

Walden University

COLLEGE OF MANAGEMENT AND TECHNOLOGY

This is to certify that the doctoral dissertation by

Marion G. Sleet

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Raghu Korrapati, Committee Chairperson,
Applied Management and Decision Sciences Faculty

Dr. Reza Hamzaee, Committee Member,
Applied Management and Decision Sciences Faculty

Dr. James Way, University Reviewer
Applied Management and Decision Sciences Faculty

Chief Academic Officer

Denise DeZolt, Ph.D.

Walden University
2010

Abstract

Resource Dependence and Medicaid Maximization in
Community Mental Health Organizations

by

Marion G. Sleet

M.A., University of Chicago, 1974

B.A., Princeton University, 1970

Dissertation Submitted in Partial Fulfillment
of the Requirement for The Degree of
Doctor of Philosophy
Applied Management and Decision Sciences

Walden University

May 2010

Abstract

This study examined factors that may influence the ability of mental health organizations to comply with Medicaid billing requirements in light of concerns about new contract provisions issued by the state mandating annual billing targets. The research questions were aimed at determining how and to what extent compliance with Medicaid billing requirements are explained by four variables derived from Pfeffer and Salancik's theory of resource-dependency: the percentage of the organization's contract revenues funded by grant(s) the size of the organization's mental health contract with the state, the size of the regional network where the organization operates, and whether or not the organization is a member of the mental health trade-association. The study utilized a cross-sectional regression analysis using secondary data from a convenience sample of 162 community mental health organizations. Results of the study included that the percentage of the organization's contract revenue funded by a grant was negatively related to compliance and trade-association membership was positively related to compliance. In addition, most of the variation in compliance was unexplained indicating that some expectations held by various stakeholders about these variables' impact on compliance were incorrect. Finally, the study concluded that further research that examines other explanatory variables based in both resource dependency theory and other theories of leadership and organizational effectiveness is needed. The study's implications for positive social change include information that could help lead to better decisions about the viability of community health organizations in a fee-for-service environment, higher quality services for clients being served, and more efficient and effective use of tax payer funds and other resources by state governments and community organizations.

Resource Dependence and Medicaid Maximization in
Community Mental Health Organizations

by

Marion G. Sleet

M.A., University of Chicago, 1974

B.A., Princeton University, 1970

Dissertation Submitted in Partial Fulfillment
of the Requirement for The Degree of
Doctor of Philosophy
Applied Management and Decision Sciences

Walden University

May 2010

UMI Number: 3397649

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI 3397649

Copyright 2010 by ProQuest LLC.

All rights reserved. This edition of the work is protected against unauthorized copying under Title 17, United States Code.



ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

Acknowledgments

I wish to express my appreciation, first and foremost, to my wife, Camille and sons Michael Sleet, M.D. and Brian Sleet J.D. Camille's support and understanding throughout this process have been the constant that made this dream possible. My pride in the accomplishments of my two sons has motivated and inspired me to stay the course.

Special thanks go to my former faculty mentor and committee chair, Dr. Marvel Lang, who directed and prepared me to successfully satisfy all the requirements for completion of the program. In addition, I wish to convey my thanks and gratitude to Dr. Raghu Korrapti for originally serving as a committee member and later assuming the responsibility of committee chairman. Moreover, I want to convey my thanks to Dr. Charles Corley for serving on my committee and providing constructive and useful feedback throughout the process.

Finally, I wish to thank all who have been important to the successful completion of my Ph.D., as well as express my apology that I am not able to convey my personal thanks to each and every one of you.

Table of Contents

List of Tables	v
Chapter 1: Introduction	1
Background	1
Research Problem Statement	3
Research Objectives, Questions, and Hypotheses	3
Research Question 1	4
Research Hypothesis 1	4
Research Question 2	4
Research Hypotheses 2	4
Research Question 3	5
Research Hypothesis 3	5
Research Question 4	5
Research Hypothesis 4	5
Purpose of the Study	5
Theoretical Framework	6
Operational Definitions	9
Assumptions, Limitations, and Delimitations	14
Significance of the Study	15
Significance for Positive Social Change	16
Summary	17
Chapter 2: Literature Review	19
Introduction	19

Theoretical Perspectives on Organizational Behavior	20
Resource-Dependency Theory	24
Organizational Responses to Environmental Demands	26
Resource Dependence, Power, and Organizational Compliance	27
Research Based on Resource-Dependency Theory	32
The Federal Medicaid Rehabilitation Option Program.....	52
The Illinois Medicaid Rehabilitation Option (MRO) Program.....	53
Factors Affecting the Growth of Medicaid Maximization Initiatives	55
The Illinois Medicaid Maximization Program.....	57
The Use of Multivariate Linear Regression.....	59
Summary	60
Chapter 3: Data and Research Methodology	62
Introduction.....	62
Research Hypothesis 1	62
Research Hypotheses 2	62
Research Hypothesis 3	63
Research Hypothesis 4.....	63
Research Design and Approach	63
Setting and Study Population.....	64
Instrumentation and Materials	64
Data Collection and Analysis.....	65
Protection of Participants' Rights	71
Summary	72

Chapter 4: Results	73
Introduction.....	73
Data-Screening Analysis.....	76
Test of Research Hypothesis 1.....	81
Test of Research Hypothesis 2.....	83
Test of Research Hypothesis 3.....	84
Test of Research Hypothesis 4.....	85
Summary	86
Chapter 5: Summary, Conclusions, and Recommendations.....	90
Overview.....	90
Interpretation of Findings	93
Discussion.....	94
Implications for Social Change.....	101
Recommendations for Action	103
Specific Recommendations.....	106
Strengthen Collaborations and Partnerships Between the State of Illinois and Illinois Community-Mental-Health-Provider Trade Associations.....	106
Strengthen the Oversight Role of the Illinois Mental Health Advisory Council as Part of Fee-for-Service Implementation in Illinois.....	106
Recommendations for Further Study	107
Final Word	110
References.....	111

Appendix A: Federal Financial Participation Growth in the Medicaid Rehabilitation Option Program.....	122
Appendix B: Overview of Licensure, Certification, and Monitoring Requirements.....	123
Appendix C: DHS Grant Adjustments Versus Consumer Price Index.....	124
Appendix D: Listing and Characteristics of Mental Health Organizations	125
Appendix E: Significant <i>F</i> -Change Values of <i>R</i> -Squared Change Based on Order of Entry in Hypothesis Testing.....	133
Appendix F: Significant <i>F</i> -Change Values of <i>R</i> -Squared Change Entered in Descending Order of Importance.....	134
Appendix G: Significant <i>F</i> -Change Values of <i>R</i> -Squared Change Entered in Ascending Order of Importance.....	135
Appendix H: Comparison of Outlier Values With Original Study Population Means....	136
Appendix I: Descriptive Statistics for All Variables Without Outliers	137
Appendix J: Descriptive Statistics for All Variables With Outliers	140
Appendix K: Scatter Plot of Residuals Showing Heteroscedasticity.....	143
Appendix L: Regression Coefficients.....	144
Curriculum Vitae	145

List of Tables

Table 1. Assessment of Skewness for All Continuous Variables.....	78
Table 2. Assessment of Kurtosis for All Continuous Variables.....	79
Table 3. Pearson Correlations Among All Independent Variables.....	81
Table 4. Summary of Research Questions, Findings, and Conclusions	100

Chapter 1: Introduction

Background

The Supplemental Security Income Act of 1972, the Rehabilitation Act of 1973, and the Community Support Program of 1977 allowed states to receive federal reimbursements for services to mentally ill people (Cutler, Bevilacqua, & McFarland, 2003). Under these federal statutes and regulations, states developed Medicaid Rehabilitation Option Programs that allowed them to claim federal Medicaid reimbursement for services provided by community mental health organizations (Cutler et al., 2003). The cutbacks in state and federal grants for community mental health services in the 1980s provided the initial impetus for Medicaid maximization, an initiative by states that required community mental-health-organization participation in the federal Medicaid program (Cutler et al., 2003). States viewed Medicaid maximization as a refinancing strategy that converted services funded by state dollars into services reimbursable through Medicaid (Buck, 2003).

Prior to the implementation of Medicaid maximization, the state of Illinois operated a voluntary program called the Medicaid Option Program (Community Behavioral Healthcare Association of Illinois [CBHA], 2000). Started in 1990, this program grew to include virtually all of Illinois nonprofit community mental health organizations funded by the Illinois Department of Human Services Division of Mental Health (CBHA, 1996). In 2003, 140 of the 162 Illinois Department of Human Services funded community mental health providers voluntarily enrolled in the Illinois Medicaid Rehabilitation Option (Illinois Division of Mental Health, 2005b).

To help address a projected \$2 billion state budget deficit, the governor of Illinois created the maximizing Medicaid Match initiative in 2004 (Illinois Division of Mental Health, 2005b). This Medicaid maximization initiative mandated community-provider participation in the Illinois Medicaid Rehabilitation Option. In addition, it required that all community mental health organizations funded by the State of Illinois meet annual targets for Medicaid billings as a condition of continued funding (Illinois Division of Mental Health, 2005b). Organization compliance with this new Medicaid billing requirement would result in a \$25 to \$40 million increase in annual federal Medicaid claims for community mental health services (Illinois Division of Mental Health, 2005b). State officials warned that cuts in provider contracts and basic mental health services to consumers could occur if organizations failed to meet their Medicaid billing targets (Illinois Division of Mental Health, 2005b).

The pressure for community mental health organizations to increase their levels of Medicaid billings led to concerns among state officials and the nonprofit community that a number of organizations may not be able to comply with Illinois' new billing requirements. There is variation among community mental health organizations in their degree of compliance with this requirement (Illinois Division of Mental Health, 2005a, p. 46). Without organizations' ability to comply with these new billing requirements, Illinois could be faced with cutting provider contracts and the amount of community mental health services available to consumers (Illinois Division of Mental Health, 2005b).

Research Problem Statement

There is concern among state officials and the nonprofit community that many community mental health organizations may not be able to comply with the new state Medicaid billing requirements. Consequently, the research problem of this study focused on variation in the levels of compliance with the state's Medicaid billing requirement and the reasons for it among Illinois community mental health organizations. This study assessed and determined how and to what extent the dependent variable, the level of community mental health organization compliance with the state's Medicaid billing requirement, can be explained by four independent variables derived from resource-dependency theory: (a) the organization's dependence on the state's grant funding, (b) the size of an organization's contract with the state, (c) the size of the regional network where the organization is located, and (d) the organization's trade-association membership.

Research Objectives, Questions, and Hypotheses

The objectives of the study were as follows:

1. To assess how and to what extent the level of organizational dependence on grant funding from the Illinois Division of Mental Health affects organizational compliance with the new state Medicaid billing requirement.
2. To determine how and to what extent the size of an organization's contract with the Illinois Division of Mental Health affects organizational compliance with the new state Medicaid billing requirement.

3. To determine how and to what extent trade-association membership affects organizational compliance with the new state Medicaid billing requirement.
4. To determine how and to what extent the size of the regional network in which an organization is located affects organizational compliance with the new state Medicaid billing requirement.

The major research questions and associated hypotheses tested the validity of the proposed relationships:

Research Question 1: How is the organizations' dependence on grant funding from the Illinois Division of Mental Health related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of that relationship?

Research Hypothesis 1: The organizations' dependence on grant funding from the Illinois Division of Mental Health is positively and significantly related to the degree of organizational compliance with the state Medicaid billing requirement.

Research Question 2: How is the size of an organization's Illinois Division of Mental Health's contract related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of the relationship?

Research Hypotheses 2: The size of an organization's contract with the Illinois Division of Mental Health is inversely and significantly related to the degree of organizational compliance with the state Medicaid billing requirement.

Research Question 3: How is membership in the statewide trade association related to the degree of organizational compliance with the new State Medicaid billing requirement and what is the extent of the relationship?

Research Hypothesis 3: Membership in the statewide trade association is positively and significantly related to the degree of organizational compliance with the state Medicaid billing requirement.

Research Question 4: How is the size of the regional network in which an organization is located related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of the relationship?

Research Hypothesis 4: The size of the network in which an organization is located is inversely and significantly related to the degree of organizational compliance with the state Medicaid billing requirement. A more detailed description of these variables and hypotheses in the context of this study will occur in Chapter 3.

Purpose of the Study

One purpose of the study was to determine how and to what extent organizational dependence on grant funding and the size of an organization's state contract are positively related to organizations' ability to comply with the state Medicaid billing requirements. The other purpose of the study was to determine how and to what extent organizations' trade-association membership and the size of the regional network in which an organization is located impact the organizations' ability to comply with state Medicaid billing requirements.

Investigations of Medicaid maximization assumed these initiatives successfully impact organizational performance without explicitly analyzing variation in the degree of

compliance with these new requirements across organizations and the factors that account for them (Buck, 2003; Froelich, 1999; Hadley & Culhane, 1993; Jerrell & Larsen, 1984; Mulroy & Tamburo, 2004; Sharfstein, 1978). This study sought to help fill this gap by examining the extent to which variations in levels of community organization compliance with Illinois Medicaid billing requirements are affected by the four variables identified above.

Theoretical Framework

Resource-dependency theory was selected as the theoretical framework for this study for several reasons. First, Casciaro and Piskorski (2005) pointed out that there have been relatively few attempts to use resource-dependence theory as, “a basis for testable empirical research” (p. 167) about organizational compliance and other forms of interorganizational influence. Second, there is an extensive body of literature supporting the relevance of resource-dependency theory for understanding organizational performance among profit and nonprofit organizations (Abzug, 1996; Dansky, Milliron, & Gamm, 1996; Dastmalchian, 1986; Froelich, 1999; Mano-Negrin, 2003; Mintz & Schwartz, 1985; Pfeffer & Salancik, 1978; Schmid, 2004). In addition, resource-dependency theory, developed by Pfeffer and Salancik, provided a useful framework for hypothesizing about the key variables in this study and their relationship to one another.

Pfeffer and Salancik’s (1978) resource-dependency theory conceptualized organizational compliance as an adaptive response to power differences in organizations. Pfeffer and Salancik argued that the ability of one organization to successfully influence another organization to comply with its demands is determined by the degree of power imbalance that exists between them (pp. 40–59). One of their central premises was that

(a) an Organization A that controls resources on which another Organization B depends has power over that organization, and (b) when Organization A has power over Organization B, Organization B attempts everything (decisions, activities, and actions) in its power to secure those critical resources over which Organization A has control (Pfeffer & Salancik, 1978, pp. 51–53).

There is support in the literature for the proposition that organizational dependence is positively related to organizational compliance with the demands of an external more powerful organization (Casciaro & Piskorski, 2005; Pfeffer, 1972a; Pfeffer & Nowak, 1976; Pfeffer & Salancik, 1978). For this reason, the concept can be used to explain levels of compliance with Medicaid billing requirement among Illinois nonprofit community mental health organizations.

If it is true that Organization B attempts everything (decisions, activities, and actions) in its power to secure those critical resources over which Organization A has control (Pfeffer & Salancik, 1978), then it is reasonable to hypothesize that organizational compliance with the Medicaid billing requirement will be positively related to the degree of organizational dependence on the state. Moreover, Pfeffer and Salancik (1978) identified one source of organizational dependence that is particularly applicable to Illinois community mental health organizations: organizational economic dependence on the state (Pfeffer & Salancik, 1978, pp. 52–55). To illustrate using community mental health organizations as an example, this study hypothesized that organizations that receive higher percentages of grant support are more likely to comply with Illinois' Medicaid billing requirements than those that do not because of a high level of

uncertainty about the ongoing viability of a grant-in-aid system. (Pfeffer & Salancik, 1978, pp. 52–55).

Two other variables, derived from Pfeffer and Salancik (1978) appeared useful for predicting organizations' compliance with the Medicaid billing requirement, both related to size. They were the size of an organization's contract with the Illinois Division of Mental Health and the size of the regional network in which an organization was located. Pfeffer and Salancik stated, "Organizations that are large have more power and leverage over their environments. They are more able to resist immediate pressures for change and, moreover, have more time in which to recognize external threats and adapt to meet threats" (p. 139). According to their theory, organizations that do a large amount of business with a powerful external organizational are more likely to be in a mutually dependent relationship with them. This type of relationships makes them more capable of exercising discretion and control with respect to compliance with the demands of the more powerful external entity (Pfeffer & Salancik, 1978, pp. 56–58). The greater the degree of mutual dependence between organizations, the greater is the ability of the less powerful organization to comply when compliance furthers their self-interests and not comply when it does not (Casciaro & Piskorski, 2005; Jaffee, 2001; Pfeffer & Salancik, 1978).

Pfeffer and Salancik (1978) found that the size of the network in which the organization is located affects their willingness to comply with external organizational requirements. They argued that the size of the network served as a buffer against unwanted attempts at influence, allowing the more dependent organization greater discretion with respect to compliance. This study predicted that there would be a

significant and inverse correlation between size of network and organizational compliance.

Finally, Pfeffer and Salancik (1978) theorized that variables such as involvement in interorganizational networks and the size of networks affected levels of organizational compliance with external demands. As a consequence, this theory permitted an examination of the way that involvement in interorganizational networks (evidenced by trade-association membership) impacts organizations' ability to comply with the Medicaid billing requirements (Pfeffer & Salancik, 1978, pp. 44–45). The research on the consequences of resource dependence, organizational size, and network size, and external relationships will be examined as part of the literature review in Chapter 2.

Operational Definitions

The dependent variable, the level of organizational compliance with the state Medicaid billing requirement, was operationally defined as the annual amount of Medicaid and non-Medicaid revenue billed by an organization as a percentage of its fiscal year (FY) '05 Medicaid target, through the Medicaid Rehabilitation Option Program. The agency Medicaid target was the total amount of Medicaid the state required an organization to bill and claim in FY'05. The annual FY'05 amount of Medicaid generated as a percentage of the FY'05 target was calculated by dividing annual Medicaid claims actually submitted by and paid to each community mental health organization in state FY'05 by the amount of the FY'05 Medicaid contract targets.

The FY'05 data on Medicaid billings exhibits variations among community mental health organizations in levels of compliance with their FY'05 contractual targets. This variation, along with opposition to the state Medicaid targets from the Community

Behavioral Healthcare Association (CBHA) of Illinois, one of the largest statewide provider associations, led to concerns about providers' ability to comply with this requirement among many state officials and agency leaders (CBHA, 2004).

The first independent variable, the degree of the organization's dependence on grant funding, is operationally defined as the percentage of an organization's total annual mental health contract that was a grant rather than fee-for-service funding. Historically, much of Illinois' community mental health provider funding for the provision of mental health services came from the Illinois Division of Mental Health (Powers, Powers, & Merriam, 2006). Powers et al. assumed that organizations with higher percentages of grant funding were more dependent on the Illinois Division of Mental Health and thus more susceptible to the state's attempt at influence. The measure was calculated by adding the annual amount of Illinois Division of Mental Health grant revenue in each FY'05 provider contract and dividing it by the total amount of the FY'05 contract to calculate the percentage of the each organization's FY'05 contract that is a grant. Values of this variable were compiled for each community mental health organization certified through the Division of Mental Health Medicaid Rehabilitation Option Program for FY'05. The Illinois funding year ran from July to June. Thus, FY'05 covered the period from July 1, 2004 to June 30, 2005.

The second independent variable was the size of an organization's contract with the Illinois Division of Mental Health. It was operationally defined as the dollar amount of a community mental health organization's annual contract with the Illinois Division of Mental Health. Illinois community mental health delivery has historically depended on community mental health organizations for the delivery of services. Consequently, this

study assumed organizations that do a greater amount of business with the Illinois Division of Mental Health were less dependent on the state. Moreover, they were less likely to be susceptible to pressure for compliance from the State of Illinois. The amount of the contract with the Illinois Division of Mental Health was measured using the number of dollars of contract awarded by the Illinois Division of Mental Health to a community mental health organization in FY'05 for the provision of mental health services.

The third independent variable was the organization's trade-association membership. It was operationally defined as a dues-paying member of the Illinois CBHA for FY'05. The study assumed that organizations that are trade-association members are more capable of complying with the Medicaid billing requirement despite the association's opposition to the initiative. Benefits of association membership assumed to promote organizational compliance included information, support, and technical assistance.

The fourth independent variable was the size of the regional network in which the organization was located. It was operationally defined as the total number of community agencies assigned to the network. The study assumed that organizations geographically located in larger mental health networks were less visible and therefore either perceived or experienced less external pressure to comply with the Medicaid maximization requirement.

The following is a list of terms and acronyms that were commonly used in this study:

FY'05 contract award. A legal agreement between the Illinois Division of Mental Health and a nonprofit, community mental health provider. The organization is awarded a preestablished amount of funding subject to a set of requirements and conditions with which it is expected to comply. Failure to comply with these conditions can affect the amount of revenue an agency actually receives under its contract. Illinois community mental health organization nonprofit entities are either separately incorporated in Illinois or established as divisions of city and county health departments that receive a grant from the Division of Mental Health to develop and operate mental health programs for a predefined geographical area (Illinois Division of Mental Health, 2005b).

Illinois Division of Mental Health. The primary state-government entity in Illinois that has responsibility for allocating grant funding to Illinois community mental health organizations and administering the Medicaid Rehabilitation Option (MRO) program (Illinois Division of Mental Health, 2005a).

Illinois Medicaid Rehabilitation Option Program. A state program operated under the federal Medicaid program that allows states and Illinois community mental health agencies to draw down Federal Financial Participation to the degree they successfully comply with a series of state and federal statutes, regulations, and policies (Illinois Division of Mental Health, 2005b).

Medicaid billing targets. Contract award amounts representing funding that must be earned by billing individual services reimbursable from either Medicaid revenue funds or non-Medicaid fee-for-service funds.

Medicaid/federal financial participation. Federal dollars that can be drawn by states to provide partial reimbursement for mental health services they provide to eligible

beneficiaries under the MRO using state matching funds (Illinois Department of Mental Health, 2005b).

Medicaid maximization program. Medicaid maximization was a strategy for using federal Medicaid dollars to refinance community mental health services that were traditionally funded through grants. Buck (2003) identified Medicaid maximization programs as a major factor in the growth of Medicaid as a payor of public mental health services between 1987 and 2003.

Mental health programs. A set of funding categories defined in a contract between the Division of Mental Health and community mental health organizations that reflects configurations of services designed to meet a specific mental health need of individuals in need of mental health services (Powers et al., 2006).

Non-Medicaid fee-for-service funding. Funding included in Medicaid billing targets that must be earned by providing and billing services approved under the MRO program to individual non-Medicaid eligible clients (Powers et al., 2006).

Non-Medicaid grant funds. Contract awards or reimbursement allocated for services that were not eligible for payment through the MRO. Non-Medicaid grant funds did not require agencies to serve specific numbers of clients or provide a specific number of services to be earned.

Medicaid revenue funds. Contract awards or reimbursement allocated for services to clients who were eligible for payment through MRO fee-for-service funding. These funds consisted of 50% state matching funds and 50% federal financial participation. The State of Illinois expected providers to earn these funds by billing for Medicaid-eligible services for qualified Medicaid beneficiaries (Powers et al., 2006).

Regional networks. Administrative designation used to divide the State of Illinois into multiple geographical areas for the purpose of developing, organizing, financing, and delivering a comprehensive array of services for mentally ill persons (Powers et al., 2006).

State matching funds. Revenue in the Illinois state budget that was eligible to be used to draw down Medicaid Federal Financial Participation funds from the federal government (Illinois Division of Mental Health, 2005b).

Statewide provider association. The CBHA of Illinois, the trade association for community providers of mental health services in Illinois. The group provides its members with information, business support, training and technical assistance, and public-policy advocacy (CBHA, 2002).

