
j. ___ other. Please specify

D1) Has your board done any of the following in seeking to participate in developing any rules or regulations with respect to making case information collected by the medical board available to the public? (Please mark all which apply.)
a. $\qquad$ formed a committee or task force
b. $\qquad$ adopted a board position
c. issued a statement of concern
d. $\qquad$ initiated legislation
e. endorsed a position or testified at a legislative hearing
f. $\qquad$ lobbied other state administrative officials
g. $\qquad$ held a hearing or a meeting
h. __t taken other actions. Please specify $\qquad$
I. ___ taken no action

D2) If so, which of the following played a role in the board's actions regarding making case information collected by the medical board available to the public? (Please mark all which apply.)
a $\qquad$ board leadership
b. board staff
c. $\qquad$ legislators' interest
d. $\qquad$ governor's interest
e. $\qquad$ new legislation or legislative directive
f. citizen complaint or petition
g. $\qquad$ interest group interest
h. $\qquad$ newspaper/media
I. court case
j. ___ other. Please specify

## II. Board Prerogatives and Control

1) What percentage of your budget comes from licensing fees? the state's General Fund? other sources? (Please be as specific as possible)
__ \% licensing fees
\% state's general funds
\% other. Please specify
__ \% other. Please specify
$\qquad$
$\qquad$
$100 \%$ total
2) How would you assess the influence of the following actors in the activities of your medical board? Please give a score to each player with 5 representing great influence and 1 representing no influence.
a. How would you assess the influence of the current governor in the activities of the medical board?

$$
1
$$

2
3
4
5
No influence
Great influence
b. The influence of the legislature's leadership in the activities of the medical board?
1
2
3
4
5

No influence
Great influence
c. The influence of individual legislators in the activities of the medical board?
1
2
3
4
5

No influence
Great influence
d. The influence of the state medical society in the activities of the medical board?
1
2
3
4
5

No influence
Great influence
e. The influence of the medical schools in the state in the activities of the medical board?
1
2
3
4
5

No influence
Great influence
f. The influence of public interest groups such as Citizens for Health in the activities of the medical board?
1
2
3
4
5

No influence
Great influence
g. The influence of the courts or specific court cases?
1
2
3
4
5

No influence
Great influence
3) If the board wants to initiate change in state policy (e.g. such as that in the state public health code) which of the following approaches would it follow? (Please rank order the top three choices, with 1 being first choice)
a. ___ draft and introduce the legislation
b. draft and work with legislative staff to introduce legislation
c. draft and work with individual legislators to introduce legislation
d. ___ consult the governor
e. ___ consult the state medical society
f. ___ consult the state health department
g. ___ consult with neighboring state boards
h. ___ consult with national medical society
l. discuss with consultants in the medical field
j. ___ other (Please specify)
k. ___ never initiate change
4) If the board wants to initiate changes, what are the biggest constraints it faces? (Please rank order the top three choices, with 1 being first choice)
a. $\qquad$ limitations in the public health code
b. limited staff resources
c. $\qquad$ gubernatorial reluctance or opposition
d. $\qquad$ lack of legislative support
e. $\qquad$ current or potential judicial involvement
f. bureaucratic barriers
g. $\qquad$ other $\qquad$
5) To which branch of the government does your medical board feel most accountable? (Please choose one only.)
a. $\qquad$ Legislature
b. Executive
c. Equally accountable to both
d. $\qquad$ Neither
6) How closely does the medical board work with other regulatory boards or agencies in the state? Please give a score to each player with 5 representing very closely and 1 representing not closely at all.
a. How closely does the medical board work with state nursing boards?
1
2
3
4
5

Not closely at all
Very closely
b. How closely does the medical board work with other health professional boards?
1
2
3
4
5

Not closely at all
Very closely
c. How closely does the medical board work with the state attorney general's office?
1
2
3
4
5

Not closely at all
Very closely
d. How closely does the medical board work with the state health agency?
1
2
3
4
5

Not closely at all
Very closely
e. How closely does the medical board work with national level contacts such as the Federation or the AMA?
1
2
3
4
5

Not closely at all
Very closely
7) Please assess the role of state medical boards in the policy world. On a scale of $1-5$, with 5 representing a policy pro-active position and 1 a policy reactive position:
a. How would you assess your own state medical board in terms of initiating and promoting emerging state policies?
$\begin{array}{lll}1 & 2 & 3\end{array}$
Reactive position
$3 \quad 4$
4
Pro-active position
b. Ideally, where would you like your state medical board to position itself in terms of initiating and promoting emerging state policies?

| 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: |
| Reactive position |  |  |  | Pro-active position |

Thank you very much for completing this survey. Neither you nor your state will be identified, but we would like to have your name, title, and state affiliation for our records. We would be happy to send you the results. If you have any questions or would like to comment on this survey please send an e-mail, call or fax Susan Silberman at: Silberma@pilot.msu.edu, 517-353-9876 phone, and fax 517-432-1091. Written requests should be sent to: Susan Silberman c/o Michigan State University, 303 S. Kedzie Hall, East Lansing, MI 48824.

Name:
Title:
Address: $\qquad$

I would like a copy of the survey results with research findings:
Yes No

## APPENDIX B

## Survey Letters

Date (August 20, 1997)
Name, Title
Office
Address
Address

Dear Name:
I am writing you to request your participation in a survey which seeks information on the recent policy activities of state medical boards and on the types of environments in which they operate. The goal is to compile and disseminate a report analyzing the role of state medical boards as potential or actual participants in health professions regulatory change. The study is funded by the University of California Center for the Health Professions and the Pew Charitable Trusts.

I would greatly appreciate it if you could take a few minutes to complete and return the enclosed survey. I have enclosed a stamped self-addressed envelope for your convenience. If you have any written materials which you would like to share or which you have mentioned on the questionnaire, I would very much like to have them.

