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A State Comparative Study of the Factors Influencing Nursing Home Quality of Care Regulation

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A STATE COMPARATIVE STUDY OF THE FACTORS INFLUENCING NURSING

HOME QUALITY OF CARE REGULATION

by

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ABSTRACT

A STATE COMPARATIVE STUDY OF THE FACTORS
INFLUENCING NURSING HOME QUALITY OF
CARE REGULATION

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While over one million elderly reside in U.S. nursing homes, little attention has

been given to the factors that influence state nursing home regulation and how state

regulations differ from the federal regulations. The focus of nursing home research

literature has been on factors that impact quality of care at the individual patient and

organizational level. The state comparative literature, which examines the differences

between state policy choices, focuses on fiscal nursing home policymaking. An

important gap exists in the literature in that state decision-making regarding nursing

home quality of care policy has not been explored.

This study of U.S. nursing home quality of care regulation examines the factors

that affect whether or not state nursing home regulations exceed the federal regulations.

Most of the variables utilized in the current study were not significant in predicting

whether or not states exceed the federal quality of care regulations. There does appear to

be some demographic, socioeconomic and political influence. States with higher

Medicaid payments per elder were more likely to exceed the federal regulations. States

with Democratic governors were less likely to exceed the federal regulations, however,

this was in the opposite direction than expected. States with traditionalistic political

cultures may also be less likely to exceed to federal regulations for quality of care.

Once other state-level factors were controlled for, Medicaid payment and political culture were no longer significant predictors of whether or not states exceed the federal quality of care regulations. Party control of the legislature emerged as significant with the odds of states with Democratic legislatures being 13 times more likely to exceed the federal regulations than Republican-controlled legislatures. Percent minority population also emerged as significant with a one percent increase in minority population decreasing the odds of exceeding the federal regulations by 7.5%. The variables and theory needed to explain differences in state nursing home policy may be different from other policy areas in terms of what factors affect policy outcomes. This study shows that a purely quantitative approach to state comparative studies may not be the best approach in all cases and interviews with key nursing home stakeholders should be pursued to further inform the decision-making processes regarding nursing home regulation.

This dissertation is shared with and dedicated to my husband, Corey, who supported me throughout the many years of coursework, the countless nights away from home and our family for classes, and the seemingly endless hours holed up with a book, article, or in front of the computer screen. This accomplishment would have never been possible without him. For my daughter, Josie, who I hope one day is able to reflect on what mommy did when she was six years old and that she will have the fullest understanding that anything is possible. To my own mother, who always supported me whether near or far and who continues to hope for the best for her children. Finally, to my father, who is not here to witness this accomplishment but whose spirit lives on in his children and grandchildren.

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CHAPTER I

INTRODUCTION

There are over 37 million citizens ages 65 or older currently living in the United

States. Many of these elderly will eventually come to need professional care in a

residential setting with approximately 1.5 million people currently living in nursing

homes (National Centers for Health Care Statistics, 2004; U.S. Census Bureau, 2006;

Dohm, 2000). However, the quality of care provided by nursing homes has historically

varied from state to state and from home to home leading to intense scrutiny and

increased regulation over the past four decades (Winzelberg, 2003; Walshe, 2001).

Despite efforts to increase regulation and to improve the quality of care in nursing homes,

poor care conditions still exist with the percentage of nursing homes cited for abuse

violations almost tripling between 1996 and 2001 (Minority Staff of the House

Committee, 2001; Winzelberg, 2003; Walshe, 2001).

Statement of the Problem

While the history of nursing home regulations has been detailed and described in

historical accounts (see Vladeck, 1980; Walshe, 2001; Holstein & Cole, 1996), very little

attention has been given to the factors that influence state policymakers regarding nursing

home licensure regulation, how state regulations differ from the federal regulations and

what factors affect differences in state nursing home regulations. Much of the nursing

home research literature focuses on the various factors which can impact quality of care

at the individual patient and organizational level (see Elwell, 1984; Zinn, Spector, Hsieh,

& Mukamel, 2005; Chou, 2002; Harrington, Woolhandler, Mullan, Carrillo, &

Himmelstein, 2002). The state comparative literature, which focuses on the differences between state policymaking processes and policy choices, is also silent on the issue of nursing home regulation except for fiscal policymaking. Issues regarding the elderly rarely attract the same attention from policymakers as those involving crime or education which take up precious fiscal and other resources (Lockhart & Giles-Sims, 2007). Consequently, "…the federal government cannot be expected to encourage the states to upgrade their elder care public resources or improve provider regulation" given the perception of other pressing social policy issues (Lockhart & Giles-Sims, 2007, p.15).

An important gap exists in the literature in which the processes and factors involved in state decision making regarding nursing home quality of care have not been explored. As the number of elderly continue to grow, the demands on the nursing home industry will also increase. Yet the literature provides no guide as to how nursing home regulatory decisions are made at the state level and how future decisions might be made to address the escalating pressures on states as they try to provide quality care and to meet federal funding regulations. The following chapters will detail the long and disjointed history of nursing home regulation in the United States as well as the issues that can arise when differences exist between state nursing home regulations and the federal regulations for public funding. The proposed study will fill an important gap in the literature by examining the differences between state and federal regulations as well as the state level factors which predict nursing home policy decisions.

From the Poorhouse to the Nursing Home

To understand modern policy regarding nursing homes it must be examined in the context of the history and development of institutional long-term care. The evolution of long-term care for the elderly in the United States was actually an outgrowth of poor relief and poorhouse institutional policy (Holstein & Cole, 1996; Schell, 1993; Katz, 1984). From the colonial period to about the 1820's, care for the poor, ill, and elderly was not stigmatized, was flexible and often family or community-based. "Fostered by the small size of communities, and as yet untouched by urban individualism or industrialization, early American communities saw poverty and ill-health as home-grown, familiar, and not morally blameworthy" (Holstein & Cole, 1996, p. 22). It is important to point out, however, that the differences between those living in poverty and those struggling with poor health were not usually recognized and the priority of poor relief took precedence over any other social issue during this time (Holstein & Cole, 1996).

Pauperism soon increased as cities grew and as capitalism and immigration also increased (Katz, 1984). But the "…communal and religious values did not survive the rapid changes that overtook American society in the decades after the Revolution" (Holstein & Cole, 1996, p.22). Thus, from about 1820 to 1865, attitudes toward the poor took a dramatic turn given these economic and demographic changes (Holstein & Cole, 1996). Poverty was no longer seen as typical and blaming the poor became the norm (Holstein & Cole, 1996). The general perception was that the growing and changing cities had contributed to the need for poor relief as did individual overindulgence - particularly with alcohol (Katz, 1984). The general cause of poverty was linked to individual weaknesses and helped give rise to the institutional solution for those living in

poverty – the almshouse or poorhouse. A distinction was made between the worthy and unworthy poor with the question being "[h]ow to keep the genuinely needy from starving without breeding a class of paupers who chose to live off public and private bounty rather to work" (Katz, 1984, p. 114, Holstein & Cole, 1996). White American women were often those viewed as the "worthy" poor while immigrants, minorities and males were categorized as less deserving (Holstein & Cole, 1996).

Poor relief became institutionalized via publically supported poorhouses and almshouses which served as symbols to deter or punish those living in poverty. Conditions were intentionally deplorable in order to motivate people to take work at any pay. "In this way, fear of the poorhouse became the key to sustaining the work ethic in nineteenth-century America" (Katz, 1984, p. 118). And still the distinction between the poor and other needy groups was largely absent. "Designed by poor relief administrators to reform and punish the poor, these institutions housed the poor of all ages, as well as the sick, the retarded, the mentally ill, and the socially deviant" (Holstein & Cole, 1996, p. 23). The poor elderly who were lacking family support were thus forced to the almshouses and since distinctions between the general poor and those who were poor, elderly and sick were not usually made - those elders in poor health were not singled out for specialized support (Holstein & Cole, 1996; Katz, 1984).

Starting in 1865, conditions within the almshouses become harsher for the elderly as they started to constitute the majority of almshouse residents. This resulted from reform, rehabilitation, and educational efforts to take specific groups out of the almshouses. Thus, the creation of specialized homes for other needy populations such the mentally ill (mental hospitals/institutions), the young (orphanages), and the able-

bodied poor (workhouses) left the elderly poor to the dire conditions within the almshouses – a setting which could not address their needs (Holstein & Cole, 1996). The rise in medical knowledge did not help the case of the institutionalized elderly in this era as they were seen as unworthy of the beds and staffing reserved for the acutely ill in most hospitals (Holstein & Cole, 1996). While various women's organizations and socially-conscious nurses tried to collect information about the health conditions within the poorhouses and to establish some type of nursing care, those efforts were often met with resistance at the local level. "Political entanglements, low pay, low status, job insecurity, and lack of women's political power appear to have combined to hamper the progress of almshouse nursing" (Schell, 1993, p. 208).

The fiscal strain experienced by many city governments that were funding and managing most almshouses also contributed to the worsening conditions but so too did the Puritan and Social Darwinist beliefs that poverty was the result of some personal trait (Vladeck, 1980; Holstein & Cole, 1996). Problems such as poor health, old age, and unemployment were ignored in favor of "bad character, immorality, and deviance" and these dominant "…assumptions about poverty and ill health had a cascading effect on the aged and indirectly influenced American social welfare policy for generations" (Holstein & Cole, 1996, p. 27). It was not until the early 1900's that there appeared to be growing recognition of the special case of the frail and ill elderly versus others within the almshouse as the percentage of elderly within the population as a whole started to rapidly increase. And this was coupled with the "…more than 7 million who, by the time of the enactment of Social Security in 1935, were experiencing deprivation and destitution to a degree unmatched in American history" (Vladeck, 1980, p. 35). Pension advocates used

the hated image of the almshouse in their argument for old-age pensions. "If older people had a dependable source of income, so the reasoning went, they would no longer need the almshouse as a place of last resort" (Holstein & Cole, 1996, p. 33).

Financial Support for the Nursing Home Industry

The 1935 Social Security Act in part laid the foundation for what is now the modern-day nursing home industry. Title I of the Social Security Act, by stipulating that no Old Age Assistance (OAA) funds, "…which were delivered in the form of matching grants to states, be extended to any person living in a public institution directly stimulated the already burgeoning commercial nursing home industry" (Holstein & Cole, 1996, p. 34, Schell, 1993). The refusal to provide public relief or pension to the elderly living in public homes was in part due to the loathing pension advocates had for the almshouse and the belief that a public pension program would allow the elderly to remain in their homes and eradicate the need for those almshouses. "This policy was intended to support home care as an alternative to the almshouse by providing funds to people for remaining or returning to the community" (Schell, 1993, p. 210). However, since the Social Security Act did not provide any type of health insurance, those elderly too sick to return or remain at home were forced to remain in the almshouses or some type of institutionalized care setting. And the Title I restriction against funds paid to those in public homes spurred the growth of the private nursing home industry. "Despite its goal of deinstitutionalization, the Social Security Act inadvertently fostered the transfer of the chronically ill elderly to private and voluntary nursing homes" (Schell, 1993, p. 210). Private nursing homes were able to fill the need since their patients were eligible for

Social Security pension funds and could then pay for their own care with those funds (Schell, 1993).

Yet even the privately owned nursing homes were not able to address the medical needs of the elderly. "By the early 1950's, it was becoming quite clear that caring for the chronically ill was a serious national problem" (Holstein & Cole, 1996, p. 36). Amendments to the Social Security Act in 1950 allowed payments to those patients in publically funded facilities in response to bed shortages and the increased wariness of private nursing homes. "Even at a very early stage, there was widespread dissatisfaction with proprietary nursing homes. Facilities were often dilapidated and frequently unsafe; medical and nursing care was minimal; reports of exploitation and abuse of residents quickly circulated" (Vladeck, 1980, p. 38). The 1950 amendments also allowed for federal matching of payments made *directly* to health providers for the poor elderly and those who were permanently disabled living in nursing homes - thus establishing the vendor payment system (Vladeck, 1980). The vendor payment system greatly changed the way that decisions regarding "...costs of care, as well as the quality and level of services to be provided, are made in a set of transactions between providers and the state – transactions in which patients are not even participants" (Hawes, 1987, p. 233). Finally, states had to establish licensing programs for nursing homes and while most states did develop such laws, there was not much consistency between states, the requirements were trivial and not regularly enforced (Vladeck, 1980).

The promise of nursing and medical care within nursing homes was therefore often an empty one with very few licensed nurses on staff and even fewer physicians involved in nursing home care (Vladeck, 1980). In 1954, an amendment was made to the

Hill-Burton program, which originally provided construction grants for hospitals, to include not-for-profit nursing homes. The condition was that nursing homes built with Hill-Burton dollars had to be affiliated with a hospital as well as meeting certain physical and staffing standards (Holstein & Cole, 1996; Vladeck, 1980). The affiliation with a hospital put these nursing homes under the purview of the Public Health Service (to include the Department of Health, Education and Welfare - HEW) and made way for more medically focused long-term care (LTC) for the chronically ill elderly. "Nursing homes would never again be solely the extension of the welfare system; they now belonged to health policy as well" (Vladeck, 1980, p. 43). The Kerr-Mills Act of 1960 also provided states with greater matching funds for costs associated with health care for the poor elderly and others deemed to be medically indigent (Capitman, Leutz, Bishop, & Casler, 2005). "The moral argument behind this expansion reasoned that the sick elderly—those with chronic conditions—do not have to be come impoverished to have their health services expenses paid" (Grogan, 2008, p. 59).

Faced with increasing political pressure from the newly formed American Nursing Home Association and increasing demand for nursing home beds, the federal government also began permitting construction loans for private nursing homes through the Small Business Administration (SBA) and the Federal Housing Authority (FHA) (Holstein & Cole, 1996; Vladeck, 1980; Mara, 2008). However, these dollars did not come with the same conditions as the Hill-Burton program and the number of proprietary homes increased substantially with the FHA guaranteeing almost a billion dollars in loans (Vladeck, 1980). "Federal funds, offered with few strings, transformed the nascent home for the aged into a burgeoning business enterprise. Rather than demand for nursing

home care being reduced, as reformers had anticipated, it increased almost immediately" (Holstein & Cole, 1996, p. 41). And these new homes and beds did not come with the associated medical or hospital-based care (Vladeck, 1980).

Medicare and Medicaid

As the national Medicare and Medicaid programs were being developed, the ancestry of the modern day nursing home had its own consequences. There were those within the federal government who did not want to fund custodial care for the elderly poor through health programs and health dollars (Vladeck, 1980). "Old age homes paid a price for their origins as poorhouses. Emerging as part of the structure of public relief, they never wholly lost the stigma attached to welfare" (Katz, 1984: 137). Therefore, the Medicare/Medicaid Bill of 1965 "…occurred in a highly charged political environment that led to a compromise limiting Medicare coverage for LTC to a new class of extended care facilities (ECFs) and for stays of less than 100 days, while the Medicaid program encouraged the states to offer both this level and a lower level of nursing home care to the indigent" (Capitman, Leutz, Bishop, & Casler, 2005, p. 11).

The Medicare system provided for and continues to provide old-age health insurance for hospital and physician expenses (acute care) with very little coverage for long-term care costs. Medicaid paid the larger portion of long-term care but only after other individual assets and resources are used (Binstock, Cluff & Mering, 1996; Harris & Benson, 2006). Medicaid was to provide health coverage to all those receiving welfare benefits or who were otherwise determined to be medically indigent and services included those provided in skilled nursing homes (those with a physician serving as medical director) (Vladeck, 1980). There were still concerns, however, with the quality

of care in nursing homes and the lack of inspection guidelines within most states. The Medicare and Medicaid Bill included another attempt to address nursing home quality by making public funds for nursing homes contingent upon compliance with federal regulations regarding patient quality of care and quality of life (Harris & Benson, 2006).

Once again, little effort was made by officials to enforce those standards tied to public dollars. Many homes could not meet the standards established and exclusion from the Medicaid program would have meant severe financial hardship for those homes and ultimately, many facilities would have been forced to close (Winzelberg, 2003). However, noncompliance was dealt with by the "substantial compliance" designation which allowed facilities more time to come into compliance and still receive public funding. While many facilities fell into this category, many never met the requirements to obtain full compliance (Winzelberg, 2003). This occurred partly due to the assumption that nursing homes would eventually improve anyway, that costs would rise significantly if the regulations were consistently upheld, and due to the apparent need for more nursing home beds (Holstein & Cole, 1996). The underlying message to nursing home regulators was: to ensure the best possible care without "...requiring more than incremental increases in Medicaid expenditures and don't stir up a political fuss. Avoid possible disasters like nursing home fires at all costs...but remember that nursing home operators are constituents, too" (Vladeck, 1980, p. 173).

Medicaid, as an entitlement program, provided an unique challenge in planning for nursing home care costs which are determined "...not by how many budget dollars there are to go around, but by how many people with entitlements to Medicaid benefits find themselves in a nursing home at any time—a matter over which the states have only

indirect control" (Vladeck, 1980, p. 75). States would like to keep nursing home costs

very low but this is usually associated with poor quality. Plus, providers are unlikely to

serve those in need of nursing home care if the Medicaid reimbursement rates are too

low. Thus, states have to increase their rates in order to ensure that there is sufficient

nursing home care available (Vladeck, 1980).

Due to changing demographics and to the public funding made available for

nursing homes, the size and total number of homes substantially increased. From 1960 to

1970, the number of nursing homes increased by 140 percent and the number of nursing

home beds increased by 232 percent while the expenditures for nursing home care

increased from $500 million in 1960 to over $2 billion in 1970 (Subcommittee on Long-

Term Care, 1974). And the vast majority of homes built during this time were privately

owned and often part of a chain (Winzelberg, 2003). By the 1970's, the pattern of

financial support for patients in privately owned nursing homes had already been

established. And this pattern had emerged during a period of dramatically growing need

for long-term care outside of the home given increasing life expectancies, movement of

older children away from their parents to take service-sector jobs or those supporting

wartime needs, and more women seeking work outside of the home (Holstein & Cole,

1996; Schell, 1993). The availability of public dollars for nursing homes had the

following consequences: "[h]omes grew larger, more bureaucratized, more medicalized,

and soon more corporatized. Bad conditions led to even more regulation, and regulation

inspired further bureaucracy" (Holstein & Cole, 1996, p. 44).

While stricter regulations were meant to improve conditions within nursing

homes, they often inadvertently forced smaller homes out of business as they could not

meet some of the physical and fire safety codes required. This left the market open to the

larger corporate-owned homes which may have been more modern at the time but also

less "homelike" (Vladeck, 1980, p. 168; Holstein & Cole, 1996). Concerns had grown

that the regulations had emphasized structure and process rather than patient outcomes

(Capitman, Leutz, Bishop, & Casler, 2005). But prior concerns about growing long-term

care costs resulted in the development of "certificate of need" (CON) laws which

mandated that "...a prior determination that a new or expanded facility was needed

before it could be granted a license to operate" (Vladeck, 1980, p. 127). This was an

attempt to limit the number of long-term care facilities within the states during the 1960's

and 1970's. However, shortages of nursing home beds due to restrictions placed on

nursing home construction made the threat of closure for poor quality nursing homes an

empty one. Given excess demand and limited supply, many nursing home consumers did

not have a wide range of options for care even when local nursing homes have been cited

for poor service quality (Nyman, 1987).

Federal Recognition and Response to Poor Nursing Home Quality

In 1974, the Senate Subcommittee on Long-Term Care released a report detailing

the failures of nursing home public policy. The report presented the findings of several

hearings between 1969 and 1973, findings from special subcommittee studies, and

information from the Department of Health, Education and Welfare (HEW). The report

painted a very grim picture of the nursing home industry and stated that the "...entire

population of the elderly, *and their offspring*, suffer severe emotional damage because of

the dread and despair associated with nursing home care in the United States today"

(1974, p. iii). The public perceptions of nursing home placement were assumed to

include "…protracted suffering before death" and to be "…almost synonymous with death" (1974, p. 7). The report cited the failure of establishing and enforcing meaningful standards within nursing homes, cases of abuse, misuse of medications, dependence on largely unqualified staff, and the continuing problem of nursing home fires. The report called for "…Congress and the executive branch to create a comprehensive national policy with respect to treatment of the infirm elderly…and to improve the quality of life for the 1 million Americans *presently residing* in U.S. long-term care facilities" (1974, p. 11).

The 1987 Omnibus Budget Reconciliation Act (OBRA) resulted from a study by the Healthcare Financing Administration (HCFA), a General Accounting Office report, and a report by the Institute of Medicine (IOM). These sources further elaborated on the poor quality care in nursing homes and the abuses of residents and their rights (Capitman, et al, 2005; Castle, 2001). The IOM report cited problems with interpreting inspection results, how to score facilities on their performance and determine overall compliance, the predictability of when nursing home surveys would be conducted, and relying on staff and record review data to determine quality of care (Wunderlich & Kohler, 2001). The IOM also generally found problems in the following areas:

> (1) Attitudes of federal and state personnel about enforcement objectives and processes; (2) federal rules and guidelines for states; (3) variation among states in policies and procedures; and (4) resources to support enforcement activities (Wunderlich & Kohler, 2001, p. 141).

OBRA emerged to improve regulation and quality of care within the nursing home industry and included the Nursing Home Reform Act (NHRA) (Castle, 2001; Wunderlich

& Kohler, 2001). "The 1987 OBRA established new process standards for residents'

rights, nurses' aide training, monitoring of psychotropic medications, and medical

direction" (Capitman, et al., 2005, p. 13; Winzelberg, 2003). The Minimum Data Set

(MDS) for gauging resident functioning was also developed which provides data

regarding patient quality of care (Capitman, et al., 2005; Winzelberg, 2003). The focus

was shifted to now address both processes and outcomes of nursing home care

(Wunderlich & Kohler, 2001).

Current Regulatory Requirements

The Centers for Medicare and Medicaid Services (CMS - formally HCFA) is

charged with ensuring that nursing homes receiving federal funds meet certain

requirements (OIG, 1999). But it is the state that establishes regulations for the licensure

of nursing homes that wish to operate within its borders (Walshe, 2001). The state's own

regulations for licensure require that *all* nursing homes maintain certain standards and not

just those homes receiving federal funding (Walshe, 2001). "State regulations may

parallel or exceed federal requirements and generally have separate provisions for

licensing nursing homes, undertaking surveys or inspections, investigating complaints,

identifying deficiencies, and taking enforcement action" (Walshe, 2001, p. 131).

Regardless, most nursing homes still have to attend to both federal regulations and state

licensure requirements which can be confusing and contradictory (Walshe, 2001). For

example, when a deficiency is found during the survey process, it may be enforced

through either federal or state procedures or both (Walshe, 2001).

The CMS is responsible for certifying nursing home facilities that receive either Medicare or both Medicare and Medicaid funding while states are responsible for certifying Medicaid-only facilities. The certifications are established through surveys (or inspections) of the facilities which the states usually conduct on behalf of CMS (OIG, 1999). CMS is ultimately responsible for developing and upholding the federal regulations for those nursing homes that choose to receive Medicare and Medicaid funding. "The state survey, licensing, and certification agencies are responsible for surveying or inspecting nursing homes to check their compliance with the regulations, investigating complaints and reporting the results to the CMS" (Walshe, 2001, p. 130). The inspection teams are generally multi-disciplinary in nature and must have at least one registered nurse included (OIG, 1999; Winzelberg, 2003). When inspectors find that a nursing home is not in compliance with a specific requirement, the home is given a deficiency (OIG, 1999). In order to measure consistency between the written record and actual care, a group of residents requiring different types of care are interviewed and their records reviewed (Winzelberg, 2003). "Each standard…measures their medical, nursing and rehabilitative care, dietary and nutrition services, activities, social participation, sanitation, infection control, and physical environment" (OIG, 1999, p. 9).

Per OBRA, the quality of care provided by nursing homes must allow patients to "…attain or maintain the highest practicable physical, mental and psychosocial well-being" (Capitman, et al., 2005, p. 13). States are also required to have in place and enforce state licensing regulations, federal certification standards and to include an ombudsman program (Capitman, et al., 2005). Ombudsman programs operate with volunteers and paid staff who work on behalf of the elderly in "…identifying and

resolving complaints, making regular visits to nursing homes, and engaging in a variety of different advocacy activities" (OIG, 1999, p. 3). The federal government is also required to validate the inspection findings of at least 5 percent of the total number of nursing homes surveyed in a given year to help ensure survey standardization (Winzelberg, 2003). To avoid non-enforcement issues of the past associated with fear of closure of much needed facilities, new sanctions were also developed. "Potential remedies included civil money penalties up to $10,000 per day, a directed plan of correction, installation of a temporary manager, and payment denials for all new or current Medicare and Medicaid admissions" (Winzelberg, 2003, p. 2553). These sanctions depended upon the severity and scope of survey deficiencies (Winzelberg, 2003).

In 1991, the then HCFA's Online Certification and Reporting System (OSCAR) was established to include data for the current facility survey as well as data for the three most recent surveys. Much of the data generated by the surveyors is based on the nursing home's deficiencies. Nursing home staff also enter data about facility and patient characteristics (OIG, 1999). In 1995, the certification process was changed so that nursing homes were subject to an unannounced survey no later than 15 months after the date of the most recent standard survey (OIG, 1999). Seventeen main categories were established for the federal regulations covered in nursing home surveys, which include about 185 individual items (OIG, 1999). The nursing home has thus emerged as the most strictly regulated settings for doctors and other medical staff to practice. "Although the regulatory requirements of nursing home have been increased, the impact on overall care remains to be determined. It is hoped that nursing facilities will become more

progressive under the law, and that public perception of nursing homes will improve" (Vaca, Vaca, & Daake, 1998, p. 168).