Assumptions, Limitations, and Delimitations

The following assumptions were used to conduct this study.

1. The study sample provides sufficient information on each member to be representative of the population being studied.
2. The categories and definitions used to construct the original database are sufficiently standardized to allow for the construction of indicators applicable to all organizations within the study sample.
3. The original database was compiled using clearly defined procedures that minimize the probability of respondent bias among members of the study sample.
4. Total annual billings as a percentage of an agency's annual Medicaid contract target is a reliable and valid indicator of an organization's ability to comply with state Medicaid billing requirements.

5. The characteristics of the variables and sample in the study are appropriate for conducting a secondary analysis that involved the use of hypothesis testing and sequential multiple regression.

One limitation of the study was the inability to manipulate the independent variables. As a consequence, the secondary analysis of existing data performed in this study did not include statements about causality based on the degree of variation explained by the independent variables (Cooper & Schindler, 2003, p. 147). A second limitation of this study was the use of a convenience sample. Because this convenience sample was not a representative random sample, the study's conclusions may not be generalizable to community mental health organizations nationally. Consequently, the applicability of this study's findings to nonprofit community mental health organizations nationally was considered to be a topic for future research.

Significance of the Study

The study was significant for the following reasons. First, it contributed to the body of literature on organizational compliance among nonprofit organizations and the factors that contribute to it. Identification of factors that affected organizational performance in changing environments was one of the central issues in the nonprofit literature on capacity building and organizational performance (Light, 2004, pp. 13–43).

Second, better understanding of impacts of interorganizational dependence on compliance should increase the success of organizational-change initiatives. Authors such as Gronjberg (1993), Abzug (1996), and Froelich (1999) have argued the value of the organizational-dependence concept for analyzing organizational compliance. Greater appreciation of the internal and external challenges that nonprofit managers must

overcome to change their business models and improve performance could result in more realistic and effective change strategies and action plans.

Third, the study increased the understanding of the effects of Medicaid maximization implementation. Examining the different levels of compliance with this initiative among Illinois's community mental health organizations and the reasons for them may help reduce the stresses and service disruptions possible as the public mental health system shifts from grant to fee-for-service funding as its primary funding mechanism.

Significance for Positive Social Change

This research on organizational compliance among Illinois community mental health organizations could help state officials and nonprofit leaders make better decisions about the viability of specific community mental health organizations in the new fee-for-service environment. Critical analysis using empirical data could lead to actions that increase organizations' ability to comply with the new Medicaid maximization demands and help state-officials and nonprofit managers make better decisions about the allocation and reallocation of scarce funding. Because the Illinois public mental health system has relied heavily on community mental health organizations to improve the quality of life for mentally ill adults and children, their long-term sustainability is critical to the maintenance of a mental health system accessible to persons with very limited means.

Moreover this research could help state officials and nonprofit leaders make better decisions, because the sustainability of many nonprofit organizations is increasingly linked to their ability to comply with the demands of a powerful external governmental entity. Smith and Lipsky (1993) asserted that increasing resource dependence was the

primary determinant of organizational compliance in community mental health organizations. Moreover, they warned that while “non-profit organizations ... have played a key role in addressing social problems since colonial times” (p. 47), their overall ability to fulfill their mission is threatened by their increasing dependence on government grants and the “increasing governmental dominance of the public–private partnership” (Smith & Lipsky, 1993, p. vii) in the provision of mental health services.

Nonprofit organizations have been important players in U.S. society, local communities, and the daily lives of the average citizen. They have performed vital service functions for many of the most vulnerable and economically disadvantaged persons. In addition, they have played important political roles, often providing avenues for some of the most marginalized segments of society to influence policy decisions about the allocation of scarce resources in ways that improve their quality of life and encourage their full participation as citizens in U.S. society (Devita, Fleming, & Twombly, 2001) Community mental health organizations also have operated as the safety-net system for the vast majority of the poor and people of color who suffer from mental illness in communities. Without them, many of these persons would be deprived of access to mental health care.

Summary

Chapter 1 examined the importance of organizational compliance with Medicaid billing requirements to the success of the Illinois Medicaid Maximization Initiative and the concern shared by state officials and nonprofit leadership about organizations’ ability to comply. In addition, the research problem, as well as the levels of organizational compliance with the Medicaid billing requirements and the reasons for it, were identified

and discussed. Finally, the research purpose, objectives, theory, and hypotheses, as well as assumptions, significance, and social-change implications of the study, were discussed.

Chapter 2 examines the theoretical and empirical literature that forms the basis for the problem statement, research questions, and research hypotheses. Chapter 3 presents the research design, data sources, and methods of data analysis used to test hypotheses that determine and explain variation in organizational compliance with the state's demand to maximize Medicaid in Illinois community mental health organizations.

Chapter 4 provides a description of the data and analyses used in the study and the results as they pertain to the research questions and the hypotheses. Chapter 5 provides an interpretation of the findings, implications for social change, recommendations for action, and recommendations for further study.

Chapter 2: Literature Review

Introduction

This chapter works to connect the study's research problem, questions, hypotheses, and methodology to previous theory and research. In the first section of this chapter is an examination of the theoretical and empirical basis for this research. It consists of a description of Pfeffer and Salancik's (1978) original formulation of resource-dependency theory, with a focus on the concepts of asymmetrical power, resource dependency, and organizational compliance, and a review of the recent literature on organizational behavior from a resource-dependency theory perspective. In the second section, the federal Medicaid program, the Illinois Medicaid Maximization Initiative, and the rationale for choosing multivariate linear regression rather than multiple correlation as the analytic strategy for hypothesis testing are discussed.

The literature review was originally conducted in 2005 and updated in October and November, 2009. While the original review emphasized much of the classical literature and research on the topic, the updates examined research conducted between 2004 and 2009 based on research-dependency theory.

The following strategy was used to conduct the literature review. A search was conducted for all peer-reviewed articles about research-dependency theory published between January 2004 and September 2009. Twenty nine electronic databases were searched using the EBSCOhost service at the Walden University library. When articles reflected a primary theoretical perspective other than resource-dependency theory, they were excluded from this review.

Nine databases produced the 2005–2009 studies reviewed in this dissertation.

These databases were (a) Business Source Premier, (b) Inspec, (c) Communication and Mass Media Research, (d) Teacher Reference Center, (e) Computer and Applied Science Complete, (f) Education Research Complete, (g) Academic Source Premier; (h) PsycInfo, and (i) Cinahl.

Theoretical Perspectives on Organizational Behavior

From an open-systems perspective, organizational researchers have relied heavily on three major theoretical perspectives to account for organizational behavior. They were the population-ecology perspective, the institutional perspective, and the resource-dependency perspective.

The population-ecology perspective has been associated with empirical research and conceptual models based on the population-ecology theory of organizations (Abzug, 1996; Hannan & Freeman, 1989). The theory postulates that the environment determines which organizational structures and processes enhance an organization's prospects for survival. The characteristics of an organization's environment are the focus of analysis of organizational behavior from this perspective.

The population-ecology theory of organizations, developed by Hannan and Freeman (1989), uses processes of environmental selection to account for variability in functioning and survival among organizations (Aldrich, 1979; Baum, 1990; Hannan & Freeman, 1977). Baum's review of the population-ecology literature identified three types of processes thought to underlie environmental selection: demographic processes, ecological processes, and environmental processes. Baum cited these processes as the primary constraints on organizations' capacity to secure the resources necessary for

survival from a population-ecology perspective. While population-ecology theory does consider the impact of organization adaptation on organizational behavior, it postulates that organizational adaptation has no effect on organizational behavior because strategic actors have no ability to overcome the effects of structural inertia (Baum, 1990; Hannan & Freeman, 1977).

The structural-inertia theory of organizational change is the most distinctive contribution of population-ecology theory to the study of organizations. Structural-inertia theory challenges the view that effective organizations possess considerable capacity to adapt to their environment in ways that contribute to the survival of the organization. Its proponents argue that organizations face significant internal and external constraints on (a) their ability to change and (b) their ability to ensure that an organizational change is beneficial to the organization (Baum, 1990). Consequently, population-ecology theory minimizes the significance of organizational adaptation for the survival of organizations and emphasizes the importance of demographic, ecological, and institutional selection processes over which managers and organizations have limited or no control (Baum, 1990). As Baum stated, “in contrast to a strong adaptation view, survival consequences of change appear more consistent with random grouping than calculated strategic action” (p. 106), from a population-ecology perspective.

A second major open-systems perspective on organizational behavior is based on institutional theory. Institutional theory uses organizational adaptation, defined as an organization’s conformity to the cognitive, normative, and regulative pressures from its environment, as the primary factor accounting for organizational behavior (Jaffee, 2001, p. 231; Scott, 1998, p. 131). To account for variability in organizational behavior,

institutional theory focuses on the characteristics of the institutional environment and the degree to which organizations conform to it.

According to Jaffee (2001), the concept of an institutional environment was developed by Meyer and Rowan (1977) to identify a social construction, “characterized by the elaboration of rules and requirements to which individual organizations must conform if they are to receive support and legitimacy from the environment” (p. 228). According to Scott (1998), institutional environments define the ends and shape the means by which interests are determined and pursued. They define whether actors can legitimately pursue profits or are governed by other incentives (for example, reelection, esteem, and salvation). They furnish “vocabularies of motives” as well as modes of practice. Moreover, institutional theories emphasize that the rules themselves are important types of resources and that those who shape them possess a valuable form of power (pp. 137–138). Scott (1998) identified three types of requirements to which organizations must conform to obtain power and legitimacy: regulative, normative, and cognitive. Regulatory requirements are mechanisms buttressed by formal and explicit rewards and punishment, such as laws or government regulations. Normative requirements are mechanisms that are buttressed by social values and norms, such as social obligations and expectations. Cognitive requirements are mechanisms buttressed by common understandings or ideals, such as organizational or group identity. According to Scott, this perspective argues that it is the observed level of institutionalization, defined as the degree of conformity to the regulatory, normative, and cognitive requirements of the institutional environment, that account for variability in organizational behavior (pp. 132–140).

In the early development of institutional theory, the institutional environment was distinguished analytically from the technical environment, viewed as the inputs, markets, and competitors on which the setting of goals, the attainment of goals, and the production of goods and services is dependent. Such a distinction has led analysts to assume erroneously that the technical environment is independent of the institutional environment (Scott, 1998, pp. 131–137). However, later formulations of institutional theory recognized the interdependence of technical and institutional environments. Scott (1998) argued that institutional and technical environments do not operate independently of one another and that institutional environments influence the character of technical environments (p. 131).

Institutional theory has also been criticized for ignoring organizational adaptations designed to shape the environments in which organizations operate. Perrow (1986) criticized institutional theory as focusing too heavily on the organization as “adaptive to and dependent upon the environment without providing equal consideration to how the environment adapts to the organization” (p. 176). Furthermore, Perrow argued that organizational behavior must be understood in terms of the ability of organizations and leaders to shape behavior in accordance with their interests versus the internalization or imitation by organizational participants of a set of commonly shared norms and beliefs regarding morally appropriate or socially desirable behavior.

A third major open-theory perspective on organizational behavior was resource-dependency theory (Miller, 1995). Like institutional theory, resource-dependency theory focuses on the impact of the environment and the organization’s adaptation to the environment to account for organizational behavior. Unlike institutional theory, resource-

dependency theory examines responses designed to manipulate an organization's environment as well as organizational behaviors that produce organizational conformity with the environment. Resource-dependency theory devotes greater attention to the role of power in interorganizational relationships and organizational behavior (Miller, 1995, pp. 486–487). This investigator selected resource-dependency theory as the theoretical framework for this study. Of the three perspectives, it offered the most extensive discussions of factors that lead to variability in organizational compliance with external organizational demands.

Resource-Dependency Theory

The original exposition of resource-dependency theory was contained in Pfeffer and Salancik's (1978) work. Pfeffer and Salancik's basic premise was that organizational survival depends on the ability to acquire resources from the external environment. No organization, as a production system, is self-sufficient. All are required to interact with individuals, groups, and organizations in their task environment to acquire the resources essential to their survival.

The task environment of an organization includes the customers, suppliers, competitors, and regulators that control, provide, or impact the resources (inputs), production processes (throughputs), or the good and services (outputs) an organization must have to survive (Dastmalchian, 1986; Jaffee, 2001; Scott, 1998). According to Scott, organizations form relationships with suppliers, customers, competitors, and regulatory agents in their task environment to reduce the uncertainty in the resource-acquisition process (1998, p. 116). These relationships create organizational resource dependencies that influence organizational behavior and decision-making.

Resource-dependency researchers Pfeffer and Salancik (1978) asserted that (a) an Organization A that controls the resources on which another Organization B depends has power over that organization; and (b) that when Organization A has power over Organization B, Organization B attempts everything (decisions, activities, and actions) in its power to secure those critical resources over which Organization A has control.

Pfeffer and Salancik (1978) asserted that essentiality and the degree of control of strategic resources were two critical dimensions for defining resource dependence in interorganizational relationships. Pfeffer and Salancik stated that resource dependence

can be defined as the product of the importance of a given input or output to the organization and the extent to which it is controlled by relatively few organizations. ... Dependence measures the potency of the external organization or groups in the given organization's environment. ... It is a measure of how much these organizations must be taken into account and, also, how likely it is they will be perceived as important and considered in an organization's decision making. (p. 51)

Iecovich (2001) defined essentiality as the degree to which a resource is critical to the successful functioning of an organization. The degree of control of strategic resources refers to "the degree to which resources necessary for the organization's survival are at its disposal" (p. 24).

As resource dependence increases, organizations were often confronted with greater environmental demands from more powerful organizations (Pfeffer & Salancik, 1978). These environmental demands lead to a variety of possible organizational responses designed to help minimize vulnerability to adverse influence from external

entities and preserve the resource-dependent relationships on which the focal organization depended (Pfeffer & Salancik, 1978, pp. 53–54).

Organizational Responses to Environmental Demands

Resource-dependency theory describes two types of organizational responses to environmental demands from external organizations: organizational compliance and organizational avoidance (Pfeffer & Salancik, 1978, pp. 93–95). Organizational compliance consists of activities and behavior that conform to the demands imposed by an external organizational entity. Organizational avoidance consists of activities and behaviors that seek to forestall compliance with the demands posed by an external entity (Pfeffer & Salancik, 1978, pp. 94–95). Both compliance and avoidance can be viewed as adaptive responses to external constraints designed to produce stability in critical-resource exchanges with a more powerful entity.

From the perspective of resource-dependency theory, when compliance reduces uncertainty with respect to resource acquisition, there is a greater likelihood that organizations will comply with external constraints. However, compliance does not reduce uncertainty for resource acquisition, and then the likelihood that organizations will comply with external constraints is diminished. As Pfeffer and Salancik (1978) stated,

There are times when compliance, although important for maintaining an immediately critical exchange relationship, may not be in the long-term interests of an organization. Compliance is a loss of discretion, a constraint, and an admission of limited autonomy. To the extent that a focal organization is subject to *successful* external influence attempts, it places them in a situation in which its long-term survival may be threatened. Kahn et al. (1964) found that persons who

are influenced in their role behavior once, tended to be subjected to relatively more influence attempts. (pp. 94–95)

Pfeffer and Salancik's (1978) statement implied that organizations will comply with external constraints in order to maintain or increase access to the resources critical to their survival. When compliance is expected to reduce access to critical resources, organizational compliance with external demands is less likely. Control over critical resources can affect the willingness and ability of organizations to both comply with environmental demands and exercise influence over their external environment.

In addition, the likelihood of compliance is increased when organizations manage their environment in ways that make them more favorable to their interests (Pfeffer & Salancik, 1978). Schmid (2004) referred to this type of compliance as active versus a passive adaptation to changing environments. From this perspective, compliance also results from the attempts of organizations and their leadership to manage the environment through strategies and tactics such as organizational change, the formation of external alliances, lobbying, advocacy, and other forms of political influence (Schmid, 2004)

Resource Dependence, Power, and Organizational Compliance

Pfeffer and Salancik (1978) asserted that asymmetry in power and control in resource-dependent relationships increases the degree of uncertainty experienced by less powerful organizations in a resource-dependent relationship. Without organizational power differences in the ability to control resources, the likelihood that interactions between organizations would produce patterns of resource dependence is diminished. Asymmetry exists in an interorganizational relationship when one organization enjoys a power advantage because a particular resource exchange does not hold the same

importance and significance as it does for the other organization in the relationship. When asymmetry of resource control increases, the likelihood that organizations will engage in responses designed to reduce uncertainty around resource acquisition also increases. Pfeffer and Salancik (1978) referred to these responses as instances of countervailing power.

The concept of resource dependence as a product of asymmetrical power and control is derived from Emerson's theory of power-dependent relations (Casciaro & Piskorski, 2005, p. 169; Scott, 1998, pp. 199–200). In Emerson's formulation (as cited in Casciaro & Piskorski, 2005), "the power capability of actor j in relationship to actor i is the inverse of i's dependence on j" (pp. 169–170). Power capability is a property of relationships not organizations; therefore, it can vary from one set of relationships to another for the same organization or vary in the same relationship over time (Scott, 1998, pp. 199–200). Wilson (1973) characterized power capability as properties of group relationships that "determine the scope and degree of an organization's ability to influence behavior" (p. 16).

Pfeffer and Salancik (1978) presented both empirical and theoretical justification for their general proposition that resource dependence, conceptualized as the degree of control over essential resources, impacts organizational compliance with its external environment. Based on an analysis of the stated willingness of Israeli managers to comply with various governmental policies, they found that managers in firms that sold a greater proportion of their goods to the Israeli government were more likely to comply with the government's request with respect to plant location.

In another empirical investigation that analyzed U.S. firms' response to the federal requirement for affirmative action in the employment of women, Pfeffer and Salancik (1978) also found that compliance with the affirmative-action requirement was positively related to the firm's degree of dependence on the government, as measured by the amount of business a firm transacted with the government compared with its competitors. Pfeffer and Salancik concluded that resource dependence is positively related to organization compliance. They stated that "organizations will tend to be influenced more the greater the dependence on the external organization, or alternatively, the more important the external organization is to the functioning and survival of the organization" (pp. 59–60).

The concept of countervailing power refers to organizational features designed to increase the power and control possessed by organizations in an asymmetrical power relationship. Two sources of countervailing power identified by Pfeffer and Salancik (1978) are external linkages and organizational size.

Pfeffer and Salancik (1978) stated that establishment of external linkages is necessary to procure critical resources when changes in existing patterns of resource dependence create uncertainty in the process of resource acquisition. Establishment of external linkages can serve as strategy for gaining access to new resources beyond those available in existing interorganizational relationships. Establishment of external relationships by an organization was perceived as a mechanism for managing external constraints that can either enhance a dependent organization's ability to comply with external demands or increase its ability to resist external influence attempts by more powerful organizations.

According to Pfeffer and Salancik (1978), organizational size provides that larger organizations possess greater leverage in the degree that they choose to comply with external demands because they possess more critical slack resources than smaller organizations. Because larger organizations possess more slack resources than smaller organizations, Pfeffer and Salancik (1978), believed they were better able to comply with external demands when it was in their interest, and avoid compliance when it did not serve their interests. In other words, size served to buffer the effects of resource dependency by reducing the effects of asymmetrical power in the relationship.

The work of Mintz and Schwartz (1985) expanded Pfeffer and Salancik's (1978) original conceptualization of power relationships by introducing the concepts of hegemonic asymmetrical relationships and relationships based on mutual deterrence. The authors studied the antecedents, characteristics, and consequences of asymmetrical and mutually-deterrent relationships by examining the interorganizational relationships between nonfinancial firms and the banks and investor groups they depended on for operating capital and their impacts on the actions of nonfinancial firms. The authors found that when external banks enjoyed a large power advantage over nonfinancial firms, they exercised virtually unilateral control over the business decisions of nonfinancial firms.

According to Mintz and Schwartz (1985), this state of affairs illustrated the nature of hegemony in interorganizational relationships. They maintained that hegemony was the basic principle for the organization of relationships in the business world. Hegemony presumes the existence of asymmetrical resource-dependent relationships characterized

by interdependence and power differentials (p. 13). Hegemonic relationships occurred when three conditions existed:

1. One corporation (or corporate grouping acting in unison) made decisions that directly and significantly affected the business conditions of another firm (or corporate grouping), thus forcing changes in company strategy.
2. The second corporation (or corporate grouping acting in unison) could not take actions that either nullified the effects on themselves or nullified the benefits sought by the first group and therefore could not achieve mutual deterrence.
3. The second corporation (or corporate grouping) was constrained to adopt strategies that complemented those adopted by the dominant firm (or group of firms; Mintz & Schwartz, 1985, pp. 13–14).

Mintz and Schwartz (1985) concluded that the existence of hegemonic relationships created powerful constraints on the ability of less powerful firms to serve their interests instead of the interests of the external organization controlling critical external resources. They cited the specific example of a computer firm that had undertaken a campaign to acquire one of the largest commercial banks in the world against the advice of the institutional investors who controlled the capital needed to finance the deal. The firm was eventually forced to abandon its decision to acquire the bank because it lacked the ability to neutralize or nullify the effects of the institutional investors' refusal to provide capital support for the acquisition (Mintz & Schwartz, 1985).

When nonfinancial firms were able to acquire additional resources that improved their power position vis-à-vis more powerful financial firms, mutual deterrence rather

than financial hegemony became the defining characteristic of the relationship. Mutual deterrence existed “when companies, even the largest ones find that otherwise attractive business decisions cannot be carried through because a predictable response by another firm will render the action unsuccessful” (Mintz & Schwartz, 1985, p. 11). Following Pfeffer and Salancik (1978), Mintz and Schwartz concluded that when less powerful firms acquire organizational characteristics that improve their power positions vis-a vis the more powerful member of a resource-dependent relationship, the likelihood that their actions will comply with the demands of an external organization decreases.

Research Based on Resource-Dependency Theory

Empirical research on organizational behavior based in resource-dependency theory is built on the assumption that external factors rather than internal factors are the primary determinants of organizational structure and functioning (Baker, 2004; Pfeffer & Salancik, 1978). This contrasts with theoretical perspectives, such as the resource-based view and agency theory, which view internal factors such as strategic choice and the efficient use of internal resources as the principal determinants. (Street & Cameron, 2007). Recent research based on resource-dependency theory has focused on two major areas of inquiry. They are (a) the impact of the environment on organizations’ structure and functioning, and (b) the impact of an organization’s characteristics on its relationship with the environment. Empirical researchers have investigated a wide range of organizations encompassing a number of political and economic environments.

Empirical researchers, based on resource-dependency theory, suggested that external environments exert considerable influence on organization structure and functioning. Organizational characteristics tend to align themselves with the

characteristics of the environments in which they operate (Dawkins, 2005; Erakovic & Wilson, 2005; Froelich, 1999; Mulroy & Tamburo, 2004; Schmid, 2004; Yanacopulos, 2005). Froelich's (1999) review of the literature on revenue-strategy diversification in nonprofit organizations found that different patterns of nonprofit behaviors were correlated with differences in their funding environment. Froelich argued that government, private, and commercial funding environments possessed distinctive sets of priorities that constrained nonprofit organizations.

Mulroy and Tamburo (2004) found that implementation of federally mandated welfare-to-work policies and programming by nonprofit organizations was associated with increased participation in collaborations, changes in the size of their budgets, and the sources of organizational funding among nonprofit organizations. In addition, many nonprofit organizations involved in welfare-to-work implementation experienced changes in their missions and their target populations. Faced with decreased revenue from traditional funders, many nonprofit organizations adapted their mission and target populations to ensure continued funding from the welfare-to-work program.

Schmid (2004) argued that rapid environmental change requires nonprofit leaders to change their management orientation and practices. Schmid stated that when environmental change is rapid, successful adaptation requires that top leadership focus as much attention to managing their external environment as they devoted to managing the internal environment.