All answers you provide will be held in strictest confidence, and your identity will be scrupulously protected. The survey is being conducted for scholarly research and evaluative purposes. The results of this research will be available to all interested persons and should provide useful information to you and others on the role of state medical boards in state policymaking.

Thank you for your time and attention to this request. I look forward to your reply. If you have any questions about this, please feel free to call me at 517-353-3292 or Susan Silberman at 517-353-9876.

Sincerely,

Carol S. Weissert, Ph.D.
Associate Professor of Political Science

Date (October 17, 1997)
Name, Title
Office
Address
Address

Dear Name:
Several weeks ago, I contacted you to request your participation in a survey which seeks information on the recent policy activities of state medical boards and on the types of environments in which they operate. The goal is to compile and disseminate a report analyzing the role of state medical boards as potential or actual participants in health professions regulatory change. The study is funded by the University of California Center for the Health Professions and the Pew Charitable Trusts.

I would like to encourage you to take a few minutes to complete and return the enclosed survey. I have enclosed a stamped self-addressed envelope for your convenience. If you have any written materials which you would like to share or which you have mentioned on the questionnaire, I would very much like to have them.

We have heard from over half the state medical boards and very much would like to have your experiences reflected in the study. All answers you provide will be held in strictest confidence, and your identity will be scrupulously protected. The survey is being conducted for scholarly research and evaluative purposes. The results of this research will be available to all interested persons and should provide useful information to you and others on the role of state medical boards in state policymaking.

Thank you for your time and attention to this request. I look forward to your reply. If you have any questions about this, please feel free to call me at 517-353-3292 or Susan Silberman at 517-353-9876.

Sincerely,

Carol S. Weissert, Ph.D.
Associate Professor of
Political Science

## APPENDIX C

Interview Protocols

## Pew Protocol for Interviews

with Board Actors

1. How would you describe your organization's/office's role?
2. What is the relationship between your organization and the medical board?
3. What is the relationship between the medical society and the medical board?
4. How would you define the mission of the state medical board? Who are the key political, bureaucratic and interest groups actors who help carry out its mission? Extent of delegation and independence.
5. I am trying to better understand how you work with the medical board. Could you identify a recent issue you worked with the medical board and walk me through the process?

- where did the policy idea come from and how did the board get involved and why (objectives)
- how did you work together? Set up ad hoc committee? support legislation? Testify together?
- what if any was the role of the media in this effort
- how successful was the effort
- what things did the board do right and what do you wish you could do over again

6. We define a policy entrepreneur as someone inside or outside the government who advocates for proposals or for the prominence of an idea. Based on this definition, can you identify any policy entrepreneurs who are or were involved in any of the health profession regulatory matters we have been discussing?
7. Please assess the role of the state medical board in the policy world. On a scale of 1 to 5 , with 5 representing a policy pro-active position, how would you assess the state medical board in terms of initiating and promoting emerging state policies?

7a. Using the same 1 to 5 scale, ideally, where do you think the state medical board should position itself in terms of initiating and promoting emerging state policies?
8. Given your expertise, can you identify policy areas affecting health professions regulation that are on the legislative or gubernatorial agenda? What are they and when are they likely to arise?
9. Do you think the your medical board has been more the focus in public policy in recent years than in the 1980s? Do you think this is a temporary phase or will there be a more permanent change in the way the medical board conducts its duties? Why?
10. On a scale of 1 to 5 , with 5 being the most autonomous, how much autonomy do you think the medical board has? What areas does the board have autonomy in? Board member selection, budget, etc? Does the board have an expanding mission or new responsibilities given the changing environment of health professions regulation?

10a. Can you tell me about the medical board's budget process. (EXECUTIVE DEPT ONLY)

10b. Elaborate about legislative oversight over the medical board. How is it practiced? Examples

10c. Does the state medical society have an opportunity to participate in any of the medical boards decision-making? If so, how.
11. Based on your knowledge and expertise in this area, what advise would you give other state medical boards who are interested in becoming more policy active? Can you suggest any lessons from your previous experience that you would pass along? (e.g. what this board did right and or wrong)

Pew Protocol for Interviews<br>with Elected State Officials

1. What recent medical board regulatory matters have you been involved with? Specific policy examples.
2. We define a policy entrepreneur as someone inside or outside the government who advocates for proposals or for the prominence of an idea. Based on this definition, can you identify any policy entrepreneurs who are or were involved in any of the health profession regulatory matters we have been discussing?
3. Please assess the role of the state medical board in the policy world. On a scale of 1 to 5 , with 5 representing a policy pro-active position, how would you assess the state medical board in terms of initiating and promoting emerging state policies?
4. Using the same 1 to 5 scale, ideally, where do you think the state medical board should position itself in terms of initiating and promoting emerging state policies?
5. Do you consider the medical board to be a change agent in policy matters?
6. Do you think the your medical board has been more the focus in public policy in recent years than in the 1980s? Do you think this is a temporary phase or will there be a more permanent change in the way the medical board conducts its duties? Why?
7. Please comment on legislative oversight over the medical board. How is it practiced?
8. Based on your knowledge and expertise in this area, what advise would you give other state medical boards who are interested in becoming more policy active? Can you suggest any lessons from your previous experience that you would pass along? (e.g. what this board did right and or wrong)

Back up Questions:

- Can you begin by describing your involvement with health occupation regulation in your state? How long have you been interested in this area and where did the interest come from?
- How would you describe the mission or purpose of the medical board? Who are the key political, bureaucratic and interest groups actors who help carry out its mission?
- On a scale of 1 to 5 , with 5 being the most autonomous, how much autonomy do you think the medical board has? What areas does the board have autonomy in? Board member selection, budget, etc? Does the board have an expanding mission or new responsibilities given the changing environment of health professions regulation?
- From your vantage point, what is the relationship between the medical society and the medical board? Does the state medical society have an opportunity to participate in any of the medical boards decision-making? If so, how.