Certain improvements within nursing homes have been documented since the implementation of OBRA including fewer physical and chemical restraints of residents and lower rates of urinary incontinence and catheterization (Walshe, 2001; Minority Staff of the House Committee on Government Reform, 2001). However, problems with quality still remain - particularly regarding resident outcomes such as pressure sores, malnutrition, dehydration and feeding problems (Walshe, 2001; OIG, 1999). A decade after OBRA, the Office of the Inspector General (OIG) (1999) reported that quality of care deficiencies were actually increasing and while OBRA mandated certain resident rights and services as well as administrative standards, there had been no formal review of the OBRA reforms or their effectiveness. Indeed, it had been reported that final enforcement regulations for OBRA were not enacted until 1995 (Hovey, 2000). The OIG report also found vast differences in how states detect, report and examine alleged cases of nursing home abuse. There was also general agreement among nursing home administrators that inadequacies in staffing lead to quality of care issues. Thus, many nursing homes lack proper supervision which results in preventable accidents, lack of proper assistance with activities of daily living, and inadequate care of pressure sores (OIG, 1999).

The Current Context for Nursing Home Care and Regulation

Nursing homes operate under the tension of providing care that addresses medical and rehabilitative factors as well as the residential and social needs of patients. Further, the federal government's role in long-term care is significantly shared with the states in

both financial support and determining eligibility for public funding (Lammers & Liebig, 1990). State survey agencies thus have double accountability – to their own state agency as well as the CMS (Walshe, 2001). This struggle between state and federal responsibility for long-term care has had to balance "…both the desire for more decisive action on the part of federally oriented reform advocates and the recognition that state cultures and differing orientations toward regulation create substantial pressures for variation" (Lammers & Liebig, 1990, p. 142).

Another tension exists in that CMS and state survey agencies are both funders and regulators (Walshe, 2001). Public funding provides for almost 75% of all nursing home care and Medicaid funds require a state match. Medicaid expenses thus usually represent one of the largest general fund expenditures for state budgets (Hovey, 2000). Yet changes in regulations can result in increased costs and pressure to increase reimbursement rates (Walshe, 2001). "Therefore, the already difficult tasks of insuring quality long-term care is all the harder, because the same government entities responsible for ensuring quality will be forced to fund the needed quality improvements" (Hovey, 2000, p. 44).

With Medicaid expenses totaling over $24.3 billion for nursing homes in 1996, quality of nursing home care and nursing home regulation has become a political and economic issue for many states, in addition to addressing the medical and social needs of patients (Sainfort, Ramsay, & Monato, Jr., 1995; Winzelberg, 2003; Walshe, 2001; OIG, 1999). There is some debate as to the value and stringency of nursing home regulations (Walshe, 2001; Hovey, 2000). There are those who think that regulations should be even more stringent and enforcement efforts increased in order to improve pervasive quality

problems. Others believe that the regulatory onus put upon nursing homes is already too severe, extremely costly, and has created "...a punitive, adversarial climate that is hostile toward quality improvement" (Walshe, 2001, p. 133). The argument is for simpler regulation which focuses on those nursing homes which are consistently out of compliance with severe and widespread quality deficiencies (Walshe, 2001). The regulations in general have been criticized for not focusing on *positive* outcomes or *improving* well-being but instead rely mainly on measuring the existence of or lack of problems and deficiencies (Wunderlich & Kohler, 2001). The U.S. regulatory model in general has been described as one developed "...as much to protect the public purse against fraud or graft as the consumer against ill-treatment or exploitation" (Day & Klein, 1987, p. 313).

Studies have shown that the average number of deficiencies varies widely across states with Rhode Island averaging 4.3 per facility, Washington DC averaging 15.8 and Wyoming 15.4 in 2006 (Harrington, Carillo, & Blank, 2007). It has also been determined that surveyors still fail to uncover quality of care problems during the inspection process (Wunderlich & Kohler, 2001). This "...cross-state variation in the quality of the nursing facility long-term care, that growing numbers of elderly citizens will likely require, is a *public* issue, minimally, since public programs are either the primary or only payment source for 77% of the slightly over 1.5 million elderly nursing facility residents" (Lockhart & Giles-Sims, 2007, p. 2).

States also differ as to what is included in their nursing home regulations and other statutory policies regarding the elderly. For example, states vary as to their definitions of institutional elder mistreatment and whether or not they have mandatory

reporting for elder abuse (Daly & Jogerst, 2006; Payne & Gainey, 2004). Yet despite the

history of lax state and federal regulatory guidelines, the fragmentation of the regulatory

process and the existence of differences cited in both federal and state regulations

regarding nursing home care (Walshe, 2001), little examination at the state level beyond

Medicaid reimbursement policies has taken place. And while a host of research has

identified various lower level (resident and facility) factors that are associated with the

quality of nursing home care, no apparent examination of the actual content of state

nursing home regulations and how they might differ from the federal regulations has been

presented in the literature. The state comparative literature, which uses "...the American

states as units of analysis to investigate how political, economic, and sociological factors

affect government policies" (Tucker, 1982, p. 176), is silent on the issue of what factors

explain state nursing home regulation decisions outside of Medicaid policy and

reimbursement rates.

                                  Statement of Purpose

The elderly are the fastest growing segment of society (Dowd & Durick, 1996)

and the 76 million baby boomers born between 1946 and 1964 have already started to

retire (Dohm, 2000). As the number of elderly residing in nursing homes is expected to

increase to 6.6 million by 2050 (Mitty 2001), the strain on the nursing home industry to

provide good quality care will increase as will the need for reviewing and revising state

and federal regulations regarding nursing home care (Walshe, 2001). However, there is

little to no knowledge about what factors affect state decision makers as they develop

nursing home licensure requirements. Therefore, the proposed state comparative study

aims to answer the following research question: What state level factors predict whether state regulations will exceed federal regulations regarding quality of care? More specifically: What *nursing home industry variables* predict whether state regulations will exceed federal nursing home quality of care regulations? What *political variables* predict whether state regulations will exceed federal nursing home quality of care regulations? What *socioeconomic variables* predict whether state regulations will exceed federal nursing home quality of care regulations? What *demographic variables* predict whether state regulations will exceed federal nursing home quality of care regulations? And what *other state policy and other variables* predict whether state regulations will exceed federal nursing home quality of care regulations?

CHAPTER II

LITERATURE REVIEW

The course of nursing home regulation and policy has progressed slowly and disjointedly to the present time. Yet the factors that have affected nursing home regulatory decisions at the state level have not been examined in the literature. This chapter will summarize the few state comparative studies surrounding nursing homes that deal with fiscal and Medicaid policy as well as studies detailing the factors associated with quality nursing home care. This review of the research literature will conclude with the development of several research hypotheses tested by the current study.

Differences in State and Federal Regulation

Nursing home policy and the development of regulatory criteria have evolved in a fragmented fashion and have faced much criticism in the literature. The Department of Health and Human Services oversees Medicare and Medicaid programs through Centers for Medicare and Medicaid Services (CMS). While state governments are responsible for licensing nursing homes, they must monitor those in accordance with federal/CMS regulations if they intend to provide care and be reimbursed for patients with Medicare/Medicaid coverage. The state conducts nursing home inspections or surveys about once a year to ensure that they are meeting the minimum quality and performance standards but may be inspected more often if there are concerns about performance (Walshe, 2001; OIG, 1999). The federal regulations have historically been described as focusing too much on the medical aspects of patient care and ignoring social or emotional needs of a suitable quality of life as well as "representing the bare minimums rather than

desirable standards of quality" (Hawes, 1987, p. 235; see also Munroe, 1990). The approach to annual surveys has been described as "...a 'cookie-cutter' approach that neither adequately rewards good quality care nor deals forcefully enough with poor-quality care" (Walshe, 2001, p. 135). The American model of regulation is also characterized as punitive in nature which may adversely affect quality. "The current regulatory process is criticized for its punitive character, existence of redundant channels of accountability, and surveyors' inability to detect all preventable problems" (Amirkhanyan, Kim, & Lambright, 2008, p. 348).

Differences in the types of regulatory models used in the nursing home industry are apparent between the U.S. and other countries. Given that the United States' nursing home industry has been witness to more scandal and controversy than other countries, the level of detail and number of inspectors is greater than countries such as Australia or England (Braithwaite, Makkai, & Braithwaite, 2007). The American regulatory model is ultimately more deterrence focused in which punishment is emphasized through what is perceived as an accusatory and adversarial process (Braithwaite, Makkai, & Braithwaite, 2007; Day & Klein, 1987). The rationale is such that if negative behavior is punished, it will eventually improve. The British regulatory model, however, is more compliance focused with the emphasis on prevention and the use of increased resources to improve quality issues (Day & Klein, 1987). The U.S. conception of quality is often based on medical and technological interventions while Britain focuses on patient comfort and creating a home-like atmosphere. Those who argue the merits of the compliance-based regulatory system conclude that "...the quality of life in nursing homes is influenced as

much by the social environment as by the tutelage of the regulatory agency" (Day & Klein, 1987, p. 340).

There are differences within the American states regarding the history and image of nursing homes as well as the size of the regulatory bureaucracy. For example, New York has had a long and very public history of nursing home abuses and scandal while Virginia has not had such a negative public image. "The image of the nursing home owner as a predatory, amoral calculator neatly fits the New York experience. In contrast, Virginia has not such legacy of well-publicized horror stories" (Day & Klein, 1987, p. 321). Historically, some American states such as Virginia, have employed regulatory philosophies that are more like those in England than the regulatory philosophy in New York (Day & Klein, 1987) although the difference between American states may be diminishing (Braithwaite, Makkai, & Braithwaite, 2007). It has also been noted that there is much variation across states in terms of overall health policy including ways to contain costs, increase access to care, and provide quality care (Miller, 2005). Quality can vary "…from excellent in a growing but still relatively small proportion of homes to seriously substandard in perhaps as many as 10 to 20% of facilities nationwide, with the majority of homes in some states having notably poor records" (Hawes, 1987, p. 234).

Regulatory stringency has also had negative consequences for patients and the ability of homes to provide innovative care. "Innovation – achieving regulatory goals but by other than the institutionally approved means – has been substantially destroyed by decades of input-oriented regulation" (Braithwaite, Makkai, & Braithwaite, 2007, p. 139). Thus, instead of focusing on achieving positive patient outcomes, nursing home administrators are often managing to meet written standards (Braithwaite, Makkai, &

Braithwaite, 2007). Less numerous, broad standards have been narrowed down repeatedly so that by 1986 there were 500 federal nursing home standards in addition to the state standards. "In the late 1980s there were some valiant efforts at rationalizing and reducing the numbers of standards and protocols. Even so, in most states inspectors continued to check compliance with around a thousand federal and state rules" (Braithwaite, 2007, p. 223).

Yet nursing home regulation in the United States is reportedly much improved from its earliest days. It is "…tougher and better resourced than in any other nation we know of, and tougher and better resourced than other domains of American business regulation we know of" (Braithwaite, Makkai, & Braithwaite, 2001, p. 67). This regulation has served important functions including weeding out some of the most unscrupulous nursing home owners and operators. "It has driven most of the crooks from the industry – the organized criminals and property fraudsters – and it has driven out financially struggling small providers ('mom-and-pops') who often provided poor quality care" (Braithwaite, Makkai, & Braithwaite, 2007, p. 44).

Regulation is necessary given the vulnerable and highly dependent elderly (and other populations) cared for within nursing homes. Given the complexity of their medical and treatment needs, nursing home patients are often unable to advocate for themselves (Wunderlich & Kohler, 2001). With the large amount of public dollars spent on long-term care and the regulations tied to those dollars has come an increased amount of documentation within nursing home records – although there is some question as to quality of that documentation (Braithwaite, Makkai, & Braithwaite, 2007). Since the government has such a large investment in nursing home care, "…it has a responsibility

to hold providers accountable for fiscal integrity and the quality of care provided to beneficiaries" (Wunderlich & Kohler, 2001, p. 138).

As previously described, nursing homes must abide by federal standards in order to receive federal funding yet states have their own licensure requirements as well, so there "...is really not one system of regulation but two –federal certification and state licensure--running side by side. This results in some duplication, occasional conflicts, and considerable confusion" (Walshe, 2001, p. 136). The state licensure requirements may vary widely (Wunderlich & Kohler, 2001; Walshe, 2001) and may complement or *exceed* the federal regulations although many states may simply mirror regulations at the federal level (Walshe, 2001; Vladeck, 1980). While many states have relied on enforcement via the federal surveys by matching their regulations to those at the federal level in order to reduce costs and duplicative inspection efforts, variation in standards and enforcement still exists at the state level (Braithwaite, Makkai, & Braithwaite, 2007).

Some efforts have been made to increase the transparency of the differences between the state and federal regulations. Researchers at the University of Minnesota created the "NH RegsPlus" website to serve as a resource to researchers and citizens to search state regulations and to increase the transparency of nursing home regulation factors that may impact improved resident quality of life. The site contains comparisons between state regulations and the federal regulations through the use of narrative and comparison tables (NH Regulations Plus, 2008). Further, Daly and Jogerst (2006) found that only 14 states and Washington DC had institutional mistreatment definitions in their nursing home regulations but even those few states varied in how extensively they defined elder mistreatment in institutional settings. Other than this one descriptive study

focusing on one concept of care, the literature does not specifically address how individual states differ from each other in their nursing home regulations or how state regulations differ from the federal regulations. Therefore, the dependent variable of interest for this study is whether or not state regulations exceed the federal regulations for quality of care.

Based on the literature to be discussed below, the state level factors hypothesized to impact state nursing home regulations for this study are categorized as follows: nursing home industry factors, demographic factors, socioeconomic factors, political factors, and state policy factors. Since there have been very few state comparative studies regarding long-term care and none that examine the content of the nursing home regulations themselves, the literature review reflects this gap in knowledge about what factors influence state nursing home regulatory policy. The assumptions and hypotheses presented here are based on studies regarding Medicaid and other long-term care policies as well as other state comparative studies dealing with related human service and social policies. A summary of the various models can be found in Figure 2.1 below.
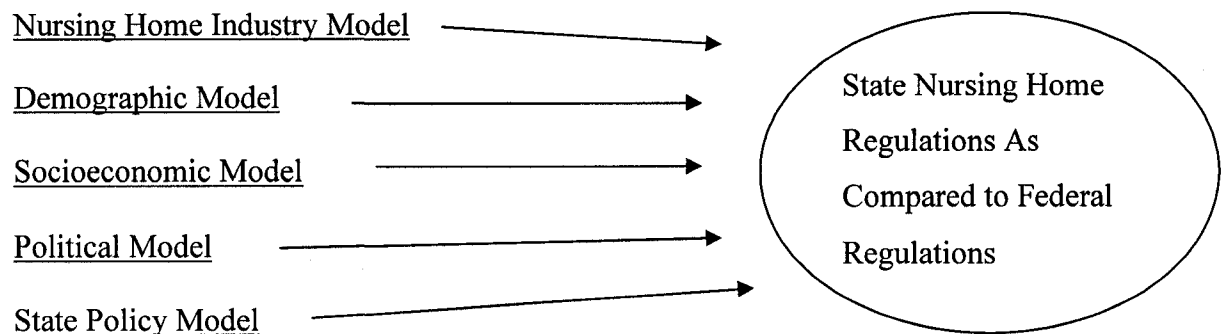
Figure 2.1. Current Study Models.

Nursing Home Industry Model

While much of the long-term care research has focused on quality and studies

have been conducted at the resident or nursing home level, little attention has been given

to state policy regulations or other state-level differences beyond fiscal policies (see

Unruh & Wan, 2004; Munroe, 1990; Liu & Castle, 2005; Castle, Degenholtz, & Engberg,

2005). Therefore, it appears that much of the nursing home research has skipped a step

or two – focusing on the *outcomes* of nursing home regulation (for example, the number

and/or types of deficiencies) – rather than the regulations themselves and what factors

influenced their implementation. Nevertheless, previous research addressing individual

resident or organizational characteristics can still inform our understanding of the nursing

home industry and important concepts can emerge which may in turn influence nursing

home regulatory decisions.

Nursing Home Ownership

The historical development of nursing home policies and increasing regulations helped to establish a nursing home industry that is largely controlled by private organizations providing thousands of nursing home beds (Walshe, 2001; Braithwaite, Makkai, & Braithwaite, 2007). "Indeed, the very private nursing home industry was a creation of New Deal regulatory ambitions to shut down aged care in dilapidated almshouses" (Braithwaite, Makkai & Braithwaite, 2007, p. 22). Relying mainly on private providers for nursing home care may be problematic given the prospective payment system utilized in most states. "Under prospective payment, providers receive a rate set in advance for a bundle of services, without adjustment for actual costs…To the extent that facilities make money by curtailing services, quality may be adversely affected" (Wunderlich & Kohler, 2001, p 239). Quality may also be adversely affected if demand is high and supply is low especially when nursing homes can charge higher rates for private paying residents compared to what they receive for Medicaid-supported residents. "Under excess demand, nursing homes can attract as many Medicaid residents as they want, regardless of quality" (Wunderlich & Kohler, 2001, p. 245). Despite the attempts of regulation, nursing home market forces may ultimately not incentivize high quality care (Walshe, 2001).

Indeed, many studies have confirmed that for-profit facilities provide lower quality care than non-profit and/or government facilities (Elwell, 1984; Zinn, Spector, Hsieh, & Mukamel, 2005; Chou, 2002; Harrington, Woolhandler, Mullan, Carrillo, & Himmelstein, 2002) and for-profit homes have also had higher rates of abuse as reported by staff (Jogerst, et al., 2006). The common explanation is that for-profit homes attempt

to lower costs and increase revenues by lowering quality – for example, by providing

fewer services or relying on inadequate or less qualified staff (Gottesman, 1974,

Amirkhanyan, Kim, & Lambright, 2008; Munroe, 1990; Zinn, Spector, Hsieh, &

Mukamel, 2005). In the case of using less qualified staff or more of them, the rationale is

that "…nursing home administrators [are] trying to achieve cost control through salary

savings. It is suggested that such action produces a trade-off between operational costs

and quality" (Munroe, 1990, p. 264).

Fottler, Smith and James (1981) examined the relationship between profits per

patient day and quality in 43 for-profit nursing homes in Southern California. Quality

was measured by nursing hours and other staffing hours per patient day. The most

significant predictors of quality were profitability and percent of Medicaid patients which

were both negatively associated with quality. Quality is thus higher in those homes with

lower profits (profitability decreases because service intensity – the quantity/quality of

labor – increases) and with fewer Medicaid patients. Fottler et al. conclude that "…the

most significant finding in this study is that profits can be increased by decreasing the

intensity of patient care services (i.e., quality)" (1981, p. 537).

A study of 424 "old age institutions" (OAIs) or nursing homes in New York State

using data from the Annual Report of Residential Health Care Facilities compared the

expenses allocated by government, non-profit and privately owned homes for nine types

of services as well as the availability of nursing staff (Elwell, 1984). The service data

were measured on a dollars-spent per patient day basis for administration, medical,

rehabilitation, social services, activities, nutrition, housekeeping, and other professional

services. The staffing variables for all nursing staff, registered nurses, and other

professional staff were measured as the number of staff hours per patient day and physician hours per patient week. The results showed that privately owned homes were negatively correlated with each of the service expense measures, non-profit institutions had positive correlations, and government homes had moderate positive correlations with service expenses. Even after controlling for per diem costs, occupancy rates, patient functioning, and proportion of Medicaid patients – government and non-profit homes spent more per day in the various service areas than privately owned institutions. Although there were weaker correlations with the staffing variables, government and non-profit institutions provided more nursing and physician hours than the privately owned homes (Elwell, 1984).

Cost savings through the use of less qualified staff was illustrated in a study of 455 long-term care facilities in California between 1985 and 1986 (Munroe, 1990). Private homes reported a lower ratio of registered nurse (RN) hours to licensed vocational nurse (LVN) hours and lower costs per resident day than did their non-private counterparts. Further, these differences in staffing had an impact on the quality of care provided within those facilities. A significant and positive relationship was found between quality, as measured by the number of health deficiencies during the annual survey, and the ratio of RN hours to LVN hours per resident day (Munroe, 1990).

A study of over 13,000 Medicare/Medicaid certified facilities in 1998 also examined the differences in quality care based on ownership status (Harrington, Woolhandler, Mullan, Carrillo, & Himmelstein, 2002). The average number of quality of care, quality of life and other deficiencies were significantly higher for investor-owned homes than non-profit or public homes (5.89 deficiencies compared to 4.02 and 4.12

respectively). Rates of severe deficiencies were also higher in investor-owned homes than their non-private counterparts. Even after controlling for percentage of Medicaid patients, case mix, chain ownership, and region of the country, investor-owned homes were still significant predictors of higher deficiency rates (Harrington et al., 2002).

Lockhart and Giles-Sims (2007) conducted a cross-state study to examine the degree to which various state factors explained differences in the resources that states contributed to elderly long-term care. The authors used a measure of total nursing home resource adequacy derived from three items (the number of Medicaid-certified beds per 1000 residents 65 or older, the percent of Medicaid expenditures allocated to nursing homes, and the Medicaid nursing home expenditures divided by the state cost of living) as well as a per-unit (or per patient) measure. The results showed that the percentage of nonprofit homes in states was positively associated with nursing home resource adequacy (both total and per unit). Thus, states with a greater percentage of nonprofit homes provide more ample Medicaid reimbursement for long-term care.

While non-profit homes may provide better quality care they may not be as accessible as for-profit or public homes as reflected by lower proportions of Medicaid patients. It has been argued that public nursing homes have a significantly higher share of patients receiving Medicaid than nonprofit homes (Amirkhanyan, Kim, & Lambright, 2008):

> The largest group of for-profit providers, composed of so-called Medicaid Mills, provides lower quality of care and greater access to the Medicaid recipients. A smaller group of 'elitist' nonprofit facilities cultivates quality but is less accessible to Medicaid clients. Finally, a small and decreasing number of public

facilities serve the traditional safety-net role and provide high-quality care" (Amirkhanyan, Kim, & Lambright, 2008, p. 345).

Explanations for differences in for-profit and nonprofit nursing home quality include the rationale of failed contract theory such that when asymmetrical information exists about nursing home quality, "...for-profit organizations have more incentive to engage in opportunistic behaviors and to maximize their profits" (Chou, 2002, p. 295). Chou (2002) used a national representative sample of institutionalized disabled elderly needing assistance with at least one activity of daily living over a ten year period. Chou (2002) found that there were no significant differences between for and non-profit facilities in the time until death or negative health outcome (dehydration, pressures sores, or urinary tract infection) when family members visited within a month after admission. However, nonprofits performed better when there was asymmetrical information present (no child or spouse visiting within one month of admission). The duration of time until death, dehydration, and urinary tract infections were shorter in for-profit homes when there was no visitation within the first month of admission. "When the resident lacks family members to monitor the service, the for-profit homes will have less incentive to maintain the quality of care" (Chou, 2002, p. 307).

Osborne and Gaebler (1992) add a category to the nonprofit and for profit sectors to include the third sector. "This sector...is made up of organizations that are privately owned and controlled, but that exist to meet public or social needs, not to accumulate private wealth" (Osborne & Gaebler, 1992, p. 44). Organizations in the third sector may perform better at tasks where there is little or no profit to be gained, human compassion is expected, greater levels of trust are given by those being served, and special individual

attention are necessary – all of which could be used to describe nursing home care (Osborne & Gaebler, 1992). Other third sector strengths include the ability to reach a variety of populations and providing holistic solutions to problems (Osborne & Gaebler, 1992). Health providers outside of the private sector may also be more "patient-centered" and this may have a positive effect on quality (Amirkhanyan, Kim, & Lambright, 2008, p. 329). Many nonprofit nursing homes referred to here and in the nursing home literature in general would likely fall into this third sector. For purposes of this study, however, this distinction of a third sector is irrelevant as the nursing home literature in general does not categorize homes in this manner. The ownership distinctions are generally categorized as for profit, nonprofit and public/government.

It is unclear how nursing home ownership may affect state nursing home regulations since this relationship has not previously been tested in the literature. However, since nonprofit homes appear to provide better quality care and may be more concerned with quality of care in general (versus profits), states with more nonprofit homes may reflect the nonprofit concern for quality of care in their nursing home regulations. States with a larger private nursing home industry should be less likely to have more stringent regulations given the negative impact that additional regulation could have on profits.

> H1: States with a greater percentage of nonprofit nursing homes will be more
>
> likely to have nursing home regulations that exceed the federal regulations for
>
> quality of care.

Influence of the Nursing Home Industry

The history of nursing homes has shown that interest groups related to the nursing home industry have wielded their influence over policy issues. For example, the American Nursing Home Association exerted pressure upon the federal government in the 1950's and 1960's to allow construction loans for private nursing homes through the SBA and the FHA without the necessity of being linked to a hospital (Holstein & Cole, 1996; Vladeck, 1980; Mara, 2008). The administrative burden and associated costs with regulation means that nursing home owners have a vested interest in shaping regulation to meet their needs and this interest can show itself in regards to the legislature and executive branches (Harringinton, et al., 2002). "For example, nursing home providers have made large political contributions; in some states nursing home providers are prominent in the local political party hierarchies; and some state and federal legislators have substantial financial interests in nursing home care" (Walshe, 2001, p. 138). Political meddling with inspection and enforcement efforts, including nursing home administrators having state representatives and senators present during inspection visits, has been documented in nursing home regulation fieldwork (Braithwaite, Makkai, & Braithwaite, 2007).