Nath and Angeles (2005) argued that industry changes that led to environmental and market uncertainties created pressure on some organizations to engage in new different business practices. To the extent that environmental change threatened an

organization's ability to control a critical resource, it was more likely to participate in new forms of buyer–supplier relationships, such as e-procurement.

Yanacopulos (2005) demonstrated that increasing globalization of the nongovernmental-organization environment influenced the growth and development of broad based nongovernmental-organization coalitions. Globalization of the nongovernmental-organization environment meant decreased funding for individual nongovernmental organizations as international financial institutions directed their resources away from local issues to global issues such as poverty and social justice. This change in the nongovernment-organization external environment contributed to the proliferation of nongovernmental-organization coalitions designed to secure organizational legitimacy, funding, and knowledge for its members.

Dawkins' (2005) case study of the pharmaceutical industry response to AIDS in Africa described how changes in the economic environment generated successful social and political pressure on the pharmaceutical industry to make policy changes that promoted greater access to generic AIDS drugs in Africa. He found that the emergence of the issue pacesetters enhanced the moral legitimacy of proponents of greater drug access and undermined the legitimacy of pharmaceutical-industry arguments for restricting access. This contributed to the industry's eventual decision to change its internal regulations and allow Africa greater access to AIDS drugs.

Erakovic and Wilson (2005) analyzed the environmental changes that produced radical rather than incremental organizational change in five New Zealand firms during that government's privatization and corporatization of its public sector between 1985 and 1995. They defined radical change as fundamental change in organization and

infrastructure reflecting a complete shift from state-operated departments to a privately run corporation.

Using a “retrospective multiple case study analysis” (p. 298) of data collected from interviews, analysis of organizational documents, and public case studies, Erakovic and Wilson (2005) found that privatization and corporatization created more economic competition and greater use of technology to gain competitive advantage. These forces led to the emergence and development of the private-ownership and professional-management structures required to transform government-run bureaucracies into privately run businesses. They identified four stages in this transformational process:

1. Abrupt government corporatization and privatization policies undermined and deinstitutionalized old patterns of resource dependency.
2. Market changes produced external competition that required changes in business strategies to preserve the institutionalized dominance of these newly privatized forms.
3. Increased dependence on technological innovation as a critical resource increased the power and control of owners because of their ability to acquire and supply financial resources.
4. Successful business turnaround was accomplished through management with intent, motivation, and skills to achieve organizational transformation in former governmental units.

Environmental change can shift the degree of control over strategic resources among various stakeholders at the organizational and environmental level. For example, Straub, Weill, and Schwaig (2008) found that extent of control that certain stakeholders

possess within and outside a firm determines their ability to influence the direction and performance of an organization.

Erakovic and Wilson (2005, 2006) concluded that regulatory changes, market forces, and technological changes shifted control of strategic resources from politicians and government bureaucrats to owners and professional managers. Their emergence as dominant stakeholders in this changing environment was necessary for the decline of public bureaucracies and the emergence of these newly private companies.

The resource-dependency literature also suggested that organizations can and do influence their environments. While all organizations face environmental demands and constraints, some organizations are better able than others to adapt to them. Kinnie, Swart and Purcell (2005) stated

All organizations operate within some kind of constraint, none of them is completely free to make decisions, and however, some are more powerful than others and are able to buffer them against the external environment while others are more vulnerable. (p. 1024)

A number of factors have been shown to be correlated with an organization's ability to influence its relationship to the environment.

A number of researchers have found that a high degree of resource dependency leads to patterns of conformity that can have either adverse or positive impacts on a company's environmental relationship (Alexander & Wells, 2008; Casciaro & Piskarski, 2005; Froelich, 1999; Garner, 2006; Mulroy & Tamburo, 2004; Smith & Lipsky, 1993; Storey, Kane, & Schwaig, 2009; Titus, 2006). Smith and Lipsky (1993) argued that increased dependence on government funding in the nonprofit sector has led to changes

in organizational structure and functions of nonprofit organizations that were more aligned with governmental requirements than those goals, values, and practices that made them distinct from government. They expressed concern that these changes could diminish the ability of nonprofit organizations to provide services that cannot be effectively supplied by the government.

In a study of revenue diversification strategies among nonprofits organizations, Froelich (1999) found that greater dependence of nonprofit organizations on one specific funding stream was positively associated with both goal displacement and patterns of organizational structure and practices that mirrored the requirements of that funding source. According to Froelich, as an organization's dependence on a particular revenue stream increased, it can lead to organizational adaptations that create conflicts between organizational priorities and funding-source priorities.

Garner (2006) found that at the National Aeronautic and Space Administration, a high degree of organizational dependence on external contractors created an internal-task environment where the concerns and priorities of some internal stakeholders were routinely ignored. In a case study of the factors contributing to the Columbia space disaster, Garner found that the National Aeronautic and Space Administration operated in an environment of power relationships in which the space agency was heavily dependent on its external contractors and had little ability to reduce its level of dependence on them.

Furthermore, a high level of dependence on outside contractors led the space agency to ignore early internal concerns about safety and recommendations to delay the launch and accept more favorable assessments of safety and recommendations to proceed with the launch from their outside contractors. Garner (2006) believed the inability of the

National Aeronautic and Space Administration to alter the power balance between itself and its outside contractors was a major contributor to the disaster and the failure of the organization to make appropriate adjustments in response to this and other failures.

In contrast, other researchers have found that a high degree of resource dependence can lead to adaptations that promote favorable relationships between an organizational and its environment. Titus (2006) found that rates of student persistence at 4-year colleges and universities were positively correlated with the proportion of their revenue that came from tuition. Titus concluded that as institutional dependence on market-based revenues increases, institutions are more likely to focus on student persistence rates as a mechanism for reducing uncertainty related to student enrollment and retention.

Similarly, Storey et al. (2009) conducted a quantitative study of Fortune 500 companies to assess whether the quality of policies were influenced by the characteristics of their resource dependencies. They concluded that quality of online privacy policies was positively related to the degree of dependence on consumer information as a critical resource. Storey et al. found that companies that conducted e-commerce through their websites and had direct relationships with their customers through websites were more likely to develop high-quality privacy policies. In addition, companies in information-based industries and companies with the most heavily used websites are most likely to have high-quality online privacy policies.

In addition to the degree of resource dependence, other dimensions of resource dependence influence an organization's relationship with its environment. Some writers (Flinders, 2007; Willander, 2006) found that preexisting patterns of resource dependence

can be an obstacle to policy and strategy implementation. Willander (2006) found that existing patterns of resource dependence in an organization can be a barrier to the adoption of new business models dictated by a changing competitive and regulatory environment. In a study of the efforts of the Volvo and Ford automobile companies to institute green technology, Willander found that these new initiatives were perceived as disruptive to established relationships in the organizations. As a consequence, these new initiatives could not be integrated into the current task environment, despite the fact that the original impetus for these changes was internally generated.

Similarly, in their study of the effects of implementing resource-protection policies in the fishing industry, Marshall, Fenton, Marshall, and Sutton (2007) found that implementation of resource-protection policies faced considerable resistance because commercial fishing businesses were generally unable and unwilling to adapt to changes. In their analysis of the fishermen's resistance, Marshall et al. (2007) found that the fishermen's high degree of economic and social dependence on their traditional industry was the primary factor. The power and control exercised by the families, communities, and traditional economic environment over commercial fishermen limited their ability to establish the social and economic linkages needed to comply with new regulations and policies in the fishing industry. Moreover, commercial fishermen demonstrated little willingness to change despite their vulnerability to these new governmental resource-protection policies.

Flinders' (2007) case study of parliamentary reform in England between 2001 and 2005 provided an example of preexisting patterns of resource dependence that operated as barriers to radical reform of the English Parliament. When the Labor Party gained

control of both the executive branch and the House of Commons after the 2001 elections, the executive branch proposed reforms that expanded the role of Parliament without threatening its control over committee appointments and resource-allocation decisions. The executive branch used its indirect control over Labor Party members in Parliament to defeat proposals that would have made Parliament a coequal branch of government.

In contrast, the nature of an organization's resource dependencies can be as a catalyst to successful policy and strategy implementation. Askin (2007) found that the funding source differences among community colleges was significantly correlated with differences in expenditure patterns and program offerings that supported the priorities and interests of the specific funding source. Community colleges that received both state and local funding were more likely to serve a larger number of students, have more part-time students, offer lower tuition rates to local students, provide a wider array of recreational and remedial programs, and offer fewer degrees per full-time-equivalent student and lower graduation rates than state-funded community colleges. Askin concluded that the differences in organizational behavior between state-funded and dual-funded institutions reflected different institutional priorities. The finding that an organization's internal environment and behavior reflects the priorities of its largest funding sources is consistent with the results found in the studies by Smith and Lipsky (1993) and Froelich (1999).

Moreover, in their study of interindustry mergers and acquisitions, Casciaro and Piskorski (2005) argued that the nature of an organization's resource dependency was an important determinant of its ability to effect a successful merger with a larger organization. They provided evidence to show that a dependent organization's ability to

successfully effect a merger with a more powerful party was more likely among organizations characterized by high resource dependence and high mutual dependence. However, the ability of organizations to successfully effect a merger was less likely among organizations characterized by high resource dependence and high power imbalance between them.

Casciaro and Piskorski (2005) theorized that without a high degree of mutual dependence, there is no incentive for dominant organizations to transfer their rights to a critical resource to a less dominant organization, and little ability by the less dominant organization to induce compliance in the more dominant organization. Conversely, when significant power imbalance exists between organizations, there are both little incentives for the more dominant partner to give up its control of critical resources and no ability of the less powerful partner to force the more powerful partner to transfer control.

Song and Swink (2009) provided further evidence that the impact of mutual dependence can vary based on the circumstances. Based on their examination of marketing–manufacturing integration across stages of new product development, the authors defined marketing–manufacturing integration as “the degree of cross-functional information sharing, coordination and joint involvement in performing certain tasks” (p. 32). Based on a survey of 643 firms, Song and Swink (2009) found that for high-innovativeness projects, the level of marketing–manufacturing integration was significantly and positively related to greater market success during all phases of new product development. However, for low-innovativeness projects, marketing–manufacturing integration is associated with greater market success only if present during the last stage of new product development and product commercialization.

Song and Swink (2009) concluded that the complexity of the task determined the effectiveness of marketing-manufacturing integration in the new-product development process. They found that the impact of mutual dependence is moderated by the nature of the task in which the organization is engaged.

Resource-dependency theory also views boards of directors as mechanisms for managing an organization's relationship with its environment (Pfeffer, 1972). Brown (2005) stated that "boards function as resource catalysts for organizations by providing linkages to necessary resources, for instance, providing legitimacy, advice and counsel, links to other organizations, and assistance in acquiring resources" (p. 322). The impacts of board size and board composition on an organization's ability to develop linkages with its external environment have been consistent topics of investigation in resource-dependency-theory literature (Brown, 2005; Chen, Dyball, & Wright, 2009; Jackling & Johl, 2009; Singh, 2007).

Empirical support for a significant positive relationship between board size and organizational performance is mixed. In their study of Indian companies, Jackling and Johl (2009) examined the nature of the relationship between a number of variables derived from resource-dependency theory and agency theory about board structure and organizational performance. Although they found a statistically significant positive relationship between board size and organizational performance, they also noted that the literature contains a number of studies that found no evidence of a significant relationship between board size and organizational performance.

Gabrielsson (2007) examined the correlates of board empowerment in small business and found that board size was correlated with board empowerment. In contrast,

Brown (2005) found no evidence of a statistically significant relationship between board size and organizational performance in a study of 202 nonprofit organizations.

While investigations of the relationship between board composition and organizational performance have also produced mixed results, Jackling and Johl (2007) found that the presence of outside directors with multiple boards were negatively correlated with organizational performance. They suggested that multiple appointments created time constraints that hindered board members from increasing organizational accessibility to external resources. However, Chen et al. (2009) found that a positive relationship between the proportion of directors with ties to boards of corporations in other industries and the extent to which a firm pursues geographic and product diversification as a competitive strategy.

Singh (2007) investigated the value derived from ethnic diversity among corporate boards through a case study of the human and social-capital attributes that ethnic minorities bring to the boards of top corporations in the United Kingdom. Consistent with a resource-dependency view of board members as providers of access to critical resources, Singh found that the presence of minority directors derived as much or more from their external relationships in a global environment as from their business expertise.

Organizational size is another attribute that affects an organization's ability to manage its relationship with the external environment. In their original investigation of effects of size on the performance of U.S. firms, Pfeffer and Salancik (1978) found that responsiveness to governmental requirements on affirmative action was less likely among firms that did a large amount of business with the government in comparison with those

that did not. The authors concluded that firms that controlled major shares of the business outsourced by the government enjoyed greater consideration from the government compared with minor suppliers of government goods and services. The importance of the larger firms to the government, the greater latitude enjoyed by these firms in compliance with government requirements on affirmative action, the more positively correlated with the amount of business they did with the government.

According to Pfeffer and Salancik (1978), size is positively associated with organizational power. On the one hand, large size can buffer organizations from external environmental demands when those demands are viewed as harmful to their interests. On the other hand, large size can provide alternative means of access to critical resources leading to organizational advantage in a competitive environment. Resource-dependency theory predicts that (a) organization size and (b) network size will be positively associated with greater organizational power and increased organizational ability to manage external constraints.

A number of recent studies have found a positive relationship between organizational size and organizational performance, however organizational size accounted for some but not all of variation in organizational performance. Brown (2005) found that a statistically significant positive relationship existed between organizational size and net revenue and organizational size and perceptions of board performance. However, organizational size was not significantly correlated with executives' perceptions of nonprofit organizational performance.

In their study of the environmental determinants of Electronic Medical Record technology among hospitals, Kazley and Ozcan (2007) found that larger hospitals, as

measured by bed size, were more likely to adopt Electronic Medical Record technology than smaller hospitals. However, while organizational size was a statistically significant predictor of Electronic Medical Record adoption, it was only 1 of 14 significant predictors at the $p < 0.05$ level. The authors theorized that larger organizations are more likely to control critical resources and thus are more able to negotiate between terms of exchange with suppliers.

Salimath, Cullen, and Umesh (2008) found organizational size was a predictor of outsourcing effectiveness among entrepreneurial organizations. They found that entrepreneurial firms with structural configurations dominated by size received greater financial benefits from outsourcing than organizations dominated by older Chief Executive Officers and owners. However, they also noted that size was not the sole source of organizational benefits from outsourcing. Innovative firms demonstrated benefits from outsourcing comparable to those exhibited by larger firms. The authors theorized that outsourcing is more beneficial for larger organizations because they can use their negotiating leverage as customers to produce achieve financial benefits through cost savings. In addition, though, outsourcing benefits innovative firms because they can use it to divest themselves of nonessential activities, thereby enabling them to focus on core functions.

Blumenberg et al. (2008) found that firms whose relative-size deals were large compared to the outsourcing firm's total volume of business were more likely to receive greater value from the outsourcing relationship. They argued that when size is perceived by the less dominant organization as an indicator of importance or influence, it is more likely to produce more favorable exchanges with external stakeholders.

Finally, the impact of external relationships on an organization's relationship with its environment has been an important topic in the resource-dependency-theory literature. External relationships have been viewed as means of gaining access and power and as constraints on organizational choice and performance (Pfeffer & Salancik, 1978; Stearns, Hoffman, & Heide, 1987; Street & Cameron, 2007). A review of the recent literature found that evidence supports both views of external relationships (Borman, 2006; Davis, Brannon, & Whitman, 2009; Doerfel & Taylor, 2004; Song & Swink, 2009; Watts & Hamilton, 2007; Yanacopulos, 2005).

Based on a case study of the conditions that led to coalition involvement among nongovernmental organizations, Yanacopulos (2005) concluded that coalition involvement was an attempt by organizations to command greater power and influence over access to the resources on which they depend. Nongovernmental organizations viewed coalition involvement as an effective strategy for securing greater external legitimacy, greater funding, and greater information.

Davis et al. (2009) examined how membership in a nursing home chain was correlated with the use of information systems in nursing homes. They found that nursing homes that belonged to chains were more likely to use information systems than were nursing homes that did not belong to a chain. They theorized that chain membership increased the importance of information systems for operations and provided the resources needed to acquire and implement information systems.

However, Watts and Hamilton (2007) argued that the high risk of failure in strategic organizational alliances reduces the likelihood that they will promote the resource access necessary for improved performance. They cited issues of trust and the

reluctance of members to engage in cooperative exchanges as characteristics of alliances that inhibit influence and effectiveness. Borman (2006) also noted that many joint ventures are not successful despite (a) their expanded use in a number of industries and (b) their potential to improve access to critical resources.

The research suggests that there are other attributes of external relationships, beyond involvement that can affect an organization's strategies and performance. Some studies suggest that the context of external relationships can affect their impact on organizational strategy and performance. Yanacopulos (2005) found that the amount of influence exerted by a coalition was positively correlated with the degree of environmental uncertainty experienced by the organizations in the coalition. Dawkins (2005) found that the emergence of issue pacesetter organizations increased the power and influence of coalitions supporting increased access to AIDS drugs in Africa to the point that the pharmaceutical industry felt compelled to concede to their demands.

Other studies have found that the characteristics of external relationships impact an organization's relationship with its environment. Street and Cameron (2007) argued that, based on small-business research, factors such as the size and structure of external relationships can affect organizational performance in ways that promote or undermine an organization's success at environmental adaptation.

The impact of network size on organizational performance does not appear to have been a topic of recent investigation since Pfeffer and Salancik's (1978) original research. Their analysis found that the size of the network in which an organization was located was inversely correlated with compliance with government requirements on affirmative action. The authors predicted that organizations located in smaller, less

populated networks were more visible and thus more likely to be vulnerable to external influence attempts.

With respect to other external relationship characteristics, Montgomery and Schneller (2007) found that external alliances constrained the choice of cost-control strategies by hospital management. The authors conducted an exploratory study that found that hospitals perceived the payment-cap model as superior to the formulary model in containing hospital supply costs in a managed-care environment. They argued that the formulary model produces restrictions on product choice that were perceived by physicians as restricting the quality of care they provided. Such an outcome could lead to conflicts that undermined physician commitment to the hospital and promoted power alliances between physicians and medical-supply companies against the hospital's adoption of a formulary model.

In contrast, Montgomery and Schneller (2007) argued that adoption of a payment-cap model by hospitals preserves physician autonomy and undermines the development of power alliances between physicians and medical-supply companies against hospitals. The payment-cap model's use of price controls placed the risk on medical suppliers and reduced their ability to influence physicians without agreeing to a hospital's price ceiling on specific products.

In addition, the authors found that the interrelationships between hospitals, physicians, and medical suppliers influenced the hospital's implementation of medical-supply cost-control models. Regardless of the model adopted, hospitals had to use a variety of tangible and intangible incentives versus disincentives to ensure successful implementation.

Montgomery and Schneller (2007) suggested that the choice and implementation of supply-cost-control models in this case are explained by the fact that external relationships based on mutual dependence can moderate the impact of power imbalances in interorganization relationships. They theorized that the power relationships between physicians, suppliers, and hospitals reflect an environment where decisions were a product of hospital negotiation rather than hospital coercion because of the alliance between the hospital and physicians. Because this alliance limited the hospital's degree of strategic control, successful adoption and implementation of a medical-supply cost-control model required commitment from both physicians and medical suppliers.

Kinnie et al. (2005) argued that the networks characterized by a high degree of strategic control and mutual dependence were more effective than those that were not. In their case study of two interorganizational networks, Kinnie et al. found that the network characterized by a high degree of uniqueness in the contributions of network members, exhibit greater coordination , cooperation, increased knowledge sharing, and a high degree of mutual influence among network members.

In contrast, in networks where the uniqueness in the contributions of network members varied based on situation and over time, members exhibited more competition, coercion, limited knowledge sharing, and organizational influence based primarily on a member's power advantage. The authors concluded that the more cooperative types of networks produce greater similarities among network members in organizational performance and strategic control. However, the more competitive networks produced greater variability among network members with respect to resource control and performance.

Doerfel and Taylor (2004) found that power differences in alliances and networks can undermine the ability of the network and its members to manipulate their external environments. In their longitudinal study of the evolution of the interorganizational system of nongovernmental organizations in Bosnia from 2000 to 2002, they found that the network of international intergovernmental organizations and the media evolved from a relatively cooperative and efficient system in 2000 to a relatively competitive, uncoordinated, and inefficient network in 2002.

Their analysis showed that one of the reasons for its failure was the fact that organizations with central positions in the network were very competitive with more peripheral organizations. Despite their control of a disproportionate share of the available resources, the more powerful network members refused to promote resource exchanges that might strengthen the less powerful members of the network. In doing so, they perpetuated a system of power and resource inequality that undermined the consensus needed to sustain the civil-society movement in Bosnia.

Finally, some recent studies based on research-dependency theory have investigated the impact of management characteristics on an organization's relationship with its environment. Schmid (2004) implied that the success and viability of nonprofit organizations in a turbulent and changing environment will require executives that focus on managing the external environment.

Erakovic and Wilson (2005) and Myloni, Harzing, and Mizra (2007) found that management commitment to change had a positive impact on an organization's ability to adapt to changing environmental requirements. Erakovic and Wilson found that public organizations that were successful in transforming themselves into private corporations

had top management that possessed both a commitment to change and strong change-management skills.

Similarly, Myloni et al. (2007) investigated the standardization of human-resource practices across subsidiaries of large corporations. They found that the importance attached to standardization by the management of the parent company was one of the strongest factors differentiating subsidiaries in their human-resource practices. Subsidiaries of corporations in which top management was committed to standardization were more likely to practice human resources in a way that resembled its parent corporation than subsidiaries without top-management commitment.

Furthermore, in his investigation of corporate political activities of firms in China, Wei (2006) found that the choice and execution of corporate political strategies by firm leadership were positively related to their ability to obtain political benefits from the Chinese government. For example, charitable contributions and financial support for government activities and officials was positively related to an organization's market and financial performance. Also information consultation, lobbying, and advocacy were positively related to competitive advantages derived through the revision of government policy and industry regulations in ways that favored the firms employing this strategy.

The literature clearly demonstrates that the relationships between organizations and their environment are complex and interrelated. From the perspective of resource-dependency theory, organizational compliance is a strategic response to both environmental demands and the organization's efforts to manage its environment. Based on resource-dependency literature, an organization's ability to comply with external environment is a function of an array of environmental and organizational characteristics.

The Federal Medicaid Rehabilitation Option Program

Medicaid is the major health-insurance program for low-income individuals (Kaiser Commission, 2006, p. 13). To operate a Medicaid program, each state must develop a state plan and waivers that must be approved by the federal Central Management Authority (formerly known as the Health Care Financing Authority). Medicaid programs currently operate either under a fee-for-service model, in which reimbursement is based on a preestablished rate for a unit of service, or a managed-care model in which reimbursement is based on a preestablished per-member/per-month rate.

States must include coverage for a specified set of services. Mandatory services include inpatient and outpatient hospital care, physician services, nursing-home services for adults, pregnancy-related services, home healthcare, laboratory and x-ray services, family planning, and medically necessary services identified through well-child examinations (Kaiser Commission, 2007, p. 10).

For children, states are allowed to provide optional services for their Medicaid beneficiaries. Outpatient mental health services are optional services under the Medicaid program (Kaiser Commission, 2007, p. 10). Illinois receives federal reimbursement for outpatient mental health services under the MRO.

Medicaid is an entitlement program. As an entitlement program, the ability of the state to control Medicaid growth at the community level is constrained to some degree by federal statute. Buck (2003) stated that “Medicaid’s general character as an entitlement and insurance program” (p. 974) made it more difficult for states to limit Medicaid spending compared to grant-in-aid spending on mental health services.