## Pew Protocol for Interviews with Medical Board

1. Define the mission of your medical board. Who are the key political, bureaucratic and interest group actors who help carry out the mission?
2. Do you think the your medical board has been more the focus in public policy in recent years than in the 1980s? Do you think this is a temporary phase or will there be a more permanent change in the way the medical board conducts its duties? Why?
3. We are trying to learn more about medical boards and their policy roles. Can you pick a recent policy area which has come up and which is important to the board and walk me through how the medical board works on it? That is, -- where did the policy idea come from and how did the board get involved and why (objectives)
a. what was the board's initial response
b. who supported and opposed the effort
c. in what order did you set up task force, hold hearing, determine a position, support legislation
d. what if any was the role of the media in this effort
e. did the board's position change over time
f. are you still modifying your position
g. how successful was the effort
h. what things did the board do right and what do you wish you could do over again
i. what obstacles did the board face
4. When does the board prefer not to be involved with policy matters
5. Who on your board testifies before the legislature? Serves as the liaison with the governor? With other groups like the state medical society?
6. We define a policy entrepreneur as someone inside or outside of government who advocates for proposals or for the prominence of an idea. Based on this definition, can you identify any policy entrepreneurs who are or were involved in any of the matters we have been discussing?
7. Are there other major policy areas affecting the board that are on the legislative or gubernatorial agenda? What are they? When are they likely to arise?
8. On a scale of 1 to 5 , with 5 being the most autonomous, how much autonomy do you think the medical board has? What areas does the board have autonomy in? Board member selection, budget, etc?

8a. Extent of legislative delegation and independence?
8b. Can you comment on the extent of legislative oversight for the medical board?

8c. Has the board's mission expanded over time/recently? What kinds of new responsibilities has the medical board been taking on?
9. In our preliminary research, we found that medical societies heavily influence the actions of many medical boards. In your state is the state medical society a major influence on the medical board? If so, how?

9a. Does the medical society have opportunity to participate in medical board decision-making? If so, how. Examples.
10. What sources of information does the medical board turn to or use? (e.g. Internet, professional colleagues, other professional boards, consulting firms, national institutions or organizations such as the Federation, AMA, Citizens for Health, Citizens Advocacy Center)
11. Has your board changed the way it conducts its public business? In what ways over the past few years?

11a. How has the mission of the medical board changed over time?
12. Does the medical board work with boards in neighboring states? In the region? Why/why not? If so, in what ways? Only on specific matters?
13. Does the medical board coordinate with other state health profession boards in matters relating to policy, procedures and standards? Give examples, which states and which boards?
14. Does the medical board have reciprocity with other states re: licensing etc.? If so, which states? Why, on what basis?
15. How closely do you work with the state attorney general's office?
16. In the last few years the health professions regulation environment has changed a great deal. As a consequence the board is in a transition phase
between the old order and the new emerging one. How does the board mediate between these two different forces? How does the board feel and respond to these conflicting roles? Has there been an attempt to find or build new coalitions?
17. What lessons have you learned about public policy activism that you would like to share with other medical boards?

DRAFT 1/22/98

## Pew Protocol for Interviews <br> with Legislative Staff

1. Can you begin by describing the (blank) Committee's jurisdiction and how health professions regulation falls under its discretion?
2. What kinds of health professions regulatory matters does the committee get involved with? (POLICY)
3. What recent medical board regulatory matters, if any, have come before the committee? Specific policy examples. (POLICY)
4. On this policy topic, do you know where the idea for the bill came from? A specific legislator, governor, interest group, policy entrepreneur? (POLICY)

4a. Had it come before the committee previously? (POLICY)
4b. Did the medical board itself have a role in the formation or enactment of the policy? (POLICY)
5. What was the nature of the problem the bill was designed to solve/address? Was it part of a broader health reform effort? (POLICY)
6. Who supported and opposed the measure? (Any in the legislature and the executive office) (POLITICAL)

6a. Did the governor get involved in this matter? (POLITICAL)
6b. What problems were encountered as the policy matter wound its way through the legislative process? How were these barriers overcome? (POLITICAL)
7. How did the state medical society feel about the matter? (POLITICAL \& OTHER ACTORS)
8. What actors came before the committee or worked with the staff on this matter? (OTHER ACTORS)
9. Did the media play any role in this (or another) matter? What about the role of the public? The role of Citizens of Health or Citizens Advocacy Center? (OTHER ACTORS)
10. Has there been any follow up by the committee or legislature on this matter? Is there any monitoring associated with the measure, if so what? Does the measure include any reporting back by the medical board? (POLICY)
11. Who is responsible for implementing the measure? (POLICY)
12. In your view was there adequate funding of the measure? (POLITICAL)
13. Do you think the state medical board was a change agent (was it involved in putting the item on the agenda, providing information, proposing a solutions or urging action?) (POLICY)
14. Are there other major policy areas affecting the board that are on the legislative or gubernatorial agenda? What are they? When are they likely to arise? (POLICY)
15. Do you think the recent attention to public policy involving medical boards in your state is a temporary phase or will there be a more permanent change in the way the medical board conducts its duties? (POLICY)
16. How would you define a medical board's function? (Can be respondent's personal view or of Committee) What is its role? What problem is it trying to solve? The role of its staff? (STRUCTURE)