The state comparative literature has illustrated the general impact that interest groups can have on state policy. Jacoby and Schneider (2001) examined state expenditures for 15 different policy areas including corrections, education, health, hospitals, transportation, and housing/community development to measure differences in policy priorities for 1992 and what factors determine those priorities. Their analysis showed that interest group strength had a very powerful impact on the policy priorities of

states as did public opinion. Private interest groups often call for "particularized benefits for their members" with a narrow policy focus (p.560). Jacoby and Schneider (2001) found that these groups had the "...strongest impact on the relative allocation of policy resources" (p. 562).

In a more specific example of interest group influence, Radcliff and Saiz (1998) found that the greater organizational strength of labor unions was associated with higher per recipient expenditures on AFDC, per pupil education spending, and total state spending per capita from 1964 to 1982. "The larger the share of the work force represented by unions, the more progressive the tax code and the more liberal policy in general" (Radcliff and Saiz, 1998, p. 121). States with more powerful unions therefore represent a more formidable agent acting on behalf of the interests of those in the working class.

Wiggins, Hamm, and Bell (1992) examined over 700 randomly sampled bills from California, Iowa, and Texas to determine the impact of interest groups, the governor, and majority and minority leaders on the final outcome of the bill. While overall the analysis showed that elected officials can diminish the influence of special interest groups, those groups are considerably more involved in the legislative process than the other actors as measured by the proportion of bills on which the actors indicated a position. It is also important to point out that the interest groups and the other elected officials were only in conflict about 20% of the time on issues in which both are involved. Further, "...a major finding is that party influence agent involvement is limited, plus there is a greater propensity for party leaders to agree with group positions when involved" (Wiggins, Hamm, & Bell, 1992, p. 97).

Historically, policies regarding regulation and long-term care reimbursement have come about through the interplay of nursing home providers, members of the legislature, and other bureaucrats but not necessarily including the recipients of care. "Patients' main contribution to reform has come not through voting or lobbying, but through needless suffering and tragic deaths" (Hawes, 1987, p. 237). While the elderly are often thought to have significant political influence (Vladeck, 1980), most nursing home patients do not have the ability (physical, cognitive, or financial) to have a strong influence on major policy issues such as state and federal nursing home regulation (Weissert, 2008).

The influence of advocacy groups for the elderly, such as the American Association for Retired Persons (AARP) is unclear. For example, Lockhart and Giles-Sims (2007) controlled for the ratio of AARP membership to the elderly population in their examination of state nursing home resource adequacy but found little significant effect of this variable in their analyses. Yet, Miller, Harrington, Ramsland, and Goldstein (2002) found that AARP membership did have a significant positive effect on state nursing home expenditures in the 1990's. The issue of nursing home care is just one of many for groups like the AARP and they tend to focus on the issues of the "young-old" who are generally not living in nursing homes (Weissert, 2008). "Resources spent pursuing the interests of the very old group of Americans who make up the long-term care population would be unlikely to increase AARP's membership, dues receipts, or political clout" (Weissert, 2008, p. 326). The lack of political action committees (PAC) that could make contributions to politicians who sit on influential committees addressing issues of aging and long-term care also diminishes the AARP's influence compared to other interest groups (Weissert, 2008).

In contrast, nursing home providers "...are well-organized and politically astute. Many benefit financially from the very conditions and policies that result in increasing costs, discrimination and poor quality" (Hawes, 1987, p.237). This is not to negate the fact that interest groups have and continue to work on behalf of nursing home residents including the National Council of Senior Citizens, the National Association of State Long-Term Care Ombudsmen Programs, and the American Association of Retired Persons (Hawes, 1987). However, the long history and pattern of privately owned nursing homes and the fact that the majority of nursing homes are privately owned makes nursing home owners a powerful and familiar influence in this particular policy arena (Vladeck, 1980; Hawes, 1987). As the results of Jacoby and Schneider (2001) indicate, interest groups with a narrower focus, like the nursing home industry, may be critical to increasing the salience of their issues in the eyes and ears of state policymakers. The scope of issues addressed by groups such as the AARP may hinder their effectiveness as an interest group for nursing home care (Weissert, 2008). States with more nursing homes will likely have a stronger nursing home lobby that may pressure policymakers to ease regulatory burdens. Thus, the total number of nursing homes per state will be used rather than a per capita measure.

H2: States with a greater number of nursing homes will be less likely to have nursing home regulations that exceed the federal regulations for quality of care.

Nursing Home Size

The differences in both the ownership *and* the size of nursing homes have been the subject of study when looking at quality and access to care. While small homes may create an environment that is more "home-like" and may positively impact care quality,

larger homes may "…benefit from economies of scale and can create more efficient structures and processes in service delivery" (Amirkhanyan, Kim, & Lambright, 1008, p.332). Yet this efficiency may not equate to quality care. A study of nursing home inspection records of over 14,000 U.S. nursing homes from 2000 to 2003 showed that for-profit facilities had a significantly higher number of regulatory violations than non-profit and public nursing homes. There was no such difference between non-profit and public nursing homes. Additionally, as homes grew in size, so did the number of deficiencies in private homes as compared to public homes (Amirkhanyan, Kim, & Lambright, 2008).

Other facility-level studies have revealed associations between structural variables and nursing home deficiencies. A study examining the characteristics associated with deficiency citations as defined by the Nursing Home Reform Act (NHRA) found that larger facilities and for-profit facilities were more likely to have health related citations, citations related to appropriate services, training provision citations, and resident assessment citations (Castle, 2001). Generally it was found that deficiency citations were not highly contingent upon nursing or specialist staffing levels. "The results of this analysis, especially those results examining deficiency citations for the provision of appropriate services and resident assessments, are consistent with the belief that larger nursing homes are less willing to or able to provide individualized care in line with that required by the NHRA" (Castle, 2001, p. 88).

Similarly, Zinn, Spector, Hsieh, and Mukamel (2005) examined the changes in quality measure scores during the first five reporting quarters for the Nursing Home Compare dataset. The Centers for Medicare and Medicaid Services developed the

Nursing Home Compare website to provide nursing home consumers and the general public with information about deficiencies, staffing patterns, and other home characteristics. Quality measures of interest evaluated various characteristics of nursing home residents including loss of ability to perform basic daily tasks, infection, pressure sores, pain, and use of physical restraints. The analysis showed that, in general, nonprofit and smaller nursing homes had better initial quality measures scores than their larger or for-profit counterparts (Zinn, et al., 2005). While the differences between various types of facilities diminished over time, the "… limited association between organizational characteristics and improvement trends raises concerns that the gaps in outcomes by facility type at baseline may persist" (Zinn, et al., 2005, p. 729).

There have been other explanations for the role of nursing home size on quality. In a study of 104 randomly selected nursing homes in Wisconsin, Sainfort, Ramsay, and Monato, Jr (1995) found that nursing home size was positively correlated with process and structure variables used to partially define quality. Process variables included measures such as staff attitudes towards residents, variety and adequacy of activities, communication between residents, and planning and evaluation. Structure variables included staff credentials, cleanliness of the home, and maintenance. However, size was not significantly correlated with outcome variables such as resident grooming or mood, resident physical condition, and awareness. The authors conclude that since organizational characteristics, like nursing home size, "…are not under direct management control and not likely to change over time…such immutable organizational characteristics are essentially exogenous to the quality process" (Sainfort et al., 1995, p. 83).

Again, the relationship between nursing home size and state nursing home regulations has not been developed in the literature. Since smaller nursing homes may fare better in terms of overall home quality, it is possible that states with smaller nursing homes also are more concerned about quality of care. And additional regulatory burdens might be greater for nursing home administrators who are managing larger health care facilities. Nursing home size will be measured by the number of beds per nursing home.

H3: States with smaller nursing homes will be more likely to have regulations

that exceed the federal regulations for quality of care.

A variety of nursing home industry factors have been shown to be influential in determining quality and other aspect of care. The percent of homes that are nonprofit ownership, the average size of nursing homes, and the size of the nursing home industry in each state are frequently mentioned and will be examined to determine what effect, if any, they have on state nursing home regulatory policy. See Figure 2.2 below.

Nursing Home Ownership (Nonprofit +)

Size of Nursing Home Industry (-)

Nursing Home Size (-)

State Nursing Home Regulations Exceed Federal Regulations
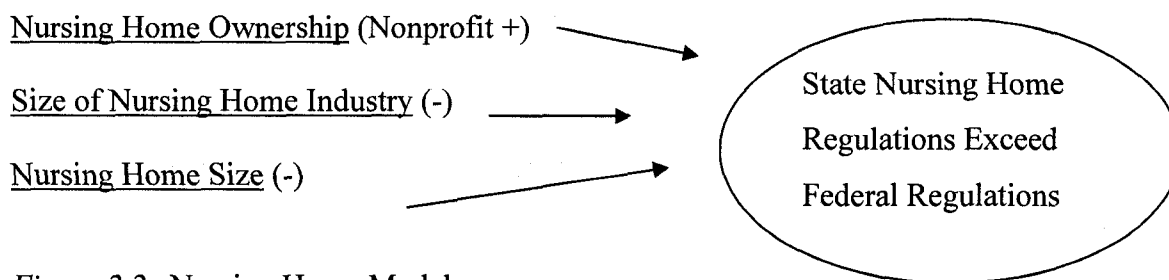
Figure 2.2. Nursing Home Model.

Demographic Model

Nursing homes provide specific services to those with specialized needs and are not strictly homes for the aged. Almost 12% of nursing home residents are under the age of 65 (n=174,900) and 14.5% of nursing home residents are minorities (n=216,200)

(National Centers for Healthcare Statistics, 2004). While there is some diversity within the nursing home population, the "typical" nursing home resident is a white female aged 75 years or older and receiving Medicaid benefits (Harris & Benson, 2006; Gottesman, 1974; Hawes, 2003). And those working in nursing homes are mostly female as well (Harris & Benson, 2006). Since states vary in their demographic make-up, it is anticipated that various demographic factors will impact state policy decisions regarding nursing home care.

Age

As individuals age, the chances for the need of nursing home care increase with almost half of all nursing home residents at least 85 years or older (Harris & Benson, 2006). "In addition, because the most rapidly growing segment of the population is those aged 85 or older, the proportion of persons estimated at risk for nursing home use at some time in their lives is expected to increase over time" (Hawes, 2003, p. 447). States with older populations will therefore face increased demand for nursing home care than states with lower proportions of older citizens. A large elderly population "…can place significant demands on health care delivery systems, thereby pressuring decision makers to initiate health care reform…" (Carter & LaPlant, 1997, p.21). Indeed, states with a larger percentage of elderly citizens (65 and older) have shown to adopt health care policy reforms more quickly than other states (Carter & LaPlant, 1997).

Age has shown to be a significant factor in the fiscal policies regarding long-term and nursing home care. Miller (2005) found that states with older populations tend to show greater demand for the use of and financial assistance with public health services. Kane, Kane, Ladd, and Veazie (1998) studied state variation in overall Medicaid

spending for long-term care per elder and then the portion spent on home and community-based services per elder for the 50 states and Washington, DC. There was wide variation between states regarding expenditures on nursing home care and home and community based services The authors found that states with a higher percentage of elderly ages 85 and older, higher proportions of elderly minorities, and higher proportions of elderly living alone had higher levels of total Medicaid spending on long-term care. However, these variables were not significant in explaining differences in home and community-based service expenditures.

Miller, Harrington, Ramsland, and Goldstein (2002) examined Long-term Care Program and Market Characteristics survey data gathered by interviews with state officials in the 1980's and 1990's to determine the relationship between state long-term care policies and a variety of state Medicaid long-term care expenditures. The long-term care expenditures included (on a per capita basis): total long-term care expenditures, nursing home care expenditures, total expenditures for community-based care, and share of long-term dollars supporting community-based care. The analysis showed that the percent of population 85 years and older and per capita income were positively associated with increased long-term care expenditures. These two demand variables were also positively associated with increased nursing home expenditures (Miller, et al., 2002).

States with older populations would have greater demands on long-term care, would need to regulate that care, and in general may be forced to be more sensitive to the needs of the oldest elderly. Studies have shown that states with older populations have allocated greater resources to nursing homes and have adopted health care reforms more quickly.

H4: States with larger percentages of elderly ages 85 and older will be more

likely to have nursing home regulations that exceed the federal regulations for

quality of care.

Gender

Nursing home care and care for the elderly in general are largely female

dominated phenomena. As previously mentioned, the majority of nursing home residents

and nursing home staff are women (Harris & Benson, 2006). Just over one million

women live in nursing homes and comprise 71% of residents (National Centers for

Health Care Statistics, 2004). Since women tend to outlive men and are more likely to

live into their later years, they are more likely to need nursing home care (Harris &

Benson, 2006; Administration on Aging, 2000). Yet, elderly women are also more likely

to be living in poverty – over 70% of the elderly living below the poverty line are

women, and women are only half as likely as elderly men to be receiving income from a

pension (Administration on Aging, 2000). Elderly women are twice as likely to live in

poverty compared to males and the chances for living in poverty increases for women as

they age (Administration on Aging, 2000). Given that women outlive men, this is

particularly significant as they come to need increased medical and other types of care

and yet may be unable to pay for it without government assistance.

Eighty-five percent of the nursing home workforce is also female (Harris &

Benson, 2006). Yet, most of those working in nursing homes are poorly paid nursing

aides not making above minimum wage (Harris & Benson, 2006). Not only are women

the primary recipients and providers of nursing home care, but they are also the primary

recipients and providers of informal care in the community (Horowitz, 1985; Mui, 1995;

Stone, Cafferata, & Sangl, 1987). Studies have shown that 60 to 85% of those receiving

informal care in their homes are elderly women (Horowitz, 1985; Mui, 1995, Stone,

Cafferata, & Sangl, 1987). Many of these elderly women have moderate to severe care-

giving needs based on activities of daily living (ADL) (Stone et al., 1987; Mui, 1995).

Approximately 70 to 75% of caregivers to the elderly outside of institutions are

also women – often adult daughters or daughters-in-law and spouses (Horowitz, 1985;

Mui, 1995; Stone, Cafferata, & Sangl, 1987). Studies have generally found that these

female caregivers provide more hands-on assistance (Horowtiz, 1985); experience more

emotional strain as a result of their care-giving duties (Mui, 1995); and report having to

give something up in order to fulfill their care-giving responsibilities than male

caregivers (Horowitz, 1985). "Care-giving daughters are middle-generation, usually

middle-aged, and in the middle of competing demands on their time. They tend to hold

primary responsibility for the emotional support of other family members, household

management, and childrearing. In many cases they are also full-time workers" (Horowitz,

1985, p. 616).

The effect of women in the population on nursing home policy decisions has not

been studied extensively. Swan, Harrington, and Pickard (2001) examined the factors

affecting the state Medicaid nursing home per diem rates including the percent of women

in the labor force. This was a measure of demand on the nursing home system since

more women in the labor force could potentially mean fewer women available to care

full-time for elderly relatives. However, this variable was not found to be significant in

predicting changes in reimbursement rates.

Given the predominant role of women in caring for family members, it is not surprising that women may differ from men in their support of government action, their perception of social problems and possible policy solutions including issues surrounding long-term care. Shapiro and Mahajan (1986) explored the differences between men and women on a variety of policy issues from the 1960's through the early 1980's using data from a variety of public opinion polls including 267 repeated foreign and domestic policy questions. The authors found gender differences in policy preferences with the largest difference (9%) in policies surrounding force or violence (e.g., gun control and capital punishment) with men more likely to support the more "violent" alternatives. The next biggest difference (5.8%) was in policies regarding regulation or protective policies to "...regulate and protect consumers, citizens, and the environment" with women showing more support for these policies (Shapiro & Mahajan, 1986, p. 51). These include laws such as the 55 mile per hour speed limit, seat belt enforcement, and jail time for drunk drivers. Compassion policies also showed differences (3.3%) with women more supportive. These policies include those that would balance wealth, ensure jobs, and provide health care.

The authors point out that the differences in regulation/protective and compassion issues have increased since the 1970's and may be partly due to the work of the women's movement. Women have become better educated and have shown greater participation in the workforce since the 1960's and society has undergone extensive political and social changes. "The salience of these issues for women increased more than it did for men, and gender differences in opinions increased in ways suggested by the interests which women have had and consistent with the intension of the women's movement"

(Shapiro & Mahajan, 1986, p. 59). It is understandable that women's policy preferences would change as did their roles in the home and workplace. Increasing female political participation could also mean that once small policy preference differences are becoming more significant if they are issues for which large interest group support develops (Shapiro & Mahajan, 1986).

Regarding support for long-term care policy, Schlesigner and Heldman (2001) examined gender differences across five policy domains, including medical care, long-term care, substance abuse treatment, education, and homeless programs via a national random sample telephone survey. The results showed that women were more likely than men to allocate responsibility to the federal government for helping people to pay for nursing home care. The authors conclude that there is a gender gap for certain issues. "In the domains in which there is the largest effect (long-term care in terms of allocating responsibilities...) the gender gap is larger than the differences in attitudes that one would predict between respondents who report themselves to be politically independent and those who consider themselves a strong partisan of either party" (Schlesinger & Heldman, 2001, p. 75).

Schlesinger and Heldman (2001) also found that women were more likely to identify the need for long-term care as a problem within their family, to have greater emotional connection to the inadequacy of long-term care and to identify the need for long-term care as a national problem. However, women also appeared to be distrustful of government involvement in long-term care if resources are channeled through a health professional association instead of directly to families (Schlesinger & Heldman, 2001).

Women therefore approach long-term care policies differently than do men and place greater importance on the need for long-term care.

As the population continues to age, women will likely continue to find themselves caring not only for their young children but also for their aging parents at the same time (Stone et al., 1987). Elderly women were originally deemed the "worthy" recipients of poorhouse care (Holstein & Cole, 1996) and they continue to make up the majority of the nursing home population. Given the fact that those providing and receiving long-term care both inside and outside of nursing homes are predominantly female and that women place a greater importance on issues surrounding long-term care and government regulation, it is reasonable to expect that the percentage of state population that is female would affect policy regarding nursing home care.

H5: States with larger percentages of women in the state population will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

Race

While the majority of nursing home residents are white, there are close to 200,000 African-Americans living in nursing homes – or about 12.5% of all nursing home residents (National Centers for Health Care Statistics, 2004). However, African-American elderly might have problems accessing nursing home care. Falcone and Broyles (1994) studied discharge data to analyze the differences in delayed discharge for patients leaving hospitals and going to a nursing home or a rest (domiciliary) home in North Carolina in 1991. Nonwhites were more likely to have a delayed discharge in general and while the average delay in discharge was 10.7 days, white patients had a

delay of only 8 days compared to 20 days for nonwhite patients. Those experiencing a delay were also more likely to have problems paying for the care to which they were being discharged, to have family problems in discharge arrangements, and to be discharged to a nursing home (versus a rest home). But the length of delay was still significantly longer for nonwhites even after controlling for these and other factors. "The compromise in access, marked by discharge delay, also has consequences for quality: the typical hospital, as its operations now are configured, is not the optimal residence for a frail elderly person who no longer needs the hospital's acute care services" (Falcone and Broyles, 1994, p. 592-593).

Race may also be a factor when looking at the quality of nursing home care. Gottesman (1974) found that nursing homes in Detroit that were for-profit homes served a larger percentage of patients receiving public support, more men and residents with mental health issues. There were fewer visitors and community connections observed for residents in these homes. These homes appeared to be more available to black patients and had fewer activities, less staff involvement with those activities, and less interaction between residents.

Wallace (1990) studied nursing home data for the city of St. Louis in the 1980's as well as survey data for community dwelling elders in 1987 to examine the effect of race on medical care. Using the index of dissimilarity, a measure of segregation, Wallace found that between 66 and 75% of either African-American or white nursing home residents would have to move to a different nursing home in order to have integration among nursing homes. This pattern is disturbing given the disparities in quality provided by these nursing homes. Wallace found (1990) that the average number of nursing home

survey violations was 7.22 for predominantly African-American facilities compared to an average of only 3.17 violations for white nursing home facilities. "This shows that nursing home care is not only largely separate but is also unequal for African-American elderly in St. Louis" (Wallace, 1990, p. 521). While disparities in income and education may also play a role in which nursing homes the elderly are able to access, the data show that, similar to housing segregation, "...race has an independent effect, one that is larger than class factors in determining the pattern of institutions use. While class may be increasingly important in the economic life chances of African-Americans...wealth and class position alone fail to fully explain continued segregation" (Wallace, 1990, p. 532).

Mor, Zinn, Angelelli, Teno, and Miller (2004) propose that there is a two-tiered system of nursing home care in regards to quality with homes in the lower tier having higher proportions of Medicaid-supported patients and thus fewer resources to provide better quality care. The authors used data from the three sources (the On-line Survey, Certification and Reporting – OSCAR, the Minimum Data Set – MDS, and the Area Resource File) for all publically supported nursing homes in the U.S. (n=14,130) except those that were operated by hospitals. Nursing homes in the lower tier were characterized by having 85% or more of their residents as Medicaid-supported, less than 10% supported by private payers, and less than 8% Medicare supported.

Mor et al. (2004) found that privately owned nursing homes were more likely to be in the lower tier compared to those not privately owned (15.4% compared to 10.2%). Homes in the lower tier had significantly fewer registered nurses per resident and had significantly more deficiencies (12.3 compared to 7.9) than the upper-tier homes. Lower-tier homes also fared worse on certain quality measures in that these homes had a higher

occurrence of patients with pressure ulcers and more frequent use of restraints and antipsychotic medications. Lower-tier homes were also more likely in the poorest counties – both urban and rural.

Perhaps the most startling result is that for racial differences. "In the entire country, approximately 9 percent of all white nursing home residents are in lower-tier facilities, whereas 40 percent of African-American residents are in lower-tier facilities" (Mor et al., 2004, p. 237-238). And the likelihood of African-Americans residing in a lower-tier home was consistent across almost all states. "The fact that African-American nursing home residents are grossly overrepresented in these low-revenue, understaffed, and poor-quality facilities is consistent with patterns of segregation observed in hospitals, schools and other social institutions" (Mor et al., 2004, p. 240).

Since there is little in the way of state comparative nursing home policy research, the impacts of race are hitherto unknown. However, other state comparative studies indicate that race may also be factor in state policy decisions. In their study of state Medicaid expenditures, Kane et al. (1998) found that states with a higher percentage of minorities spent more on long-term care overall. This might be an issue of greater demand in states with larger minority populations. Soss, Schram, Vartarian, and O'Brien (2001) examined the stringency of welfare sanctions, work requirements, time limits, and family caps during the period of welfare reform and implementation of Temporary Aid to Needy Families (TANF). They found that a family cap condition disallowing benefits to new children conceived by welfare beneficiaries and shorter time limits for coming off of welfare were directly a function of race. States with higher percentages of African-American and Latino on their welfare caseloads were more likely to have family caps and

stricter time limits. States with a higher percentage of African-Americans on their caseloads were more also more likely to have stricter sanctions for welfare recipients overall. The authors conclude that their "...analysis underscores that the 'problem of the color line' remains central to American welfare politics" (Soss, et al., 2001, p. 391). Since the history of nursing home care is so closely linked to relief for the poor and there remain apparent disparities in quality of nursing home care for minorities, it is anticipated that race may be an influential factor in nursing home regulatory decisions.

H6: States with a larger minority population will be less likely to have nursing

home regulations that exceed the federal regulations for quality of care.

The impact of demographic factors on state policy decisions has been examined extensively in the literature. However, state policy decisions regarding nursing home regulation have not been reported. The relevant demographic factors for this study include age, gender, and race to address possible differences based on the makeup of the elderly population. See figure 2.3 below.

Percentage of Elderly 85 and older (+)

Percentage of Women (+)

Percentage Minority (-)

State Nursing Home Regulations Exceed Federal Regulations
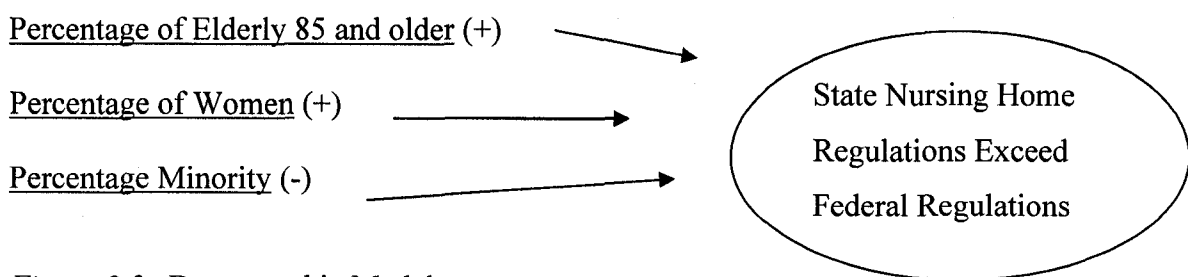
Figure 2.3. Demographic Model.

Socioeconomic Model

A study involving nursing home care and policy must include a discussion about socioeconomic factors within states and fiscal policy given the amount spent on long-term care in the United States. Nursing home care represented almost $99 billion in national health expenditures in 2001 and over $60 billion of this care was paid for by public funds including Medicare and Medicaid (Levit, Smith, Cowan, Lazenby, Sensenig, & Catlin, 2003). Since a significant proportion of elders live in poverty or near-poverty (15.6% in 2006) and most do not have long-term care insurance, many have to eventually rely on public funding to support their long-term care needs (Administration on Aging, 2008; Wiener & Stevenson, 1998). "Medicaid long-term care expenditures for the elderly are projected to more than double in inflation-adjusted dollars between 1993 and 2018 because of the aging of the population and price increases in excess of general inflation" (Wiener & Stevenson, 1998, p. 81).