The Illinois Medicaid Rehabilitation Option (MRO) Program

The Illinois MRO program served as the financial model for the Illinois Medicaid Maximization Initiative. It operates using a fee-for-service payment methodology where reimbursement is based on a preestablished rate for a unit of service (Powers et al., 2006).

This MRO program pays for outpatient mental health services provided by agencies funded through the Illinois Division of Mental Health, the Illinois Department of Children and Family Services, and the Illinois Department of Corrections. This study focused on the largest segment of the MRO, organizations that have a contract with the Illinois Division of Mental Health to provide mental health services to children and adults. The Illinois Department of Human Services of Mental Health is the state mental-health authority and the governmental entity that administers the Illinois MRO. The Illinois Department of Public Aid directly administers most other Medicaid programs in Illinois (Powers et al., 2006).

Like the overall Medicaid program, the MRO is a state–federal partnership in two respects. First, states design their own programs within the constraints set forth in federal statutes and regulations through state plans and waiver requests. Under this arrangement, states such as Illinois have received broad discretion in determining the amount, duration, and scope of services provided under the MRO. Second, a state government is entitled to federal Medicaid matching funds for state funds used to provide medical assistance under the terms and conditions prescribed in federal law and set forth in the state plan and all relevant waivers (Kaiser Family Foundation, 2007).

The Illinois Division of Mental Health contracts with community mental health organizations under the MRO to provide these mental health services. To enroll in the

Illinois MRO, a community mental health organization must receive certification from the Illinois Division of Mental Health (2005b) that they meet federal and state requirements for organizational providers of Medicaid services.

Illinois community mental health grant-funded organizations certified under the MRO are entitled to receive federal matching funds for services that meet the following five criteria. They must be delivered to

1. Medicaid beneficiaries who possessed a diagnosis of mental disorder based on DSM IV classification categories and assessment criteria;
2. Must have been described in the Illinois Medicaid Plan approved by the federal government;
3. Must have been listed and defined in Illinois Administrative Rule 132 (59 Illinois Administrative Code CHIV, SEC. 132);
4. Must have met the federal requirements outlined in Section 1915b of the Social Security Act which authorized federal reimbursement for mental health rehabilitation services; and
5. Services must have been medically necessary insofar as they were authorized in a Master Service Plan approved and directed by a licensed mental health practitioner. A licensed mental health practitioner could be a psychiatrist, psychologist, registered nurse, licensed clinical social worker, or licensed clinical counselor.

Fee-for-service funding has been the payment method used to reimburse organizations for services provided to Medicaid recipients under the Illinois MRO (Buck, 2003, p. 972). Under the fee-for-service payment methodology and regulations governing

the Illinois MRO, organizations are paid based on use of medically necessary services by qualified Medicaid beneficiaries (CBHA, 1997) This program has resulted in steady overall growth in the amount of Federal Financial Participation between the years 2000 and 2004 (see Appendix A).

Factors Affecting the Growth of Medicaid Maximization Initiatives

In an analysis of mental health and developmental-disability funding in Illinois, Powers et al. (2006) stated that “Illinois, like other states, has a long tradition of service provision through private community mental health organizations that rely heavily on state non-Medicaid funding” (p. 7). The reliance of both the state and federal government on community mental health agencies as the primary suppliers of public mental health services, and the heavy reliance of these organizations on state and federal grants, has been a defining characteristic of the relationship between community mental health organizations and the government in the Illinois public mental health system.

In their history of community mental health in the United States, Cutler et al. (2003) stated that from 1963 to 1980, the federal government steadily expanded funding of community-mental-health-program services through the creation of grants for community mental health centers (pp. 381–383). Similar grant programs at the state level, which funded programs for mentally ill people, followed. A major consequence of the creation and rapid expansion of state and federal grant funding of programs for mentally ill people was the emergence of privately operated community mental health organizations that were almost exclusively dependent on government grant funding for their continued existence (Smith & Lipsky, 1993, p. 60).

Powers et al. (2006) stated that there is considerable variation in the scope and scale of services provided by community mental health organizations in Illinois. Illinois' community mental health organizations range from large agencies that receive millions of dollars to serve thousands of clients, to small residential facilities that operate a specialized residential program serving 16 clients or fewer for several hundred thousand dollars. Some agencies serve one disability group while others serve multiple disability groups (p. 21).

According to Cutler et al. (2003), federal and state grant funding for community mental health services was cut drastically during the early 1980s. The Omnibus Budget Reconciliation Act passed by Congress in 1981 resulted in a drop in federal support of community mental health services from \$293 million in 1980 to \$203 million in 1982. Additionally, the act converted all remaining funding into a federal block grant that eliminated all of the federal initiatives and associated requirements developed since 1963 and allowed states considerable latitude in deciding how these funds could be used.

Across the United States, this development, along with economic and political constraints on the use of state revenue to finance mental health services, created tremendous financial uncertainty for state mental health authorities about the future of mental health programs. The deinstitutionalization of clients formerly housed in state mental hospitals resulted in a dramatic rise in the number of programs needed for mentally ill persons returning to communities, without a mechanism to adequately finance these new programs (Cutler et al., 2003).

Regulatory bodies mandated additional requirements for community mental health programs all over the state without additional funds being appropriated to

implement these mandates. Limited growth in the state budget for community services meant that Illinois' community mental health organizations often had to absorb the rise in overhead costs associated with the requirements imposed by state, local, and federal-government licensure, certification, and monitoring with little assistance from the government (see Appendix B). For example, when the Illinois Department of Mental Health responded to the demand for greater accountability by requiring state hospitals and private agencies to become nationally accredited, the money required to finance this initiative came from a reallocation of existing grant funds rather than the new grant funds (CBHA, 2002).

The overall trend of declining state revenues produced annual costs-of-doing-business adjustments in grant funding that failed to meet the rising costs of providing community mental health services. A comparison of Department of Human Services behavioral health-grant costs-of-doing-business adjustments to the Consumer Price Index shows a 14.7% loss in purchasing power for mental health community providers between 1990 and 2003 (see Appendix C). State-level budget cuts created difficulty for the Illinois Division of Mental Health's ability to meet the identified need for mental health services in communities.

The Illinois Medicaid Maximization Program

Between 1990 and 2004, the Illinois Medicaid Rehabilitation Program operated as a voluntary program. Community mental health providers could decide whether to enroll and the amount of Medicaid they would generate. During this period, the aggregate amount of Medicaid generated by community mental health organizations grew steadily. In fact, between 1990 and 2004, state-federal funding under the MRO grew at a much

greater rate than state funding under the mental health community-services budget (CBHA, 2002).

Aggregate data on the percentage of mental health funding from state government grants suggest that there has been an overall decline in dependence on grant funding. In Illinois, grant funding has dropped from 100% of community funding in 1990 to 80% in 2001 (CBHA, 2002). Despite this decline, grant funding from the Illinois Division of Mental Health remained the predominant funding source of public mental health services (Powers et al., 2006).

In 2004, severe state-budget pressures led the governor of the State of Illinois to institute the Medicaid maximization program. Medicaid maximization was a strategy for using federal Medicaid dollars to refinance community mental health services that were traditionally funded through grants. The object of the program was to increase Medicaid billing by community mental health organizations by an additional \$25–\$40 million over the next 18 months by establishing contractually based billing. Medicaid targets and mandates organizational compliance with the program. Fee-for-service Medicaid billing targets were set at 21% to 75% of all FY'05 total contract funding (Illinois Division of Mental Health, 2005a, 2005b).

The short-term goal of the Medicaid maximization initiative was to produce a rapid dramatic increase in the amount claimed by the state through Medicaid. The long-term goal was to convert the entire Illinois community mental health system from a grant-funding mechanism that relied heavily on state general-revenue funding to a fee-for-service payment methodology that relied on federal Medicaid funding (Illinois Division of Mental Health, 2005b).

Providers received contracts in FY'05 that contained targets for community mental health providers that were to become effective July 1, 2004. Although a memorandum of understanding between the Illinois General Assembly and the Illinois Department of Human Services resulted in the addition of a hold-harmless clause in individual provider contracts; the language and numbers used to define and measure targets remained a part of individual agency contracts. CBHA, the largest trade association of Illinois' behavioral-health providers, criticized the inclusion of target language and numbers in provider contracts. While Medicaid certification had been voluntary, all agencies were now mandated to become Medicaid certified. There was serious disagreement in the mental health system about whether and to what extent Medicaid maximization would require agencies to retool their operations and change ways of doing business (Buck, 2003; Illinois Division of Mental Health, 2005a).

The Use of Multivariate Linear Regression

Statistical analysis of existing data was commonly used to test hypotheses derived from resource-dependency theory (Casciaro & Piskorski, 2005; Pfeffer & Salancik, 1978; Stearns et al., 1987). The two major statistical techniques employed were multiple-correlation analysis and multiple-regression analysis. Pfeffer and Salancik examined correlation coefficients derived from the analysis of existing data using multiple-correlation analytic strategies (Pfeffer & Salancik, 1978). Later studies (Casciaro & Piskorski, 2005; Stearns et al., 1987) tested their hypotheses by examining statistics derived from multiple-regression analyses that used existing data. The decision to select multiple-regression analysis versus multiple-correlation analysis to test the relationship between multiple variables was based on the research objectives of their studies and the

presumed relationship between the variables (Aczel & Sounderpandian, 2002; Chatterjee & Hadi, 2006; Cooper & Schindler, 2003).

The literature considers multiple-correlation analysis appropriate when all the variables under investigation are symmetrical and the research objective only requires that the existence and strength of the relationship between variables is known. Multiple-regression analysis is considered appropriate when the study variables are classified as either independent or dependent and the research objective seeks to determine the proportion of the variability in a dependent variable that is due to each independent variable (Cooper & Schindler, 2003). In the context of the studies using multiple regression, multiple-correlation analysis was used to test for multicollinearity, high correlation between two or more independent variables (Cooper & Schindler, 2003; Stearns et al., 1987).

Summary

In this section, the relevance of resource-dependency theory to the study of organizational behavior was discussed. Next, the key concepts and proposition of resource-dependency theory, outlined primarily by Pfeffer and Salancik (1978), were described and discussed. Finally, a review of the recent literature was conducted to determine what is known about how and to what extent the study variables and other variables suggested by resource-dependency theory explain an organization's relationship with its environment.

In addition to the above, this section provided a detailed examination of the Medicaid maximization program. The internal structure of the program and the factors that contributed to its growth nationally and in Illinois were discussed. For example, the

State of Illinois' decision to require compliance with new Medicaid billing requirements by community mental health organizations was an attempt to pressure the Division of Mental Health and Illinois community mental health organizations to shift responsibility for funding community mental health services to the federal government and away from the State of Illinois (Illinois Division of Mental Health, 2005b).

Finally, the methodological justification in the literature for the use of multivariate linear regression was discussed. This topic is examined further in Chapters 3, 4, and 5 of this study.

Chapter 3: Data and Research Methodology

Introduction

This chapter discusses the research design, setting, sample, methods of data collection, and methods of data analysis that were used to conduct a secondary analysis of claims data on FY'05 Medicaid and non-Medicaid payments. The analysis sought to determine how and to what extent organizational dependence on the state, the state's dependence on an organization, trade-association membership, and the size of the regional network in which an organization is located affect organizational compliance with the state Medicaid billing requirement. In addition, this chapter discusses the reasons for selecting multivariate regression analysis as the primary analytical technique in this study.

Based on resource-dependency theory, developed by Pfeffer and Salancik (1978), the study tested the following research hypotheses:

Research Hypothesis 1

The organization's dependence on grant funding from the Illinois Division of Mental Health is positively and significantly related to the degree of organizational compliance with the state Medicaid billing requirement.

Research Hypotheses 2

The size of an organization's contract with the Illinois Division of Mental Health is inversely and significantly related to the degree of organizational compliance with the state Medicaid billing requirement.

Research Hypothesis 3

Membership in the mental health trade association is positively and significantly related to the degree of organizational compliance with the state Medicaid billing requirement.

Research Hypothesis 4

The size of the regional network in which an organization is located is inversely and significantly related to the degree of organizational compliance with the state Medicaid billing requirement.

Research Design and Approach

The research design was a cross-sectional quantitative secondary analysis of claims data on 2005 Medicaid and non-Medicaid payments to Illinois community mental health organizations. The data used in this study came from the Illinois Department of Human Services Office of Mental Health Management information system, the Illinois Department of Public Aid Medicaid payment systems, and the membership list of the Illinois CBHA.

This secondary analysis was an ex post facto study of Illinois' community mental health organizations in urban and rural settings with state contracts to provide mental health services from July 1, 2004 to June 30, 2005. The classification of the study variables as either independent or dependent and the expected interrelationships among them were derived from resource-dependency theory. Secondary data analysis refers to the analysis of data that were not originally collected by the researcher. Secondary data are either published or available data that come from preexisting sets of information, such

as vital statistics, prior research studies, administrative databases, and government surveys (Judd, Smith, & Kidder, 1991).

Setting and Study Population

The statewide data for the study was the total population of all nonprofit organizations that received a grant through the Illinois Division of Mental Health and were enrolled and certified under the MRO as a qualified provider. This consisted of 162 community mental health providers. Provider organizations included private not-for-profit community organizations, private nonprofit hospitals, and county public-health departments. Sample data from an independent evaluation of Illinois provider readiness for conversion of the current mental health system to fee-for-service funding conducted by Parker and Dennison (2005) found that the overwhelming majority of organizations (88%) are private not for profit. See Appendix D for a list of all agencies in the population.

Instrumentation and Materials

The data set used in this study came from the Illinois Department of Human Services Office of Mental Health Management information system and the Illinois Department of Public Aid Medicaid payment systems. These are the primary systems used to track enrollment, services, general-revenue funding, and Medicaid payments under the MRO for 162 community mental health providers in the State of Illinois.

Because the information is used to monitor contract compliance, to pay bills, and for retrospective audits of individual agencies, it provided a valid representation of enrollment, general-revenue funding, Medicaid payments, number and types of mental health programs, and client use by individual agencies. Data used for the study came

from state FY'05. This was the most comprehensive source of a full year of data on Medicaid generation by Illinois community mental health organizations. Because this database was originally compiled to discuss alternative models of reallocation, this database had already been updated to include any late bills and service information submitted by community organizations. FY'05 was the first year for which the State of Illinois has an accurate count of the unduplicated Medicaid clients served by community mental health organization. Data on association membership was obtained from the membership roster of CBHA.

The measures used to operationalize the concepts and hypotheses of this study were derived from the claims data and membership roster described above. Mark, Buck, Dilonardo, Coffey, and Chalk (2003) found that studies of Medicaid expenditures based on actual claims data were more reliable than provider and consumer surveys, which tended to miss large amounts of information. There was a high degree of confidence that community mental health organizations had submitted all claims for services provided in FY 2005. Community organizations had been given a firm September 2005 deadline from the State of Illinois to submit all outstanding FY'05 data. Furthermore, community organizations were aware that failure to submit all billings would increase their degree of noncompliance with the Medicaid billing requirements and could result in reduced funding for FY 2006.

Data Collection and Analysis

Multivariate regression was selected as the analytical technique for this study for two reasons. First, the research questions focused on the structure of the relationship among multiple variables that were classified as either independent or dependent.

Second, the hypotheses were tested using an estimating equation that predicted the values of the interval-dependent variable based on the linear combination of ratio or interval and dummy (ordinal and nominal) independent variables.

There were four independent variables in the study: (a) an organization's dependence on grant funding from the Illinois Division of Mental Health, (b) the size of an organization's contract with the Illinois Division of Mental Health, (c) trade-association membership, and (d) size of the regional network in which the organization is located. Two of the independent variables, organizational dependence on grant funding and size of an organization's contract were metric (ratio or interval) measures (Cooper & Schindler, 2003). The other two independent variables, association membership and geographic location, were treated as dummy variables. Association membership was a dichotomous nominal variable and geographic location was treated as an ordinal variable ranked in terms of the total number of agencies in the network.

The dependent variable, organizational compliance with the state Medicaid billing requirement, was measured using ratio data. Values were calculated for each organization using the total actual amount of Medicaid and non-Medicaid payments made to an organization for FY 2005 expressed as the proportion of the Medicaid target established for that agency by the Illinois Division of Mental Health.

The independent variable, organizational dependence on the Illinois Division of Mental Health, was operationally defined as the percentage of an organization's total annual mental health contract that was a grant. It was measured using ratio data on the proportion of all reported revenue in Division of Mental Health programs that were a grant from state general revenue sources for FY'05. The percentage of each

organization's FY'05 contract that was a grant was calculated by adding the annual amount of each Illinois Division of Mental Health grant award in their FY'05 provider contract and dividing it by the total amount of that contract.

The independent variable, size of an organization's contract with the Illinois Division of Mental Health s, was operationally defined as the size of a community mental health organization's annual contract with the Illinois Division of Mental Health. Values for each organization are expressed as the actual dollar amount of that community mental health organization's annual contract with the Illinois Division of Mental Health.

The amount of an organization's mental health contract was chosen as a measure of organizational size because the Illinois model of community financing has historically ensured community access to services by creating large mental health agencies that provide comprehensive services to a specific catchment area in a regional service network. This study assumed that organizations that did a greater amount of business with the Illinois Division of Mental Health were less dependent on the state and were less likely to be subject or susceptible to pressure arising from the state requirement to maximize Medicaid. The size of an organization's contract was measured using ratio data expressed as the actual annual amount of the state funds awarded by the Illinois Division of Mental Health to a community mental health organization in 2005 for the provision of mental health services.

The independent variable, mental health trade-association membership, was operationally defined as a dues-paying member of the Illinois CBHA for FY'05. The variable was measured using a nominal scale that classifies organizations as either Illinois CBHA members or nonmembers. The independent variable, size of the geographic

network in which the organization is located, was operationally defined as the size of the state mental health regional network in which the organization is located. The size of the geographic location was measured using an ordinal scale that ranked networks according to the total number of agencies in the network. Organizations were differentiated based on the network to which they were assigned by the state.

Measures of the independent and dependent variables for each individual provider organization were used to create a database. SPSS was used to analyze this data and test the research hypotheses.

Multiple-regression analysis was selected rather than multiple-correlation analysis as the primary analytical tool because (a) the hypotheses assumed the presence of independent and dependent variables and (b) the research question focused on determining the extent to which variability in the dependent variable could be predicted from variability in each independent variable. Multiple-correlation analysis can only assess the existence and strength of a linear relationship between three or more variables when there are no independent and dependent variables (Aczel & Sounderpandian, 2002). Multiple regression focuses on describing the nature and extent of relationships where the independent and dependent variables were clearly identified and the goal was to determine the proportion of variability in the dependent variable that can be explained by each independent variable (Aczel & Sounderpandian, 2002).

In addition, stepwise multiple regression was initially selected because it could determine the specific amount of the variation in the amount of Medicaid generated that was explained by each independent variable in the model. It also allowed for determining the order of the variables entering the equation based on the amount of variation in the

dependent variable attributed to the independent variables (Tabachnick & Fidell, 2007). Although this project initially proposed to use stepwise regression, sequential regression was chosen as the superior analytical strategy (see Chapter 4 for a detailed discussion).

Regression analysis was used to determine the predictive accuracy of the research hypotheses in two steps. Multiple-regression analysis was used (a) to construct the statistical model that best described the strength and direction of the linear relationships between each independent variable and the dependent variable; (b) to determine the amount of variation in the dependent variable due to each independent variable when the others are controlled; and (c) to determine changes in the proportion of the variance in the levels of Medicaid generation that were explained by the addition of each independent variable in the statistical model, beginning with the level of an organization's dependence on the state.

The statistical model was constructed as a linear function in the form of the regression equation: " $Y = A + B_1X_1 + B_2X_2 \dots B_kX_k$ where Y represented the estimated value of Y , A is the Y intercept, and B_1 to B_k are regression coefficients" (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975, p. 328). The predictive accuracy of the calibrated model was assessed by calculating R -squared (i.e., the coefficient of determination). This measure was a "ratio of explained variation in the dependent variable Y to the total variation of Y " (Nie et al., 1975, p. 324). This measure was used to determine what percentage of the variation in Y can be explained by the variables in this study.

Next, the square of the partial correlation was calculated for each variable that explained variation in Y to determine its effect once the influence of the other variables is controlled. This was used to represent "the proportional increment in the explained

variation,” due to the separate and distinct contribution of each independent variable, “expressed as a proportion of the variation unexplained” (Nie et al., 1975, p. 333) by the other independent variables in this study.

Finally, the changes in the *R*-squared value, an expression of the proportion of the variance explained with the addition of each individual variable, were computed to test the extent to which incorporation of organizational dependence on the state, state dependence on an organization, geographic location, and association membership increased the explanatory power of a model that sought to explain variations in the levels of organizational compliance with the State of Illinois’ requirement to maximize Medicaid. The *F*-test statistics was used to determine the statistical significance of the model and the statistical significance of each study variable in the regression model.

There were tests to determine whether a linear model was the best fit for the data and whether the model assumptions in multiple regression analysis held for this study. While the rejection of a given assumption did invalidate the use of regression analysis or the results of this study, it required the stricter tests of significance in interpreting the results of tests of the study hypotheses. The model-assumption tests assessed whether the assumptions of normality, linearity, homoscedasticity, and multicollinearity held for the study data. The assumption of normality was tested by calculating the skewness, the degree of asymmetry in the mean, median, and mode of a frequency distribution, and the kurtosis or degree of peakedness or flatness of a frequency distribution for the variables in this study (Aczel & Sounderpandian, 2002, p. 39). Values greater than +3 or -3 on these measures would lead to a rejection of the assumption of normality (Abrams, 2005, p. 1).

Scatterplots were the primary mechanisms for testing the other two assumptions underlying the use of regression. Inferences were based on visual inspection rather than statistics that can be calculated from these data (Berk & Carey, 2004, pp. 342–349). Constructing and examining a scatterplot of the relationship of each independent variable to the dependent variable in this study permitted an assessment of the assumption of linearity. If the scatterplot was oval, the hypothesis of nonlinearity would be rejected.

The assumption of homoscedasticity asserted “that the variability in the scores for the independent variables in the study are the same for each value of the dependent variable” (Abrams, 2005, p. 9). This assumption was also tested using a scatterplot of the residuals between each independent variables and the dependent variable. If the cluster of points in the data did not become wider as the values of the dependent variable got larger, the assumption of nonhomoscedasticity (also called heteroscedasticity) would be rejected.

The study included a test for multicollinearity or the degree to which the independent variables were correlated with one another using a correlation matrix (Aczel & Sounderpandian, 2002, p. 569). The level of correlation between the independent variables was used to determine whether two variables measure the same construct. Bivariate correlations greater than .90 were viewed as evidence of multicollinearity (Abrams, 2005, p. 10)

Protection of Participants’ Rights

The study population did not include residents of facilities (e.g., prisons), members of vulnerable or protected populations, or persons less than 18 years of age. Data used in this study were in the public domain and required neither participant confidentiality nor participant consent.

Summary

This study assessed how and to what extent an organization's dependence on grant funding , size of an organization's contract , trade-association membership, and the size of an organization's regional network were related to organizational compliance with the state Medicaid billing requirement among 162 Illinois community mental health organizations. This chapter discussed the research design, setting and sample, methods of data collection, and methods of data analysis used to answer this research question. Use of a secondary analysis of 2005 claims data to test four hypotheses derived from resource-dependency theory was also described. The rationale for selecting multivariate linear-regression analysis as the primary analytical technique was discussed. Finally, the rationale for using multiple-regression rather than multiple-correlation analysis was described as well as the statistical procedures used to test the hypotheses, and the statistical procedures used to ensure that the validity of the statistical inferences drawn from these tests. A detailed discussion of multiple regression and the tests of the study hypotheses and regression-model assumptions are presented in Chapters 4 and 5.