16a. What is the ideal role of the medical board in making and implementing state policy affecting the practice of medicine and health profession regulation? (POLICY)
17. On a scale of 1 to 5 , with 5 being the most autonomous, how much autonomy do you think the medical board has? What areas does the board have autonomy in? Board member selection, budget, etc? (STRUCTURE \& POLITICAL)
18. Does the committee get involved with any administrative matters with regard to BPQA? (Finance will be default) If so, can you describe them? (Personnel matters, how board members selected) (STRUCTURE, POLITICAL \& COMPOSITION)
19. The agency's budget - how is it funded? Portion from state appropriations versus its own generated dollars? Is the agency's budget part of larger budget within an executive agency? Can the executive agency cut BPQA's budget? Does all funding go directly to BPQA or can the executive agency hold funds? Does the legislature specify how it may use its budget? When testifying before the committee, does BPQA testify with the Dept of Health and Mental Hygiene, or do they testify separately re: budget issues? (STRUCTURE \& POLITICAL)
20. In our preliminary research, we found that medical societies are heavily influence the actions of many medical boards. In your state, is the state medical society a major influence on the state medical board? If so, how? (POLICY, POLITICAL, STRUCTURE)
21. We define a policy entrepreneur as someone inside or outside of government who advocates for proposals or for the prominence of an idea. Based on this definition, can you identify any policy entrepreneurs who are or were involved in any of the matters we have been discussing? (POLICY)
22. Please assess the role of (your state) medical board in the (your state) policy making. On a scale of 1 to 5 , with 5 representing a policy pro-active position, how would you assess the state medical board in terms of initiating and promoting emerging state policies? POLICY \& POLITICAL)

22a. Using the same 1 to 5 scale, ideally, where do you think the state medical board should position itself in terms of initiating and promoting emerging state policies? (POLICY)
23. Based on your knowledge and expertise in this area, what advice would you give other state medical boards who are interested in becoming more policy active? Can you suggest any lessons from your previous experience that you would pass along? (e.g. what this board did right and or wrong) (POLICY)

## REFERENCES

## References

Ameringer, Carl F. 1999. State Medical Boards and the Politics of Public Protection. Baltimore: John Hopkins University Press.

Andrew, Gwen and Harold Sauer. 1996. "Do Boards of Medicine Really Matter? The Future of Professional Regulation." Federation Bulletin. 83:228-236.

Barrilleaux, Charles. 1999. "Statehouse Bureaucracy: Institutional Consistency in a Changing Environment." In American State and Local Politics: Directions for the 21 ${ }^{\text {st }}$ Century. Ronald E. Weber and Paul Brace, eds., New York: Chatham House.

Baumgartner, Frank and Bryan Jones. 1993. Agendas and Instability in American Politics. Chicago: University of Chicago Press.

Belluck, Pam. 1998. "Weary of Gun Violence, Chicago Considers Suit." New York Times. 12 June. A12.

Berry, Jeffrey. 1977. Lobbying for the People. Princeton: Princeton University Press.

Berry, Jeffrey. 1984. The Interest Group Society. Boston: Little, Brown.
Berry, Jeffrey. 1993. "Citizen Groups and the Changing Nature of Interest Group Politics in America." The Annals of the American Academy of Political and Social Sciences. Vol. 528:30-41.

Bledsoe, W. Craig and Richard A. Karno. 1989. "Government Agencies and Corporations." In Cabinets and Counselors: The President and the Executive Branch. Washington, D.C.: Congressional Quarterly.

Bowling, Cynthia and Deil S. Wright. 1998. "Change and Continuity in State Administration: Administrative Leadership Across Four Decades." Public Administration Review. 58:429-444.

Broscheid, Andreas. 1997. "Determinants of Professional Regulation: The Case of Medical Licensure." Paper presented at the 1997 Annual Meeting of the American Political Science Association, Washington, D. C.

Brudney, Jeffrey and F. Ted Hebert. 1987. "State Agencies and Their Environments: Examining the Influence of Important External Actors." Journal of Politics. 49:186-206.

Burner, Sally T. and Daniel Waldo. 1995. "National Health Expenditure Projections, 1994-2005." Health Care Financing Review. Summer: 221241.

Calvert, Randall, Mark Moran and Barry Weingast. 1988. "Congressional Influence over Policy Making: The Case of the FTC." In Congress: Structure and Policy, Matthew McCubbins and Terry Sullivan, eds. Cambridge: Cambridge University Press: 493-522.

Center for the Health Professions. 1998. "Growth of Managed Care." In Front and Center, Summer 1,3.

Council of State Governments. 1952. Occupational Licensing Legislation in the States. Chicago: The Council of State Governments.

Council of State Governments. 1996. State Government News. December. p. 25.

Department of Fiscal Services. 1991. Sunset Review: State Board of Physician Quality Assurance. Annapolis: Legislative Services.

Derthick, Martha and Paul Quirk. 1985. The Politics of Deregulation. Washington, D.C.: The Brookings Institute.

Eckl, Corina. 1996. "Rosy State Finances." State Legislatures. October/November. 12-15 and 17.

Eggertsson, Thrainn. 1990. Economic Behaviors and Institutions. Cambridge: Cambridge university Press.

Eisner, Marc Allen. 1993. Regulatory Politics in Transition. Baltimore: John Hopkins University Press.

Erickson, Jane. 1998. "Medical Board's Director Fired Without Explanation." The Arizona Daily Star. 23 January, 9.

Federation of State Medical Boards of the United States. 1989. 1989-1990 Exchange Section 3: Licensing Boards, Structure and Disciplinary Functions. FSMB: Euless, TX.

Federation of State Medical Boards of the United States. 1992. 1992-1993 Exchange Section 3: Licensing Boards, Structure and Disciplinary Functions. FSMB: Euless, TX.

Federation of State Medical Boards of the United States. 1995. 1995-1996 Exchange Section 3: Licensing Boards, Structure and Disciplinary Functions. FSMB: Euless, TX.

Federation of State Medical Boards of the United States. 1997a. "Medical Board Versus Managed Care: Court Sets Precedent." FSMB Newsline. September 1.

Federation of State Medical Boards of the United States. 1997c. "Telemedicine Regulation: Legislative Update." FSMB Newsline, October 1.

Federation of State Medical Boards of the United States. 1998a. "Summary of 1997 Board Actions." April.

Federation of State Medical Boards of the United States. 1998b. "Update: Murphy vs. Arizona Medical Board." FSMB Newsline, February/March 1.

Feldstein, Paul. 1988. The Politics of Health Legislation. Ann Arbor: Health Administration Press Perspectives.