About 17% of the Medicaid program budget is spent on nursing home care each year (Grabowski & Gruber, 2007). In order to qualify for Medicaid, individuals must have income and assets that do not exceed Social Security Income (SSI) thresholds or they must spend down those assets before receiving assistance (Grabowski & Gruber, 2007; Wiener & Stevenson, 1998). Medicaid costs have greatly stressed state budgets representing an average of 20% of state spending in 2001 (Levit et al., 2003). There is some perception that Medicaid has become an entitlement program for the middle class instead of a safety net for the poor given the various asset spend-down, transfer, and shelter "estate planning" allowances within Medicaid (Wiener & Stevenson, 1998). However, an examination of Medicaid policies from 1982 to 1999 matched to the

National Long-Term Care Survey showed little effect of less stringent income or asset tests, increased reimbursement rates, or increased nursing home beds on nursing home utilization by the public. "Overall, our results are consistent with an inelastic demand for nursing home care with respect to public program generosity, indicating that the large increase in total nursing home expenditures over the past few decades is not predominantly attributable to increase generosity in state Medicaid eligibility" (Grabowksi & Gruber, 2007, p. 562).

Lingering fears that asset loop-holes in Medicaid eligibility requirements may increase the demand for nursing home care has encouraged states to increase income and asset tests for Medicaid eligibility, to lower reimbursement rates for nursing home stays, or otherwise limit access to nursing home care by limiting the number of nursing homes and beds available (Grabowski & Gruber, 2007). States have been able to change their Medicaid reimbursement policies and rates due to the repeal of the Boren Amendment which originally required states to set reimbursement rates that were "reasonable and adequate" to support the administration of safe, efficient, and quality facilities (Wiener & Stevenson, 1998, p. 93). The ambiguity of the amendment led to many lawsuits against states by the nursing home industry. Since the repeal of the amendment in 1997, states presumably now have much more discretion in setting Medicaid reimbursement rates. However, given the strength of the nursing home lobby and the possibility that a minimum threshold of funding is needed to provide quality care, it appears that at least initially, reimbursement rates have not been substantially lowered following the repeal of the Boren Amendment (Grabowski, Feng, Intrator, & Mor, 2004).

Miller (2005) examined predictors of various health policy outcomes including Medicaid eligibility, Medicaid nursing home reimbursement, expenditures, and regulatory policy and other general aging and mental health policies. Predictors included socio-demographic, economic, supply, and political factors. Analysis of the equations used in 63 health policy studies showed that differences in state-level variables impacted general health policy outcomes. Socioeconomic factors had the most consistently significant association with health policy outcomes. This may be due to the fact that those factors may have two paths through which to impact state policy change:

> ...directly, say, as the poverty rate influences the number of people qualifying for Medicaid. On the other hand, socioeconomic characteristics may influence state policy indirectly, say, as the percent aged influences the lobbying strength of elder advocacy groups, which, in turn, influence the availability of home care (Miller, 2005, p. 2650).

Miller concludes that researchers need to attend to both internal and external political, socioeconomic and other factors when trying to explain health policy outcome differences between states. Indeed, most state comparative studies of nursing homes focus on Medicaid reimbursement rates and other fiscal policies (Grabowski & Gruber, 2007; Miller, Harrington, Ramsland, & Goldstein, 2002; Swan, Harrington, & Pickard, 2001; Swan, Harrington, de Wit, & Zhong, 1997).

Income

Miller, Harrington, Ramsland, and Goldstein (2002) examined the relationship between state long-term care policies and the allocation of Medicaid long-term care dollars during the 1980's and 1990's. As reported in the preceding section, the authors

found a significant positive association between the percent of population that is 85 years and older and per capita long-term care expenditures and per capita nursing home expenditures. A positive association was also found between state per capita income and per capita long-term care expenditures in general and per capita nursing home expenditures.

The state comparative study by Kane et al., (1998) that looked at state variation in overall Medicaid spending for long-term care per elder and the portion spent on home and community-based services per elder found mean state income to a be significant factor in overall Medicaid spending for long-term care per elder. Mean state income was also significantly associated with total long-term care expenditures per Medicaid recipients who are 65 and older. States with higher mean incomes spent more per elder on long-term care in general and also more per elderly Medicaid recipient on long-term care. State income was not significantly related to home and community-based expenditures.

Evidence exists of per capita income affecting other state expenditures. In their study of state monthly expenditures on AFDC, education, and total spending per capita, Radcliff and Saiz (1998) found that per capita income was a significant factor in state per pupil education spending and total spending per capita. States with higher per capita incomes also spend more on education and total spending in general. Higher per capita income may mean greater state capacity to address long-term care needs and may be reflected in a state's nursing home regulations.

H7: States with higher per capita income will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

Percent of Elderly Receiving Medicaid

Since nursing home care is expensive ($46,000 per year on average in 1995) and because most elderly rarely have private long-term care insurance to cover time spent in nursing homes, many elderly are forced to use up assets and other income before qualifying for Medicaid (Wiener & Stevenson, 1998; Stemkowski & Brandon, 2008). "Almost all legal residents of a state are covered for LTC under Medicaid once they have spent nearly all of their nonhousing assets to secure the care that they need" (Stemkowski & Brandon, 2008, p. 391). States cannot seize or force elders to "spend down" their primary home or automobile to qualify for Medicaid coverage (Stemkowski & Brandon, 2008). The total Medicaid enrollment for fiscal year 2005 was just under 59 million people with just over 10% of those ages 65 and older (Kaiser Family Foundation, 2005). Thus, states are serving over six million elderly through their Medicaid programs, ranging from just over 5,000 elderly in Wyoming to over half a million in New York (Kaiser Family Foundation, 2005).

Kane et al. (1998) found that the percentage of elderly on Medicaid was significantly related to total long-term care expenditures per elder as well as long-term expenditures per elderly Medicaid recipient. States with greater proportions of elderly receiving Medicaid also spend more on long-term care. The socioeconomic variables coupled with the demographic variables explained 59% of the variance in total long-term expenditures per elder and 64% of the variance in total long-term care expenditures per elderly Medicaid recipient. Elwell (1984) found that for 493 skilled nursing facilities in New York State, the proportion of Medicaid patients in those homes were positively associated with certain financial measures. Facilities with higher proportion of Medicaid-

supported patients also spent more on administrative costs, medical services, nursing services, and housekeeping costs.

Given that states set the eligibility requirements for Medicaid, a greater proportion of elderly receiving Medicaid may be yet another measure of state awareness and concern for the elderly. Further, the literature has shown that greater demand on the long-term care system in terms of Medicaid enrollment and the number of elderly to be positively related to increased financial support for the long-term care. Therefore, states with larger percentages of elderly receiving Medicaid may have nursing home regulations that also support quality care.

H8: States with a larger percentage of elderly receiving Medicaid will be more

likely to have regulations that exceed the federal regulations for quality of care.

Medicaid Payments

States have great amounts of discretion when setting Medicaid reimbursement rates. Differing degrees of demand for care, the ability to maximize Medicare funding, and the availability of other state sources to supplement federal funding are only a few of the factors that may influence reimbursement rates in addition to the factors discussed in the literature above (Wiener & Stevenson, 1998; Levit et al., 2003). The states therefore vary widely in the amount of their Medicaid reimbursement per recipient. In fiscal year 2005, the average annual state reimbursement rate per elderly recipient ranged from $5,491 in South Carolina to $21,821 in Alaska with a U.S. average of $11,839 (Kaiser Family Foundation, 2005).

In another example, Medicaid expenditures in California in the early 1990's totaled almost $9 billion for more than 4 million recipients while New York spent over

$14 billion for only 2.4 million recipients (Sparer, 1993). State history and other political factors impacting the two systems are also very different. California's nursing home system is one with less quality oversight and lower costs while the New York nursing home has historically been dominated by other concerns. Interest groups, health care unions, highly publicized cases of fraud and abuse, and costly nonprofit care have influenced the nursing home industry differently for New York compared to California (Sparer, 1993). State reimbursement rates, while reflective of historical and political contextual factors, may also impact other state policies and nursing home industry factors. Higher reimbursement rates may show greater commitment and capacity to address long-term care needs.

In a study of social and government altruism and it effect on nursing home regulatory violations, Payne and Gainey (2004) found that the average Medicaid payment to the elderly (government altruism) was negatively related to the rate of nursing home violations. States with more generous Medicaid reimbursement systems had fewer violations per nursing home. Yet, the relationship between Medicaid reimbursement rates on state nursing home regulatory policy has not been explored in the research literature.

H9: States with higher Medicaid payments per elder will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

Various socioeconomic factors have shown to be influential regarding state fiscal policies regarding long-term care. Per capita income, the percent of elderly receiving Medicaid, and the state average Medicaid payment per recipient were examined as to

their ability to predict state nursing home regulation decisions for quality of care. See

Figure 2.4 below.

Per Capita Income (+)

Percentage Elderly Receiving Medicaid (+)

Medicaid Payments Per Elder (+)

State Nursing Home Regulations Exceed Federal Regulations
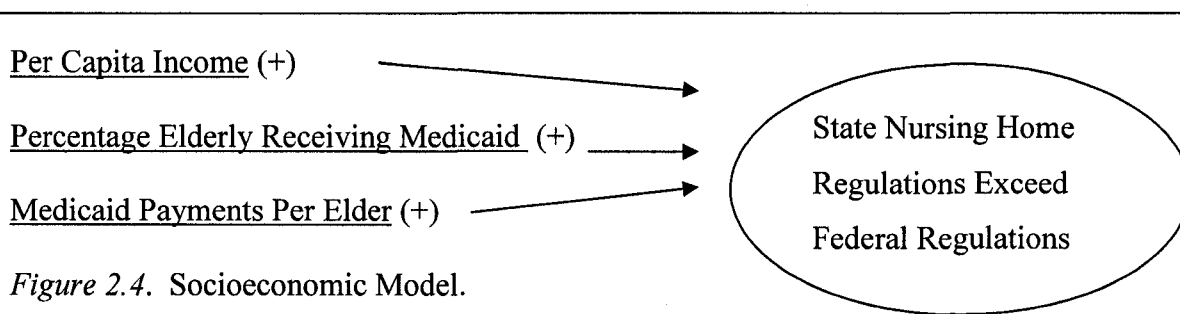
Figure 2.4. Socioeconomic Model.

Political Model

A variety of state political environment factors have also been shown to influence

public policy decisions. The ideology of the electorate, the ideology and make-up of the

legislative and executive branches as well as the political culture of the state can all

influence what issues make the political agenda, the importance that is placed on certain

issues, and how policy decisions are made (Elazar, 1984; Lockhart & Giles-Sims, 2007;

Mead, 2004; Wright, Erikson, & McIver, 1987). And many of these factors have proven

significant in public policy decisions regarding Medicaid policy, allocated nursing home

resources, and the quality of care within nursing homes.

Public Opinion

Public opinion reflects the views and needs of citizens and can impact the policy

decisions made by state officials. "Public opinion is the aggregate of individual citizens'

attitudes toward public issues. It forms the basis for party platforms and hence for policy

enactment" (Morehouse & Jewell, 2003, p. 21). The ideological leanings of voters within

a given state have an impact on the policy decisions made in that state. Wright, Erikson,

and McIver (1987) developed a measure of public opinion ideology based on 48

CBS/*New York Times* telephone surveys from 1976 to 1982 which asked respondents to

classify themselves as liberal, moderate or conservative and used it to explain the policy

liberalism across several policy measures including public education spending per

student, the scope of Medicaid eligibility, consumer protection, an index of criminal

justice measures, legalized gambling, number of years since passage of the Equal Rights

Amendment, and tax progressivity. The authors created an index of policy liberalism

based on the standardized scores of the items for 47 states that measured the general

liberal-conservative leanings of each state's policies. The authors controlled for

socioeconomic variables (median family income, percent of residents with a high school

degree, and percent of population living in metropolitan areas) which have shown to be

related to state policy and often used instead of public opinion ideology.

Wright, et al., (1987) found that indeed the income and metropolitan population

variables were highly correlated with public opinion ideology but only explained 31% of

the variance in the ideology variable. The regression analysis for overall policy

liberalism and each of the policy areas individually showed that income and education

did explain some of the variance across some of the policy areas but when the public

opinion liberalism variable was entered, the amount of variance explained increased for

all but one policy area (tax progressivity) as well as the overall state policy liberalism

measure. The public opinion variable was a significant predictor for all of the policy

areas and the composite overall policy liberalism measure. And many of the

socioeconomic coefficients were no longer significant after entering the public opinion

variable. The amount of variance explained in the Medicaid scope variable was 42% when all variables were included.

When adjusting for the effects of the socioeconomic variables and the measurement error of both the public opinion and policy variables, the public opinion variable explained 82% of the variance in the overall state policy liberalism variable. "Rather than concluding that state policy is inevitably determined by state wealth, we report with some confidence that the liberalism or conservatism of state policy results largely from the source that democratic theory would direct us to: the relative liberalism or conservatism of the state's electorate" (Wright, et al., 19887, p.992). The authors therefore conclude that public opinion matters in regards to the policy climate across the states – and it matters a bit more than the socioeconomic conditions.

Miller's (2005) analysis of 63 health policy studies showed that public opinion was one of the most common determinants for state health policy outcomes and was often measured by the Americans for Democratic Action ratings of politicians voting record, political culture, and public opinion poll results. "Significant findings are unequivocal: *liberal public opinion* is positively associated with many outcomes, including Medicaid reimbursement, eligibility, services, and recipients and state aging, mental health, and hospital policy" (Miller, 2005, p. 2648). More liberal states are therefore more likely to have more liberal health policies across a variety of areas.

Lockhart and Giles-Sims (2007) examined the factors that affect state nursing home resource adequacy and found that a liberal state predisposition (which included measures of state elite and public opinion ideology, electoral competitiveness, Democratic control in both branches, citizen political liberalism, and Democratic voting

patterns in the 2000 presidential election) was negatively associated with total nursing home resources. The surprising results of the liberal state predisposition was explained as possibly due to a focus on *non-elderly* recipients of public aid for those with a liberal or democratic leaning and that politically conservatives states might have strong(er) nursing home lobbies (Lockhart & Giles-Sims, 2007). However, when looking at nursing home resource adequacy on a *per resident basis*, a positive relationship was found with the liberal state predisposition measure. States with more liberal leanings allocated more nursing home resources on a per patient basis and the state ideology factors were significant, while state capacity (per capita income, state/local tax capacity, percent of population that is college educated) was not significant.

The policies within a given state appear to reflect the liberal/conservative leanings of the general public. A more liberal citizenry also appears to be related to more generous nursing home allocation on a per resident basis. The general public may also have a similar influence on nursing home regulations.

H10: States with more liberal public opinion ideology will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

Party Control of Legislative and Executive Branches

Since elected officials are supposed to represent the values of their constituents, party control within state government should also affect state policy decisions.

The single most important factor in state politics is the political party. It is not possible to understand the differences in the way sovereign states carry out the processes of government without understanding the type of party whose

representatives are making the decisions that affect the health, education, and welfare of its citizens (Morehouse & Jewell, 2003, p. 15).

The two major parties, Democratic and Republican, decide who pays for and reaps the benefits of the various public programs available in each state (Morehouse & Jewell, 2003). Legislators are "…subject to pressure from their constituents at home; lobbyists in the Capitol; and their leaders, fellow committee members, and colleagues in the legislature" (Morehouse & Jewell, 2003, p. 223). However, if there are bills under consideration for which a legislator's constituents find to be of little importance or for which there is no clear opinion, he/she is likely to be influenced by the attitudes of their state-level colleagues and their partisan views (Morehouse & Jewell, 2003).

The governor is the state-level leader for his/her party setting the policy agenda both for their party and for the state. Generally members of the governor's party "…usually work to help the governor get the program passed. Even if the governor's party is in the minority in one or both chambers, the legislators in the party have a strong incentive to maintain as much unity as possible" (Morehouse & Jewell, 2003, p. 224). And most governors have control over the budget that is submitted before the legislature and/or the ability to veto items within a bill without rejecting it in its entirety. These powers allow the governor additional leverage particularly when the governor's party is a minority in the legislature (Morehouse & Jewell, 2003). While legislators are held accountable by constituents in their local environments which are often homogenous, the governor must answer to a more diverse and varied citizenry. "No single local interest can dominate his judgment: he can balance one interest against another; he is free to

represent widely shared interest throughout the state; and he is free to direct himself to statewide problems" (Dye, 1971, p. 209).

The literature has shown that party politics at the state level can impact long-term care, health, and other social policies. As mentioned above, Lockhart and Giles-Sims' (2007) state predisposition index that included measures of political elite's ideology as well as an index of Democratic control over both of the state government branches was shown to have significant predictive power in regards to the level of resources given to nursing homes on a total and per patient basis. Miller's (2005) analysis of various state health policy studies found that having a democratic governor is positively associated with regulatory enforcement and general Medicaid spending. Further, democratic governors tend to be more supportive of public health programs in general (Miller, 2005).

In other policy areas, the ideology of state leaders has shown influence over policy decisions. Volden (2002) examined data for 47 states from 1975 to 1990 to examine the impact of various factors on welfare policies. In particular, he studied the likelihood that states would make increases in the AFDC benefit levels for a family of four in any given year and also the length of time between adjustments. Inflation increased the likelihood of states raising their AFDC benefits as did liberal state ideology. Volden's measure of state ideology (percent of population and elites having liberal views minus the percentage with conservative views) found that more liberal states were more responsive to interest group pressure and thus more likely to increase benefits over time. "The coefficient on state ideology indicates that states with a one-point more-liberal ideology score had almost three percent greater odds of a benefit rise" (Volden, 2002, p.

358). Liberal-leaning states were also more likely to make increases on a more frequent

basis (Volden, 2002).

Soss et al. (2001), in their study of the stringency of state TANF policies, found

that states with more conservative government ideologies had stricter sanctions for

welfare recipients in general. Soss et al. (2001) used Berry, Ringquist, Fording, and

Hanson's (1998) measure of government ideology based on the ideology score of the

governor and the major party in each house of the legislature based on Americans for

Democratic Action (ADA) and Committee for Political Education (COPE) scores and

ratings. The literature in general seems to support the notion that when those in power at

the legislative and executive level are more liberal or democratic, then there is more

support for public health and long-term policies, regulatory policies, and policies which

support the needy.

> H11: States where the Democratic party has control of the legislative branch will
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> be more likely to have nursing home regulations that exceed the federal
>
> regulations for quality of care.
>
> H12: States where the Democratic party has control of the executive branch will
>
> be more likely to have nursing home regulations that exceed the federal
>
> regulations for quality of care.

Women in the State Legislature

Not only does the party controlling the various branches of state government

make a difference in state policy decisions, but so too can the personal characteristics of

those individuals serving within those branches, particularly the legislature. State

legislatures have seen an increase in the number of women being elected to office but the

variation from state to state is quite large (Center for American Women and Politics, 2001; Morehouse & Jewell, 2003). In 2001, the percentage of women in state legislatures ranged from only 8% in Alabama to 40% in Washington (Center for American Women and Politics, 2001; Morehouse & Jewell, 2003). While the percentage of women in state legislatures is increasing, the numbers are still not representative of women in the population as a whole. "Women appear to be more limited by family responsibilities than men are. Women are somewhat older when they first run for office, and it is rare for women (but not for men) to run for office if they are under thirty and have children at home" (Morehouse & Jewell, 2003, p. 204).

As previously discussed, long-term care is an issue that greatly impacts women given that they are the primary recipients and givers of care (Harris & Benson, 2006). Similarly, 70% of those elderly living below the poverty level are women and more than 50% of those elderly women who live in poverty after becoming widowed were not in poverty prior to their husband's death (Administration on Aging, 2000). Yet, the literature regarding the impact of women – whether it be in the population in general or their representativeness in government – is virtually silent on this issue in regards to long-term care policies.

Having women in elected office may increase the opportunity for more female-friendly policies to be implemented in a given state. Caiazza (2004) studied the differences in women in elected state positions and how this corresponds with policies favorable for women in the United States. The policies were identified by the Women's Resource and Rights policy checklist developed by the Institute for Women's Policy Research. The checklist included items such as violence against women, child support,

welfare, and reproductive rights. The representation of women was measured by the proportion of women in the state legislature, the governor, and other elected executive officials other than the governor.

The results showed a significant positive relationship between women representativeness and favorable policy for women. Favorable public attitudes toward women in politics and a strong Democratic party presence in the legislature were also associated with policies favorable for women. The author found that women in the legislature have a more positive impact on policies favorable to women than do women in the executive branch. "Women have an impact at a more aggregate level across the U.S. states, and their presence in elected office encourages states to pursue policies that are relevant and beneficial to women's lives" (Caiazza, 2004, p. 59).

In a study of the determinants of state reproductive health policies, Morris, Lombard, and Greentree (2009) found that women in the legislature had a significant influence on state policy. The authors used a measure of state restrictiveness toward reproductive health policies developed by the National Abortion Rights Action League in their Pro-Choice America 2006 report card which scored states higher for more restrictive abortion and other reproductive healthcare laws. The inclusion of several religious, socioeconomic, and political variables showed that the percent of women in the state legislature explained the most variance in the dependent variable – states with greater female representation are more likely to support increased access to reproductive healthcare. The political model's two significant variables – Democratic control of and percent of women in the legislature – explained almost 50% of the variance in access to

reproductive healthcare (Morris, et al., 2009). Clearly, women in elected positions can make a difference on certain types of policy decisions (Caiazza, 2004).

> H13: States with a larger percentage of women in the legislature will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

Political Culture

Political culture has been a variable used extensively in state comparative studies and has been found to be significant in studies regarding nursing home quality and welfare reform. Elazar (1984) contends that one of the main factors that can affect state political activities is the state's political culture. "Political culture is particularly important as the historical source of differences in habits, perspectives, and attitudes that influence political life in the various states" (Elazar, 1984, p. 110). These political cultures are influenced in part by the original migratory patterns of immigrants and other groups as they moved from east to west in the United States.

The three dominant political cultures are individualistic, moralistic, and traditionalistic. The individualistic political culture focuses on the idea of society as a marketplace and limiting government involvement in private matters. "In general, government action is to be restricted to those areas, primarily in the economic realm, that encourage private initiative and widespread access to the marketplace" (Elazar, 1984, p. 115). Politicians rarely will initiate new programs on their own but wait for an outpouring of public demand and support for such things. "Its politicians are interested in office as a means of controlling the distribution of favors or rewards of government

rather than as a means of exercising governmental power for programmatic ends" (Elazar, 1984, p. 116).

Moralistic political culture views politics as a means to achieve the public good or good of society. "Good government, then, is measured by the degree to which it promotes the public good and in terms of the honesty, selflessness, and commitment to the public welfare of those who govern" (Elazar, 1984, p. 117). Unlike the individualistic culture, there is an emphasis on participation by every citizen, politicians are often amateurs and there is likely to be less corruption (Morehouse & Jewell, 2003; Elazar, 1984). "By virtue of its fundamental outlook, the moralistic political culture creates a greater commitment to active government intervention in the economic and social life of the community" even though these efforts might be highly localized (Elazar, 1984, p. 118). Moralistic cultures can be found in New England and the west coast (Elazar, 1984).

The traditionalistic political culture reflects an older, preindustrial time in the U.S. and takes a "paternalistic" and "elitist" view of society (Morehouse & Jewell, 2003, p. 35; Elazar, 1984). This political culture "...functions to confine real political power to a relatively small and self-perpetuating group drawn from an established elite who often inherit their right to govern through family ties or social position" (Elazar, 1984, p. 119). Participation in the political process is not promoted within this culture since government is seen to ensure the existing social order and this corresponds with this region's history of keeping blacks from voting (Elazar, 1984, Morehouse & Jewell, 2003). The traditionalistic culture is often found in the South (Morehouse & Jewell, 2003).

In their study of nursing home quality as measured by total facility deficiencies,

Amirkhanyan et al. (2008) found that 30% of nursing homes operate in moralistic states,

38% operate in individualistic states, and 32% operate in traditionalistic states. Nursing

homes in individualistic states had fewer nursing home violations as did those in counties

with a majority supporting Bush in the 2000 election and those with higher religiosity. In

terms of access to nursing home care (number of Medicaid residents/number of residents

in certified beds), nursing homes in moralistic and individualistic states offered greater

access to nursing home care. The greater access in moralistic states is not surprising

given that the moralistic culture views government as a means to enhance the greater

good. The greater access and better quality for nursing homes in individualistic states is

interesting given the limited role of government for the individualistic culture. Perhaps

these states have had the outpouring of public demand for improved quality and access

that has forced government officials to act as described by Elazar (1984).

In his study of successful welfare reform implementation, Mead (2004) examined

the impact of political culture on political performance in 24 states. Mead (2004)

measured political performance in terms of whether or not the state developed its own

policy regarding welfare reform, if there was consensus within the state on behalf of the

reform, and if the state provided adequate resources to support the reform. He also looked

at administrative performance in terms of the commitment shown by administrators, the

degree of coordination amongst the agencies responsible for the reforms, and the

capability of the bureaucracy to implement the reform.

Mead (2004) found that when looking at culture alone, over half of the variance

was explained. Both individualistic and moralistic states scored higher on government

performance surrounding welfare reform than traditionalistic states. Even when other sets of variables were entered, including government ideology, socioeconomic variables, and social conditions within the state, the culture variables remain significant predictors of government performance. The moralistic variable remained significant when all variables were entered together. Mead also found that the moralistic states appeared to be doing well as measured by other factors such as work levels of single low-income parents and lower child poverty rates. "The reason could be effective reform implementation, or the content of reform policies, or simply the relative affluence of the moralistic states. Most likely, all three factors are involved" (Mead, 2004, p. 287). Since most surveys have shown that most Americans agree with what moralistic states have done: to demand work but also to provide families with aid, the author concluded that other states may need to move in the direction of the moralistic states to achieve similar results with welfare reform (Mead, 2004). Political culture may also make a difference in the policy decisions regarding nursing home care with moralistic states having a greater concern for the common good and government intervention that supports the public welfare.