Chapter 4: Results

Introduction

The presentation of findings contained results of two analyses. The first set of findings were the results of a data-screening analysis that assessed (a) the ratio of cases to independent variables and missing values; and (b) outliers, normality, linearity, homoscedasticity, and multicollinearity. The second set of findings reported the results of a regression analysis used to test the study's four research hypotheses and answer its four major research questions with respect to how and to what extent the four independent variables (level of organizational dependence on the grant funding, the level of state dependence on an organization, trade-association membership, and size of the regional network) accounted for variation in organizational compliance with state billing requirements among Illinois community mental health organizations.

After reviewing the major regression analyses available from the SPSS regression program, sequential regression rather than stepwise regression was used to test the research hypotheses. Both strategies provide analyses that assess the unique contribution of an independent variable to explain the variance in a dependent variable. In addition, sequential regression and stepwise linear regression enter the independent variables in a specific order rather than all at once (Tabachnick & Fidell, 2007, pp. 136–138).

However, the manner in which this occurs varies greatly between the two approaches. Sequential regression in SPSS allows a researcher to use either theoretical or logical grounds to determine the order in which variables are entered into a model. Stepwise multiple regression in SPSS lets the computer decide which variables are either included or omitted in a regression equation regardless of their logical or theoretical

relevance to the problem at hand (Tabachnick & Fidell, 2007, pp. 138–140). Given the fact that resource-dependency theory guided the selection of the study's variables, sequential regression, as performed by the SPSS program, was selected to be the more appropriate analytical strategy.

The focus of the regression analysis was (a) whether and the extent to which a linear relationship exists between the degree of organizational compliance and one or more of the independent variables, and (b) the nature of the relationship. Statistical tests of two null hypotheses were used to determine answers to the first question. The results of these tests were then used to answer the second question.

The first null hypothesis stated that the value of the standardized regression coefficient, beta, of the relationship between organizational compliance and any of the independent variables is zero (null hypothesis: $\beta = 0$). If the actual t value of the standardized regression coefficient, beta, exceeded the critical value of t at $p = .05$, then this null hypothesis was rejected. On the other hand, if the reported values of the standardized regression coefficient, beta, did not exceed the critical value of t at $p = .05$, then the value of beta was presumed to be caused by random error and the null hypothesis was not rejected.

The second null hypothesis stated that the value of the semipartial correlation coefficient squared (R -squared) is zero. R -squared is the amount of variation in the degree of organizational compliance that was uniquely explained by one of the independent variables. Because sequential regression identifies the amount of variance that is uniquely explained when other variables are controlled, the statistic used becomes R -squared

Change rather than R -squared and the null hypothesis becomes (null hypothesis: R -squared Change = 0; Pallant, 2007, pp. 161–164).

With respect to the second null hypothesis, if the actual $F(\text{Change})$ value of the semipartial correlation coefficient squared (R -squared change) exceeded the critical value for $F(\text{Change})$ at $p = .05$, then the null hypothesis (R -squared change = 0) was rejected. However, if the actual $F(\text{Change})$ value of R -squared change did not exceed $p = .05$, then the null hypothesis was not rejected and the value of R -squared change was presumed to be zero and due to random error. The size of a significant value of (R -squared change with $F(\text{Change})$ at $p < .05$) specified the amount of the variance in organizational compliance that was uniquely explained by each independent variable (Pallant, 2007, p. 163).

If a test of the first null hypothesis was true (i.e., that no linear relationship existed), then there was no reason to test the second null hypothesis. However, if the first null hypothesis was rejected, then the sign of the beta value determined if a linear relationship was either positive or inverse. A positive linear relationship was represented by a positive significant beta value, while an inverse relationship was represented by a negative significant beta value.

Tabachnick and Fidell (2007) stated that the importance of independent variables can depend on their order of entry into a sequential-regression equation (p. 146). As a consequence, three different sequential regressions were conducted to determine whether and to what extent order of entry affected the size and statistical significance of the R -squared values reported in this study. The first analysis entered the variables in the order they were introduced by the research questions, based on the size and significance of the

squared semipartial correlation coefficients (*R*-squared change). Another sequential regression was performed that entered the variables in descending order of statistical importance. Finally, a third sequential regression was performed entering the variables in ascending order of statistical importance. The results indicated that order of entry had no impact on the relative importance and statistical significance of the independent variables in this study. The results of all three analyses are presented in Appendixes E, F, and G.

Data-Screening Analysis

Prior to testing the study's research hypotheses, the data were screened using SPSS Regression and SPSS Explore Student version 15 to determine the degree of fit between it and the assumptions underlying multiple-regression analysis. This examination focused on (a) missing data; (b) normality, linearity, and homoscedasticity of residuals; (c) the detection of multivariate outliers; (d) multicollinearity; and (e) the ratio of cases to independent variables (Tabachnick & Fidell, 2007, pp. 60–129). The original data set contained no missing values for any of the five variables in this study. Therefore, data screening was based on information about the 162 community mental health in the original study population.

Analysis of residuals detected two multivariate outliers in the original sample of 162 cases. An analysis of these cases was conducted to determine which variables caused these cases to deviate from the other cases in the study population (Tabachnick & Fidell, 2007, pp. 100–103). Values on all five-study variables for each outlying case were compared against the mean value for all other cases in the study. When the variable value for an outlier case was more than 3 *SD* from the sample mean, it was identified as an extreme value.

Values on the variable, degree of organizational compliance, met this standard for both cases. For Case 78, the degree of organizational compliance was 1.975, which was +3.86SD from the mean. For Case 149, the degree of organizational compliance was 4.261, which was +9.61SD. None of the other variable values for these two outlying cases approached 3 *SD* from the study-population mean (see Appendix H).

Because the degree of organizational compliance was not equal to or greater than 1 for any of the remaining cases in the study population, it was presumed that inclusion of these outliers would skew the regression relationships in ways that were not representative of this study population. For this reason, the two outlying cases were deleted from the study population reducing it to 160 cases. Descriptive statistics for the study population with and without the outliers did not reveal major differences between them (see Appendixes I and J). The outlying cases are highlighted in bold in the aforementioned complete listing of agencies in Appendix D.

The literature indicated that this reduced study population would still meet the sample-size requirements for a multiple-regression analysis. Tabachnick and Fidell (2007) stated that testing individual predictors requires N greater than or equal to $104 + m$ where m is the number of independent variables. In the event that stepwise regression was used, they stated, “a cases-to-IV ratio of 40 to 1 is reasonable because statistical regression can produce a solution that does not generalize beyond the sample” (p. 123). Using these standards, it was reasonable to conclude that the size of the resulting study population of 160 was sufficient regardless of the type of regression analysis used, considering that there were only four independent variables in this study.

A scatterplot of residuals was used to determine whether the assumptions of normality, linearity, and heteroscedasticity were met. While the residuals appeared to be normally distributed around the predicted values of the dependent variable (degree of organizational compliance with Medicaid billing requirements), and had a relatively straight-line relationship with these same predicted values, the variance of the residuals also indicated the presence of mild to moderate heteroscedasticity. Some divergence appeared in the residuals as predicted values of the organizational compliance with Medicaid billing requirements increased (see Appendix K).

Because heteroscedasticity can be caused by nonnormality of one of the continuous variables (Tabachnick & Fidell, 2007, p. 85), 95% confidence intervals of skewness and kurtosis were calculated to assess the normality of the three continuous independent variables in this study and the dependent variable. Tables 1 and 2 present the results.

Table 1

Assessment of Skewness for All Continuous Variables

Variable	Skew statistic	Standard error	95% lower bound confidence interval	95% upper bound confidence interval	Reject hypothesis of no skewness
Organizational compliance	0.058	0.192	-0.31832	0.43432	No
Degree of grant dependence	0.139	0.192	-0.23732	0.51532	No
Size of regional network	0.009	0.192	-0.36732	0.38532	No
Size of state contract	3.686	0.192	3.30968	4.06232	Yes

Table 2

Assessment of Kurtosis for All Continuous Variables

Variable	Kurtosis statistic	Standard error	95% lower bound confidence interval	95% upper bound confidence interval	Reject hypothesis of no kurtosis
Organizational compliance	-0.478	0.381	-1.22476	0.26876	No
Degree of grant dependence	-0.032	0.381	-0.77876	0.71476	No
Size of regional network (#)	-1.835	0.381	-2.58176	-1.08824	Yes
Size of state contract	21.047	0.381	20.30024	21.79376	Yes

Based on the data in Tables 1 and 2, the dependent variable, organizational compliance, and the independent variable, organizational dependence on grant funding, showed no skewness and kurtosis at the 95% confidence level. However, the other two independent variables, size of the regional network and state dependence on an organization, did not meet the assumption of normality, due to either excessive skewness and/or kurtosis.

Use of logarithmic transformation to eliminate heteroscedasticity in the data was unsuccessful (Tabachnick & Fidell, 2007, pp. 86–89). A logarithmic transformation applied to the independent variable, state dependence on an organization (as measured by the Total FY'05 Contract), did not reduce its substantial positive skewness and produce normality. Skewness and kurtosis for the transformed variable increased relative to the original independent variable (8.98 and 98.53 versus 3.69 and 21.05). For this reason, the transformed variable was not included and the original variable, state dependence on an organization was retained.

Transformation was not attempted on the other variable, size of the regional network. It had no significant skewness and data transformations are typically used when evidence of skewness rather than kurtosis exists (Tabachnick & Fidell, 2007, pp. 86–89).

Furthermore, while the size of this study population ($N = 160$) was sufficient to overcome the effects of excessive skewness and positive kurtosis, it was not large enough to completely eliminate the effects of negative kurtosis. As Tabachnick and Fidell (2007) stated, “Because the standard error for both skewness and kurtosis decrease with larger N , the null hypothesis is likely to be rejected with large samples when there are only minor deviations from normality” (p. 80).

In a large sample, a variable with statistically significant skewness often does not deviate enough from normality to make a substantial difference in the analysis. In other words, with large samples, the significance level of skewness is not as large as the actual size (worse the farther from zero) and the visual appearance of the distribution. In a large sample, the impact of departure from zero kurtosis also diminishes. For example, underestimates of variance associated with positive kurtosis (distributions with short, thick tails) disappear with samples of 100 or more cases; with negative kurtosis, underestimates of variance disappear with samples of 200 or more (Tabachnick & Fidell, 2007, p. 80.). Caudill (1988) noted that Type I errors typically increase with the degree of heteroscedasticity (p. 65). Therefore, the degree to which actual p -values exceed the critical-value threshold of $p = .05$ was considered in interpreting the hypothesis test results.

Finally, a correlation matrix (see Table 3) was used to assess the degree of multicollinearity among the four independent variables in the study. While some

statistically significant correlations were found among the independent variables, none of the Pearson product-moment correlations met the threshold for multicollinearity ($r = .90$). Bivariate correlations between the independent variables ranged in magnitude from - .019 to .350.

Table 3

Pearson Correlations Among All Independent Variables

Independent variables	1	2	3	4
1. Degree of grant dependence	—	0.184 **	0.027	0.104
2. Size of the state contract		—	0.085	0.350 **
3. Size of the regional network			—	-0.019
4. Trade-association membership				—

Note. ** Significant at or less than .01.

Test of Research Hypothesis 1

The results of the regression analysis used to test the study's four research hypotheses are presented in Appendix L. Research Hypothesis 1 stated that an organization's level of dependence on grant funding from the Illinois Division of Mental Health is positively and significantly related to the degree of organizational compliance with the state Medicaid billing requirement. Results from hypothesis testing using regression analysis found an organization's level of dependence on grant funding was inversely and significantly related to the degree of organizational compliance with the state Medicaid billing requirements.

Research Hypothesis 1 predicted that the value of the standardized beta coefficient would result in rejection of the null hypothesis of no linear bivariate relationship between dependence on state grant funding and organizational compliance.

The findings supported this prediction. The value of beta for the regression equation of this relationship was $-.354$ at $p < .0005$, indicating that the actual value of the standardized regression coefficient, beta, greatly exceeded the critical value of t at $p < .05$ for rejection of the null hypothesis, $\beta = 0$.

Research Hypothesis 1 also predicted that the null hypothesis, which stated that the value of the semipartial correlation coefficient squared change (R -squared change) is zero would be rejected. The findings also supported this prediction. The actual $F(\text{Change})$ value for R -squared change exceeded the critical $F(\text{Change})$ value for R -squared change at $p = .05$ (R -squared change = $.106$, $F(\text{Change}) = 18.812$, $p < .001$). This indicated that 10.6% of the total variance in organizational compliance was uniquely explained by organizational dependence on state grant funding when the effects of the other three independent variables were controlled.

Because the first null hypothesis was rejected by this analysis, the nature of the relationship between these two variables could be determined. Although Research Hypothesis 1 predicted a positive beta value for this statistically significant linear relationship, the value of beta reported above was negative ($\beta = -.354$ at $p < .0005$). This indicated that the level of organizational dependence on grant funding is inversely rather than positively related to the degree of organizational compliance with state Medicaid billing requirements.

The existence of a negative value of beta challenged this study's assumption that organizations with greater dependence on grant funding would feel more threatened by the shift to fee-for-service funding and therefore more susceptible to state pressures to maximize Medicaid. In fact, it appeared that greater organizational dependence on grant

funding made organizations feel less threatened by the shift and therefore less inclined to comply with state Medicaid billing requirements. An explanation for this finding is presented in Chapter 5.

Test of Research Hypothesis 2

Research Hypothesis 2 stated that the size of an organization's contract with the Illinois Division of Mental Health is inversely and significantly related to the degree of organizational compliance with the state Medicaid billing requirement. Results from hypothesis testing using regression analysis did not support this proposition. This study found no evidence of a significant linear relationship between the size of an organization's contract and the degree of organizational compliance with the state Medicaid billing requirements.

If true, Research Hypothesis 2 would lead to a rejection of the null hypothesis that value of the standardized beta coefficient is zero. However, the results did not support rejection of this null hypothesis. The value of beta for the regression equation of this relationship was $\beta = -.059$ at $p = .455$, indicating that the actual value of the standardized regression coefficient, beta, in no way reached the critical value of t at $p = .05$. Because there was no evidence of a statistically significant linear relationship between these two variables, there was no need to explore if this relationship was either positive or negative or how much of the total variance in organizational compliance was uniquely explained by state dependence on an organization, as measured by the size of total FY'05 contract.

Test of Research Hypothesis 3

Research Hypothesis 3 stated that membership in the statewide trade association is positively and significantly related to the degree of compliance with the state Medicaid billing requirement. Results of hypothesis testing using regression analysis supported the proposition that membership in the statewide trade association is positively and significantly related to the degree of organizational compliance with the state Medicaid billing requirements.

Research Hypothesis 3 predicted that the value of the standardized beta coefficient would lead to rejection of the null hypothesis that the value of the standardized beta coefficient is zero. The findings supported this hypothesis. The value of beta for the regression equation of this relationship was $\beta = .192$ at $p = .012$. For this relationship, the actual t value of the standardized regression coefficient, beta, noticeably exceeded the critical value of t for beta at $p = .05$.

Research Hypothesis 3 also predicted that the null hypothesis that states the value (R -squared change) due to trade-association membership is zero would be rejected. Again, the findings supported this prediction. The actual $F(\text{Change})$ value of R -squared due to trade-association membership exceeded the critical value of $F(\text{Change})$ for R -squared change at $p = .05$ (R -squared change = .035, $F(\text{Change}) = 6.432$, $p = .012$). This value of R -squared change indicated that 3.5% of the total variance in organizational compliance was uniquely explained by membership in the statewide trade association when the effects of the other three independent variables were removed.

Because the first null hypothesis was rejected by this analysis, the nature of the relationship between these two variables could also be determined. Research Hypothesis

3 predicted a positive beta value for this statistically significant linear relationship. The results of the analysis confirmed that the value of beta reported was, in fact, positive (beta = .192 at $p = .012$). This indicated, as suggested by studies such as those describe in the literature review, that membership in the statewide association is positively related to the degree of organizational compliance with state Medicaid billing requirements.

Test of Research Hypothesis 4

Research Hypothesis 4 stated that the size of the network in which an organization is located was inversely related to the degree of organizational compliance with state Medicaid billing requirements. However, results of hypothesis testing using regression analysis found no evidence that this was the case.

While Research Hypothesis 4 predicted that the value of the standardized beta coefficient would lead to rejection of the null hypothesis that the value of beta is zero for the bivariate relationship between size of the regional network and organizational compliance with state Medicaid billing requirements, it was not supported by the results.

The value of beta for the regression equation of this relationship was beta = .130 at $p = .078$, indicating that the actual value of t for the standardized regression coefficient, beta, did not meet the critical value of t for beta at $p = 05$. As with Research Hypothesis 2, because there was no evidence that a statistically significant linear relationship existed between these two variables, there was no need to explore further whether this relationship was either positive or negative.

Research Hypothesis 4 also predicted that the null hypothesis stating that the value of R -squared change is zero would be rejected. The findings did not support this prediction either. The actual $F(\text{Change})$ value of R -squared change did not exceed the

critical value for $F(\text{Change})$ for R -squared change at $p = .05$ [R -squared change = .017, $F(\text{Change}) = 3.138, p = .078$]. This indicated that none of the total variance in organizational compliance was uniquely explained by the size of the regional network in which an organization is located.

Summary

The sequential regression analysis assessed and determined how and to what extent the degree of community mental health organization compliance with the state's Medicaid billing requirements could be explained in terms of four independent variables derived from resource-dependency theory: (a) an organization's dependence on grant funding, (b) the size of an organization's contract, (c) the organization's trade-association membership status, and (d) the size of the regional network where the organization is located.

Prior to conducting this regression analysis, a preliminary data-screening analysis determined whether the data set violated the underlying assumptions of multiple regression analysis. This analysis focused on (a) missing data; (b) required sample size; (c) outliers; (d) normality, linearity, and heteroscedasticity of the residuals; and (e) multicollinearity.

No missing values were found in the original study population of 162 community mental health agencies. Two cases with very high scores on the measure of organizational compliance with state Medicaid billing requirements were judged to be nonrepresentative outliers and were deleted from this study. This resulted in 160 cases being screened for normality, linearity, heteroscedasticity, and multicollinearity.

Analysis of the residual scatterplot for measures of all variables revealed mild to moderate heteroscedasticity. Because heteroscedasticity is produced by nonnormality in individual variables, the skewness and kurtosis of all continuous variables were analyzed. The analysis found that two of the independent variables, size of the regional network in which an agency is located, and the state dependence on an organization for the delivery of services, exhibited statistically significant levels of either skewness or kurtosis. Because transformation and increasing sample size could not be used to completely eliminate the effects of skewness and kurtosis, heteroscedasticity was taken into account in reporting the results of hypothesis testing in this section.

Finally, the data screening analysis found no evidence of multicollinearity among the independent variables. None of the bivariate Pearson product-moment correlations met the statistical criterion for multicollinearity ($r = .90$). Therefore, all four independent variables were retained in this study.

With respect to the first research question—How is the organizations' dependence on grant funding related to the degree of organizational compliance with state Medicaid billing requirements and what is the extent of that relationship?—both null hypotheses were rejected. This analysis found the actual values of t for negative beta and $F(\text{Change})$ for R -squared change for the relationship between levels of organizational dependence on grant funding and the degree of organizational compliance with state Medicaid billing requirements greatly exceeded the critical value established for rejection at the 95% level of confidence. However, the existence of a negative beta value raises the question why organizations with greater dependence on grant funding were more compliant with state

requirements to maximize Medicaid. A possible explanation for this unexpected finding is discussed in Chapter 5.

With respect to the second research question—How is the size of an organization's contract with the Illinois Division of Mental Health related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of that relationship?—the regression analysis results failed to support Research Hypothesis 2. The actual values of t for beta of the relationship between the size of an organization's contract and the degree of organizational compliance with state Medicaid billing requirements did not exceed the critical values for rejection of the first null hypotheses at the 95% level of confidence. Because there was no evidence of a linear relationship, a test of the value of $F(\text{Change})$ for R -squared change was unnecessary.

This finding contrasts with Pfeffer and Salancik (1978) original findings as well as the findings of the empirical research reviewed in this study. The differences may be explained by differences between this study and the prior research with respect to the measures used.

In answer to the third research question—How is membership in the statewide trade association related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of the relationship?—the regression analysis provided evidence to support Research Hypothesis 3. The actual t values of beta and $F(\text{Change})$ for R -squared change exceeded the critical values for rejection of the null hypotheses used to test Research Hypothesis 3. Evidence of a positive and statistically significant linear relationship between trade-association membership and the degree of organizational compliance with state Medicaid billing requirements was in line with

results of empirical studies (Hall, Clark, Giordano, Johnson, & Van Roekel; Pfeffer & Leong; Provan, Provan, Beyer, & Kruytbosch, all cited in Stearns et al., 1987), concluding that interorganizational linkages are positively associated with the power and improved performance of organizations (p. 71)

Finally, with respect to the fourth research question—How is the size of the regional network in which an organization is located related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of the relationship?—this analysis found no evidence in support of Research Hypothesis 4. As with Hypothesis 2, the actual values of t for beta and $F(\text{Change})$ for R -squared change did not meet the critical values for the two null hypotheses used to test Research Hypothesis 4. Chapter 5 discusses the implications of this analysis. It summarizes the major findings and conclusions and discusses recommendations and significance for social change.

Chapter 5: Summary, Conclusions, and Recommendations

Overview

This study sought to provide empirical data on the extent to which variations in the degree of organizational compliance with state Medicaid billing requirements among Illinois community mental health organizations can be explained in terms of four variables derived from resource-dependency theory. In doing so, it sought to fill a gap in the Medicaid maximization literature created by a lack of focus on the different levels of compliance among community mental health organizations with the requirements of these initiatives and factors that account for it. The literature has analyzed the shift from grant-in-aid to fee-for-service funding models through Medicaid maximization without focusing on organizational responses to the shift (Buck, 2003).

The lack of empirical data on the factors contributing to variability in organizational compliance with state Medicaid billing requirements created legitimate concerns about the future viability of community mental health organizations among agency executives and state policymakers. In the absence of empirical data about challenges that community mental health organizations faced, agency leaders and government officials have had to rely on anecdotal information and instinct in the planning and implementation of the Illinois Medicaid Maximization Initiative. This study provided information for decision making based on research and analysis.

This study analyzed secondary data to assess and determine how and to what extent the dependent variable, the degree of community mental health organizations' compliance with the state's Medicaid billing requirements, can be explained in terms of four independent variables derived from resource-dependency theory: (a) an

organization's dependence on grant funding ; (b) the size of an organization's mental health contract; (c) trade-association membership; and (d) the size of the regional network in which the organization is located. The analysis contained two steps: (a) preliminary data screening and (b) sequential regression analysis. Both steps were performed using SPSS.

Preliminary data screening for normality, linearity, and homoscedasticity revealed mild or moderate heteroscedasticity. Attempts to correct the problem of heteroscedasticity were unsuccessful. Because heteroscedasticity could have increased the probability of Type I errors, this study considered the degree to which actual values exceeded critical values at the $p = .05$ level in reporting the results of hypothesis testing.

No missing values were found in the original study population of 162 community mental health agencies. Deletion of two cases with very high scores on the measures of organizational compliance with Medicaid billing requirements still produced a study population large enough to support a regression analysis on the database. Moreover, no evidence was found of multicollinearity among the independent variables.