Friedman, Milton. 1962. Capitalism and Freedom. Chicago: University of Chicago Press.

Fry, Brian. 1989. Mastering Public Administration: From Max Weber to Dwight Waldo. Chatham: Chatham House Publishers, Inc.

Glod, Maria. 2000. "Painkillers Stolen by Physician, Panel Says." Washington Post. 29 February. B1 and B5.

Goldstein, Amy. 1999. "Clinton Urges Steps to Curb Medical Errors." Washington Post. 7 December. A14.

Gormley, William T. 1983. The Politics of Public Utility Regulation. Pittsburgh: University of Pittsburgh Press.

Graddy, Elizabeth and Michael Nichol. 1989. "Public Members on Occupational Licensing Boards: Effects on Legislative Regulatory Reforms." Southern Economic Journal. 55:610-625.

Graddy, Elizabeth and Michael Nichol. 1990. "Structural Reforms and Licensing Board Performance." American Politics Quarterly. 18:376-400.

Gross, Stanley. 1984. Of Foxes and Hen Houses: Licensing and the Health

Professions. Westport: Quorum Books.
Hall, Richard. 1996. Participation in Congress. New Haven: Yale University Press.

Hammond, Tom and Jack Knott. 1988. "The Deregulatory Snowball: Explaining Deregulation in the Financial Industry." Journal of Politics. 50:3-30.

Hebert, Jeffrey, Jeffrey L. Brudney and Deil S. Wright. 1983. "Gubernatorial Influence and State Bureaucracy." American Politics Quarterly. 11: 243264.

Hibbing, John. 1991. Congressional Careers: Contours of Life in the U.S. House of Representatives. Chapel Hill: The University of North Carolina Press.

Horn, Murray J. 1995. The Political Economy of Public Administration: Institutional Choice in the Public Sector. Cambridge: Cambridge University Press.

Interstudy Publications. 1996. The Interstudy Competitive Edge 6.2. Bloomington, MN: 28.

Interstudy Publications. 1998. The Interstudy Competitive Edge 7.2. Bloomington, MN: 32.

Joskow, Paul and Roger Noll. 1978. "Regulation in Theory and Practice: An Overview." California Institute of Technology, Social Science Working Paper No. 213. Pasadena, California.

Kerwin, Cornelius. 1994. Rulemaking: How Government Agencies Write Laws and Make Policy. Washington, D.C.: CQ Press.

Kingdon, John W. 1995. Agendas, Alternatives and Public Policies. New York: HarperCollins College Publishers.

Knickerbocher, Brad. 1996. "Who Pays for Alternative Care?" Christian Science Monitor. 11 March 1, 8.

Knott, Jack and Gary Miller. 1987. Reforming Bureaucracy: The Politics of Institutional Choice. Englewood Cliffs: Prentice-Hall, Inc.

Leonard, Lee. 1999. "As Tough As They Come." State Legislatures. May 18-21.

Lott, John R. Jr. 1998. "Will Suing Gunmakers Truly Save Lives?" Detroit News. 19 June. A19.

Lynk, William. 1981. "Regulatory Control of the Membership of Corporate Boards of Directors: The Blue Shield Case." Journal of Law and Economics. April:159-173.

Mahtesian, Charles. 1997. "Ten Hot Issues." Governing. February 22-23.
Mayhew, David R. 1974. Congress: The Electoral Connection. New Haven: Yale University Press.

McCubbins, Mathew. 1982. Rational Individual Behavior and Collective Irrationality: The Legislative Choice of Regulatory Form. Ph.D. dissertation, California Institute of Technology.

McCubbins, Mathew. 1985. "The Legislative Design of Regulatory Structure." American Journal of Political Science. 29:721-748.

McCubbins, Mathew and Thomas Schwartz. 1984. "Congressional Oversight Overlooked: Police Patrols versus Fire Alarms." American Journal of Political Science. 28:164-179..

Meier, Kenneth. 1979. Politics and Bureaucracy. N. Scituate, Massachusetts: Duxbury Press.

Meier, Kenneth. 1985. Regulation: Politics, Bureaucracy and Economics. New York: St. Martin's Press.

Meier, Kenneth. 1988. The Political Economy of Regulation: The Case of Insurance. Albany: SUNY Press.

Miller, Cheryl. 1987. "State Administrator Perceptions of the Policy Influence of Other Actors: Is Less Better?" Public Administration Review 79: 10941117.

Mitchell, Alison. 1999. "G.O.P. Attorneys General Unite to Push an Agenda of Restraint." New York Times. 22 June. A1 and A18.

Moe, Terry. 1982. "Regulatory Performance and Presidential Administration." American Journal of Political Science. 26:197-224.

Moe, Terry. 1985. "Control and Feedback in Economic Regulation: The Cases
of the NLRB." American Political Science Review. 79:1094-1117.
Moe, Terry. 1987. "An Assessment of the Positive Theory of 'Congressional Dominance'." Legislative Studies Quarterly. 12:475-519.

Moe, Terry. 1989. "The Politics of Bureaucratic Structure." In Can the Government Govern? John Chubb and Paul Peterson, eds. Washington, D.C.: The Brookings Institute. 267-329.

Moe, Terry. 1990. "The Politics of Structural Choice." In Organization Theory. Oliver Williamson. New York: Oxford University Press. 116-153.

National Conference of State Legislatures. 1994. State Legislatures. December p. 14.

Neal, Dave. 1998. The Massachusetts Board of Registration in Medicine. Personal Phone Interview. 3 August.

Nifong, Christina. 1996. "Alternative Treatments Make Gains in Medical Community." Christian Science Monitor. 23 October. 1, 8.

Nifong, Christina. 1997. "Taking Stock of Bay States's Program." Christian Science Monitor. 16 January. 10-11.

Niskanen, William, 1971. Bureaucracy and Representative Government. Chicago: Aldine.