> H14: Moralistic states will be more likely to have nursing home regulations that
>
> exceed the federal regulations for quality of care.

The influence of state politics on nursing home regulations will be examined in the current study using a variety of political variables. The state political culture, public opinion ideology, party control of the legislative and executive branches, and the percentage of women in the state legislature have been shown to be influential in other studies and are employed in the current study. See Figure 2.5 below.

Public Opinion Ideology (Liberal +)

Party Control Legislative Branch (Democrat +)

Party Control Executive Branch (Democrat +)

Percentage Women in Legislature (+)

Political Culture (Moralistic +)

State Nursing Home Regulations Exceed Federal Regulations
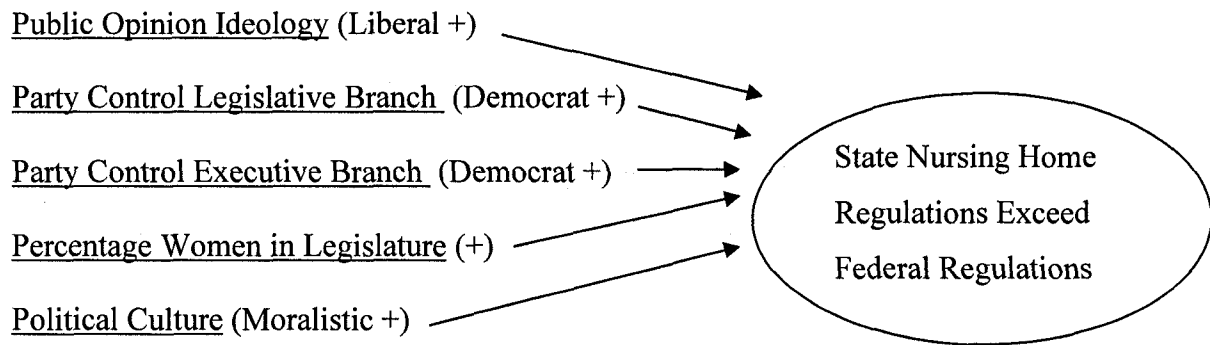
Figure 2.5. Political Model.

State Policy Model

In addition to the many factors discussed above, there are other possible

influences on state policy decisions including tendencies in other, related policies areas as

well as the policies of neighboring states (see Miller, 2005; Payne & Gainey, 2004; Gray,

1973; Ingle, Cohen-Vogel, & Hughes, 2007; Miller, 2005; Lockhart & Giles-Sims,

2007). In a study examining the observed versus expected quality indicator scores in

nursing homes across states in 2000, significant differences were found between states

regarding the use of restraints and the incidence of contractures (Castle, Degenholtz, &

Engberg, 2005) . In trying to explain the differences in why states' quality scores vary,

the authors conclude that for future studies, "…it may be productive to examine the

association between state long-term care policies and quality" (Castle, Degenholtz, &

Engberg, 2005, p. 1176) as the state policy environment may be influential in the quality

of nursing home care. The authors argued that the "…state policy environment has the

potential to influence the quality of nursing facility care…" (Castle, Degenholtz, &

Engberg, 2005, p. 1178).

There is much discussion about policy diffusion – "…[t]hat is to say, policies seem to spread between states in a region and between states that share borders" (Ingle, et al., 2007, p. 607). Policies implemented in neighboring states provide information about that new policy or program that makes it easier for policy-makers to justify such a policy in their own state (Berry & Berry, 1990). Research has examined state innovation (when a state implements a new policy or program) in the context of how quickly policies diffuse, why some states adopt and others do not, diffusion as social learning, and if policy success makes a difference in policy diffusion (Berry & Berry, 1990; Carter & LaPlant, 1997; Mooney, 2001; Gray, 1973; Hays, 1996; Volden, 2006).

Berry and Berry (1990) argued that both regional policy diffusion and internal state characteristics need to be considered. The authors argue that some previous studies focused on diffusion to the exclusion of the other important state factors and vice versa. While internal state characteristics have shown to be explanatory in policy diffusion, it is "…implausible to presume that states are totally insulated from influence by neighboring states, given the context of federalism, active national associations of state officials, and media attention on state innovations" (Berry & Berry, 1990, p. 396). Berry and Berry utilized event history analysis (EHA) which helps to explain change (the event) that occurs within a state or other unit of analysis at a specific time in their study of state lotteries.

Berry and Berry (1990) analyzed the factors that impact whether states adopted lottery programs between 1964 and 1986. The results showed that the probability that a state will adopt a lottery program increases as the number of neighbors adopting grows – even when controlling for internal characteristics. However, if that state happens to be in

an election year or in poor fiscal health, those factors increase the odds of lottery approval. "Neighboring states are found to have a stronger impact on the likelihood of a lottery adoption when the internal characteristics of a state are themselves favorable for innovation (e.g., poor fiscal health, and an election year)" (Berry & Berry, 1990, p. 411).

In an examination of whether states change their welfare benefit levels in order to avoid becoming "welfare magnets", Volden (2002) found that neighboring states had an impact on the likelihood of increasing AFDC benefits in surrounding states. States had shorter periods of time in between increases when surrounding states increased their benefits. States in which all neighbors had increased benefits doubled the odds of increases compared to those states with no neighbors making increases (Volden, 2002). "States are hesitant to raise their own benefits unless surrounding states are willing to do the same. This finding is not just important for high-benefit states but for all states" (Volden, 2002, p.360).

Volden (2006) also looked at the success of a policy and if this affected whether or not it diffused to other states. He looked at changes to the Children's Health Insurance Program (CHIP) during the first five years and paired each state together (dyads) for a total of 9,800 observations to see if State A changed its policy to that of State B during a given year. Success was measured as a decrease in the uninsured rate among children in families living below 200% of the federal poverty level. Volden (2006) found that dyads in which one state was successful in lowering the uninsured child rate had a 20% greater chance of the other state in the dyad abandoning its policy in favor of the successful state policy. Diffusion was more likely in states with similar income levels and states with similar increases or decreases in revenue had similar CHIP policies. "Most significantly,

the role of policy success was found to be important for policy diffusion. Within the CHIP program, there was a great degree of change from states' initial experiments to the policies that were particularly effective at addressing the needs of uninsured poor children" (Volden, 2006, p. 310).

In a qualitative study of policy adoption versus hold-out behavior, Ingle et al. (2007) studied the policy adoption patterns of merit aid for higher education in 11 southeastern states. Their results showed the importance of internal state factors. Their analysis of documents, bills, news sources, and interviews showed that for those states that adopted merit aid, interstate competition for good students and educated workers and participation in regional policy networks were important deciding factors in adopting merit aid policies. Other influential internal factors included a strong or favorable economic climate, lack of opposition to the bill, and public discontent over current policies. For the hold-out states, attempts for merit aid came at a time when the economy was doing poorly or competing with other state-level needs. Strong religious anti-gambling traditions also either slowed or prevented the use of the lottery as a funding source for merit aid. The authors conclude that "…even as nearby states are used by policy actors as referents for policy ideas and policy obstacles, their behavior alone may not be sufficient for policy adoption…adoption is also dependent upon local contexts and intrastate politics" (Ingle et al., 2001, p. 625).

More recent research on policy diffusion has further examined the issue of time. While initially a new policy may show potential for making a difference, as time goes on policymakers learn more about the problems and issues with implementing and sustaining a given policy and thus diffusion may actually decrease (Mooney, 2001).

Additionally, policy information is becoming more "nationalized" and policy-makers are able to learn about policies from other sources other than just their neighbors. (Mooney, 2001). This study utilizes both internal state factors and regional diffusion measures to examine the differences in state nursing home policy.

State Region

Related to policy diffusion is the region of the country in which the state resides. Regional differences have been found in policy priority expenditures, welfare sanctions/policy stringency, and state policy innovation (Jacoby & Schneider, 2001; Breaux, Morris, & Travis, 2007; Carter & LaPlant, 1997). In their study of state policy priorities (the allocation of scarce resources to different program areas), Jacoby and Schneider (2001) found some regional variation in what states prioritize. Southern and Western states appeared to be more mindful of the common good than Midwestern states while states in the Northeast were more likely to prioritize particularized benefits. "Regional differences, probably stemming from a myriad of cultural, demographic, social, economic, and environmental factors, lead to sizable variations in the kinds of the social problems and issues to which states devote their public resources" (Jacoby & Schneider, 2001, p. 561). States in the Northeast have greater population density and more economic problems and therefore need to provide more benefits to the neediest within the population. States in the western part of the county, with more rural and less dense populations, focus on common good policies that deal with common use items such as highways, parks and recreation, and natural resources (Jacoby & Schneider, 2001).

Breaux, Morris, and Travis (2007) looked for regional variation in state TANF policies – particularly for differences in the southern states. In general, the authors found

no significant differences between the southern states' TANF policy decisions compared with the rest of the country. They did find, however, that increases in unemployment rates and incarceration rates (social control) were associated with more stringent TANF policy outcomes for the southern states than the rest of the country. Further, while most liberal states in the rest of the country had less stringent TANF policies, the more liberal states in the south actually had stricter time limits for TANF. The authors contend that other factors such as state wealth or political culture may provide additional insight. Regardless, since "…the poorest and most culturally conservative states opted to pursue a slower and less extensive welfare reform path continues to point to the south as a unique region" (Breaux, et al., 2007, p. 14).

Carter and LaPlant (1997) looked at state innovation scores based on if and when a state adopted particular health care policies. The authors looked at a variety of factors including the problem environment, population density, political factors, and regional influences. While there were no consistently strong regional patterns for health care policy innovation diffusion, the authors did find some differences in certain areas of the country. "Northeastern states lead in the area of guaranteed renewal but are laggards in high risk-insurance pools. Southern states are pioneers in certificate-of-need reform" (Carter & LaPlant, 1997, p. 24). The authors contend that regional policy diffusion and other factors should continue to be a focus for researchers, especially as modes of communicating and networking between state officials and policy makers continues to change.

Finally, in their study of over 13,000 Medicare/Medicaid certified facilities in 1998, Harrington et al. (2002) found that investor-owned homes were more likely to be

located in the southern and western part of the country. And the literature has shown that privately owned homes often produce lower quality care. The regional patterns of nursing home ownership may also contribute to differences in state nursing home regulatory decisions. And the Northeast is one region that may offer more particularized benefits and policies compared to other regions.

H15: States in the Northeast will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

Nursing Home Regulations of Contiguous States

Again, the literature is relatively lacking in studies of diffusion effects for nursing home policy. However, based on the research above, it is reasonable to expect that neighboring states would have similar nursing home regulations. Lockhart and Giles-Sims (2007) found that total state nursing home resource allocations in neighboring states are positively related to each other. They found that "…the strength of the correlation between the policies of neighboring states and [the] dependent variable is quite high. It suggests that public sector support of nursing facility long-term care for the elderly follows a pattern of sharp regional distinctiveness" (Lockhart & Giles-Sims, 2007, p. 11-12). If neighboring states provide similar levels of resources for nursing home care, it is therefore possible that neighboring states would have similar regulations regarding nursing home quality of care.

H16: States with a greater percentage of contiguous neighbors with nursing home regulations that exceed the federal regulations for quality of care will also be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

AFDC/TANF Policy Stringency

Given the historical link between nursing home care and poor relief (welfare) described above and in the previous chapter, it is assumed that there will be some relationship between welfare policy and nursing home policy. "Since 1965, the Social Security Act has provided basic medical services (Medicaid) to all persons receiving AFDC and all states have made Medicaid available to meet the medical needs of the poor" (Morehouse & Jewell, 2003, p. 302). Yet, while young able-bodied AFDC/welfare recipients have often been viewed as the "unworthy" poor, the frail elderly living in nursing homes have more so been seen as deserving of public assistance (Morehouse & Jewell, 2003).

In their explanation for why they found an inverse relationship between state liberalism measures and total nursing home resource adequacy, Lockhart and Giles-Sims (2007) point to the nature of the beneficiaries and that states may react to the needs of the elderly differently than they do other public assistance recipients. "For instance, public officials in conservative states (e.g., North Dakota) near the top of the state nursing facility total resource adequacy scale may prefer to extend public benefits to elderly citizens needing long-term care than to impoverished non-elderly persons" (Lockhart & Giles-Sims, 2007, p. 13-14). Thus, decision-makers in some liberal states may be more focused on the needs of the younger, needy populations. Taken with the fact that Soss et al. (2001) found that states with higher percentages of minorities in their welfare caseloads and more conservative governments had more strict sanctions and requirements for welfare recipients, it appears that the characteristics of beneficiaries may influence various policies differently. Nursing home regulations may therefore reflect a greater

concern for the "worthy" poor living in nursing home compared to other public assistance beneficiaries.

H17: States with more stringent AFDC/TANF requirements will be more likely to have state regulations that exceed the federal regulations for quality of care.

Mandatory Reporting of Elder Abuse

In one of the only state comparative studies related to nursing homes that examined other policies beyond Medicaid and long-term care expenditures, Payne and Gainey (2004) utilized measures of social and government altruism to explain differences in nursing home violations across states. Mandatory reporting laws for the elderly compel health and other professionals to report cases in which they suspect elder abuse and are similar to mandatory reporting child abuse laws. The authors argued that "…it is plausible to suggest that states with mandatory reporting statutes have higher rates of detection and subsequent punishment than do states without these measures" (Payne & Gainey, 2004, p. 65).

The authors found that average Medicaid payments (government altruism) and the ratio of United Way contributions to aggregate income (social altruism) were negatively related to the rate of nursing home violations. Further, the average state rating of all nursing home violations was less severe in those states with mandatory reporting laws for elder abuse. The results show that "…social altruism and government altruism are negatively related to regulatory violations and that one deterrence strategy (e.g., mandatory reporting laws) limited the severity of the offenses" (Payne & Gainey, 2004, p. 72). Thus, other state policies regarding the elderly can impact the quality of care. If a state has related laws and policies which are viewed as favorable for the elderly, then it is

feasible that those tendencies could be reflected in the state nursing home regulations themselves.

> H18: States with mandatory reporting laws for elder abuse will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

The influence of other state policy decisions is relevant to the current study. Policies regarding the elderly, such as mandatory reporting laws for elder abuse, have not been examined as to their potential affect on nursing home regulation decisions. This study therefore addresses diffusion of nursing home quality of care regulatory decisions as well as the impact of other policies such as mandatory reporting and welfare policy stringency. See Figure 2.6 below.

State Region (Northeast +)

Contiguous Neighbor Policy (+)

AFDC/TANF Policy Stringency (+)

Mandatory Reporting of Elder Abuse (+)

State Nursing Home Regulations Exceed Federal Regulations
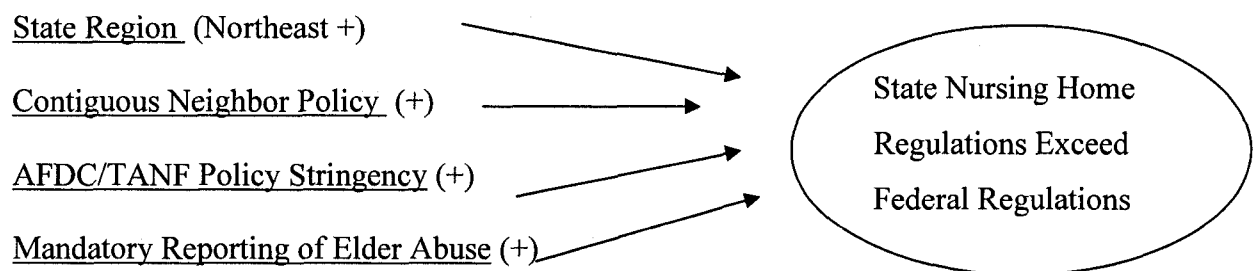
Figure 2.6. State Policy Model.

Summary

Studies focusing on nursing home quality and patient outcomes note the need for examination of *state policies* regarding long-term care. However, the state comparative research presented above is rather one-dimensional with an emphasis on Medicaid and other fiscal policies and little mention of other differences in the actual nursing home

regulatory policies between states. Further, many of the studies are somewhat dated, conducted over a decade ago. This study will therefore fill an important gap in the literature by examining the potential impact of differences between state and federal regulations and factors that affect differences in policy choices. As other authors have argued or implied, improved regulations and regulatory processes can mean improved outcomes in both the quality of care and life for our nation's elderly -- which should be the ultimate goal of public health administrators and providers (Hovey, 2000; Nyman, 1987; Day & Klein, 1987). See figure 2.7 below for a summary of the current study models.

Nursing Home Industry Model
Nursing Home Ownership
Nursing Home Size
Size of Nursing Home Industry

Demographic Model
Percentage of Elderly 85+
Percentage of Women
Percentage of Minorities

Socioeconomic Model
Per Capita Income
Percentage of Elderly Receiving Medicaid
Medicaid Payment Per Elder

Political Model
Public Opinion Ideology
Party Control of Legislative Branch
Party Control of Executive Branch
Percentage of Women in the Legislature
Political Culture

State Policy Model
State Region
Contiguous Neighbor Policy
AFDC/TANF Policy Stringency
Mandatory Reporting of Elder Abuse

State Nursing Home Regulations as Compared to Federal

Figure 2.7. Summary of Study Models

As depicted in the figure above, this dissertation will test the following

hypotheses:

H1: States with a greater percentage of nonprofit nursing homes will be more

likely to have nursing home regulations that exceed the federal regulations for

quality of care.

H2: States with a greater number of nursing homes will be less likely to have

nursing home regulations that exceed the federal regulations for quality of care.

H3: States with smaller nursing homes will be more likely to have regulations that exceed the federal regulations for quality of care.

H4: States with a larger percentage of elderly ages 85 and older will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H5: States with a larger percentage of women will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H6: States with a larger minority population will be less likely to have nursing home regulations that exceed the federal regulations for quality of care

H7: States with higher per capita income will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H8: States with a larger percentage of elderly receiving Medicaid will be more likely to have regulations that exceed the federal regulations for quality of care.

H9: States with higher Medicaid payments per elder will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H10: States with a more liberal public opinion ideology will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H11: States where the Democratic party has control of the legislative branch will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H12: States where the Democratic party has control of the executive branch will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H13: States with a larger percentage of women in the legislature will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H14: Moralistic states will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H15: States in the Northeast will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H16: States with a greater percentage of contiguous neighbors with nursing home regulations that exceed the federal regulations for quality of care will also be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

H17: States with more stringent AFDC/TANF requirements will be more likely to have state regulations that exceed the federal regulations for quality of care.

H18: States with mandatory reporting laws for elder abuse will be more likely to have nursing home regulations that exceed the federal regulations for quality of care.

The next chapter details the methodology for this state comparative study as well as operationalize the dependent variable and each of the independent variables. A discussion of the various data sources for each of the models is discussed along with the statistical tests performed.

CHAPTER III

METHODOLOGY

This is a state comparative study of U.S. nursing home regulations regarding quality of care. The factors which affect whether or not state nursing home regulations exceed the federal regulations are examined. As the literature review in the previous chapter has shown, no examination of differences in state nursing home regulations has taken place, and the state policy studies that have been conducted focus on Medicaid and other long-term care fiscal issues. Other state comparative studies focus on nursing home quality but neglect to discuss the factors which impact the regulations established to try and achieve quality of care. This study therefore adds to the state comparative literature as to which factors impact nursing home quality of care policy decisions. The study is designed to answer the following research question: What state level factors predict whether state regulations will exceed federal regulations regarding quality of care? The data for this study come from pre-existing sources, including government databases and websites, previously developed and published indexes, and state and federal documents.

State comparative studies use the state as the unit of analysis. "Scholars who want to explain policy differences use policies as dependent variables and try to identify the economic, social, or political characteristics of each state that shape those policies" (Sharkansky & Hofferbert, 1971, p. 317). The different variables that can affect policy decisions allows for theory regarding those decisions to be built via a variety of different sources. "The concern for additive theory building stimulates various scholars to make their own analyses relevant to the findings of their colleagues, which helps integrate studies of different kinds of policy" (Sharkansky & Hofferbert, 1971, p. 316). State

comparative studies also move from prescription of specific policies to an explanation of how and why those policies were developed. Comparative state policy research is of interest to those who need to understand the factors impacting policy-making decisions such as government officials and others who may try to change policy (Sharkansky & Hofferbert, 1971).

Denters and Mossberger (2006) address issues and recommendations for improved comparative research across nations and other areas and argue that comparative urban political research has both practical and scientific value. "From the perspective of scientific relevance, good comparative research will help us in providing valid and reliable answers to interesting questions and filling gaps in current knowledge about political phenomena" (Denters & Mossberger, 2006, p. 551). Since it is often not feasible to study decision-making and its context using a pure experimental design at the actual time of policy development and enactment, comparisons of states, cities, and nations are used to try and explain distinctions. "The logic of the comparative method is that by comparing units (countries, cities, or any other units) that are most similar in some aspects, the researcher will be able to control for the variables that are similar and isolate other variables as potential causes of observed differences" (Denters & Mossberger, 2006, p. 553). This study utilizes the state comparative method to analyze nursing home quality of care policy decisions made from the 1990's to the present for all 50 states.

This chapter defines the dependent and independent variables and how those variables were measured. The data sources for those variables are also identified. The various statistical tests and general analysis plan for the study is discussed followed by the delimitations and limitations of the study.

Variables: Definition and Measurement

Dependent Variable

Quality of health care in general is a complex concept that has been examined

extensively in the health literature. Palmer, Donabedian, and Povar (1991) argue that the

quality of health care is the "…production of improved health and satisfaction of a

population within the constraints of existing technology, resources, and consumer

circumstances" (p. 58). State nursing home regulations for quality of care may or may

not exceed the regulations set forth by the federal government. To determine whether or

not a state's nursing home regulations exceed the federal regulations regarding quality of

care, the narratives of the states' quality of care sections were compared to the narrative

of the federal regulations.

The nursing home regulations for all 50 states regarding quality of care were

utilized and compared to the federal regulations regarding quality of care. While the

regulations cover many more areas including residents' rights and resident assessment,

this study focuses only on the section devoted to quality of patient/resident care. The

quality of patient care is the subject of much research and discussion in the literature (see

Palmer, Donabedian, & Povar, 1991; Elwell, 1984; Zinn, Spector, Hsieh, & Mukamel,

2005; Chou, 2002; Harrington, Woolhandler, Mullan, Carrillo, & Himmelstein, 2002).

However, there is no discussion about the factors that can affect the regulations and

policy decisions regarding quality of care. It is also necessary to limit the scope of the

regulations studied in order to make the study manageable.

The federal quality of care regulations provide that: "[e]ach resident must receive

and the facility must provide the necessary care and services or maintain the highest

practicable physical, mental, and psychological well-being, in accordance with the

resident's comprehensive assessment and plan of care" (Centers for Medicare and

Medicaid Services, 2005, n.p.). The regulations then go on to discuss the various aspects

of care which must not diminish for residents while in the nursing home's care unless

clinically unavoidable. The quality of care regulations cover the following areas:

accidents, nutrition, activities of daily living, vision and hearing, pressure sores, urinary

incontinence, range of motion, mental and psychological functioning, naso-gastric tubes,

hydration, special needs, unnecessary drugs, medication errors, and influenza and

pneumococcal disease (Centers for Medicare and Medicaid Services, 2005).

The policy scope of state nursing home regulations is a dichotomous variable

which measures (yes/no) whether or a not a state's nursing home regulations regarding

quality of care exceed the federal regulations. States that exceed the federal regulations

for quality of care are coded 1 and those that do not are coded 0. States that have

additional aspects of care or additional regulations beyond what is listed in the federal

regulations for quality of care and are not included in other sections of the federal

regulations are coded as 1 to indicate that the state regulations exceed the federal

regulations. States that do not have additional regulations beyond what is listed in the

federal quality of care regulations and effectively assume the federal regulations as their

own are coded as 0. Those states that do not even address quality of care in their

regulations must still meet the federal minimums in order to receive federal Medicaid

funding and thus are coded as 0 to reflect the minimal requirements.

The full verbiage of both the state and federal regulations can be obtained through

links available on the NH Regulations Plus website (available at

www.hpm.umn.edu/nhregsPlus/index.htm). Researchers at the University of Minnesota

created the NH RegsPlus website with funding from the Hulda B. and Maurice L.

Rothschild Foundation to serve as a resource to researchers and citizens to search state

regulations and to increase the transparency of the nursing home regulation factors that

may influence improved resident quality of life. The site contains comparisons between

state regulations and the federal regulations through the use of narrative and comparison

tables. The website contains links to the state regulations as available as of July, 2007.

The comparative tables provided by the NH RegsPlus website were used as an initial

guide to this analysis.

Independent Variables

The independent variables employed in this study were collected from previously

published research and indices, various official websites, government sources, and state

regulations. A data collection tool was developed and can be found in the Appendix. A

point of consideration is the date that the state nursing home regulations regarding quality

of care were last revised or adopted. The year in which the states last revised their

nursing home regulations for quality of care is different in many cases. Yet, most state

regulations are not clear as to when the most recent change to the regulations was made

and what changes were made to specific areas of the regulations versus simply reviewing

the regulations and making no changes. The most recent date given to nursing home

regulations can be misleading suggesting that changes have been made from earlier

versions. For example, Delaware nursing home regulations are now dated 2008.

However, the content for those areas regarding quality of care still do not exceed the

federal regulations and the most recent date of review prior to 2008 was 1982.