The study found that the t value of negative beta, the $F(\text{Change})$ value of R -squared change for the relationship between levels of organizational dependence on grant funding, and the degree of organizational compliance with state Medicaid billing requirements were significant at the 99.95 % level of confidence. This greatly exceeded the critical value established for rejection of the null hypotheses of a 95% level of confidence. The existence of a negative beta value raised the question of why organizations with less dependence on grant funding were more compliant with the state requirement to maximize Medicaid.

The study provided no empirical support for Research Hypothesis 2. The t value for beta and $F(\text{Change})$ value for R -squared change for this relationship between size of the organization's contract and organizational compliance with state Medicaid billing requirements did not exceed the critical values for rejection of the null hypotheses at the 95% level of confidence. These findings conflicted with the results of Pfeffer and Salancik's (1978) study which found that the amount of business an organization did with the government was inversely related to the degree of organizational compliance with governmental requirements. The findings do not appear to support those studies, cited in the literature review that found a significant statistical relationship between size and organizational functioning.

However, the study did find empirical support for Research Hypothesis 3. The t value of beta and R -squared change for the relationship between trade-association membership and the degree of organizational compliance with state Medicaid billing requirements were significant at the 98.8% level of confidence ($p = .012$). This value substantially exceeded the critical values for rejection of the null hypotheses at the 95% level of confidence. This finding was consistent with the claims in the resource-dependence literature that the establishment of voluntary linkages with other organizations is a viable strategy for improving organizational performance and making the flow of resources more predictable in uncertain environments (Stearns et al., 1987).

Finally, this study provided no empirical support for Research Hypothesis 4. The actual t value for beta and $F(\text{Change})$ value for R -squared change did not meet the critical values for rejection of the two null hypothesis used to test this hypothesis. This finding is not consistent with the results reported in Pfeffer and Salancik's (1978) original research.

Interpretation of Findings

The Illinois Medicaid Maximization Initiative required that all community mental health organizations funded by the State of Illinois accept preestablished state Medicaid billing requirements as a condition of continued annual funding (Illinois Division of Mental Health, 2005b, p. 6). These requirements created a considerable amount of concern and debate about the willingness and ability of community mental health organizations to provide a safety net for non-Medicaid and Medicaid populations among community agency directors, mental health advocates, and state policymakers.

Disagreements existed between the community organizations and state decision makers with respect to the impact of fee-for-service billing requirements on agency operations. The Illinois Division of Mental Health's (2005a) Final Report on a Strategic Vision and Comprehensive Evaluation of the Illinois Public Mental Health described the Illinois 2005 fee-for-service initiative in the following way:

Illinois' FY 2005 payment strategy referred to as the "fee-for-service" initiative will, when fully implemented, materially change the DMH-provider relationship and force important financial changes on provider agencies. First of all, all funding is awarded as grants, in advance of the provision of services, including the portion that is Medicaid reimbursement. Second, the plan is designed to increase revenue from federal matching funds by \$25 million. This is to be accomplished without any overall funding increase, but with the expectation that Medicaid claiming for services funded with the advance payments will grow by roughly 35% statewide. The state will not increase total expenditures to providers, but the providers are expected to bill for significantly more services which can be

matched with federal funds. This expectation is not premised on the idea that providers are to change the type of services provided or the consumers served, only that they be more attentive to the possibilities of billing Medicaid for services delivered. (pp. 45–46)

The executive branch believed that Medicaid claims for mental health services could grow by 35% in 1 year without rate increases and significant changes in the way providers did business. Consequently, they felt that providers' opposition reflected their unwillingness to be accountable for the state funds they received. On the other hand, CBHA, the major trade association, maintained that the 35% Medicaid claim target placed productivity demands that were unrealistic and unattainable for many providers. Moreover, providers were concerned about the potential loss of revenue and client access that could result if they failed to meet these targets.

Discussion

This study used variables derived from resource-dependency theory and sequential regression analysis to construct and evaluate a statistical model to account for variation in levels of organizational compliance with the state's FY'05 Medicaid billing requirements among the Illinois community mental health organizations in this study population. The model was used to answer the four related research questions developed by this study. The findings of this study indicated that understanding variation in the degree of organizational compliance is a more complex problem than either the state advocates or the community opponents of the initiative initially envisioned. In addition, it demonstrated that empirical research could play a role in addressing these management and policy issues.

In answer to the first research question—How is the organizations' dependence on grant funding from the Illinois Division of Mental Health related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of that relationship?—this study concluded that the degree of organizational compliance was a function of the level of organizational dependence on grant funding. Furthermore, this study concluded that this inverse and significant relationship existed between these two variables despite an increased possibility of Type 1 errors from the heteroscedasticity found in the data (Caudill, 1988, p. 65). Research Hypothesis 1 predicted a positive significant relationship between these two variables. However, this study concluded that an inverse significant relationship existed between the level of organizational dependence on grant funding and the degree of organizational compliance with state Medicaid billing requirements.

The existence of an inverse relationship was surprising to this researcher, given the underlying assumptions of this study that organizations that are more dependent on grant funding have greater feelings of vulnerability in a fee-for-service environment than organizations dependent on fee-for-service funding, and therefore were more likely to comply with state requirements to maximize Medicaid billings.

This study found that organizations that were more dependent on fee-for-service funding were more likely to comply with Medicaid billing targets than those that were less dependent on this type of funding. This maybe attributable to the fact that the FY'05 contracts placed fee-for-service funding at risk but not grant-in-aid funding. As a consequence, the greatest disruption to existing patterns of resource dependence was experienced among providers suddenly expected to generate the greatest percentages of

their contract revenue through fee-for-service billings. While feelings of vulnerability may shift over time to more grant-dependent organizations as the state continues to make fee-for-service funding the preferred mechanism for funding public mental health services and place existing grant funding at risk, (Buck, 2003), that does not appear to be the case at this time.

Moreover, the expectation among some providers that high Medicaid billing targets in the FY'05 contracts might adversely affect fee-for-service maximization is not supported by this study. These findings suggest that increasing the degree of organizational dependence on fee-for-service funding though higher Medicaid targets was associated with greater compliance with Medicaid billing requirements among Illinois community mental health organizations.

The findings are consistent with the research of Erakovic and Wilson (2005) that suggest successful organizational change and policy implementation requires the disruption of pre-existing patterns of resource dependence. Unless these patterns are disrupted, they can become obstacles to successful implementation (Flinders, 2007; Williams, 2006).

Finally this study found that the level of organizational dependence on grant funding (or fee-for-service funding) does not account for most of the variation in organizational compliance. Organizational dependence was the most important variable among the four independent variables in this study. Of the variance in organizational compliance explained by this model (17.1%), 62% was due to the independent variable, organizational dependence on the grant funding, (10.6%). However, level of

organizational dependence could not account for 89.4% of the variance in organizational compliance in this study.

With respect to the second research question—How is the size of an organization's contract with the Illinois Division of Mental Health related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of that relationship?—this study concluded that the degree of organizational compliance with state Medicaid billing requirements was not a function of the size of an organization's contract with the state. The results of the regression analysis found no evidence of a statistically significant linear relationship between the size of an organization's contract and the degree of organizational compliance with state Medicaid billing requirements. The size of an organization's contract with the Illinois Division of Mental Health's accounted for none of the variance in organizational compliance with the state Medicaid billing requirements.

These findings also do not support the conclusions reached by Pfeffer and Salancik (1978) and much of the previous research, which found a significant and positive relationship between organizational size and performance. It is possible that other measures of organizational size, other than the size of its contract with the state (e.g., total budget or total number of employees) might be significantly associated with compliance with Medicaid billing requirements.

With respect to the third research question—How and to what extent is the dependent variable, the level of community mental health organizations' compliance with the state's Medicaid billing requirement, explained by the trade-association membership status of an organization?—this study concluded that the degree of organizational

compliance with state Medicaid billing requirements was a function of membership in the statewide mental health trade association. The value of beta for the regression equation led to the conclusion that there was a significant positive linear relationship between trade-association membership and organizational compliance with state Medicaid billing requirements. In addition, the p -value of t for beta for the test of the null hypothesis led to the conclusion that the positive relationship between trade-association membership and organizational compliance with Medicaid billing requirements was statistically significant despite the existence of some heteroscedasticity in the data.

Moreover, the study concluded that association membership was the only other independent variable besides organizational dependence that uniquely accounted for a portion of the variance in organizational compliance with state Medicaid billing requirements. Of the total variance in organizational compliance, 3.5% was uniquely explained by dependence on state grant funding when the effects of the other three independent variables were removed. However, as in the case of organizational dependence, the independent variable, trade-association membership, cannot account for most of the variance in organizational compliance. Trade-association membership alone did not account for 96.5% of the variance in organizational compliance with state Medicaid billing requirements among Illinois community mental health organizations.

Finally, with respect to the fourth research question—How and to what extent can the dependent variable, the level of community mental health organizations' compliance with the state's Medicaid billing requirement, be explained by the size of the regional network where the organization is located?—this study concluded that organizational compliance with state Medicaid billing requirements was not a function of the size of the

regional network in which an organization is located. The results of the regression analysis found no evidence of a statistically significant linear relationship between the size of the regional network in which an organization is located and the degree of organizational compliance with state Medicaid billing requirements. These results conflict with the results of Pfeffer and Salancik's (1978) original study.

Table 4 summarizes the results of this section.

Table 4

Summary of Research Questions, Findings, and Conclusions

Research questions	Research findings	Conclusions
1. How is the organizations' dependence on grant funding from the Illinois Division of Mental Health related to the degree of compliance with state Medicaid billing requirements and what is the extent of that relationship?	The t value for negative beta and the $F(\text{Change})$ value for R -squared change (.106) for the relationship between organizations' dependence on grant funding and organizational compliance was significant at the 99.95% level of confidence.	Organizations' dependence on grant funding was inversely and significantly related to the degree of compliance with Medicaid billing requirements. Less reliance on grant funding equated to greater reliance on fee-for-service funding, which was related to greater degrees of compliance. The level of organizational dependence did not explain most variance in compliance.
2. How is the Illinois Division of Mental Health's dependence on an organization for the delivery of mental health services related to the degree of organizational compliance with the new state Medicaid billing requirements and what is the extent of the relationship?	The t value for beta and the $F(\text{Change})$ value for R -squared change for the relationship between the Illinois Division of Mental Health's dependence on an organization and organizational compliance did not exceed the critical value for rejection of the null hypotheses at the 95% level of confidence.	No significant linear relationship existed between Illinois Division of mental Health's dependence on an organization and compliance with the state Medicaid billing requirement. The state's dependence on an organization accounted for none of the variation in the degree of compliance.
3. How is membership in the statewide trade association related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of the relationship?	The t value for positive beta and the $F(\text{Change})$ value for R -squared change (.035) for the relationship between membership in the statewide trade association and organizational compliance was significant at 98.8% level of confidence.	Membership in the statewide association was positively and significantly related to the degree of compliance with state Medicaid billing requirements. Membership in the statewide association accounted for a small portion of the variation in organizational compliance but it left most of the variance unexplained.
4. How is the size of the regional network in which an organization is located related to the degree of organizational compliance with the new state Medicaid billing requirement and what is the extent of the relationship?	The t value for beta and the $F(\text{Change})$ value for R -squared change for the relationship between the size of the regional network in which an organization is located and organizational compliance did not exceed the critical value for rejection of the null hypotheses at the 95% level of confidence.	No significant linear relationship existed between the size of the regional network in which an organization is located and compliance with the state Medicaid billing requirement. The size of the regional network accounted for none of the variance in the degree of compliance.

Finally, it must be noted that all four variables left 86.9 % of the variance in organizational compliance unexplained. These results suggest that, in order to fully account for the variance, future research should investigate other explanatory variables not explored by this study.

Implications for Social Change

This research on organizational compliance among Illinois community mental health organizations could help state officials and nonprofit organization leaders make better decisions about the viability of community mental health organizations in the new, fee-for-service environment. Critical analysis using empirical data should lead to actions that increase organizations' ability to comply with the new Medicaid maximization demands. It could also help state-officials and nonprofit organization managers make better decisions about the allocation and reallocation of scarce funding.

The study suggests that there is much about organizational compliance among Illinois Community mental health organizations that remains unexplained. Only a small portion of the variance was explained, suggesting the existence of other factors, as yet unidentified, that have a significant influence on organizational compliance.

Although much of the variance in organizational compliance remains unexplained, the findings that organizational dependence and trade-association membership accounted for variations in organizational compliance with Medicaid billing requirements suggest that the premise underlying the Medicaid maximization initiative that increased Medicaid claiming did not require material changes in the organization and operation of community mental health organizations may need to be reevaluated (Illinois Division of Mental Health, 2005a). In addition, the finding that the greater percentage of

fee-for-service funding in an organization's contract, the greater likelihood of organizational compliance with Medicaid billing requirements suggests that the state's decision to establish targets may have helped rather than hindered movement of the Illinois system from a grant-in-aid to a fee-for-service funding model. The results suggest there is much more to learn about the reasons for organizational compliance with Medicaid billing requirements and that much of what we currently know may need to be reassessed.

The study also suggests the value of taking a systems approach to performance management during mental-health-system transformation. As noted in this study, only 2 of the 162 community organizations in the study population either met or exceeded their FY'05 Medicaid billing targets. This suggests that the inventors of the balanced scorecard may be correct in stating that financial performance indicators have limited value unless they are linked to factors considered drivers of future performance (Kaplan & Norton, 1996, p. 10). The results also suggested that successful implementation of system transformation should involve an analysis of the antecedents and drivers of future financial performance in a fee-for-service environment and consider using strategic management tools, such as Niven's (2003) adaptation of Kaplan and Norton's (1996) Balanced Scorecard Approach to manage both organizational change and public-mental-health-system change.

Finally, this study demonstrated how research could play a role in the evaluation of public-policy and management-strategy choices. State officials and agency decision makers often felt pressure to make decisions with few facts available for selecting among alternative courses of actions. More importantly, they possessed no means of evaluating

the validity of the assumptions on which their decisions are based. This study, like other empirical analyses, helped determine what facts were at hand and premises needed to be questioned by agency directors and state policymakers before making policy decisions. These policy decisions could have tremendous ramifications on the future existence and viability of the Illinois community mental health organizations and the public mental health system. The large amount of unexplained variance suggests that more research is needed into the factors that account for organizational compliance in order to develop interventions that ensure their present and future viability.

Recommendations for Action

The 2005 Final Report on a Strategic Vision and Comprehensive Evaluation of the Illinois Public Mental Health System described the strategic challenges Illinois lawmakers, officials, community mental health organizations, and consumers face in their use of fee-for-service financing as a tool of organizational and public-mental-health-system transformation. It stated,

The financing mechanisms used to support a state's public mental health system are governed by two sometimes competing interests: to provide access to quality services that help clients meet their goals and to control the State's financial exposure. The optimal financing system would be one that is values-driven—that is, the financing mechanism should facilitate rather than impede programmatic goals—and also controls costs in a responsible way. As Illinois moves towards a new fee-for-service payment model at the same time that it is making a commitment to design a more recovery oriented system, finding a balance between the competing interests described above takes on a new urgency. While

financing for a recovery-oriented system would ideally involve tailoring funding mechanisms to support recovery values, Illinois finds itself in the position of implementing a new payment model before it has reached a consensus on what a recovery-oriented system should look like. (Illinois Division of Mental Health, 2005a, p. 39)

With system transformation of this magnitude, disruptive change may be unavoidable. To help all stakeholders effectively cope with the challenges created by this type of change, this study's findings and conclusions led to the following recommendations for improving the change-management process for Illinois fee-for-service implementation.

The large amount of unexplained variance suggests the need for a more comprehensive analysis of organizational compliance to successfully achieve short-term and long-term goals of the Illinois Medicaid Maximization Initiative. The recommendation presented implies that there may be a need to change the conversation about fee-for-service implementation from an either-or discussion of success and failure to a continuous quality-improvement discussion that focuses on what is working, why, and how can it be improved. By adopting a comprehensive perspective that examines the relative importance of institutional, organizational, and individual factors on organizational compliance with state Medicaid billing requirements, state policymakers and agency directors will be able to allocate scarce resources in ways that balance programmatic and financial concerns and competing stakeholder interests. This researcher will actively advocate for this approach as part of ongoing participation and

leadership in a number of interagency and statewide governmental and provider committees.

The researcher recommends that future management decision making and policymaking attempt to incorporate the results of rigorous analysis, theory, and empirical research. When policymaking and decision making at the agency and state level is informed by rigorous analysis, theory, and empirical research, the risk of (a) personal biases that go undetected and therefore uncorrected, and (b) a failure to recognize and ask relevant questions about a policy, plan, or decision are minimized.

The point appears to have been borne out by the results of this study. The findings draw into question some of the opinions and views held by stakeholders including this researcher. For example, given the concerns raised by some stakeholders that the trade association had an adverse effect on the implementation of Illinois Medicaid maximization initiative, it was surprising that the degree of organizational compliance with this mandate would be positively related to trade-association membership.

Furthermore, while the State of Illinois faced considerable criticism for establishing Medicaid targets, those organizations that were required to raise the greatest percentage of their funding through fee-for-service funding in FY'05 tended to exhibit the highest degree of compliance with their billing requirements. Moreover, while this researcher believed that the impact of Medicaid maximization would be felt most acutely among grant-dependent agencies, the opposite was true. While these views appeared self-evident when this study was initiated, they point to the importance of critically evaluating opinions and reactions against a body of carefully developed facts as part of the policymaking process.

Specific Recommendations

Strengthen Collaborations and Partnerships Between the State of Illinois and Illinois Community-Mental-Health-Provider Trade Associations

As a result of association opposition to fee-for-service conversion, some distrust developed between some state officials and the mental health trade association. This issue should be honestly addressed and resolved, because the findings of this study suggested that the trade association has played a positive role in the public mental health system's transition from grant in aid to fee-for-service funding. It would be incumbent on both sides to engage in an honest conversation to help ensure that organizational and system changes required during this transition supported rather than undermined access, quality of care for clients, and the availability of revenue for Illinois community mental health organizations.

Strengthen the Oversight Role of the Illinois Mental Health Advisory Council as Part of Fee-for-Service Implementation in Illinois

In 2007, the System Restructuring Initiative, the committee originally charged by the Illinois legislature with oversight of the fee-for-service implementation, was disbanded. Part of the rationale for the move was that implementation had reached the point that the oversight of this initiative could now be subsumed under the Illinois Advisory Council, the body charged with monitoring the state's use of federal block-grant funding. Given that the Final Report on Strategic Vision acknowledged that in 2005 there was no data to determine if targets could be attained without significant changes in providers' operations (Illinois Division of Mental Health, 2005a, p. 46), and this study

could not account for most of the variance in the degree of organizational compliance with the state's targets, much more should be examined to ensure that the public mental health system's fee-for-service transition is successful. The Illinois Advisory Council should encourage the Division of Mental Health to analyze and disseminate regular data on the individual performance and system performance to determine whether the issues and concerns raised by providers, consumers, and other interested stakeholders has been addressed.

Recommendations for Further Study

The high percentage of unexplained variance indicated that the majority of the variation in organizational compliance is due to other variables that were not examined in this analysis. The review of recent literature in Chapter 2 suggests a number of areas that might prove to be avenues for future research, and that might lead to statistical models with greater predictive power.

From a resource-dependency perspective, future studies should examine those organizations' characteristics that could affect their role as policy implementers. Factors such as the size and composition of the board, staff size and composition, size and composition of client population, degree of program and service diversification, and level of information-technology implementation as explanatory variables might better account for the observed variation among mental health organizations with respect to compliance with state Medicaid billing requirements.

These differences and relationships should be explored in the study population as a whole and national samples or specific subgroups in this population or a national

sample. Studies that examined a greater number of these variables could lead to the development of more robust models for explaining organizational-compliance variability.

The characteristics of external linkages possessed by community mental health organizations and their impact on Medicaid compliance is another important area of investigation. Street and Cameron (2007) identified a number of characteristics of external linkages that could potentially account for variation in compliance with Medicaid billing requirements. They include (a) the number of linkages, (b) the strength of linkages, (c) the diversity of linkages, (d) the structure of network linkages, and (e) the purposes and goals of external linkages.

Differences in management personnel characteristics, skill sets, and practices could potentially help explain variation among organizations with respect to Medicaid billing compliance. Leadership theories can operate as a complementary framework for investigating how management influences organizational compliance in the context of environmental change and constraints on vital resources. For example, future research can examine the impact of variations in top management across organizations in leadership styles (e.g., transactional versus transformation) and evaluate the extent to which they account for variation in the degree of organizational compliance across organizations.

Another topic for further study is the impact of organizational compliance with state billing requirements on the State of Illinois' effort to reform its public mental health system. The literature suggests that environment changes and resource dependence can lead to changes in organizational structure and behavior that undermine organizational and institutional priorities (Froelich, 1999; Smith & Lipsky, 1993)

In line with 2003 recommendations of the President's New Freedom Commission on Mental Health, state mental health officials decided to view the governor's mandate to maximize Medicaid as an opportunity to fund providers and services that support "a recovery oriented system of care" (Illinois Division of Mental Health, 2005a, pp. 21–22). Some consumers, providers, and legislative and executive branch officials wondered if Illinois' move toward fee-for-service funding could control growth in state expenditures on mental health without impeding the programmatic goals of a recovery-based system of care (Illinois Division of Mental Health, 2005a, p. 39).

Research questions could address the extent to which increasing organizational compliance with state billing requirements adversely impacts (a) organizations' willingness and ability to provide a comprehensive array of quality services, (b) organizations' ability to serve uninsured clients and persons with limited ability to pay, (c) service availability to new and less treatment-compliant clients, and (d) number of provider organizations to the point that many rural counties in Illinois are left with fewer or no choices for mental health services (Illinois Division of Mental Health, 2005a, pp. 47–49). In a longitudinal study of the effects of changes in client population among substance-abuse agencies, Alexander and Wells (2008) found that substance-abuse agencies that were heavily dependent on a single referral source were less likely to provide comprehensive care for their clients.

Research into these questions should rely on both secondary data and primary data collection. These studies should use longitudinal as well as cross-sectional data to describe the implications of increasing organizational compliance on fee-for-service revenue on service-delivery patterns, access to services, service quality, and outcomes.

Final Word

The study adds to the body of literature that demonstrated the value of resource-dependency theory to the study of organizational compliance with a powerful government entity. More specifically, it described the extent to which four variables—organizational dependence on grant funding, size of an organization’s contract, trade-association membership, and size of the regional network in which an organization is located—affect the degree of organizational compliance with state fee-for-service requirements among Illinois’ community mental health organizations during the first year of Illinois’ Medicaid Maximization Initiative.

By highlighting factors that appeared to promote organizational compliance with state billing requirements, the study highlights the need for agency leaders and state officials to adopt an open-systems approach to policymaking and decision making. It is hoped that this study will encourage present and future agency leaders and government decision makers to allow analysis and research to play a greater role in the management of individual community mental health organizations and the public mental health system as a whole.

References

- Abrams, D. (2005). *Introduction to regression*. Princeton, NJ: Data and Statistical Services. Retrieved from http://dss.princeton.edu/online_help/analysis/regression_intro.htm
- Abzug, R. (1996). Nonprofits in organizational sociology's research traditions: An empirical study. *Nonprofit and Voluntary Sector Quarterly*, 28, 330–338.
- Aczel, A., & Sounderpandian, J. (2002). *Complete business statistics* (5th ed.). New York, NY: McGraw–Hill.
- Aldrich, H. E. (1979). *Organizations and environments*. Englewood Cliffs, NJ: Prentice Hall.
- Alexander, J. A., & Wells, R. (2008). How do resource dependencies affect treatment practices? The case of outpatient substance abuse treatment programs. *Medical Care Research and Review*, 65, 729–747.
- Askin, J. A. (2007). Community college mission: Re(s)ources make a difference. *Community College Journal of Research and Practice*, 31, 977–997.
- Baker, P. (2004). Book reviews: Neighborhood self-management experiments in civil society. *Administration in Social Work*, 28, 99–102.
- Baum, J. A. C. (1990). Organizational ecology. In S. R. Clegg, C. Hardy, & W. R. Nord (Eds.), *Handbook of organization studies* (pp. 77–114). London, UK: Sage.
- Berk, K., & Carey, P. (2004). *Data analysis using Microsoft Excel*. Toronto, Canada: Thomson, Brooks/Cole.