Noll, Roger. Ed. 1985. Regulatory Policy and the Social Sciences. Berkeley: University of California Press.

Noll, Roger and Bruce Owen. 1983. The Political Economy of Deregulation: Interest Groups in the Regulatory Process. Washington, D.C.: American Enterprise Institute.

Oppel, Richard A. Jr. 2000. "New H.M.O. Fight: Medical Discipline; Insurer Sues Over State Rebuke of Its Doctor." New York Times. 28 May.

Pear, Robert. 1998. "Sharp Rise Predicted in Health-Care Spending in Next Decade." New York Times. 15 September. A21.

Quirk, Paul J. 1981. Industry Influence in federal Regulatory Agencies. Princeton: Princeton University Press.

Quirk, Paul J. 1980. "The Food and Drug Administration." In James Q. Wilson, ed. The Politics of Regulation. New York: Basic Books. Pp. 191-234.

Reeher, Grant. 1995. "Conceptualizing Legislative Activism." Paper presented to the 1995 Annual Meeting of the American Political Science Association, Chicago.

Rosenthal, Alan. 1998. The Decline of Representative Democracy. Washington, D.C.: Congressional Quarterly Press.

Rothenberg, Lawrence, S. 1994. Regulation, Organizations, and Politics: Motor Freight Policy at the Interstate Commerce Commission. Ann Arbor: The University of Michigan Press.

Rourke, Francis. 1984. Bureaucracy, Politics and Public Policy. $3^{\text {rd }}$ Ed. New York: HarperCollins.

Schattschneider, E. E. 1960. The Semi-Sovereign People. New York: Holt, Rinehart and Winston.

Schneider, Saundra K. 1987. "Influence on State Professional Licensure Policy." Public Administration Review. November/December: 479-484.

Scholz, John and Feng-heng Wei. 1986. "Regulatory Enforcement in a Federalist System." American Political Science Review. 80:1249-1270.

Schramm, Wilbur. 1971. "Notes on Case Studies of Instructional Media Projects." Stanford University, California Institute for Communication Research. December.

Schulz, Todd. 1998. "Imposter Doctor Accepts Plea Deal." Lansing State Journal. 16 July. 1A and 2A.

Seefeldt, Kristin, LaDonna Pavetti, Karen Maguire, and Gretchen Kirby. 1998. "Income Support and Social Services for Low-Income People in Michigan." New Federalism: Highlights from State Reports. September 16.

Shimberg, Benjamin. 1979. "In the Face of Sunset: A Survival Kit for Licensing Boards." In Copascope, Vol. 1, No. 2. February. Princeton: Educational Testing Service, Center for Occupational and Professional Assessment.

Simon, Herbert. 1960. The New Science of Management Decision. Englewood

Cliffs: Prentice-Hall, Inc.
Sinclair, Barbara. 1989. The Transformation of the U.S. Senate. Baltimore: Johns Hopkins University Press.

Smith, Steven. 1989. Call to Order: Floor Politics in the House and Senate. Washington, D. C.: The Brookings Institute.

Squire, Peverill. 1992. "Legislative Professionalization and Membership Diversity in State Legislatures." Legis/ative Studies Quarterly. 17:69-79.

Stigler, George. 1971. "The Theory of Economic Regulation." Bell Journal of Economics and Management Science. 2:3-21.

Street, Paul. 1998. "The Poverty of Workfare." Dissent. Fall 53-59.
Svorny, Shirley and E. F. Tomas. 1998. "Entry Barriers and Medical Board Funding Autonomy." Public Choice. 97:93-106.

Teske, Paul. 1990. After Divestiture: The Political Economy of State Telecommunications Regulation. Albany: State University of New York Press.

Teske, Paul. 1991. "Interests and Institutions in State Regulation." American Journal of Political Science. 35:139-154.

Teske, Paul. 1994. "The State of State Regulation." In David Rosenbloom and Richard Swartz, eds. The Handbook of Regulation and Administrative Law. New York: Marcel Dekker Inc.

Teske, Paul. ed. 1995. American Regulatory Federalism and Telecommunications Infrastructure. Hillsdale: Lawrence Erlbaum Associates, Publisher.

Teske, Paul, Samuel Best and Michael Mintrom. 1995. Deregulating Freight Transportation: Delivering the Goods. Washington, D.C.: The AEI Press.

Teske, Paul and Mallika Bhattacharya. 1995. "State Government Actors Beyond the Regulators." in Paul Teske, ed. American Regulatory Federalism and Telecommunications Infrastructure. Hillsdale: Lawrence Erlbaum Associates, Publisher. 47-65.

Thomas, Clive S. and Ronald Hrebenar. 1990. "Interest Groups in the States."

In Virginia Gray, Herbert Jacob and Robert Albritton, eds. Politics in the American States: A Comparative Analysis. $5^{\text {th }}$ edition. New York: HarperCollinsPublishers Inc. 123-158 and 560-567.

Thomas, Clive S. and Ronald Hrebenar. 1995. "Interest Groups in the States." In Virginia Gray and Herbert Jacob, eds. Politics in the American States: A Comparative Analysis. $6^{\text {th }}$ edition. Washington, D.C.: C. Q. Press. 122158.

Thomas, Clive S. and Ronald Hrebenar. 1999. "Who's Got Clout? Interest Group Power in the States." State Legislatures. April 30-34.

Tilly, Chris. 1999. "Beyond Patching the Safety Net." Dollars and Sense. January/February. 14, 36-38.

Tweedie, Jack. 1997. "A Good Time for Welfare Reform." State Legislatures. July/August. 18-19.

United States Bureau of Census. 1997. Statistical Abstract of the United States: 1997. ( $117^{\text {th }}$ edition.) Washington, D.C.

Vogel, David. 1981. "The 'New' Social Regulation in Historical and Comparative Perspective." In Regulation in Perspective. Thomas K. McCraw editor. Cambridge: Harvard University Press.