The federal regulations are dated 2005, as amended 1992. Therefore, this study utilizes state census, political, nursing home, and Medicaid data collected for the year 2000. One consistent year for data collection was chosen since this study attempts to measure differences between states on a variety of variables. This study does not attempt to measure changes in state nursing home regulation over time but rather whether states meet or exceed the federal regulations. The use of a consistent year allows for the independent variables to reflect the political and socioeconomic environment of all states at the same point in time regardless of what date is given to their nursing home regulations since in most cases it is unclear what that date reflects (changes and revisions or simple review).

Nursing Home Ownership. The ownership of nursing homes has shown to be a determinant in quality care with nonprofit homes often providing better quality to their residents (Elwell, 1984; Zinn, Spector, Hsieh, & Mukamel, 2005; Chou, 2002; Harrington, Woolhandler, Mullan, Carrillo, & Himmelstein, 2002). Therefore, the number of nonprofit nursing, government, and for-profit homes were collected for each state and divided by the total number of nursing homes in order to determine a percentage of each nursing home ownership type. This information was gathered from the On-line Survey, Certification, and Reporting System (OSCAR) data as summarized by Harrington, Carillo, and Blank (2007). In all cases for the nursing home industry variables, the data collected was based on certified nursing home facilities which have been surveyed as to their compliance with federal regulations and are resurveyed annually (Harrington, et al., 2007).

Size of Nursing Home Industry. The number of nursing homes in a given state may reflect differences in the size and power of the nursing home lobby (Walshe, 2001; Braithwaite, Makkai, & Braithwaite, 2007). Additionally, nursing home size has been shown to be related to quality of care in some studies. The total number of certified nursing homes was collected for each state. This information was collected from the summary of OSCAR data by Harrington, et al. (2007).

Nursing Home Size. Nursing home size has also been shown to be related to nursing home quality and is often measured by the number of beds (Amirkhanyan, Kim, & Lambright, 2008; Castle, 2001). The total number of certified nursing home beds for each state was calculated and divided by the total number of certified nursing homes to provide an average nursing home size for the state. This information was collected from the summary of OSCAR data by Harrington, et al. (2007).

Age. Given that larger elderly populations will presumably reflect greater demand for nursing home care for states, the percentage of state residents ages 85 and older was collected (Miller, 2005; Kane et al., 1998). This information was collected from the U.S. Census.

Gender. The percent of women living in a given state may also affect policies that are favorable for women – particularly those related to long-term care given the predominant role of women in caring for the elderly (Shapiro & Mahajan, 1986; Schlesinger & Heldman, 2001). The percentage of women living in each state was collected from the U.S. Census.

Race. The minority population in a state can also influence policy decisions (Kane et al., 1998). The percentage of minorities living in each state was collected from the U.S. Census.

Per Capita Income. The literature has shown that states with higher per capita incomes may provide more social programs than other states (Miller et al., 2002; Radcliff & Saiz, 1998). The per capita income of each state is measured in U.S. dollars. This information was gathered from the U.S. Census.

Elderly Receiving Medicaid. The percent of the elderly population receiving Medicaid benefits may be another demand variable that could impact policy decisions regarding long-term care (Kane et al., 1998). The percentage of elderly receiving Medicaid is calculated by dividing the number of state residents 65 and older as reported by the U.S. Census by the number of elderly receiving Medicaid for each state as reported by the Medicaid Statistical Information System of the Centers for Medicare and Medicaid Services (CMS).

Average Medicaid Payment per Recipient. The average Medicaid payment per recipient varies greatly between states and has been shown to be predictive of nursing home violations (Kaiser Family Foundation, 2005; Payne & Gainey, 2004). The average Medicaid payment per recipient was collected from reports of the Centers for Medicare and Medicaid Services.

Public Opinion Ideology. The ideology of a state's population, whether it leans liberal, conservative or moderate, may also predict state policy decisions (Miller, 2005). Erikson, Wright, and McIver have developed a measure of public opinion based on several CBS/*New York Times* telephone surveys over a 17 year period (1996-2003) in

which respondents are asked to classify themselves as liberal, moderate or conservative. The measure is expressed as a mean in which conservative responses are scored as -100, moderate responses as 0, and liberal responses as +100 (Erikson, Wright, & McIver, 1993). Thus, states with a higher score tend to be more liberal. This information was obtained from Erikson, Wright, and McIver's publication of their measure in Cohen (2006)[1].

Party Control of Legislative and Executive Branches. Policy differences have been found in states based on party control of state government (Lockhart & Giles-Sims, 2007; Volden, 2002). The majority party in control of the legislative branch and the party identification of the governor of each state will be collected. Democratic party control is coded as 1 and Republican control as 0 in order to coincide with the public opinion ideology measure. This information was collected from the National Conference of State Legislatures web page, which includes information about party control.

Women in the State Legislature. Just as the percentage of women in the general population may affect policy decisions, so too may the percentage of women in elected office (Caiazza, 2004; Morris, Lombard, & Greentree, 2009). The percentage of women in the state legislature was collected from Center for Women in Politics webpage which provides fact sheets about the number of women in the state legislatures.

State Political Culture. Elazar's political culture has been shown to be influential in state policy differences (Amirkhanyan et al., 2008; Mead, 2004). The different political cultures include moralistic, traditionalistic, and individualistic. States which are moralistic are coded as 1 (yes) and the individualistic and traditionalistic states are coded

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[1] The measure printed in Cohen (2006) did not list all 50 states and therefore the complete listing of state public opinion ideology measures was obtained directly from the authors.

as 0 (no). Categorization of state political culture was taken from Elazar (1984) and Mead (2004).

State Region. Regional differences appear in the state policy literature and are related to policy diffusion amongst neighboring states (Jacoby & Schneider, 2001; Breaux, Morris, & Travis, 2007; Carter & LaPlant, 1997). The region of the country in which a state is located will be determined using the regions as defined by the Council of State Governments (East, South, Midwest, and West). States in the Eastern region are generally northeastern states as defined by the Census. States in the Northeast are coded as 1 while states in the South, Midwest, and West are coded as 0. See the Appendix for a list of the Council of State Governments' regions.

Nursing Home Regulations of Contiguous States. The policy diffusion literature suggests that states may make policy decisions in part based on the policy actions of their neighbors (Berry & Berry, 1990; Carter & LaPlant, 1997; Mooney, 2001; Gray, 1973; Hays, 1996; Volden, 2006). Therefore, diffusion of nursing home regulation decisions are tested by measuring the policy choices of contiguous states. In addition to whether or not a state's own nursing home regulations exceed the federal regulations for quality of care, the number of contiguous states that also have regulations that exceed the federal standards was collected and divided by the total number of contiguous states in order to obtain a percentage of state neighbors that exceed the federal regulations. Contiguous states are defined as those which share a geographic boundary and can be found in Berry and Berry (1990). The information on the regulations was collected from the nursing home regulations themselves.

AFDC/TANF Policy Stringency. Like mandatory reporting of elder abuse, state policies in one area may reflect tendencies of states in other policy areas. The stringency of AFDC or TANF policies is one such area. This information was collected from data summarized by Soss et al. (2001). The authors have classified each state as having weak sanctions, moderate sanctions, or strong sanctions since welfare reform efforts in 1996 based on work requirements, time limits for aid, and family cap policies. "Sanction strength provides direct evidence of a state's willingness to restrict access to aid for families who are needy but deemed to be out of compliance with new program rules" (Soss, et al., 2001, p. 381). States were classified accordingly and coded 1 for strong sanctions and 0 for weak or moderate sanctions.

Mandatory Reporting of Elder Abuse. States with mandatory reporting of elder abuse in institutional settings have less severe nursing home violations thus indicative of quality of care (Payne & Gainey, 2004). Mandatory reporting law data was collected from data compiled by Roby and Sullivan (2000). States which have mandatory reporting are coded as 1 (yes) and those without mandatory reporting are coded as 0 (no). A summary of the variables under study can be found in Table 3.1 below.

Table 3.1

Variables and Definitions

Variable	Source	Measurement (Level of Measurement)
Nursing Home Ownership	OSCAR data	Percent of nonprofit, government, and for-profit certified nursing homes in the state (ratio)
Size of Nursing Home Industry	OSCAR data	Total number of certified nursing homes in the state (ratio)
Nursing Home Size	OSCAR data	Average number of certified nursing homes beds in the state (ratio)
Age	U.S. Census	Percentage of state residents ages 85 and older (ratio)
Gender	U.S. Census	Percentage of women living in the state (ratio)
Race	U.S. Census	Percentage of minorities living in the state (ratio)
Per Capita Income	U.S. Census	Per capita income for the state in U.S. dollars (ratio)
Elderly Receiving Medicaid	CMS data	Percentage of elderly receiving Medicaid (ratio)
Average Medicaid Payment per Recipient	CMS data	The average Medicaid payment per recipient in U.S. dollars (ratio)
Public Opinion Ideology	Cohen (2006)	Conservative (-100), Moderate (0), Liberal (+100) (interval)
Party Control of Legislative Branch	National Conference of State Legislatures web page	Democratic party (1), Republican party (0) (nominal)
Party Control of Executive Branch	National Conference of State Legislatures web page	Democratic party (1), Republican party (0) (nominal)
State Political Culture	Elazar (1984) and Mead (2004)	Moralistic (1), Traditionalistic(0), Individualistic (0) (nominal)

Table 3.1

Variables and Definitions

Variable	Source	Measurement (Level of Measurement)
Women in the State Legislature	Center for Women in Politics webpage	Percentage of women in the state Legislature (ratio)
State Region	The Council of State Governments	Northeast (1), South, Midwest and West (0) (nominal)
Nursing Home Regulations of Contiguous States	Berry & Berry (1990); NH Regs Plus website	The percentage of states that share a geographic border and have nursing home regulations that exceed the federal regulations (ratio)
AFDC/TANF Stringency	Soss et al. (2001)	Strong sanctions (1), weak or moderate sanctions (0) (ordinal)
Mandatory Reporting of Elder Abuse	Roby and Sullivan (2000)	Mandatory reporting for elder abuse yes (1), no (0) (nominal)

Data Analysis

After the data are collected for each state, they were entered into SPSS 14.0 for

analysis. Basic frequencies, calculation of means, and crosstabs were performed to

provide a descriptive account of the data. The dichotomous nature of the dependent

variable (state regulations exceed federal regulations – yes/no) lends itself to logistic

regression analysis that predicts membership into the two groups (Mertler & Vannatta,

2005). "More precisely, logistic regression specifies the probabilities of the particular

outcomes (e.g., 'pass' and 'fail') for each subject or case involved" (Mertler & Vannatta,

2005, p. 313). For the current study, the resulting regression equations predict the

probability or odds that a state has nursing home regulations that exceed the federal

regulations for quality of care ranging from 0 to 1 (Mertler & Vannatta, 2005). Unlike multiple regression, logistic regression does not require that the independent or predictor variables are normally distributed or have a linear relationship and it can accommodate independent variables at all levels of measurement (Mertler & Vannatta, 2005). Logistic regression is particularly relevant for the current study given the diverse nature of the independent variables which are both continuous and dichotomous.

The data were examined for correlations between the independent variables to include problems with multicollinearity (Mertler & Vannatta, 2005). Logistic regression is also sensitive to outliers that may require deletion of cases from the analysis or require transformations of skewed variables (Mertler & Vannatta, 2005). The Nagelkerke Pseudo R^2 was examined to see how much variance in the dependent variable is accounted for by each of the models. Finally, the significant odds ratios indicate the increase/decrease in the odds of a state having nursing home regulations which exceed the federal regulations when the independent variable increases by one unit (Mertler & Vannatta, 2005).

The analysis indicates not only which variables are significant predictors of the dependent variable but also if one of the individual models (nursing home, demographic, socioeconomic, political, and state policy) is particularly superior at predicting group membership as well. Each of the proposed models was run separately with the corresponding model variables entered simultaneously. The significant predictor variables from all models were then entered to determine a model of "best fit".

Delimitations and Limitations

This study focuses on the differences between state nursing home regulations and the federal nursing home regulations regarding *quality of care* only. Both the state and federal regulations cover many other areas including residents' rights, assessment, nutrition, quality of life, and medication use. The federal regulations for quality of care actually address some of these other areas such as activities of daily living, nutrition, use of medications, and immunizations.

When using data from existing sources, the accuracy of the data and how it is reported or collected is in many cases unknown (Elwell, 1984). However, the use of secondary data provides the convenience of time and costs savings compared to collecting primary data (Elwell, 1984). The use of secondary data allows the author to include all states (using the same measures) which may not have been possible if state nursing home administrators, for example, had to be interviewed or surveyed in order to collect the same information (Elwell, 1984).

Validity

"Whenever you base your research on an analysis of data that already exist, you are obviously limited to what exists" (Babbie, 1992, p. 333). This study relies on secondary data that was collected for other official, governmental, and reporting purposes and not designed or collected by the author for the sole and specific purposes of this study (Elwell, 1984; Babbie, 1992). Therefore, some measures may be indirect measures of the concepts under study and may be a threat to validity (Babbie, 1992). However, the models described in the previous sections and chapters were based largely on the literature related to nursing home care and long-term care policy. Therefore, they are

logically derived as measures that could impact state nursing home regulatory decisions. This represents a "…carefully reasoned theoretical basis" for including the specified variables and this logical reasoning is one of the ways to address validity questions when using existing data (Babbie, 1992, p. 334).

Additionally, while ideally the independent variables identified here are exhaustive of the factors which impact nursing home regulations, the reality is that there may be numerous other unidentified variables which could affect those decisions. However, it is necessary to keep the number of independent variables to a minimum given the relatively low number of cases (maximum n=50 states) (Goggin, 1986; Mertler & Vannatta, 2005). Further, history may be a factor – events may have occurred during the time period under study that would influence the results (Babbie, 1992). While all 50 states were included, the study is cross-sectional in that the independent variable data collected for each state were from the year 2000, critical events may have occurred during that period of time. For example, states with regulations that exceed the federal regulations may have revised their policies after highly publicized cases of nursing home abuse or other quality issues or who were facing financial or other sanctions from federal surveyors. Finally, given that there may have been some difference between the date that the independent variable data are collected and the year in which the regulations were adopted or revised, some of the measures may have changed over time. For instance, political culture and public opinion ideology, while fairly consistent, have been known to change slightly over time (Mead, 2004; Erikson, Wright, McIver, 2007). Control of the legislative and executive branches also change over time.

This study has few threats to external validity (the ability to generalize beyond the study group) since all states are examined and sampling will not be used (Babbie, 1992). Since data is available for all variables for all states, then the population (all 50 states) was examined and the results apply to that population. However, the results may not be generalized beyond that of nursing home quality of care policies. The results show which of the factors under study impact states' nursing home regulatory decisions but those same factors may or may not impact other state policy decisions in other areas. The results of the data analysis will be reported and displayed in tabular format in Chapter 4. The overall discussion of the study findings and the implications for policy and future study will be presented in Chapter 5.

CHAPTER IV

RESULTS

This chapter details the results of the data collection and analysis to include

bivariate and multivariate analyses. Results will be presented in tabular displays and will

be discussed in the context of the stated hypotheses.

Data Diagnostic Screening

The dependent and independent variables were collected and entered into SPSS

14.0 for analysis. The Medicaid payment per elder listed for Tennessee in 2000 was

$977 and was considerably lower than any other state (values ranged from $6,269 to

$23,813). The value listed for 2000 was also considerably lower than the payment per

elder for Tennessee in 1999 and 2001. Efforts were made to contact the Centers for

Medicare and Medicaid services to confirm the correct value without success.

Therefore, the average of the payment rates for Tennessee in 1999 ($6,595) and 2001

($7,202) was calculated and used for the Tennessee payment rate ($6,899).

Diagnostic analysis of the independent variables revealed that multicollinearity

was not a problem with tolerance statistics all greater than .1 (Mertler & Vannatta, 2005).

However, some of the ratio level independent variables were skewed. The percent of

nonprofit nursing homes, percent of government nursing homes, the number of nursing

homes, and the percent minority population were skewed in a positive direction

(skewness = 1.5, 1.98, 1.38, and 1.61 respectively). The percent of profit nursing homes

had a negative skew (-1.41). For the variables with a positive skew, a natural log

transformation was performed and the skew was then within normal limits (i.e., 1.0).

For the percent of profit nursing homes, natural log and square root transformations were performed but did not improve the skew. The two cases that contributed to the negative skew (Alaska and North Dakota) were removed and a t-test was performed for the percent of profit nursing homes grouped by the dependent variable (exceed federal regulations yes/no). However, removal of the two cases did not affect the results of the t-test and therefore the two cases were kept in the dataset for further analysis. Use of the other transformed variables in place of the skewed variables also did not significantly affect the results of the multivariate analysis. The tables presented in this chapter include the variables in their natural metric for ease of interpretation and because the results are substantively consistent with those of the transformed variables.

Coding of Dependent Variable

Each state's nursing home regulations were searched for the quality of care section. If the regulations did not contain a section specifically labeled as quality of care, then the regulations were searched for a section(s) that contained the major areas covered by the federal regulations. There were 28 states that did not have a specific quality of care section but instead covered many of the federal regulations in a different section such as nursing services, resident care, routine care and services, or individual care. In a few cases, the state regulations covered the federal regulations in two different sections (Alaska, Massachusetts, and Minnesota). Two other states had a quality of care section but all/some of the specific areas of the federal regulations were covered in separate sections (Indiana and Kentucky). There were seven states that did not include a quality of care section nor any verbiage relating to the 14 areas covered by the federal

regulations for quality of care. The review of the state regulations revealed that 19 states did not exceed the federal regulations for quality of care while 31 states did exceed.

The content of each state's quality of care (or relevant section) was reviewed and each of the areas covered by the federal regulations was compared to the content of the state regulations. As previously mentioned, the federal regulations are very broad and ambiguous. In a very limited number of cases where it was unclear if the verbiage of the state regulations exceeded the federal regulations, a registered nurse with over eight years of nursing home experience, including three years as a nursing home supervisor, was consulted to provide clarification (Czajkowski, 2009). States that were determined to have exceeded the federal regulations often did so by being more specific and prescriptive as to how or what services or treatments would be provided or who would provide them to nursing home residents. States that were coded as exceeding an area of the federal quality of care regulations may have required that staff with specific training (LPN, RN, etc.) must perform the services or treatments listed in that area, for example. Further, states may have required a specific treatment or service be performed at a specific frequency and/or that the result of treatments or services be documented or reported to physicians or other nursing home staff such as the medical director.

For example, the federal quality of care regulations for hydration read: "The facility must provide each resident with the sufficient fluid intake to maintain proper nutrition and health" (Centers for Medicare and Medicaid Services, 2005, §483.25). However, Arkansas requires that water pitchers be within the reach of patients and that they be provided with clean drinking glasses. Pitchers are to be refilled at least once per shift and fluids shall also be offered to residents who are unable to get water themselves

(Arkansas Office of Long-Term Care, 2006). Additionally, the federal regulations for pressure sores read:

> (1) A resident who enters the facility without pressure sores does not develop pressure sores unless the individual's clinical condition demonstrates that they were unavoidable; and
>
> (2) A resident having pressure sores receives necessary treatment and services to promote healing, prevent infection, and prevent new sores from developing (Centers for Medicare and Medicaid Services, 2005, §483.25).

However, many states that exceed the federal regulations in this area require more individualized care and require that residents are repositioned with certain frequency. The Kansas regulations require that a skin integrity program is developed for each at-risk resident including changing of position at least once every two hours, protection of skin from items that could further diminish skin integrity, and the use of protective devices to protect vulnerable areas (Kansas Department on Aging, 1999). Minnesota requires that residents unable to change their own position are moved at least once every two hours even during the nighttime hours (Minnesota Department of Health, 2005).

States may also cover other areas in their quality of care (or related section) that pertain to quality of care but are not covered in other parts of the federal regulations. For example, New Jersey includes the provision of care and services to address pain management in their overall definition of quality of care. Oklahoma requires that pain is assessed for each resident when vital signs are taken and more frequently if the resident's condition necessitates. Kansas requires the prevention of stasis ulcers in addition to pressure sores.

Descriptive Statistics

The dates of the state quality of care nursing home regulations ranged from 1985 to 2008 with an average date of 2002. Hawaii had the "oldest" nursing regulations dating back to 1985. State officials were contacted and they confirmed this date as valid. The analysis was performed both with and without Hawaii, however, the deletion of that case did not substantively alter the results. Given the limited number of cases for the study, therefore, the analysis reported below includes Hawaii. Table 4.1 below shows the frequency with which states exceeded each of the areas of the federal regulations for quality of care. Activities of daily living (46%), pressure sores (38%), and urinary incontinence (20%) were the areas most frequently exceeded by states. "Other" areas in which states exceeded the federal quality of care regulations included: pain management and assessment, standards to be in conformance with the Gerontological Nursing Practice of the American Nursing Association, responsibility for reporting questionable care, excoriation evaluation/treatment, prevention of stasis ulcers, and more frequent measurement/recording of vital signs.

Table 4.1.

Areas of Federal Regulations that are Exceeded by State Regulation

Federal Regulation Area	% States Exceeding (n)
Activities of daily living	46.0% (23)
Vision and hearing	2.0% (1)
Pressure sores	38.0% (19)
Urinary incontinence	20.0% (10)
Range of motion	4.0% (2)

Table 4.1.

Areas of Federal Regulations that are Exceeded by State Regulation

Federal Regulation Area	% States Exceeding (n)
Mental and psychosocial functioning	4.0% (2)
Nasogastric tubes	2.0% (1)
Accidents	2.0% (1)
Nutrition	16.0% (8)
Hydration	14.0% (7)
Special needs	4.0% (2)
Unnecessary drugs	2.0% (1)
Medication errors	0.0% (0)
Influenza/pneumococcal immunizations	0.0% (0)
Other areas	18.0% (9)

Table 4.2 shows the descriptive statistics for the 50 states for all interval/ratio

level variables. The average number of areas that states exceed the federal regulations

for quality of care was just under two. As indicated in the literature, the most common

type of nursing home is for profit (60.7%). The average size of certified nursing homes

across states is just under 100 beds (mean = 95.1). The average number of nursing homes

in a given state is about 300 but there is much variation between states.

In terms of population characteristics, the states were fairly similar regarding the

percentage of elderly 85 years and older (1.5%, s.d. = .36) and the percentage of women

(50.8%, s.d. = .76). However, the percentage of minorities varied greatly with an average

of 20.5% (s.d. = 12.96) but ranging from 3.1% to 75.7%. The average per capita income

was just under $21,000 (s.d. = 2848.74) and the percent of elderly receiving Medicaid

was 10.3% (s.d. = 3.51). The average Medicaid payment per elder was $12,643 (s.d. =

4031.37).

The average state political ideology leaned conservative with a mean of -13.6 (s.d.

= 8.80) on a scale of -100 to +100 with higher scores being more liberal. The states

averaged 22.5% (s.d. = 7.31) of legislative seats belonging to women. An average of

two-thirds of a state's neighbors had quality of care regulations that exceeded the federal

regulations. Table 4.3 below shows the descriptive statistics for the categorical variables

for all states. Most states had a Republican governor in 2000 (58%) and the control of

state legislatures was relatively evenly spread across the two parties or split. Most states

had mandatory reporting of elder abuse (88%) and close to half of all states had moderate

welfare policy stringency (42%).

Table 4.2.

Descriptive Statistics for All 50 States

Variable	Mean (sd)	Median	Mode	Range
Total Number of Areas Exceed	1.72 (1.95)	1.00	0	8
% Non-Profit Homes	30.2% (14.38)	26.7%	14.8%	70.1%
% Profit Homes	60.7% (17.51)	64.8%	62.3%	81.8%
% Government Homes	9.1% (8.22)	6.2%	4.8%	38.5%
NH Size (# of Beds)	95.1 (21.18)	94.5	89.2	123.6

Table 4.2.

Descriptive Statistics for All 50 States

Variable	Mean (sd)	Median	Mode	Range
Number of Nursing Homes	300.9 (258.71)	245.5	39.0	1071.0
Percent Population 85+	1.5% (.36)	1.5%	1.3%	1.9%
Percent Population Female	50.8% (.76)	51.0%	51.0%	3.7%
Percent Population Minority	20.5% (12.96)	18.3%	15.0%	72.6%
Per Capita Income	$20,767 (2848.74)	$20,566	$15,853	$12,913
Percent Elderly Receiving Medicaid	10.3% (3.51)	9.5%	7.1%	17.0%
Medicaid Payment Per Elder	$12,643 (4031.37)	$12,414	$6,269	$17,544
Public Opinion Ideology	-13.6 (8.80)	-14.4	-22.1	38.2
Percent Women in Legislature	22.5% (7.31)	22.4%	12.6%	32.9%
Percent Contiguous Neighbors Exceed	64.0% (26.35)	66.6%	66.6%	100%

Table 4.3.

All 50 States – Categorical Variables

Variable	% (n)
Party Control – Legislative Branch	36.7 Republican (18) 32.7 Democrat (16) 30.6 Split (15)
Party Control – Executive Branch	58.0 Republican (29) 38.0 Democrat (19) 4.0 Other (2)
Political Culture	34.0 Individualistic (17) 34.0 Moralistic (17) 32.0 Traditionalistic (16)
State Region	20.0 Eastern (10) 32.0 Southern (16) 22.0 Midwest (11) 26.0 West (13)
AFDC/TANF Policy Stringency	28.0 Strong (14) 42.0 Moderate (21) 30.0 Weak (15)
Mandatory Reporting of Elder Abuse (yes)	88.0 (44)

Bivariate Results

Correlations Between Independent Variables

Correlation analysis was performed for the ratio level independent variables and many had significant correlations. Table 4.4 below shows some of the significant correlations below. A full correlation matrix can be found in the appendix. As Table 4.4 shows, some of the nursing home ownership variables are significant and negatively correlated (percent nonprofit and profit as well as percent profit and government) as would be expected given that three figures sum to 100% for a given state. The percent elderly 85 years and older is negatively correlated with percent minority population ($r = -.437$, $p<.01$) and positively correlated with the percent female population ($r = .462$. $p<.01$), perhaps reflecting that women tend to live longer than men. The percent elderly 85 and older is also positively correlated with Medicaid payment per elder ($r =. 364$, $p<.01$) indicating that as the percentage of the oldest elderly increases so does the Medicaid payment per elder. The percentage of minority population is negatively correlated with the percent of contiguous states that exceed the federal regulations ($r = -.445$, $p<.01$).