Blumenberg, S., Beimborn, D., Martin, S. F., Brodrik, B., Gunne, C., & Wendt, S.

(2008). Determinants of outsourcing success in the financial industry: The impact of importance. *2009 42nd Hawaii International Conference on Systems Sciences, HICSS-42*, 5–8, 1–10. doi: 10.1109/HICSS.2009.152

Borman, M. (2006). Assessing joint service opportunities through a consideration of the motivating and constraining factors. *Australasian Journal of Information Systems*, *14*(1), 27–42.

Brown, W. A. (2005). Exploring the association between board performance and organizational performance in non-profit organizations. *Journal of Nonprofit Management and Leadership*, *15*, 317–339.

Buck, J. (2003). Medicaid, healthcare financing trends and the future of state-based public mental health services. *Psychiatric Services*, *54*, 969–975.

Casciaro, T., & Piskorski, M. (2005). Power imbalance, mutual dependence and constraint absorption: Resource dependence theory revisited. *Administrative Science Quarterly*, *50*, 167–199.

Caudill, S. B. (1988). Type I errors after preliminary tests for heteroscedasticity. *Statistician*, *37*, 65–88.

Chatterjee, S., & Hadi, A. S. (2006). *Regression analysis by example* (4th ed.). Hoboken, NJ: Wiley-Interscience.

Chen, R., Dyball, M. C., & Wright, S. (2009). The link between board composition and corporate diversification in Australian companies. *Corporate Governance*, *17*, 208–223.

- Community Behavioral Healthcare Association of Illinois. (1996). *Illinois Department of Mental Health 20 year history: State plans from FY73–FY92*. Springfield, IL: Author.
- Community Behavioral Healthcare Association of Illinois. (1997). *Illinois Medicaid eligibility categories: A member service*. Springfield, IL: Author.
- Community Behavioral Healthcare Association of Illinois. (2000). *Medicaid and mental health services in Illinois*. Springfield, IL: Author.
- Community Behavioral Healthcare Association of Illinois. (2002). *History of serving the mentally ill in Illinois*. Springfield, IL: Author.
- Community Behavioral Healthcare Association of Illinois. (2004). *Community behavioral grant awards cost of doing business adjustments compared to consumer price index FY91–FY03: Mentally ill in Illinois and DHS licensure, certification and review areas*. Springfield, IL: Author.
- Cooper, D. R., & Schindler, P. S. (2003). *Business research methods* (8th ed.). New York, NY: McGraw-Hill.
- Cutler, D. L., Bevilacqua, J., & McFarland, B. H. (2003). Four decades of community mental health: A symphony in four movements. *Community Mental Health Journal*, 39, 381–388.
- Dansky, K. H., Milliron, M., & Gamm, L. (1996). Understanding hospital referrals to home health agencies. *Hospital and Health Services Administration*, 41, 331–343.
- Dastmalchian, A. (1986). Organizational resource dependencies and goal orientation. *Journal of Business Research*, 14, 387–402.

- Davis, J. A., Brannon, D., & Whitman, M. V. (2009). Organizational factors associated with the use of information systems in nursing homes. *Health Care Management Review, 34*, 141–151.
- Dawkins, C. E. (2005). First to market: Issue management pacesetters and the pharmaceutical industry response to AIDS in Africa. *Business and Society, 44*, 244–282.
- Devita, C. J., Fleming, C., & Twombly, E. C. (2001). Building non-profit capacity: A framework for addressing the problem [Electronic version]. In C. J. Devita & C. Fleming (Eds.), *Building capacity in non-profit organizations* (pp. 5–33). Washington, DC: Center on Non-Profits and Philanthropy, Urban Institute.
- Doerfel, M. L., & Taylor, M. (2004). Network dynamics of interorganizational cooperation: The Croatian civil society movement. *Communications Monographs, 71*, 373–394.
- Erakovic, L., & Wilson, M. (2005). Conditions of radical transformation in state-owned enterprises. *British Journal of Management, 16*, 293–313.
- Erakovic, L., & Wilson, M. (2006). The interaction of market and technology in radical transformation. *International Journal of Public Sector Management, 19*, 468–489.
- Flinders, M. (2007). Analysing reform: The House of Commons, 2001–5. *Political Studies, 55*, 174–200.
- Froelich, K. A. (1999). Diversification of revenue strategies: Evolving resource dependence in nonprofit organizations. *Nonprofit and Voluntary Sector Quarterly, 28*, 246–268.

- Gabrielsson, J. (2007). Correlates of board empowerment in small companies. *Entrepreneurship: Theory & Practice, 31*, 687–711.
- Garner, J. T. (2006). Masters of the universe? Resource dependency and interorganizational power relationships at NASA. *Journal of Applied Communication Research, 34*, 368–385.
- Gronjberg, K. (1993). *Understanding nonprofit funding: Managing revenues in social service and community development organizations*. San Francisco, CA: Jossey-Bass.
- Hadley, T. R., & Culhane, D. P. (1993). The status of community mental health centers ten years into block grant funding. *Community Mental Health Journal, 29*, 95–102.
- Hannan, M., & Freeman, J. (1977). The population ecology of organizations. *American Journal of Sociology, 82*, 929–966.
- Hannan, M., & Freeman, J. (1989). *Organizational ecology*. Cambridge, MA: Harvard University Press.
- Iecovich, E. (2001). Resource dependencies of old age homes: Definitions and measurements. *Administration in Social Work, 25*, 21–37.
- Illinois Division of Mental Health. (2005a). *Final report on a strategic vision and comprehensive evaluation of the Illinois public mental health system*. Springfield: Illinois Department of Human Services.
- Illinois Division of Mental Health. (2005b). *Mental health field test evaluation*. Springfield: Illinois Department of Human Services. Retrieved from <http://www.dhs.state.il.us/mhdd/mh/sri>

- Jackling, B., & Johl, S. (2009). Board structure and firm performance: Evidence from India's top companies. *Corporate Governance; An international Review*, 17, 492–509.
- Jaffee, D. (2001). *Organization theory: Tension and change*. New York, NY: McGraw-Hill.
- Jerrell, J. M., & Larsen, J. K. (1984). Policy shifts and organizational adaptation: A review of current developments. *Community Mental Health Journal*, 20, 282–293.
- Judd, C. M., Smith, E. R., & Kidder, L. H. (1991). *Research methods in social relations* (6th ed.). Fort Worth, TX: Holt, Rinehart, and Winston.
- Kaiser Commission on Medicaid and the Uninsured. (2006). *The uninsured: A primer*. Menlo Park, CA: Henry J. Kaiser Family Foundation. Retrieved from <http://www.kff.org/kcml>
- Kaiser Commission on Medicaid and the Uninsured. (2007a). *Medicaid: A primer*. Menlo Park, CA: Henry J. Kaiser Family Foundation. Retrieved from <http://www.kff.org/medicaid/7334.02.cfm>
- Kaiser Family Foundation on Medicaid and the Uninsured. (2007b). *Medicaid and the uninsured*. Menlo Park, CA: Henry J. Kaiser Family Foundation. Retrieved from <http://www.kff.org/medicaid/index>
- Kaplan, R. S., & Norton, D. P. (1996). *Translating strategy into action: The balanced scorecard*. Boston, MA: Harvard Business School Press.
- Kazley, A., & Ozcan Y. (2007). Organizational and environmental determinants of hospital EMR adoption: A national study. *Journal of Medical Systems*, 31, 375–384.

- Kinnie, N. J., Swart, J., & Purcell, J. (2005). Influences on the choice of HR system: The network organization perspective. *International Journal of Human Resource Management, 16*, 1004–1028.
- Light, P. C. (2004). *Sustaining nonprofit performance: The case for capacity building and the evidence to support it*. Washington, DC: Brookings Institution Press.
- Mano-Negrin, R. (2003). Spanning the boundaries: A stakeholder approach to effectiveness gaps and empowerment in public and independent human service organizations. *Administration in Social Work, 27*, 25–45.
- Mark, T. L., Buck, J. A., Dilonardo, J. D., Coffey, R. M., & Chalk, M. (2003). Medicaid expenditures on behavioral healthcare. *Psychiatric Services, 54*, 2, 188–194.
- Marshall, N. A., Fenton, D. M., Marshall, P. A., & Sutton, S. G. (2007). How resource dependency can influence social residence within a primary resource industry. *Rural Sociology, 72*, 359–390.
- Miller, S. (1995). Resource dependence. In N. Nicholson, R. S. Schuler, & A. H. Van de Ven (Eds.), *The Blackwell encyclopedic dictionary of organizational behavior* (pp. 384–390). Cambridge, MA: Blackwell.
- Mintz, B., & Schwartz, M. (1985). *The power structure of American business*. Chicago, IL: University of Chicago Press.
- Montgomery, K., & Schneller, E. S. (2007). Hospitals' strategies for orchestrating selection of physician preference items. *The Milbank Quarterly, 85*, 307–355.
- Mulroy, E. A., & Tamburo, M. B. (2004). Nonprofit organizations and welfare-to-work: Environmental turbulence and organizational change. *Administration in Social Work, 28*, 111–135.

- Myloni, B., Harzing, A., & Mirza, H. (2007). The effect of corporate level organizational factors on the transfer of human resource management practices: European and US MNCs and their Greek subsidiaries. *International Journal of Human Resource Management, 18*, 2057–2074.
- Nath, R., & Angeles, R. (2005). Relationship between supply characteristics and buyer-supplier coupling in e-procurement: an empirical analysis. *International Journal of E-Business Research, 1*(2), 40–55.
- Parker, S., & Dennison, R. (2005). *Fee-for-service field test evaluation*. Springfield: Illinois Division of Mental Health.
- Nie, N., Hull, C., Jenkins, J., Steinbrenner, K., & Bent, D. (1975). *SPSS statistical package for the social sciences*. New York, NY: McGraw-Hill.
- Niven, P. R. (2003). *Balanced scorecard: Step-by-step for government and nonprofit agencies*. Hoboken, NJ: John Wiley.
- Pallant, J. (2007). *SPSS survival manual* (3rd ed.). Berkshire, UK: McGraw-Hill.
- Perrow, C. (1986). *Complex organizations: A critical essay* (3rd ed.). New York, NY: McGraw-Hill.
- Pfeffer, J. (1972). Size and composition of corporate boards of directors: The organization and its environment. *Administrative Science Quarterly, 17*, 218–228.
- Pfeffer, J., & Nowak, P. (1976). Joint ventures and interorganizational dependence. *Administrative Science Quarterly, 21*, 398–418.
- Pfeffer, J., & Salancik, G. (1978). *The external control of organizations: A resource dependent perspective*. New York, NY: Harper Row.

- Powers, E., Powers, N., & Merriam, D. (2006). *State funding of community agencies for services provided to Illinois residents with mental illnesses and/or developmental disabilities: Final report to the Illinois general assembly requesters pursuant to Public Act 93-842*. Springfield: Illinois General Assembly.
- Salimath, M. S., Cullen, J. B., & Umesh, U. M. (2008). Outsourcing and performance in entrepreneurial firms: Contingent relationships with entrepreneurial configurations. *Decision Sciences*, 39, 359–381.
- Schmid, H. (2004). Organization–environment relationships: Theory for management practice in human service organizations. *Administration in Social Work*, 28, 97–113.
- Scott, W. R. (1998). *Organizations: Rational, natural and open systems* (4th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Sharfstein, S. S. (1978). Will community mental health survive in the 1980s? *American Journal of Psychiatry*, 135, 1363–1365.
- Singh, V. (2007). Ethnic diversity on top corporate boards: A resource dependency perspective. *The International Journal of Human Resource Management*, 18, 2128–2146.
- Smith, S., & Lipsky, M. (1993). *Nonprofits for hire: The welfare state in the age of contracting*. Cambridge, MA: Harvard University Press.
- Song, M., & Swink, M. (2009). Marketing–manufacturing integration across stages of new product development: Effects on the success of high- and low innovativeness products. *IEEE Transactions on Engineering Management*, 56, 31–44.

- Stearns, T. M., Hoffman, A. N., & Heide, J. B. (1987). Performance of commercial television stations as an outcome of interorganizational linkages and environmental conditions. *Academy of Management Journal*, 30, 71–90.
- Storey, V. C., Kane, G. C., & Schwaig, K. S. (2009). The quality of online privacy policies: A resource-dependency perspective. *Journal of Database Management*, 20(2), 19–37.
- Straub, D., Weill, P., & Schwaig, K. S. (2008). Strategic dependence on the IT resource and outsourcing: A test of the strategic control model. *Information Systems Frontiers*, 10, 195–210.
- Street, C. T., & Cameron, A. (2007). External relationships and the small business : A review of small business alliance and network research. *Journal of Small Business Management*, 45, 239–266.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Pearson Education.
- Titus, M. A. (2006). Understanding the influence of the financial context of institutions on student persistence at four-year colleges and universities. *The Journal of Higher Education*, 77, 353–375.
- Watts, A. D., & Hamilton, R. D. (2007). Excessive resource control and strategic alliance failure. *International Journal of Technology Intelligence and Planning*, 3, 157–173.
- Wei, W. (2006). The relationship among corporate political resources, political strategies, and political benefits of firms in China: Based on resource dependency theory. *Singapore Management Review*, 28(2), 85–98.

- Willander, M. (2006). Fading eco-benign networks: The causes found at Volvo Car Corporation and Ford Motor Company. *European Journal of Innovation Management, 9*, 92–107.
- Wilson, W. J. (1973). *Power, racism, and privilege*. New York, NY: Macmillan Company.
- Yanacopulos, H. (2005). The strategies that bind: NGO coalitions and their influence. *Global Networks, 5*, 93–110.

Appendix A: Federal Financial Participation Growth in the Medicaid Rehabilitation
Option Program

Figure A. Federal Financial Participation in the mental health Medicaid program.
Note. Adapted from *Mental Health Field Test Evaluation*, by Illinois Division of Mental Health, 2005b, Springfield: Illinois Department of Human Services, retrieved from <http://www.dhs.state.il.us/mhdd/mh/sri>; This figure demonstrates the dramatic growth in the amount of Medicaid generation through the Division of Mental Health by Illinois community mental health organizations for the period July 1990 through June 2004. The figure indicates that Medicaid has become a significant source of revenue for Illinois community mental health organizations since 1990 and suggests that the growth rate for Medicaid was much more dramatic than cost-of-doing-business increases for grant in aid for the same period (Compare with Appendix B).

Appendix B: Overview of Licensure, Certification, and Monitoring Requirements

Table B

DHS Licensure, Certification and Monitoring Review Areas for Behavioral Healthcare Services

Review Areas	OMH					OASA			
	Grant-funded services	CILA	Medicaid	ACT	PSR	Out-patient	Residential	Prevention	Medicaid
Allowable/unallowable costs	√	√	√	√	√	√	√	√	√
Fiscal management	√	√	√	√	√	√	√	√	√
Accounting	√	√	√	√	√	√	√	√	√
Administrative requirements: policy and procedure	√	√	√	√	√	√	√	√	√
Administrative requirements agency governance	√	√	√	√	√	√	√	√	√
Administrative requirements: personnel	√	√	√	√	√	√	√	√	√
Life safety	√	√	√	√	√	√	√	√	√
Agency plan (OMH)	√	√	√	√	√				
Provider plan (OASA)						√	√	√	√

Note. OMH = Office of Mental Health; OASA = Office of Alcoholism and Substance Abuse; CILA = Community Integrated Living Arrangement; ACT = Assertive Community Treatment ; PSR = Psychosocial Rehabilitation. Adapted from *Community Behavioral Grant Awards Cost of Doing Business Adjustments Compared to Consumer Price Index FY91–FY03: Mentally Ill in Illinois and DHS licensure, Certification and Review Areas*, by Community Behavioral Healthcare Association of Illinois, 2004, Springfield, IL: Author.

Appendix C: DHS Grant Adjustments Versus Consumer Price Index

Figure C. Illinois Department of Human Services community behavioral health grant awards: Cost of doing business adjustment compared to the consumer price index, FY '91–FY'03.

Note. CPI = consumer price index; CODB = cost of doing business. Adapted from *Community Behavioral Grant Awards Cost of Doing Business Adjustments Compared to Consumer Price Index FY91–FY03: Mentally Ill in Illinois and DHS Licensure, Certification and Review Areas*, by Community Behavioral Healthcare Association of Illinois, 2004, Springfield, IL: Author. The figure demonstrates that the annual increases in grant funding to Illinois community mental health organizations has not keep pace with inflation as evidenced by the Consumer Price Index. This historical disparity was a source of environmental uncertainty that serve as a catalyst for the development of Medicaid as an additional revenue stream by Illinois community mental health organizations.

Appendix D: Listing and Characteristics of Mental Health Organizations

Table D

Listing and Characteristics of Mental Health Organizations

Provider name	Federal employer identification number	Org. dependence on grant	Total FY '05 contract	MH trade association member	Size of regional network	Compliance
Abraham Lincoln Center	362167774	0.163514	1,140,111	0	0.462963	0.341865836
Ada S McKinley Community Services Inc	362144820	0.316939	2,171,279	1	0.462963	0.225507639
Adapt of Illinois Inc	431613459	0.032888	4,027,123	1	0.462963	0.967090153
Advocate Northside Health Systems	363196629	0.27576	2,547,453	0	0.135802	0.037242689
Alexian Brothers Northwest	363045007	0.291585	2,607,556	0	0.462963	0.347943822
Allendale Association	362177140	0.184119	328,977	0	0.135802	0.592512546
Asian Human Services of Chicago Inc	363005889	0.168821	980,276	0	0.462963	0.625992068
Association For Individual Development	362472748	0.22135	3,170,201	1	0.135802	0.42508188
Association House of Chicago	362166961	0.176216	2,527,404	1	0.462963	0.645836598
Beacon Therapeutic School Inc	362660495	0.142691	1,201,274	0	0.462963	0.819139514
Behavioral Health Alternatives Inc	371157919	0	423,976	0	0.191358	0.874857925
Ben Gordon Center	362771343	0.152788	1,312,194	0	0.135802	0.528049206
Bobby E Wright Comprehensive Community Mental Health Center	362775103	0.203622	4,303,768	1	0.462963	0.361964911
Bond County	376000405	0.266458	253,879	1	0.191358	0.471846825
Bridgeway Inc	370984175	0.309081	6,222,022	1	0.049383	0.283843741
Brown County Mental Health Center	370920535	0.315693	1,922,115	0	0.160494	0.473404557
Call For Help Inc	371022829	0.398322	1,006,678	0	0.191358	0.304454851
Cass County Mental Health Association	237244801	0.295249	531,012	1	0.160494	0.232676474
Center For Children's Services	370716057	0.228469	1,103,207	1	0.049383	0.725952609

(table continues)

Provider name	Federal employer identification number	Org. dependence on grant	Total FY '05 contract	MH trade association member	Size of regional network	Compliance
Center On Deafness Inc	237359883	0.308753	694,807	0	0.462963	0.558396792
Challenge Unlimited Inc	370805566	0.099981	31,256	0	0.191358	0.064627592
Chestnut Health Systems Inc	370964629	0.359814	8,146,639	0	0.191358	0.437104921
Chicago, City of	366005820	0.024065	8,330,670	0	0.462963	0.392163415
Children's Center for	370823848	0.054745	267,933	0	0.191358	0.39497561
Children's Home & Aid Society of Illinois	362167743	0.197548	576,689	0	0.462963	0.647558736
Children's Home Association of Illinois	370662601	0.24373	1,061,735	1	0.462963	0.299393917
Christian County Mental Health Association	370951440	0.178475	918,807	0	0.160494	0.283761443
Circle Family Care Inc	362902782	0.189167	2,699,388	1	0.462963	0.345374581
Coles County Mental Health Association Inc	370864416	0.208478	2,268,422	1	0.160494	0.585310846
Community Care Options	364166490	0.42131	4,609,563	1	0.462963	0.243578404
Community Counseling Centers of Chicago	237115384	0.186565	10,520,929	1	0.462963	0.384121972
Community Counseling Center of Madison County, Illinois	370798015	0.338975	3,765,569	1	0.191358	0.416341807
Community Mental Health Board	364422393	0.397596	262,279	0	0.462963	0.424216197
Community Mental Health Council Inc	510137613	0.318388	13,462,545	1	0.462963	0.331810441
Community Resource & Counseling	370996845	0.148049	575,553	1	0.160494	0.613646354
Community Resource Center Inc	370915481	0.155447	2,712,509	1	0.191358	0.612571977
Community Workshop & Training	376057596	0.094659	141,709	0	0.049383	0.050406114
Comprehensive Mental Health Center	370760015	0.346363	3,567,711	1	0.191358	0.408959694
Cook County	366006541	0	223,297	0	0.462963	0.263201028
Cornerstone Services	362706578	0.220465	1,435,550	0	0.462963	0.733748041
Counseling Center of Lakeview	362743345	0.127641	2,546,521	1	0.462963	0.478997424

(table continues)

Provider name	Federal employer identification number	Org. dependence on grant	Total FY '05 contract	MH trade association member	Size of regional network	Compliance
Counseling Center of Pike County	371047095	0.046163	240,866	0	0.160494	0.166885322
Crosspoint Human Services	371085771	0.282505	2,448,100	0	0.049383	0.436127609
Cumberland Associates Inc	371013679	0.127249	274,321	0	0.160494	0.512304927
Day School	362115550	0.178588	167,217	0	0.462963	0.557826058
De Paul University	362167048	0.249285	831,275	0	0.462963	0.1264371
Delta Center Inc	371295687	0.118441	1,891,185	1	0.191358	0.866363682
Dewitt County Human Resource Center	370958018	0.187938	346,715	0	0.160494	0.464381408
Douglas County Mental Health Center	371068054	0.078397	708,509	0	0.160494	0.863233918
Dupage County	366006553	0.280759	7,823,763	0	0.462963	0.370196298
Ecker Center for Mental Health Inc	362312495	0.388213	3,752,452	1	0.462963	0.324211209
Egyptian Public & Mental Health Center	376006931	0.044544	2,302,303	1	0.191358	0.792727108
Elm City Rehabilitation Center	370841009	0.203672	283,637	0	0.160494	0.039413053
Evanston Northwestern Health	362167060	0.221153	818,777	1	0.462963	0.046157867
Family Alliance Inc	363152022	0	187,261	0	0.462963	0.918974052
Family Counseling Center Inc	376147532	0.203313	1,338,948	1	0.191358	0.673485453
Family Service & Community Mental	362428268	0.415662	1,031,688	1	0.462963	0.320855724
Family Service & Mental Health	362246705	0.158034	591,689	1	0.462963	0.268534652
Family Service Association of Greater Elgin	362169149	0.350918	356,519	0	0.135802	0.368782776
Family Service Mental Health Center	362179793	0.19825	510,082	1	0.462963	0.537011696
Farm Resources	371189559	0	569,999	0	0.191358	0
Franklin-Williamson Human Services	370916475	0.191208	4,627,034	1	0.191358	0.782314978
Gateway Foundation Inc	362670036	0.210473	1,139,036	0	0.462963	0.158264532

(table continues)