Weingast, Barry and Michael Moran. 1983. "Bureaucratic Discretion or Congressional Control? Regulatory Policy-Making at the Federal Trade Commission." Journal of Political Economy. 91: 765-800.

Weisbrod, Burton A. 1998. "Institutional Form and Organizational Behavior." In Private Action and the Public Good. Walter W. Powell and Elisabeth S. Clemons editors. New Haven: Yale University Press.

Weiss, Rick. 1999. "Medical Errors Blamed for Many Deaths." Washington Post. 1 January. A1 and A8.

Weissert, Carol. S. and Sanford Schram. 1996. "The State of American Federalism 1995-1996." Publius: The Journal of Federalism. 26, 3:1-26.

Weissert, Carol. S. and Sanford Schram. 1998. "The State of American Federalism 1997-1998." Publius: The Journal of Federalism. 28, 1:1-22

Weissert, Carol and Susan Silberman. 1998b. "Kicking and Screaming: Policy

Change in an Unlikely State Regulatory Agency." Paper presented at the 1998 Annual Meeting of the American Political Science Association. Boston.

Weissert, Carol and William Weissert. 1996. Governing Health: The Politics of Health Policy. Baltimore: Johns Hopkins University Press.

Whitman, David. 1995. "Michigan's Phoney Welfare Numbers: Compleat Engler." New Republic. 6 February. 13-15.

Williams, Bruce. 1997. "Economic Regulation and Environmental Protection" in Politics in the American States: A Comparative Analysis. Virginia Gray and Herbert Jacob editors. Washington, D.C.: CQ Press.

Williams, Bruce and Albert Matheny. 1983. "Testing Theories of Social Regulation: Hazardous Waste Regulation in the American States." Journal of Politics. 46: 428-458.

Wilson, James Q. ed. 1980. The Politics of Regulation. New York: Basic Books.
Wilson, James Q. 1989. Bureaucracy: What Government Agencies Do and Why They Do It. New York: Basic Books.

Wood, B. Dan. 1990. "Does Politics Make a Difference at the EEOC?" American Journal of Political Science. 34:503-530.

Wood, B. Dan and Richard Waterman. 1991. "The Dynamic of Political Control in Bureaucracy." American Political Science Review. 85; 801-828.

Wood, B. Dan and Richard Waterman. 1994. Bureaucratic Dynamics: The Role of Bureaucracy in a Democracy. Boulder: Westview Press.

Wright, Deil and Chung-Lae Cho. 1998. "State Administration and Intergovernmental Interdependency: Do National Impacts on State Agencies Contribute to Organizational Turbulence?" Paper presented at the 1998 Annual Meeting of the American Political Science Association. Boston.

Yin, Robert K. 1994. Case Study Research: Design and Methods. Thousand Oaks: Sage Publications, Inc.


[^0]:    1 The Federation of State Medical Boards (FSMB) is an umbrella organization composed of 69 member boards whose primary responsibilities and obligations are to protect the public through the regulation of physicians and other health care providers. The Federation serves as a liaison, advocate, and information source to the public and its members. It represents the various state medical boards and promotes standards for physician licensure, practice, discipline and public protection.

[^1]:    Finally, the research provides lessons to states who are trying to reform their medical boards, other regulatory boards or state entities. Efforts to reform state agencies are common throughout the country but what determines their success? The research sheds light on some successful strategies to bring about policy change. It identifies how states achieve their desired outcomes, which reform efforts work and which do not. This helps clarify our understanding

[^2]:    3 Enabling coalitions are those organized interests that clamor for the creation of an agency or a legislative initiative. These groups work with the legislature to bring about change in an area that is beneficial to their interests.

[^3]:    4 Fire alarm is a term, used by McCubbins and Schwartz (1984), used to identify a type of regulatory oversight style. Fire alarm oversight is less centralized; it relies on the oversight body - Congress or the state - to establish a system of rules, procedures and informal practices. In turn, this system enables citizens and organized interest groups to examine administrative decisions, identify violations and seek remedies.

[^4]:    5 Transaction costs are the costs that arise when individuals exchange ownership rights to economic assets and enforce their exclusive rights. Because information is costly, various activities related to the exchange of property rights between individuals give rise to transaction costs. The cost of transacting makes the assignment of ownership rights paramount, introduces the question of economic organization and makes the structure of political institutions a key to understanding economic growth and political changes (Eggertsson 1990). Horn uses transaction cost theory and a theory of legislative choice to explain key institutional characteristics of modern administrative government. He focuses on

[^5]:    same in both the practice of medicine and osteopathy (Department of Fiscal Services 1).

[^6]:    7 The information from Colorado, Maryland and Oregon was obtained through interviews conducted in these state during case study site visits.

[^7]:    8 There is generally a fairly high turnover rate of executive directors but the 1995-early 1997 changes seem noteworthy. For example, there were 26 changes in executive directors between the 1989/1990 and 1992/1993 editions of the Exchange Section 3: Licensing Boards, Structure and Disciplinary Functions. There were 33 changes in the listings between 1992/1993 and 1995/1996 editions. It is important to note that the period covered in the Exchanges is four years; the period reported in the text is half that period of time.

[^8]:    9 The extent of a medical board's autonomy depends on the structure of state government and the state's chief executive. For example, in Michigan, the medical board is considered an independent board. However, the governor believes the board functions in an advisory capacity. The governor has issued executive orders that curtail the medical board's decision making autonomy. Instead, medical board decisions are advisory only and may be overruled by the head of the Consumer and Industry Services or someone within the governor's office.

[^9]:    10 In this paragraph, I refer to each medical board as representing a state. Because some states have one allopathic medical board and one osteopathic medical board, the total number of states will sometimes be more than the 50. There are 66 entries in Table 2 including Washington, D.C. and Puerto Rico.