Medicaid payment per elder is negatively associated with the percent of for profit homes ($r = -.327$, $p<.05$) and positively correlated with average nursing home size ($r = .282$, $p<.05$). Per capita income is also positively associated with average nursing home size ($r = .474$, $p<.01$) and strongly correlated with public opinion ideology ($r = .722$, $p<.01$) indicating a positive relationship between income and liberal ideology. Public opinion ideology is also positively correlated with the percent of women in the legislature ($r =.519$, $p<.01$) and Medicaid payment per elder ($r = .370$, $p<.01$). The positive

correlation between Medicaid payments per elder and liberal public opinion ideology is consistent with the literature which tends to show liberal support for Medicaid reimbursement and other elder health policies (Miller, 2005).

Interestingly, the percent of women in the population is negatively correlated with percent of women in the legislature ($r = -.311$, $p<.05$). However, studies have shown that additional factors, beyond the mere availability of qualified female candidates, may affect the proportion of women participating in politics (Rule, 1981; Paxton, 1997). Such factors include party control and competition, economic conditions, and other contextual factors (Rule, 1981). This appears to be the case for the current study - while there are positive correlations between percent of women in the legislature and per capita income and political ideology (liberal), there are not significant correlations between the percent of women in the general population and per capita income or political ideology.

Table 4.4.
Select Correlations Between Independent Ratio-Level Variables

	% Profit Nursing Homes	% Government Nursing Homes	Average Nursing Home Size	% Population 85+	% Female Population	% Contiguous Neighbors Exceed	Public Opinion Ideology
%Nonprofit Nursing Homes	-.885**	.136	-.111	.270	-.211	-.088	-027
% Profit Nursing Homes		-.581**	.265	-.064	.445**	.226	-.026
Average Nursing Home Size				.008	.531**	.067	.334*
% Population 85+					.462**	.220	.026
% Minority Population	.100	.088	.270	-.437**	-.021	-.445**	.091
Per Capita Income	-.049	-.120	.474**	-.108	.071	.010	.722**
Medicaid Payment Per Elder	-.327*	.026	.282*	.364**	.221	.220	.370**
% Women in the Legislature	-.029	-.001	-.058	-.053	-.311*	.206	.519**

*Correlation significant at .05 level, ** Correlation significant at .01 level

Nursing Home Variables

There was not a great deal of variation in most of the independent variables between those states that exceeded the federal regulations for quality of care and those that did not. Although the difference is not statistically significant, states that did not exceed the federal regulations for quality of care had a slightly higher average percentage of nonprofit homes (31.6% compared to 29.4%) and a slightly lower average percentage of for-profit homes (59.2% compared to 61.5%) which is in the opposite direction expected. Both groupings of states had about the same average percentage of government homes (about 9%). The average size of nursing homes as measured by number of beds was slightly lower in states that exceeded the federal regulations as hypothesized, however, the difference was not statistically significant (94.7 beds compared to 95.7 beds in states that did not exceed). States that exceeded the federal quality of care regulations actually had a higher average number of nursing homes (320.6) compared to those states that do not exceed (269) and this is contrary to what was expected although again not statistically significant. See Tables 4.5 and 4.6 below.

Demographic Variables

The demographic characteristics are remarkably similar for states that do and do not exceed the federal quality of care regulations. Both had about the same average percentage of 85 and older adults (1.5%) and percent female population (50.8%). The average percent minority population was slightly lower in states that exceeded the federal regulations (18.5% compared to 23.9%) as expected but not significant. See Tables 4.5 and 4.6 below.

Table 4.5.

Descriptive Statistics for States that Exceed Federal Quality of Care Regulations (n=31)

Variable	Mean (sd)	Median	Mode	Range
Total Number of Areas Exceed	2.77 (1.78)	2.00	2	7
% Non-Profit Homes	29.4% (11.84)	26.6%	13.4%	48.1%
% Profit Homes	61.5% (17.27)	64.6%	62.3%	81.7%
% Government Homes	9.1% (9.31)	4.8%	4.8%	38.5%
Average NH Size (# of Beds)	94.7 (24.32)	91.7	91.7	123.6
Number of Nursing Homes	320.6 (252.80)	271.0	389.0	1071.0
Percent Population 85+	1.5% (.35)	1.6%	1.7%	1.8%
Percent Population Female	50.9% (.81)	51.0%	51.0%	3.7%
Percent Population Minority	18.5% (10.24)	15.1%	15.0%	37.4%
Per Capita Income	$20,980 (3233.09)	$20,506	$16,477	$12,289
Percent Elderly Receiving Medicaid	10.1% (2.79)	10.0%	7.5%	10.6%
Medicaid Payment Per Elder	$13,530 (4245.26)	$13,297	$6,269	$17,544
Public Opinion Ideology	-12.83 (8.19)	-14.3	-2.6	30.2

Table 4.5.

Descriptive Statistics for States that Exceed Federal Quality of Care Regulations (n=31)

Variable	Mean (sd)	Median	Mode	Range
Percent Women in Legislature	22.5% (6.02)	22.3%	24.7%	23.9%
Percent Contiguous Neighbors Exceed	66.8% (20.46)	66.6%	66.6%	100%

Table 4.6.

Descriptive Statistics for States that Do Not Exceed Federal Quality of Care Regulations (n=19)

Variable	Mean (sd)	Median	Mode	Range
% Non-Profit Homes	31.6% (18.05)	27.8%	14.8%	68.7%
% Profit Homes	59.2% (18.28)	65.0%	12.9%	68.9%
% Government Homes	9.2% (6.29)	8.1%	5.6%	21.3%
Average NH Size (# of Beds)	95.7 (15.30)	95.2	89.2	55.8
Number of Nursing Homes	269.0 (271.92)	182.0	39.0	987.0
Percent Population 85+	1.5% (.38)	1.4%	1.3%	1.4%
Percent Population Female	50.8% (.71)	50.8%	51.0%	2.6%
Percent Population Minority	23.9% (16.23)	24.5%	3.2%	72.5%

Table 4.6.

Descriptive Statistics for States that Do Not Exceed Federal Quality of Care Regulations (n=19)

Variable	Mean (sd)	Median	Mode	Range
Per Capita Income	$20,421 (2113.31)	$20,625	$15,853	$7,991
Percent Elderly Receiving Medicaid	10.7% (4.52)	9.3%	4.6%	17.0%
Medicaid Payment Per Elder	$11,195 (3261.32)	$9,845	$7,431	$12,044
Public Opinion Ideology	-14.9 (9.81)	-16.3	-30.2	38.2
Percent Women in Legislature	22.4% (9.23)	22.4%	12.6%	32.9%
Percent Contiguous Neighbors Exceed	59.5% (34.03)	66.6%	66.6%	100%

Socioeconomic Variables

The two groups of states were also very similar in regards to average per capita income and percent elderly receiving Medicaid. States that exceeded the federal quality of care regulations had an average per capita income of $20,980 compared to $20,421 for states that did not exceed. This is in the direction expected but not statistically significant. The percent of elderly receiving Medicaid was 10.1% for states exceeding the federal regulations and 10.7% for states that did not exceed.

The average Medicaid payment per elder was significantly different as measured by a t-test. States that exceeded the federal regulations for quality of care had an average Medicaid payment of $13,530 compared to only $11,195 in states that do not exceed ($t = -2.052$, $p < .05$). This is in the direction expected with states that exceeded the federal regulations for quality of care having higher Medicaid payments per elder.

Political Variables

The average public opinion ideology did lean more liberal in states that exceeded the federal regulations (-12.8 compared to -14.9) which is in the direction expected but not statistically significant in the bivariate analysis. The average percentage of women in the legislature was about the same for both groups of states (22.5%). The make-up of the state legislatures in 2000 was also similar between the two groups. Those states that did exceed the federal regulations had a slightly higher percentage of Democratically controlled legislatures as expected but not significant (35.5% compared to 27.8%). States that exceeded the federal quality of care regulations also had a higher percentage of Republican governors in 2000 (64.5% compared to 47.4%) which was contrary to the stated hypothesis. States that exceeded the federal regulations were also more often

moralistic states (35.5% compared to 31.6%) while those states that did not exceed were more often traditionalistic (42.1% compared to 25.8%). It was hypothesized that moralistic states would be more likely to exceed the federal regulations but the difference was not statistically significant.

Policy and Other Variables

The average percentage of contiguous neighbors that exceeded the federal regulations is in the direction expected, with states that exceeded having a higher percentage of neighbors that also exceed (66.8% compared to 59.5%) but again the difference is not statistically significant. Equal percentages of states that exceeded the federal regulations were found in the south or the west (29%) while most states that did not exceed the federal regulations were found in the south (36.8%). Again, the difference is not statistically significant.

A slightly larger percentage of states that exceeded the federal regulations had strong AFDC/TANF regulations than states that did not exceed (29% compared to 26.3%) which is in the direction expected. However, there was also a slightly larger percentage of states that exceeded that had weak sanctions (32.3% compared to 26.3%). A larger percentage of states that do not exceed the federal regulations have moderate AFDC/TANF sanctions (47.4% compared to 38.7%). Finally, the percentage of states with mandatory reporting for elder abuse was about the same between the two groups with a slightly larger percentage of states that did not exceed the federal quality of care regulations (89.5% compared to 87.1% of states that did exceed) (see Table 4.7 below).

Table 4.7.

Descriptive Statistics – Categorical Variables

Variable	Exceed Federal Regulations % (n)	Do Not Exceed Federal Regulations % (n)
Party Control – Legislative Branch	35.5 Republican (11) 35.5 Democrat (11) 29.0 Split (9)	38.9 Republican (7) 27.8 Democrat (5) 33.3 Split (6)
Party Control – Executive Branch	64.5 Republican (20) 29.0 Democrat (9) 6.5 Other (2)	47.4 Republican (9) 52.6 Democrat (10)
Political Culture	38.7 Individualistic (12) 35.5 Moralistic (11) 25.8 Traditionalistic (8)	26.3 Individualistic (5) 31.6 Moralistic (6) 42.1 Traditionalistic (8)
State Region	19.4 Eastern (6) 29.0 Southern (9) 22.6 Midwest (7) 29.0 West (9)	21.1 Eastern (4) 36.8 Southern (7) 21.1 Midwest (4) 21.1 West (4)
AFDC/TANF Policy Stringency	29.0 Strong (9) 38.7 Moderate (12) 32.3 Weak (10)	26.3 Strong (5) 47.4 Moderate (9) 26.3 Weak (5)
Mandatory Reporting of Elder Abuse (yes)	87.1 (27)	89.5 (17)

Multivariate Results

Given the dichotomous nature of the dependent variable, logistic regression analysis was used to test the stated hypotheses. The summary of the results for each model are described below.

Nursing Home Model

It was hypothesized that various nursing home industry variables would predict whether or not states exceeded the federal regulations for quality of care. As can be seen from Table 4.8 below, none of the nursing home variables were significant predictors of the dependent variable with all of the odds ratios close to 1.00. Contrary to Hypothesis 1, states with a higher percentage of nonprofit nursing homes did not have increased odds of exceeding federal regulations nor did states with a larger average nursing home size (Hypothesis 3). Having a larger number of nursing homes also did not increase the odds of exceeding the federal regulations (Hypothesis 2). Further, very little of the variation is explained by the nursing home model variables (Nagelkerke Pseudo $R^2 = .026$). Thus, the nursing home industry factors employed in the current study do not significantly influence state quality of care regulatory decisions.

Table 4.8.

Nursing Home Model Logistic Regression

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
% Nonprofit Nursing Homes	-.017	.047	.134	1	.714	.983
% Profit Nursing Homes	-.007	.040	.030	1	.863	.993
Nursing Home Size	-.007	.016	.185	1	.667	.993

Table 4.8.

Nursing Home Model Logistic Regression

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Number of Nursing Homes	.001	.001	.584	1	.445	1.001
Constant	1.754	3.575	.241	1	.624	5.777

$R^2 = .026$

Demographic Model

It was hypothesized that states with a larger elderly population and a larger female population would be more likely to exceed the federal regulations reflecting the demand these two groups place on the nursing home system and the large proportion of female employees and residents in nursing homes (Harris & Benson, 2006). It was also hypothesized that states with a larger minority population would be less likely to exceed the quality of care regulations reflecting disparities in access to nursing home care in general and good quality care more specifically (Falcone & Broyles, 1994; Mor et al., 2004). As can be seen in Table 4.9 below, none of the demographic variables were significant predictors of the dependent variable. And again, the model explained very little of the variance in the dependent variable (Nagelkerke Pseudo $R^2 = .083$). Thus, demographic variables that have been significant in other state comparative studies have little predictor ability for whether or not states exceed the federal quality of care regulations.

Table 4.9.

Demographic Model Logistic Regression

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
% Population 85+	-1.090	1.176	.859	1	.354	.336
% Female Population	.415	.486	.728	1	.393	1.514
% Minority Population	-.052	.035	2.179	1	.140	.950
Constant	-17.850	23.436	.580	1	.446	.000

$R^2 = .083$

Socioeconomic Model

Socioeconomic variables have shown to be explanatory in other nursing home

policy. Further, much of focus of state comparative studies has been on fiscal nursing

home policies (Grabowski & Gruber, 2007; Miller et al., 2002; Swan et al., 2001). It was

expected that states with higher per capita incomes, higher percentages of elderly

receiving Medicaid, and higher Medicaid payments per elder would all be more likely to

exceed the federal quality of care regulations (Hypotheses 7-9). Table 4.10 below shows

that of the socioeconomic variables, only Medicaid payment per elder was significant at

the p<.10 level. The other two variables were not significant with odds ratios very close

to 1.00.

The findings indicate that states with higher Medicaid payments per elder were

more likely to have nursing home regulations that exceeded the federal regulations for

quality of care. Given an odds ratio of 1.214, an increase in $1000 in Medicaid payment

per elder increased the odds of state exceeding the federal quality of care regulations by

21%. However, the model explained only a small portion of the variation in the

dependent variable (Nagelkerke Pseudo R^2 = .119).

Table 4.10.

Socioeconomic Model Logistic Regression

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Per Capita Income	.000	.000	.087	1	.768	1.000
% of Elderly Receiving Medicaid	.031	.094	.108	1	.743	1.031
Medicaid Payment per Elder	.194	.105	3.399	1	.065*	1.214
Constant	-1.445	2.867	.254	1	.614	.236

R^2 = .119, *p≤.10

Political Model

State policies are often affected by political factors within the state (Miller, 2005;

Lockhart & Giles-Sims, 2007; Volden 2002). It was hypothesized that states with a more

liberal public opinion, Democratic control of the legislature and executive branch, a

larger percentage of women in the legislature, and a moralistic political culture would be

more likely to exceed the regulations for quality of care (Hypotheses 10-14). Table 4.11

below shows that only party control of the executive branch is significant at the p< .05

level with states with Democratic governors actually being less likely to exceed the

federal quality of care regulations. This is opposite the direction expected as states with

Democratic governors decrease the odds of exceeding the federal regulations by 76%.

Political culture approaches significance at the p=.104 level with states that are

traditionalistic also less likely to have nursing home regulations that exceed the federal

regulations for quality of care. All other variables have odds ratios close to 1.00. This

model explains more variation in the dependent variable than all of the previous models

although it also has more variables than the previous models which often leads to higher

levels of explained variation even without significant effects (Nagelkerke Pseudo R^2 =

.216).

Table 4.11.

Political Model Logistic Regression

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Public Opinion Ideology	.014	.052	.072	1	.788	1.014
% of Women in the Legislature	-.047	.064	.542	1	.461	.954
Party Control of Legislature (D)	1.433	.990	2.095	1	.148	4.192
Party Control of Legislature (Split)	.364	.882	.171	1	.679	1.440
Party Control of Executive (D)	-1.416	.694	4.163	1	.041**	.243
Political Culture (Moralistic)	.005	.947	.000	1	.995	1.005
Political Culture (Traditionalistic)	-1.635	1.006	2.645	1	.104	.195
Constant	2.397	1.895	1.599	1	.206	10.988

R^2 = .216, **p<.05,

State Policy Model

Policy studies often explore policy diffusion and regional differences between

states (Gray, 1973; Berry & Berry, 1990; Jacoby & Schneider, 2001). Hypothesis 15

predicted that states in the Northeast would be more likely to exceed the federal

regulation for quality of care and Hypothesis 16 stated that states with more contiguous

neighbors with nursing home regulations that exceed the federal regulations for quality of care would be more likely themselves to exceed the federal regulations. As can be seen from Table 4.12 below, neither the policy diffusion nor the region variables were significant predictors of whether or not states exceed the federal quality of care regulations.

Nursing home policy has been historically linked to welfare policy and the dissolution of the poorhouse (Morehouse & Jewell, 2005). Hypothesis 17 states that states with more stringent welfare requirements would be more likely to exceed the federal regulations for quality of care. However, as Table 4.12 shows, there were no significant differences between states of different policy stringency. States with mandatory reporting of elder abuse were also not more likely to exceed the federal regulations as states in Hypothesis 18. The model also explains very little of the variation in the dependent variable (Nagelkerke Pseudo R^2 = .073).

Table 4.12.

State Policy Model Logistic Regression

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
State Region (Eastern)	-.608	.923	.434	1	.510	.544
State Region (South)	-.683	.859	.633	1	.426	.505
State Region (Midwest)	-.659	.978	.454	1	.500	.517
AFDC/TANF Policy (Strong)	.740	.835	.785	1	.376	2.096
AFDC/TANF Policy (Weak)	.695	.784	.786	1	.375	2.004

Table 4.12.

State Policy Model Logistic Regression

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
% Contiguous Neighbors that Exceed	.015	.012	1.535	1	.215	1.015
Mandatory Reporting Elder Abuse	-.543	1.087	.250	1	.617	.581
Constant	.084	1.318	.004	1	.949	1.088

$R^2 = .073$

Summary of Original Models

Most of the variables utilized in the current study, which have been significant in

other state comparative studies, were not significant in predicting whether or not states

exceed the federal regulations for quality of care. None of the demographic, nursing

home industry, or state policy variables were significant predictors of whether or not

states exceed the federal regulations for quality of care. There does appear to be some

socioeconomic and political influence on nursing home quality of care regulations.

States with higher Medicaid payments per elder were more likely to exceed the federal

regulations for quality of care. States with Democratic governors in 2000 were less likely

to exceed the federal regulations for quality of care, however, this was in the opposite

direction than expected. States with traditionalistic political cultures may also be less

likely to exceed to federal regulations for quality of care.

Model of Best Fit

As described in Chapter 3, all of the variables that were significant in each of the

individual models were to be included together in a model of "best fit". Since so few

variables were significant, even at the $p \leq .10$ level, and other variables with the lowest p

values from each model were included in a model for analysis. These were also variables that showed more variation in the comparisons between the two groups of states. These included Medicaid payment rate per elder (p<.10), political culture (p≤.10), party control of the executive (p<.05), number of nursing homes (p=.445), percent minority population (p=.140), party control of the legislature (p=.148), and percent of contiguous that exceed federal regulations (p=.215). The model of best fit shows the results when the independent variables are entered together in the same model versus in their original individual models.

As can be seen from Table 4.13 below, party control of the executive again emerges as significant at the p≤.10 level indicating that states with Democratic governors decrease the odds by about 72% of exceeding the federal regulations. Once other demographic, political, and socioeconomic variables are controlled for, party control of the legislature is also significant with Democrat controlled state legislatures increasing the odds by about 13 times that they will exceed the federal regulations compared to Republican controlled legislatures. Percent minority population also emerges as significant with a one percent increase in minority population decreasing the odds of exceeding the federal regulations by 7.5%. This model of best fit explains about 35% of the variance in the dependent variable.

Table 4.13.

Model of Best Fit

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Medicaid Payment Rate per Elder	.080	.132	.373	1	.541	1.084
Political Culture (Traditionalistic)	-1.866	1.252	2.221	1	.136	.155

Table 4.13.

Model of Best Fit

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Political Culture (Moralistic)	-1.080	1.141	.897	1	.344	.399
Party Control of Executive (D)	-1.262	.765	2.722	1	.099*	.283
Party Control of Legislature (D)	2.6.34	1.291	4.165	1	.041**	13.93
Party Control of Legislature (Split)	.103	.939	.012	1	.913	1.108
Number of Nursing Homes	.001	.001	.646	1	.421	1.001
% Minority Population	-.078	.046	2.907	1	.088*	.925
% Contiguous Neighbors Exceed	-.002	.016	.012	1	.913	.998
Constant	1.756	3.003	.342	1	.559	5.790

$R^2=.346$, ** p<.05, *p<.10

Summary

The hypotheses for this study assumed that many different demographic, socioeconomic, nursing home industry, political, and state policy variables would predict whether or not states exceed the federal regulations for quality of care in order to address the research question *"What state level factors predict whether state regulations will exceed federal regulations regarding quality of care?"*. However, the results do not show much support for the stated hypothesis and shed very little light on the factors which

predict whether or not states exceed federal quality of care regulations. Unlike other state comparative studies and research on fiscal nursing home policy, nursing home industry and other state policy variables provide no significant predictive power for determining whether or not states exceed the federal quality of care regulations.

There does appear to be some minimal demographic, socioeconomic and political influence on whether or not states exceed the federal regulation for quality of care. In support of Hypothesis 6, states with a larger percentage minority population were less likely to exceed the federal regulations for quality of care as indicated in the model of best fit. In support of Hypothesis 9, Medicaid payment per elder is significant at both the bivariate and multivariate level. States with higher Medicaid payments per elder were more likely to exceed the federal regulations for quality of care in the individual socioeconomic model. Traditionalistic states were also less likely to exceed the federal quality of care regulations in the original political model. This was not in direct support of Hypothesis 14 which stated that moralistic states would be more likely to exceed the federal regulations. Medicaid payments per elder and political culture were not significant, however, when controlling for other state-level factors and combined with other variables in the model of best fit.

In the individual political model and the model of best fit, states with Democratic governors in 2000 were less likely to exceed the federal regulations for quality of care. However, this was the opposite of stated Hypothesis 12. In the model of best fit, states with Democrat-controlled legislatures in 2000 had much higher odds of exceeding the federal regulations for nursing home quality of care in support of Hypothesis 11. Nevertheless, it appears that much of difference between states that do and do not exceed

the federal quality of care regulations cannot be explained by any one of the individual study models. Further, much of the variance in the dependent variable remains unexplained even when several of the study variables are combined for analysis.

The next chapter places the results in the context of the existing literature including state comparative and nursing home research. The implications of the current study as well as study limitations of the study are discussed. Areas for future study are also identified.

CHAPTER V

CONCLUSION

Nursing home policy has evolved in the U.S. as an outgrowth of other policy

areas (i.e., poorhouses, Social Security, and welfare) and regulating nursing home care

has not been an easy task. "As the nursing home experience suggests, the more

engineering content there is to an activity, the easier it is to draw regulatory standards; the

more the activity resembles social work or individual counseling, the harder it is"

(Vladeck, 1980, p. 149). Yet, rarely has nursing home policy come to the forefront of the

national policy agenda or inspired social or political protest and advocacy. "Most

Americans know little about nursing homes, have little interest in knowing more, and

desperately want to avoid them" (Mor et al., 2004, p. 250). While state nursing home

regulations can meet or exceed the federal regulations there has been little if any attention

given as to how many states actually exceed the federal regulations, in what manner and

how those states might differ from other states that do not exceed quality of care

regulation in the research literature until the current study. Further, what factors might

predict whether or not states exceed the federal regulations on any aspect of nursing

home care, including quality of care has been previously unexplored.

Summary of Study Findings

In an attempt to answer the research question " "*What state level factors predict

whether state regulations will exceed federal regulations regarding quality of care?*", the

state quality of care regulations for all 50 states were examined and compared to the

federal quality of care regulations. Demographic, socioeconomic, nursing home industry,

political, and other state policy data were was also collected for each state. Bivariate

analyses were performed including correlations, cross-tabulations, and t-tests.

Multivariate analysis consisted of logistic regression to determine those variables under

study that would increase the odds of a state exceeding the federal quality of care

regulations. Logistic regression analyses were performed for each individual model and

then for variables that were significant or approached significance.

This study shows that indeed some states do exceed the federal quality of care

regulations while others do not explicitly address quality of care in their state regulations.

A total of 31 states exceeded the federal quality of care regulations in at least one area

and up to eight different areas. The most common areas exceeded were activities of daily

living, pressure sores, urinary incontinence and nutrition and hydration. These are among

the areas that are often identified as lingering problems for nursing homes and among the

most cited deficiencies during nursing home inspections (Wunderlich & Kohler, 2001;

OIG, 1999). This may reflect that fact that the "...history of nursing home regulation is

largely one of attempting to prevent in the future abuses discovered yesterday" (Vladeck,

1980, p. 256). Regardless, some states have apparently identified the need to further

regulate these problem areas and require more from staff and treatment services to

address these care issues.

The ways in which states exceed the federal regulations include requiring that

staff with specific credentials (LPN, RN, etc.) must perform the services or treatments

listed in that area. States may require a specific treatment or service be performed at a

specific frequency and/or that the result of treatments or services were documented or

reported to other staff. These might seem like subtle and inconsequential differences.