Provider name	Federal employer identification number	Org. dependence on grant	Total FY '05 contract	MH trade association member	Size of regional network	Compliance
Grand Prairie Services	362362364	0.318907	8,990,404	1	0.462963	0.357663905
Grow In Illinois	371323963	0.336533	1,106,620	0	0.049383	0.000400318
Grundy County Health Department	364456318	0.168227	186,480	0	0.135802	0.457829258
Habilitative Systems Inc	362969062	0.35208	1,827,761	1	0.462963	0.300271206
Hancock County Mental Health	370913365	0.411647	617,486	0	0.160494	0.45368478
Heartland Health Outreach Inc	363775696	0.107469	2,607,287	1	0.462963	0.660908063
Heartland Human Services	370912882	0.273778	2,635,156	1	0.160494	0.558013643
Helen Wheeler Center For Mental Health	362521946	0.392663	868,150	1	0.462963	0.266936589
Hephzibah Children's Home Association	362167096	0.133507	412,893	0	0.462963	0.760359221
Heritage Behavioral Health Center Inc	370765549	0.379669	5,349,271	1	0.160494	0.323267227
Housing Options For the Mentally Ill	363611260	0.074041	450,437	0	0.462963	0.174768059
Human Resources Center	370922390	0.203703	475,394	1	0.160494	0.438865446
Human Resources Development Institute Inc	362894887	0.168314	6,112,933	1	0.462963	0.601380876
Human Service Center	371004882	0.338319	7,345,919	1	0.191358	0.114387866
Human Support Services	370968305	0.298783	1,294,128	1	0.191358	1.97482861
Human Services Center South Metro East	510137833	0.322499	1,373,882	1	0.191358	0.642868893
Independence Center	363542328	0.132435	967,319	0	0.462963	0.457686658
Infant Welfare Society Chicago	362167752	0.231378	210,400	0	0.462963	0.12019962
Institute For Human Resources	370982494	0.135059	1,150,500	1	0.160494	0.436134724
Iroquois Mental Health Center	510245262	0.134537	796,115	1	0.160494	0.607925991
Jane Adams Community Mental	362879689	0.203268	1,589,077	1	0.135802	0.470189299
Janet Wattles Center	362862928	0.259165	9,024,191	1	0.135802	0.541715706
Jasper County	376001106	0.134287	285,589	1	0.191358	0.372311258

(table continues)

Provider name	Federal employer identification number	Org. dependence on grant	Total FY '05 contract	MH trade association member	Size of regional network	Compliance
Jefferson County Comprehensive	237254917	0.143804	1,212,123	1	0.191358	0.6099645
Jewish Children's Bureau of	362167757	0.230665	108,937	0	0.462963	0.084663613
Jewish Vocational Services	362167762	0.098289	2,087,090	0	0.462963	0.559650997
Josselyn Center for Mental Health	362217996	0.121326	948,027	0	0.462963	0.125079771
Kenneth Young Center	237181444	0.224522	2,631,724	1	0.462963	0.326128424
Lake County	366006600	0.32046	5,186,290	1	0.135802	0.36978823
Lawrence County	376006178	0.176062	585,545	1	0.191358	0.729397399
Lester and Rosalie Anixter Center	362244895	0.320483	1,237,841	0	0.462963	0.475975509
Leyden Family Services & Mental Health Center	362235147	0.167593	1,592,789	1	0.462963	0.436563788
Loretto Hospital	362200248	0.219785	1,200,963	0	0.462963	0.543999274
Loyola University Medical Center	364015560	0.294667	120,709	0	0.462963	0
Lutheran Social Services Of Illinois	362584799	0.23368	4,439,830	1	0.462963	0.503273324
Macoupin County Mental Health	370983795	0.269633	1,218,536	0	0.160494	0.511629529
Maine Center For Mental Health Inc	362616713	0.135949	1,106,831	1	0.462963	0.305173961
Massac County Mental Health	371011136	0.141275	717,167	0	0.191358	0.739395427
McHenry County Youth Services Bureau	362855170	0.150074	221,224	0	0.135802	0.849925867
McHenry County Of Illinois	366006623	0.225962	1,998,677	0	0.135802	0.088578595
Mclean County Center Human Services Inc	370673455	0.208445	3,867,760	1	0.049383	0.449027861
Mental Health Centers	370913985	0.306165	5,513,874	0	0.049383	0.548470106
Mental Health Centers Of Central Illinois	370646367	0.260781	8,399,828	0	0.160494	0.458051165
Mercy Hospital & Medical Center	362170152	0.281839	615,465	0	0.462963	0.014160025

(table continues)

Provider name	Federal employer identification number	Org. dependence on grant	Total FY '05 contract	MH trade association member	Size of regional network	Compliance
Metropolitan Family Services	362167940	0.203901	4,684,428	1	0.462963	0.18902009
Montgomery County	376001661	0.09558	630,309	0	0.160494	0.453463301
Moultrie County Beacon	370922841	0.096835	102,453	0	0.160494	0.682742331
Moultrie County Counseling Center	370971785	0.110297	219,734	1	0.160494	0.662974324
Mount Sinai Hosp Medical Center	361509000	0.259969	4,647,019	1	0.462963	0.26556982
North Central Behavioral	362645920	0.247729	5,798,284	1	0.135802	0.374563405
Northpointe Resources Inc	362409058	0.089971	290,550	0	0.462963	0.320261573
Northwestern Memorial Hospital	370960170	0.467088	3,444,204	0	0.462963	0
Occupational Development Center	370899934	0.1	111,990	0	0.049383	0
Pediatric Center of Chicago	363800032	0.257855	323,849	0	0.462963	0.04078444
Perry County Counseling Center Inc	376130900	0.223418	658,335	0	0.191358	0.393342295
Piatt County Mental Health Center	370921539	0.047452	467,360	0	0.160494	0.44448177
Pilsen-Little Village Mental Health Center	362836998	0.253273	3,124,156	1	0.462963	0.298423958
Pioneer Center Of McHenry County	362480845	0.238296	932,838	0	0.135802	0.717714115
Proviso Family Services Inc	362709982	0.280248	4,007,064	0	0.462963	0.226549663
Residential Options Inc	371242862	0.321113	1,200,442	0	0.191358	0.657546137
Robert Young Center	363678909	0.315619	5,101,880	0	0.135802	0.344695681
Rock River Valley Self Help	362541391	0.249988	21,569	0	0.135802	4.63628E-05
Roseland Christ Ministries	363094828	0	151,128	0	0.462963	6.61691E-06
Schuyler Counseling & Health Services	370923523	0.109364	133,526	0	0.160494	0.354702455
Search Developmental Center	237058758	0.500005	188,692	0	0.462963	5.29964E-06
Sertoma Centre Inc	362720586	0.055941	481,545	0	0.462963	0.715586751
Shelby County Community Services Inc	370993757	0.219943	742,082	0	0.160494	0.522891001

(table continues)

Provider name	Federal employer identification number	Org. dependence on grant	Total FY '05 contract	MH trade association member	Size of regional network	Compliance
Sinnissippi Centers Inc	362596200	0.20401	4,222,958	1	0.135802	0.417931696
South Central Community	362709048	0.220929	504,611	0	0.462963	0.302890742
South Side Office of Concern	371173520	0.131526	181,743	0	0.135802	0.340090127
Southeastern Illinois Counseling	371095903	0.310785	2,029,622	1	0.191358	0.426191182
Southern Illinois Regional Social Services	370795898	0.211572	3,330,571	1	0.191358	0.717988897
Southern Illinois University	100066401	0.024094	627,842	0	0.191358	0.685323696
Southwest Community Services Inc	237136028	0	1,356,902	1	0.462963	0.470493816
St Clair Associated Vocational	370959053	0.249971	8,625	0	0.191358	0.000115942
St Mary Of Nazareth Hospital	362171079	0.352207	1,001,346	0	0.462963	0.046741086
Stepping Stones Of Rockford Inc	362693681	0.183928	3,415,589	1	0.135802	0.766361806
Stickney Public Health District	364186519	0.252215	227,960	0	0.462963	0.236506405
Tazwood Mental Health Center Inc	371278969	0.252147	2,658,110	1	0.135802	0.367656718
The Catholic Charities of the Archdiocese of Chicago	362170821	0.225855	443,936	1	0.462963	0.387064802
The Larkin Center Inc	362170144	0.220552	443,355	0	0.462963	0.387157019
The Thresholds	362518901	0.17054	24,061,425	1	0.462963	0.459104684
Trade Industries	370921817	0.500013	39,683	0	0.191358	2.51997E-05
Transitions Not For Profit	363153563	0.217343	1,075,919	1	0.135802	0.16149357
Transitions of Western Illinois Inc	370971282	0.226164	2,251,373	1	0.160494	0.429743095
Tricity Family Services	237310008	0.185598	132,097	0	0.135802	4.261466952
Tri-County Counseling Center	370995131	0.222505	1,263,394	1	0.160494	0.043118774
Trilogy Inc	362795409	0.179563	4,433,229	1	0.462963	0.301542961
Trinity Services Inc	362194838	0.366266	2,258,645	1	0.462963	0.500636917
Turning Point Behavioral Health Care Center	362327294	0.239378	1,628,285	0	0.462963	0.32351339

(table continues)

Provider name	Federal employer identification number	Org. dependence on grant	Total FY '05 contract	MH trade association member	Size of regional network	Compliance
Union County Counseling Services Inc	370970953	0.176765	1,393,553	0	0.191358	0.663379864
University of Illinois	376000511	0.267289	279,334	0	0.462963	0.181417228
Victor C. Neumann Association	362407164	0.22511	3,371,690	1	0.462963	0.407977898
Wabash County Health Dept	364131874	0.100419	442,972	1	0.191358	0.609693163
Washington County Vocational	370977795	0.159849	72,950	0	0.191358	0.302261823
Will County	366006672	0.269716	2,375,053	1	0.135802	0.400130439
Willpower Inc	363555018	0.287908	1,392,127	0	0.462963	0.465724032
YMCA of Metropolitan Chicago	362179782	0.070815	415,973	0	0.462963	0.357888613
Youth Guidance	362167032	0.239781	239,339	0	0.462963	0.123302095

Note. $N = 162$ (2 Outlier cases are in bold); MH = mental health; YMCA = Young Men's Christian Association.

Appendix E: Significant *F*-Change Values of *R*-Squared Change Based on Order of Entry
in Hypothesis Testing

Table E1

Significant F-Change Values

Model	<i>R</i>	<i>R</i> -squared	Adjusted <i>R</i> -square	Std. error of the estimate	Change statistics				Sig. <i>F</i> -change
					<i>R</i> -squared change	<i>F</i> -change	<i>df</i> ₁	<i>df</i> ₂	
1	.326(a)	.106	.101	.217606	.106	18.812	1	158	.000
2	.345(b)	.119	.108	.216742	.013	2.262	1	157	.135
3	.392(c)	.154	.138	.213087	.035	6.432	1	156	.012
4	.413(d)	.171	.149	.211642	.017	3.138	1	155	.078

Table E2

Original Order of Entry

Model	Variables entered	Variables removed	Method
1	Organizational dependence	.	Enter
2	Total FY'05 contract	.	Enter
3	Mental health trade-association member(a)	.	Enter
4	Size of regional network	.	Enter

Note. Dependent Variable: Organizational Compliance; *F*-Change values less than $p = .05$ for *R*-squared change are in bold.

Appendix F: Significant *F*-Change Values of *R*-Squared Change Entered in Descending
Order of Importance

Table F1

Model Summary

Model	<i>R</i>	<i>R</i> -square	Adjusted <i>R</i> -square	Std. error of the estimate	Change statistics				Sig. <i>F</i> -change
					<i>R</i> -square change	<i>F</i> -change	<i>df</i> 1	<i>df</i> 2	
1	.326(a)	.106	.101	.217606	.106	18.812	1	158	.000
2	.390(b)	.152	.141	.212637	.046	8.471	1	157	.004
3	.392(c)	.154	.138	.213087	.002	.338	1	156	.562
4	.413(d)	.171	.149	.211642	.017	3.138	1	155	.078

Note. *F*-Change values less than $p = .05$ for *R*-squared change are in bold.

Table F2

Descending Order of Entry

Model	Variables entered	Variables removed	Method
1	Organizational dependence on grant	.	Enter
2	MH trade-association member	.	Enter
3	Total FY'05 contract	.	Enter
4	Size of regional network	.	Enter

Note. Dependent Variable: Organizational Compliance.

Appendix G: Significant *F*-Change Values of *R*-Squared Change Entered in Ascending
Order of Importance

Table G1

Model Summary

Model	<i>R</i>	<i>R</i> -square	Adjusted <i>R</i> -square	Std. error of the estimate	Change statistics				
					<i>R</i> -square change	<i>F</i> -change	<i>df</i> 1	<i>df</i> 2	Sig <i>F</i> -change
1	.138(a)	.019	.013	.227978	.019	3.090	1	158	.081
2	.152(b)	.023	.011	.228243	.004	.633	1	157	.427
3	.224(c)	.050	.032	.225779	.027	4.445	1	156	.037
4	.413(d)	.171	.149	.211642	.121	22.538	1	155	.000

Table G2

Ascending Order of Importance

Model	Variables entered	Variables removed	Method
1	Size of regional network	.	Enter
2	Total FY'05 contract	.	Enter
3	MH trade-association member	.	Enter
4	Organizational dependence	.	Enter

Note. Dependent Variable: Organizational Compliance

Appendix H: Comparison of Outlier Values With Original Study Population Means

Table H

Comparison of Outlier Values With Original Study Population Means

Variables	Outlier Number 78	Outlier Number 149	Study population mean
Organizational dependence on grant	.299	.186	.21376
Size of regional network	.191	136	.29759
Total FY'05 contract	1294128	132097	2127001.
MH trade-association member	1	0	.46
Organizational compliance	1.975	4.261	.43754
Number of cases	1	1	160

Appendix I: Descriptive Statistics for All Variables Without Outliers

Table I

Descriptive Statistics for All Variables Without Outliers (N = 160)

			Statistic	Std. error
Compliance	Mean		.40403	.018141
	95% confidence interval for mean	Lower bound	.36821	
		Upper bound	.43986	
	5% trimmed mean		.40065	
	Median		.40405	
	Variance		.053	
	Std. deviation		.229471	
	Minimum		.000	
	Maximum		.967	
	Range		.967	
	Interquartile range		.291	
	Skewness		.058	.192
	Kurtosis		-.478	.381
	Organizational dependence on grant funding (% grant)	Mean		.21340
95% confidence interval for mean		Lower bound	.19703	
		Upper bound	.22978	
5% trimmed mean			.21239	
Median			.21856	
Variance			.011	
Std. deviation			.104890	
Minimum			.000	
Maximum			.500	
Range			.500	
Interquartile range			.139	
Skewness			.139	.192
Kurtosis			-.032	.381

			Statistic	Std. error
Size of regional network	Mean		.29927	.012414
	95% confidence interval for mean	Lower bound	.27475	
		Upper bound	.32378	
	5% Trimmed mean		.30406	
	Median		.19136	
	Variance		.025	
	Std. deviation		.157025	
	Minimum		.049	
	Maximum		.463	
	Range		.414	
	Interquartile range		.302	
	Skewness		.009	.192
	Kurtosis		-1.835	.381
	Total FY'05 contract	Mean		2144675.04
95% confidence interval for mean		Lower bound	1690285.39	
		Upper bound	2599064.70	
5% trimmed mean			1748013.28	
Median			1122933.50	
Variance			8469237640 922.720	
Std. deviation			2910195.464	
Minimum			8625	
Maximum			24061425	
Range			24052800	
Interquartile range			2209304	
Skewness			3.686	.192
Kurtosis			21.047	.381
MH trade-association member		Mean		.46
0 = Nonmember				
1 = Member				

		Statistic	Std. error
95% confidence interval for mean	Lower bound	.38	
	Upper bound	.53	
5% Trimmed mean		.45	
Median		.00	
Variance		.250	
Std. deviation		.500	
Minimum		0	
Maximum		1	
Range		1	
Interquartile range		1	
Skewness		.177	.192
Kurtosis		-1.994	.381

Appendix J: Descriptive Statistics for All Variables With Outliers

Table J

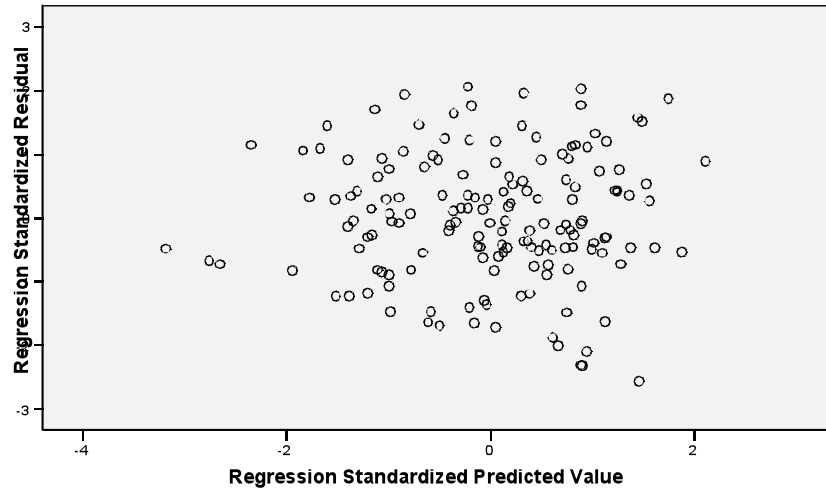
Descriptive Statistics for All Variables With Outliers (N = 162)

		Statistic	Std. error	
Compliance	Mean	.43754	.031291	
	95% confidence interval for mean	Lower bound	.37575	
		Upper bound	.49934	
	5% trimmed mean	.40619		
	Median	.40847		
	Variance	.159		
	Std. deviation	.398271		
	Minimum	.000		
	Maximum	4.261		
	Range	4.261		
	Interquartile range	.291		
	Skewness	5.854	.191	
	Kurtosis	53.453	.379	
	Organizational dependence on Grant	Mean	.21376	.008208
95% Confidence interval for mean		Lower bound	.19755	
		Upper bound	.22997	
5% Trimmed mean		.21280		
Median		.21856		
Variance		.011		
Std. deviation		.104476		
Minimum		.000		
Maximum		.500		
Range		.500		
Interquartile range		.139		
Skewness		.132	.191	
Kurtosis		-.022	.379	

			Statistic	Std. error
Size of network (#)	Mean		.29759	.012319
	95% confidence interval for mean	Lower bound	.27326	
		Upper bound	.32192	
	5% trimmed mean		.30213	
	Median		.19136	
	Variance		.025	
	Std. deviation		.156799	
	Minimum		.049	
	Maximum		.463	
	Range		.414	
	Interquartile range		.302	
	Skewness		.032	.191
	Kurtosis		-1.834	.379
	Total FY'05 contract	Mean		2127001.43
95% Confidence interval for mean		Lower bound	1677495.43	
		Upper bound	2576507.44	
5% Trimmed mean			1730766.05	
Median			1122933.50	
Variance			8393366980 132.120	
Std. deviation			2897130.819	
Minimum			8625	
Maximum			24061425	
Range			24052800	
Interquartile range			2202671	
Skewness			3.705	.191
Kurtosis			21.263	.379
MH trade-association member		Mean		.46
	95% confidence interval for mean	Lower bound	.38	
		Upper bound	.53	

	Statistic	Std. error
5% trimmed mean	.45	
Median	.00	
Variance	.250	
Std. deviation	.500	
Minimum	0	
Maximum	1	
Range	1	
Interquartile range	1	
Skewness	.175	.191
Kurtosis	-1.994	.379

Appendix K: Scatter Plot of Residuals Showing Heteroscedasticity



Appendix L: Regression Coefficients

Table L

Regression Coefficients

Model		Unstandardized coefficients		Standardized coefficients	<i>t</i>	Sig.
		B	Std. error	Beta	Zero-order	Partial
1	(Constant)	.556	.039		14.229	.000
	Organizational dependence	-.714	.165	-.326	-4.337	.000
2	(Constant)	.547	.039		13.857	.000
	Organizational dependence	-.760	.167	-.347	-4.557	.000
	Total FY'05 contract	.000	.000	.115	1.504	.135
3	(Constant)	.520	.040		12.956	.000
	Organizational dependence	-.778	.164	-.356	-4.741	.000
	Total FY'05 contract	.000	.000	.046	.581	.562
	MH trade association member	.092	.036	.200	2.536	.012
4	(Constant)	.576	.051		11.361	.000
	Organizational dependence	-.774	.163	-.354	-4.747	.000
	Total FY'05 contract	.000	.000	.059	.749	.455
	MH trade-association member	.088	.036	.192	2.457	.015
	Size of regional network	-.190	.107	-.130	-1.771	.078

Note. *P*-values of *t* less than $p = .05$ for beta are in bold.

Curriculum Vitae

MARION G. SLEET, JR.

msleet@aol.com

EDUCATION

M.A. June 1974, Sociology, University of Chicago
B.A. June 1970, Sociology, Princeton University

EXPERIENCE

- 2006–present Ada S. McKinley Community Services Incorporated, Chicago, IL.
Division Director of a \$40 million dollar comprehensive social-service agency in Illinois.
- 2004–2006 Community Behavioral Healthcare Association of Illinois, Springfield, IL.
Senior Consultant to the largest trade association of mental-health and substance-abuse providers in Illinois.
- 1983–2004 Human Resources Development Institute Incorporated, Chicago, IL.
Senior Vice President, Executive Assistant to the President, and previously Vice President of Finance and Administration of a \$25 million dollar health-and-human-services corporation that provides mental health, substance-abuse, criminal-justice, medical-case-management, criminal-justice, employment, developmentally disabled-person services in Illinois and other states.
- 1975–1983 Department of Mental Health and Developmental Disabilities, Chicago, IL.
Mental Health Administrator of a Code Department of the State of Illinois, responsible for the care and treatment of mentally ill persons, developmentally disabled persons, and persons with substance-abuse disorders.
- 1972–1974 St. Xavier College, Chicago, IL and Rosary College, River Forest, IL.
Instructor of Sociology.
- 1969–1970 Princeton University, Princeton, NJ. Intern in educational administration.

PRESENTATIONS

- 2005 Trends in Behavioral Health Policy at Illinois Chicago School of Professional Psychology.

- 2001 Management of Community Based Not-for-Profit Services in a Competitive Market-Driven Environment at the 44th International Council on Alcohol and Addiction Conference on the Prevention of Alcohol and Addictions, Heidelberg, Germany.
- 1995 Basics of Managed Behavioral Health Care, African American Family Commission, Chicago, IL.
- 1993 With Patricia Walden, Continuous Quality Improvement, Theory and Practice at the National Council of Community Mental Health Agencies, San Francisco, CA.
- 1978 With Carl Bell, M.D., Wynne S. Korr, Ph.D., Ruth E. Williams, ACSW, on Community Alternatives to Hospitalization in an Inner City Area at the American Orthopsychiatry Association, San Francisco, CA.

AFFILIATIONS

- 2005–2006 Member—Access and Eligibility Workgroup, Department of Human Services/Department of Mental Health System Restructuring Initiative.
- 2000–2006 Board Member—Princeton University Class of '69 Community Service Fund.
- 2002–2004 Executive Committee Member—Chicago Southside Branch, National Association for the Advancement of Colored People.
- 1999–2004 Member—Illinois Community Behavioral Health Association Public Policy Committee.
- 2000–2003 Member—Bureau Joint Advisory Committee on the Mental Health System.
- 1997 President, Illinois Association of Community Mental Health Agencies.
- 1997 Member, Statewide Policy Steering Committee, Alcohol and Substance Abuse/Public Aid Welfare Reform Demonstration.
- 1996 Member, Rate Setting and Performance Contracting Subcommittee, Illinois Legislative Taskforce on Reorganization.