[^10]:    11 A medical society's role in nomination is conceived as independent from its strength as an interest group. For this reason they are modeled as two independent variables. Although they might be suspected of being endogenous, examination of correlations in Table 10 indicate the relationship is low and negative. This supports the notion of their independence.

[^11]:    12 Sixty-four questionnaires were mailed. There were three nonresponses and a total of 62 replies. The apparent discrepancy was caused in a state where one mailing was sent but two responses were received. While the Federation lists this state as having a joint medical and osteopathic board, separate responses were received from each board and were included in the analysis.

[^12]:    13 Each was also prominently featured in sessions at the 1997 Federation of State Medical Boards annual meeting April 17-19 in San Diego, CA.

    14 Telemedicine, broadly defined, encompasses a variety of electronic communication techniques that link a patient to a far-away specialist who evaluates the patient's medical condition.

[^13]:    16 Information on state public information activities was provided by Dave Neal, coordinator for the physician profile program of the Massachusetts Board of Registration in Medicine, 3 August 1998.

[^14]:    18 The question asks respondents: How would you assess the influence of the state medical society in the activities of the medical board?

[^15]:    19 Only 39 of the 61 boards responded to this question. But I am reporting the limited data because of the importance of the question and the issues it affects.

[^16]:    is 0 to 1 ; the mean is .49. Tests revealed that this variable was very similar to percentage of public members on a board. So I chose to use the public members variable as it more closely related to Horn's theory and is a recent reform introduced on many boards.

[^17]:    27 The composite variable was created mainly for use as a dependent variable in research question \#1. Because autonomy is a concept made up of three separate measures, I wanted to find a more tractable method to apply it in the analyses.

[^18]:    **Correlation is significant at the .01 level (1-tailed);

    * correlation is significant at the .05 level (1-tailed); and
    + correlation is significant at the .10 level (1-tailed).

[^19]:    - The budget variable column reflects logit results. The Pseudo R Square is .092 and the Chi Square is 4.740 .

[^20]:    31 In a previous paper, a Guttman scale was used. The results were similar, so I opted to use OLS analysis here.

    32 Scatter plot analysis of residuals against predicted values of $Y$ indicate minimal heteroskedasticity. The variance inflation factors (VIF) for the models did not exceed a value of 1 .

[^21]:    33 Scatter plot analysis of residuals against predicted values of Y indicate minimal heteroskedasticity. The variance inflation factors (VIF) for the models did not exceed a value of 1 .

[^22]:    34 A peer review organization (PRO) functions to review standards of medical care and allegations of overcharging. The PRO investigates the charges, makes recommendations and reports back to the medical board with its conclusions. By law, the PRO has 90 days to report its findings after receiving a referral. A PRO is important because it makes disciplinary decisions for the medical board.

[^23]:    35 Teske and Bhattacharya (1995) looked at state telecommunications laws but did not examine the role of activities of public utility companies (PUCs) in the passage of those laws.

[^24]:    36 The measure is the sum of the answers from Part I of the survey. It is made up of questions $\mathrm{A} 2 \mathrm{c}, \mathrm{B} 2 \mathrm{c}, \mathrm{C} 2 \mathrm{c}$, and D2c.

[^25]:    38 InterStudy defines HMOs as health plans that offer prepaid comprehensive health coverage for both hospital and physician services and where members are required to use participating providers and are enrolled for specific periods of time.

    39 I also analyzed the 1996 HMO data and there was no difference. I am using the data that best corresponds to the time frame of the mail survey.

[^26]:    40 Scatter plot analysis of residuals against predicted values of $Y$ indicate minimal heteroskedasticity. The variance inflation factors (VIF) for the models did not exceed a value of 1.6.

[^27]:    $44 e^{.851 \cdot 1.14}=e^{970}=2.638 \cong 3$.
    $45 e^{1.45}=4.263 \cong 4$.
    $46 e^{.788 \cdot 1.14}=e^{898}=2.455 \cong 3$.

[^28]:    48 Scatter plot analysis of residuals against predicted values of $Y$ indicate minimal heteroskedasticity. The variance inflation factors (VIF) for the models did not exceed a value of 1.6.

[^29]:    lation is significant at the .05 level (1-tailed); and + correlation is significant at the .10 level (1-tailed).

[^30]:    52 This case study focuses solely on legislative involvement not any of the other actors mentioned in the chapter. In the coming chapter, the case study examines the governor's role.

[^31]:    53 Squire measures professionalism using member pay, staff members per legislator, and total days in session for Congress and the 50 state legislatures. The measure is designed to show how closely a state legislature approximates the professional characteristics of the Congress.

[^32]:    56 Total actions are derived by summing the Total Prejudicial Actions and Non Prejudicial Actions. Prejudicial Actions include loss of license or privilege, restriction of license or privilege and other prejudicial action such as license modification as a result of penalty or reprimand. Loss of License or Privilege includes revocations, suspension, surrender or mandatory retirement of license or loss of privileges afforded by that license. Restriction of license includes probation, limitation or restriction of license or license privilege. Non Prejudicial Actions are actions that do not result in modification or termination of a license or privileges. Total Licensed Physicians is per 1,000 licensees within a state. Many physicians are licensed in more than one state. Total Number of Licensed Physicians Practicing In-State refers to the total number of physicians who are actually practicing within a state.

    57 Early in the analyses, I investigated using three other versions of the dependent variable - the CAI mean 1994-1996, the CAI mean 1995-1997 and CAI 1997. There was very little difference among the four variables. So I decided to use the variable that best corresponded to the time frame of the

[^33]:    survey. I used CAI means instead of the raw numbers to help deal with the large variance between the numbers from year to year.

[^34]:    * CAI mean refers to the mean of the various disciplinary actions per 1,000 physicians.

[^35]:    ${ }^{1}$ Source: Federation of State Medical Boards, 1995-1996 Exchange, 1995.
    ${ }^{2}$ Source: Mail survey. Since respondents were assured anonymity in the survey, the states are not identified in this table.