However, requiring these types of care may translate into better quality of care outcomes for patients. "Repositioning and turning of residents is usually performed by nurse assistants to prevent the development of decubiti [pressure sores]. However, assessment of skin condition is a professional nursing function that determines the risk for decubiti formation" (Munroe, 1990, p. 269). Nursing home quality has also been found to be higher when there is a higher ratio of registered nurses to less qualified staff (Munroe, 1990). Staff with advanced nursing credentials may be key to ensuring that regulatory standards are being met and may be an area for future study.

Prior studies have shown the influence of a wide range of state-level factors on other long-term care policy areas. While this study also incorporated several variables found significant in prior studies, only a few emerged as significant predictors of whether or not states exceed the federal quality of care regulations. Very few of the hypotheses were supported at the bivariate or multivariate levels and none of the original individual models explained a large amount of the variance in the dependent variable. Of the individual models, the political model explained the most variance ($R^2 = .216$). A model of best fit, which combined variables from each of the individual models explained more variation ($R^2 = .346$). A summary of each hypothesis is presented below.

H1: States with a greater percentage of nonprofit nursing homes will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 1 was not supported at either the bivariate or multivariate level with both groups of states having similar percentage of nonprofit nursing homes.

H2: States with a greater number of nursing homes will be less likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 2 was not supported at either the bivariate or multivariate level. States that exceed the federal regulations actually had a slightly larger average number of nursing homes (301) compared to states that do not exceed (269) although the difference is not statistically significant.

H3: States with smaller nursing homes will be more likely to have regulations that exceed the federal regulations for quality of care. Hypothesis 3 was largely unsupported. While states that exceed the federal regulation for quality of care had a slightly smaller average nursing home size (94.7 beds compared to 95.7 beds), that difference was not statistically significant.

H4: States with larger percentages of elderly ages 85 and older will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 4 was not supported at the bivariate or multivariate level with both groups of states having very similar percentages of elderly 85 years and older.

H5: States with larger percentage of women will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 5 was not supported with both groups of states having very similar percentages of women in the general population.

H6: States with a larger minority population will be less likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 6 was supported in the model of best fit with a one percent increase in

minority population decreasing the odds of exceeding the federal regulations by 7.5%.

H7: States with higher per capita income will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. There was no support for Hypothesis 7 with both groups of states having similar average per capita incomes.

H8: States with a larger percentage of elderly receiving Medicaid will be more likely to have regulations that exceed the federal regulations for quality of care. Hypothesis 8 was not supported at either the bivariate or multivariate level with both groups of states having similar percentage of elderly receiving Medicaid.

H9: States with higher Medicaid payments per elder will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 9 was supported at the bivariate and in the original multivariate model. States that exceed the federal regulations for quality of care have an average Medicaid payment per elder of $13,530 while states that do not exceed have an average payment rate of only $11,195. The average Medicaid payment rate per elder was also a significant predictor in the original socioeconomic model with an increase in $1000 in Medicaid payment per elder increasing the odds of state exceeding the federal quality of care regulations by 21%. However, this difference disappeared when controlling for other variables in the model of best fit.

H10: States with more liberal public opinion will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. While the

average public opinion ideology did lean more liberal in states that exceed the federal regulations for quality of care, that difference was not statistically significant at either the bivariate or multivariate levels.

H11: States where the Democratic party has control of the legislative branch will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 11 was not initially supported with the bivariate or the original political multivariate analysis. However, after controlling for other demographic, socioeconomic, and policy variables, the odds of exceeding the federal regulations are 13 times higher for Democratic-controlled legislatures.

H12: States where the Democratic party has control of the executive branch will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 12 was contradicted in the original political multivariate model and the model of best fit. After controlling for other variables, states with Democratic governors are actually less likely to exceed the federal regulations and decreased the odds of exceeding the federal regulations by 72%.

H13: States with a larger percentage of women in the legislature will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 13 was not supported as both groups of states had similar percentages of women in their legislatures.

H14: Moralistic states will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 14 was not

supported at either the bivariate or multivariate level. The original political model actually indicated that states with traditionalistic political cultures may be less likely to exceed the federal regulations (p=.104). However, this relationship disappeared in the model of best fit.

H15: States in the Northeast will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Hypothesis 15 was not supported and no regional variation was found between states that did and did not exceed the federal quality of care regulations.

H16: States with a greater percentage of contiguous neighbors with nursing home regulations that exceed the federal regulations for quality of care will also be more likely to have nursing home regulations that exceed the federal regulations for quality of care. While states that exceed the federal regulations for quality of care had slightly larger percentages of neighbors that also exceed the federal regulations (66.8% compared to 59.5%), this difference was not statistically significant giving little support for Hypothesis 16.

H17: States with more stringent AFDC/TANF requirements will be more likely to have state regulations that exceed the federal regulations for quality of care. The current study found no support for Hypothesis 17 at either the bivariate or multivariate level.

H18: States with mandatory reporting laws for elder abuse will be more likely to have nursing home regulations that exceed the federal regulations for quality of care. Both groups of states had similar percentages of states with mandatory reporting laws thus giving no support to Hypothesis 18.

Summary of Significant Findings

Socioeconomic factors such as higher per capita income have been linked to states with higher per capita long-term care expenditures (Miller, et al., 2002) as well as education spending and total state spending in general (Radcliff & Saiz, 1998). A larger percent of elderly receiving Medicaid has been linked to higher total long-term care expenditures (Kane et al., 1998) and higher Medicaid payment rates have been found in states with fewer nursing home violations (Payne & Gainey, 2004). Given that nursing homes are providing care for sicker and more disabled residents than in years past (Grabowski et al., 2004), it would be expected that Medicaid payments would increase over time to reflect the increase in costs for care.

This study found that states that exceed the federal regulations for quality of care did have higher Medicaid payments per elder in 2000. The average Medicaid payment per elder was more than $2,000 higher in states that exceed the federal regulations for quality of care. Medicaid payment per elder was significant at both the bivariate and multivariate level (original individual socioeconomic model) with a $1000 increase in Medicaid payments increasing the odds that a state would exceed the federal quality of care regulations by about 21%. Pearson's correlation analysis also showed that as the percentage of elderly 85 and older increases so does the Medicaid payment per elder. It is possible that these states that provide higher levels of Medicaid support are more cognizant of the costs of elder care, perhaps due to the percentages of elderly living in that state, and also the importance of regulating for quality of care in a nursing home setting. Since states have some discretion in establishing Medicaid reimbursement policies, higher payment rates may be reflective of greater commitment and capacity by

states to address long-term care needs. If so, it also supports the notion of Medicaid payment rates as a measure of government altruism as argued by Payne and Gainey (2004).

Political differences between states have shown to be influential in various policy areas including the current study. Public opinion ideology is positively correlated with the Medicaid payment rate per elder indicating that a more liberal public is also associated with higher Medicaid payments per elder. Democratic party leadership in general is often associated with more favorable or generous health care and welfare policies (Miller, 2005; Volden, 2002). The current study also found similar results as those states with Democrat-controlled legislatures increased the odds of exceeding the federal quality of care regulations by 13 times when combined with other socio-economic factors.

However, states with Democratic governors were much *less* likely to exceed the federal regulations for quality of care. Having a Democratic governor decreased the odds of exceeding the federal regulations by about 72%. This goes against the notion of Republicans as anti-regulation and likely to be allied with the nursing home industry which would also strive for fewer regulatory hurdles (Wiener & Stevenson, 1998). Republican or conservative support for nursing home care is not totally absent in the literature, however. Lockhart and Giles-Sims (2007) found similar results in their study which showed that liberal state predisposition was negatively related to nursing home total resource adequacy. The authors speculated that "...public officials in conservative states...near the top of the state nursing facility total resource adequacy scale may prefer to extend public benefits to elderly citizens needing long-term care than to impoverished

non-elderly persons" (Lockhart & Giles-Sims, 2007, p. 13-14). This may be further

supported by the fact that states with a higher percentage minority population were also

less likely to exceed the federal quality of care regulations – perhaps another distinction

between the worthy and unworthy poor (Katz, 1984; Holstein & Cole, 1996).

There is also some evidence of the elderly increasingly voting Republican with

many older voters shifting from the Democratic party to Republican in the 1980's

(Conway, 2000; Warren, 2008). In 1998, the elderly ages 75 and older were one of the

two groups most likely to identify themselves as Republican (Conway, 2000). Governors

may be acting as policy entrepreneurs in response to their elderly constituents. A policy

entrepreneur is "…a political leader with sufficient clout and skill [who] brings to bear

concentrated and persistent pressure for change in a venue where policy is made"

(Weissert, 2008, p. 320). At least at the national level, nursing home policy has had very

few policy entrepreneurs over the years but they are often critical to bringing about policy

reform (Weissert, 2008).

Political culture has also been a significant factor in access to nursing home care

with moralistic and individualistic states providing better access to nursing home care and

individualistic states having fewer nursing home violations (Amirkhanyan et al., 2008).

States with a traditionalistic culture were less likely to have quality of care regulations

that exceeded the federal regulations in the current study. Traditionalistic states

decreased the odds of exceeding the federal regulations by about 80% in the political

model. Given that states with a traditionalistic culture have historically constrained

decision making and political power to an established elite in order to maintain a

favorable social order, it seems reasonable that these states would be less likely to exceed

the federal regulations and thereby maintain the status quo without taking on "initiatory roles" in long-term care policy (Elazar, 1984, p. 119).

Summary of Other Findings

Other variables found to be significant in previous state comparative or nursing home studies were not found to play an explanatory role in the current study. Demographic factors such as age have shown to be significantly related to Medicaid spending on long-term care (Kane, et al., 1998). However, this study showed very little variation between states that do and do not exceed the federal regulations for quality of care in regards to age and gender in the general population. Neither of these variables were significant predictors of whether or not states exceed the federal quality of care regulations. This may indicate that the elderly and others affected by issues related to long-term care do not have the voice needed in order to influence state policy decisions regarding quality of care. "Those in institutions, or at greatest risk for institutionalization, are a small minority in the increasingly heterogeneous elderly population, the majority of whom are most concerned with social security benefits, property taxes, inflation, and crime" (Vladeck, 1980, p. 198).

Policy diffusion has been found in studies of nursing home resource allocation (Lockhart & Giles-Sims, 2007) and regional differences in welfare reform policies have also been documented (Breaux et al., 2007). States also differ in regards to mandatory reporting of elder abuse and TANF policy stringency. Given the historical link between nursing homes, welfare and the poor, it was thought that differences in these policy areas might also be related to differences in state regulations for quality of care. However, no regional differences were found in the current study and while states that exceeded the

federal quality of care regulations had a higher percentage of neighbors that also exceeded, that difference was not statistically significant. Further, there was not a significant difference in the percentage of states with mandatory reporting of elder abuse between the two groups nor in welfare policy stringency.

States were also very similar in terms of the make-up of their nursing home industry regardless of whether or not they exceeded the federal regulations. Both groups of states had very comparable percentages of nonprofit, profit, and government nursing homes and had similarly sized nursing homes. States that did exceed the federal regulations for quality of care had a higher average number of nursing homes than states that did not exceed, but again, this difference was not statistically significant. If there is indeed a strong nursing home lobby that is working to keep regulatory burden to a minimum, it is not represented by the mere numbers of for profit homes or the size of the state nursing home industry in and of itself.

Study Implications

This study aimed to answer the research question *"What state level factors predict whether state regulations will exceed federal regulations regarding quality of care?"*. This study is the first to examine the specific state regulations regarding quality of care, note the differences between the federal and state regulations, and try to identify the predictors of why states do or do not exceed the federal quality of care regulations. Despite the use of several different potential models and employing variables found significant in other state comparative policy studies, much of the variance between the two groups of states remains unexplained. It appears that the variables and theory needed

to explain differences in state nursing home policy may be different from other policy areas in terms of what factors affect policy outcomes and how they affect those outcomes. The model of best fit, which incorporated a variety of demographic, socioeconomic, political and other variables, explained the most variance at 34.6% although most of the individual variables were themselves not significant. Medicaid payment per elder, which was significant in the bivariate and the socioeconomic multivariate models, was not significant in this model of best fit nor was traditionalistic political culture. Party control of the legislative and executive branches appear to be rather consistent significant predictors. Race also emerged as significant when controlling for other socioeconomic and political variables.

It is possible given the results in the model of best fit that a combination of other state factors may drive differences in state nursing home regulation as compared to the federal regulations. Despite OBRA and other regulatory changes, problems with quality still exist. "Beneath the statistics are shocking human stories that periodically surface in the lay press and in reports by consumer watchdog organizations" (Harrington, et al., 2002, p. 322). It may be these unique circumstances that would vary greatly from state to state that influence state nursing home policies to differ from the federal regulations in specific areas. For example, Oklahoma's nursing home regulations have specific requirements for measuring resident's pain and providing pain management treatment and this came about through declaration of an emergency bill (Advisory Council on Pain Management, 2005). An Advisory Council on Pain Management was created and responsible for providing recommendations on pain management policies to the state legislature.

In addition, the Oklahoma Attorney General at this time was chair of the End-of-Life Health Care project of the National Association of Attorneys General as well as a state-level task force that appeared to be concerned with end of life issues including chronic pain (Myers, 2005). Oklahoma newspaper accounts also cited the fact that upwards of 40% of nursing home patients nationwide are suffering from chronic and untreated pain and that the changes in policy were derived to address this problem (Price, 2005). It therefore appears that Oklahoma had some influential state-level awareness and support for addressing pain issues in nursing homes that may have facilitated regulatory enhancements to nursing home quality of care. The efforts of the State Attorney General, perhaps acting as a policy entrepreneur, appear to have contributed to the issue of pain management making its way onto the public agenda.

Given the findings of the current study and how little is explained by the variety of variables included, how and why states differ from the federal regulations for quality of care may likely be unique to each state and possibly driven by critical events, policy entrepreneurs and the local context within the nursing home industry as in the case of Oklahoma. Those who argue for different regulatory models often point to the differences between states and how those differences should be reflected in regulatory approaches. "What is appropriate in Virginia will not necessarily be appropriate in New York; what is appropriate in up-state New York will not necessarily be appropriate in the Bronx and Brooklyn" (Day & Klein, 1987, p. 342). The lack of many significant findings in the current study may speak to the diversity of possible policy predictor variables and the impact of the state context on nursing home regulations.

It is important to point out that this study may imply that exceeding the federal regulations for quality of care is a desirable condition for state nursing homes. However, there is much discussion in the literature that *more stringent* regulation does not always mean *better* regulation nor does it necessarily translate into better conditions for nursing home residents. There is likely a point where the extra staff time and other resources needed to meet regulatory standards outweigh the possible sanctions for not meeting those standards and thus regulatory standards may not be upheld in daily practice (Braithwaite et al., 2007).

It has also been questioned whether or not quality can truly to be regulated. "Certain structural requirements can be imposed …but it is very difficult to define what constitutes even technical medical quality, much less the less tangible attributes of the 'caring' and decent treatment so important in long term care" (Nyman, 1987, p. 250). High quality care may, from a resident's point of view, be that which is provided in:

> …a clean and pleasant environment, in which the food is good, that there is plenty to do, assistance is readily given with dressing and bathing, people are nice to each other and respect each other's privacy and personal dignity, and good medical and nursing services are provided to those who need them. This may seem like a simple set of requirements, but in practice, it is not (Vladeck, 1980, p. 149).

While improvements have been seen in some areas following national level nursing home policy changes, such as the use of restraints, increased federal regulation has had questionable impact on the quality of nursing home care as a whole (Winzelberg, 2003; Walshe, 2001). Nursing home staff may be "…more focused on the hoops than on

the outcomes that jumping through them will achieve" (Braithwaite, et al., 2007, p. 43).

While documentation efforts have reportedly increased both on the part of nursing home staff and inspectors, little research has been done to see if improved documentation has resulted in improved quality of care (Braithwaite, et al., 2007). Nursing homes may also draft a new policy or require staff training as a result of some negative nursing home survey finding in order to avoid sanctions or being labeled as non-compliant. This ritualistic approach makes for "roller coaster nursing homes" when "...they make a few changes to come into compliance only to be found out of compliance again at the next survey because of their fundamental lack of commitment to regulatory goals" (Braithwaite et al., 2007, p.131).

Additionally, even if states do have policies that exceed those of the federal government, those policies may or may not be enforced in the annual inspection surveys or sanctioned in the same way from state to state or nursing home to nursing home (Hovey, 2000; Braithwaite, et al., 2007). So much is dictated by the culture of regulation for the state as whole and by the inspection team that enters a nursing home on any given day (Braithwaite, et al., 2007; Day & Klein, 1987). In fact, one reason why states may not differ drastically from the federal regulations is that the regulations themselves stifle innovation. "What may be a necessary rule for those not motivated or able to provide quality care, could be an obstacle to others seeking creative ways to improve the quality of care and life and autonomy of those using long-term care" (Wunderlich & Kohler, 2001, p. 139). Even those states that exceed federal quality of care regulations did so in an average of less than three areas out of a possible fourteen care areas. While these were not the specific issues of focus for the current study, it is necessary to mention this debate

surrounding nursing home regulation. The importance of identifying and evaluating regulatory standards that better protect residents and that help ensure quality care and quality of life cannot be understated as a goal for future nursing home regulatory research.

Limitations of the Current Study

There obviously are some variables which were not included in the study that could have some explanatory power. State population size, as a measure of fiscal and political ability, has been found to be influential in terms of differences in state environmental efforts (Bacot & Dawes, 1997). In fact, it may be that differences in state nursing home regulations are better explained in terms of state capacity and capability using measures related to staffing, spending and accountability as proposed by Bowman and Kearney (1988). Both Medicaid payment per elder and per capita income were positively correlated with the average size of nursing homes in a given state. Medicaid payments per elder may therefore be a measure of state capacity in regulating and providing nursing home care. Further, if more qualified nursing home staff is also critical to ensuring nursing home quality (Munroe, 1990), the ratio of registered nurses to nursing home patients aggregated to the state level may also be a measure of state capacity in the case of quality of care regulation.

Consumer activist groups have played a part in long-term care legislation such as the Nursing Home Reform Act (Wunderlich & Kohler, 2001). The most common advocacy program for nursing home residents is the state long-term care ombudsman program. State ombudsman programs are partially responsible for addressing individual

nursing home resident complaints and other issues (Wunderlich & Kohler, 2001). "They also help educate the public and facility staff on complaint filing, new laws governing facilities, and best practices used in improving quality of care and evaluating long-term care options" (Wunderlich & Kohler, 2001, p. 175). It may be that the size, strength, and available resources of state ombudsman programs are integral in bringing regulatory issues to the attention of state policy makers and influencing state nursing policy from the inside out.

Quality of care is only one of many areas covered by the federal regulations and may have been too narrow an area of focus as a dependent variable. If additional regulatory areas were included – such as residents' rights or quality of life - more variation between the two groups of states may have been discovered. Further, state comparative studies suffer from a small maximum number of cases (no more than 50 states) and thus statistical analysis may be limited from the outset (Goggin, 1986). While it may have been ideal to have a ratio-level dependent variable that may have captured more variation between states, the results did not bear out this way. The highest number of areas exceeded by states was eight and many states (19) did not exceed the federal regulations at all making a dichotomous variable the more valid measure to be used for analysis.

The inability to measure the historical course to changes in state nursing home regulations may have also been a factor in the limited significant results. Since it was largely difficult to tell exactly when a state most recently *changed* its regulations and in what areas changes were made (versus states simply *reviewing* the regulations in a given year and making no changes), the year 2000 was chosen as the year of reference when

collecting the independent variable data. While data such as per capita income and percent female population may not vary much year to year, other variables such as party control of the executive branch can change (from one party to another) in a matter of a year. If the specific year of change was able to be determined then variables such as party control would have been more accurately measured and perhaps produced different outcomes. However, it is unknown how much influence party of the governor, for example, would have over nursing home regulatory decisions versus other state policy areas. In some states, governors may act as policy entrepreneurs in regards to long-term care and in other states that might not be the case.

Thus, history was very likely a factor in that some incident(s) may have occurred during the time period under study that would influence the results (Babbie, 1992). While all 50 states were included in the study, critical events may have taken place that influenced states to make regulatory changes. The case of Oklahoma is a good example of how historical events and specific individuals, which were unmeasured by the current study, may have had significant influence on the dependent variable.

Recommendations for Future Research

Obviously, there is still much to be learned about how and why states differ in regards to quality care regulation. The lack of significant findings implies that nursing home regulatory policy is different from other policy areas explored in the state comparative literature. The results of this study infer that perhaps a quantitative approach is not totally suitable to understand differences between state and federal regulation even though a large proportion of state comparative studies rely on quantitative data and

methods (Lockhart & Giles-Sims, 2007; Miller, 2005; Soss et al., 2001; Carter & LaPlant, 1997). The case of Oklahoma speaks to other influential state-level factors that are not easily measured by existing data sources or by those captured by quantitative methods. Ingle et al. (2007), in their qualitative study of lottery adoption decisions in support of merit aid for higher education in the Southeast, argue as to the importance of using methods employed by other disciplines to capture differences between states and variations over time in policy diffusion. They argue "...that qualitative approaches represent an important tool for comparative state and innovation diffusion scholars...Qualitative research may be well suited to hone in on a set of explanations for the variation" (Ingle et al., 2007, p. 626). Interviews with key stakeholders in state nursing home regulatory agencies and ombudsman programs as well as possible policy entrepreneurs in those states that exceed the federal regulations for quality of care should be pursued to shed light on the decision making processes regarding quality of care. It is through this path that information about critical events and other state policy contexts may be discovered.

It appears that many of the variables that have been found to be significant for other state comparative policy studies do not have the same explanatory power for nursing home regulation. Another avenue to explore is the capability or capacity of state governments as related to nursing home regulation. Bowman and Kearney (1988) have developed measures to address state capacity and urge further study utilizing these measures in exploring state policy outputs. It may be that state capacity measures are better predictors of regulatory differences than some of the more traditional economic, demographic and political variables utilized in this study. It is unclear whether this

measure is a valid measure when applied to nursing home regulations but may be a possible area for future study.

This study does provide some initial information on which states exceed the federal quality of care regulations, in what areas they exceed, and how those states differ from other states that do not exceed the federal regulations. Those states that exceed the federal quality of care regulations do so most often in the areas where nursing homes have historically had quality of care problems – pressure sores, activities of daily living and urinary incontinence. States with higher Medicaid payments per elder increase the odds of exceeding the federal quality of care regulations while traditionalistic states decrease the odds in their respective models. States with a larger minority population also have decreased odds of exceeding the federal regulations after controlling for other variables. States with Democratic legislatures and Republican governors also increase the odds of exceeding the federal quality of care regulations. There is some political, demographic, and socioeconomic influence on whether or not states exceed the federal quality of care regulations. More work is needed, however, to discover other vital predictors for exceeding federal regulation requirements. Other studies suggest that the quality of care in a given state may be shaped by the local policy environment (Castle et al., 2005). Research that explores state differences in quality deficiencies or other indicators of quality care in relation to regulatory differences should therefore be considered.

It has been argued that the "new generation of elderly" may be wealthier, better educated, and more likely to advocate for themselves than past generations (Kodner, 1996). "The next generation of better-educated and more insistent elderly people will

also transform themselves from today's 'invisible' long-term care consumers to tomorrow's demanding long-term care customers" (Kodner, 1996, p. 281). This next generation may very well command more attention from politicians, nursing home regulators, and caregivers regarding long-term care. Therefore, the issues surrounding quality of care, regulatory challenges and differences at the state and national levels are likely to be areas of great concern for the next generation of elderly. This study offers some evidence about how to continue to investigate these issues.

REFERENCES

Administration on Aging. (2008). *A statistical profile of older Americans aged 65+.* Washington, DC: U.S. Department of Health and Human Services.

Administration on Aging. (2000). *Older Americans month 2000: In the new century...the future is aging.* Retrieved August 28, 2008, from Administration on Aging: http://www.aoa.gov/naic/may2000/factsheets/olderwomen.html.

Advisory Council on Pain Management, HB 2305. (2005). *Recommendations (Submitted to the Governor, President of Senate, and House Speaker).* Oklahoma.

Amirkhanyah, A. A., Kim, H. J., & Lambright, K. T. (2008). Does the public sector outperform the nonprofit and for-profit sectors? Evidence from a national panel study on nursing home quality and access. *Journal of Policy Analysis and Management, 27* (2), 326-353.

Arkansas Office of Long-Term Care, Rules and Regulations for Nursing Homes. §516.2.13 (2006).

Babbie, E. (1992). *The practice of social research; Sixth edition.* Belmont: Wadsworth Publishing Company.

Bacot, A., & Dawes, R. A. (1997). State expenditures and policy outcomes in environmental program management. *Policy Studies Journal, 25* (3), 355-370.

Berry, F. S., & Berry, W. D. (1990). State lottery adoptions as policy innovations: An event history analysis. *The American Political Science Review, 84* (2), 395-415.

Berry, W. D., Ringquist, E. J., Fording, R. C., & Hanson, R. L. (1998). Measuring citizen and government ideology in the American states. *American Journal of Political Science, 42* (1), 327-348.

Binstock, R. H., Cluff, L. E., & von Mering, O. (1996). Issues affecting the future of long-term care. In R. H. Binstock, L. Cluff, & O. von Mering, *The future of long-term care: Social and policy issues* (pp. 3-18). Baltimore: The John Hopkins University Press.

Bowman, A. O., & Kearney, R. C. (1988). Dimension of state government capacity. *Political Research Quarterly, 41*, 341-362.

Braithwaite, J., Makkai, T., & Braithwaite, V. (2007). *Regulating Aged Care.* Northampton: Edward Elgar Publishing, Inc.

Breaux, D. A., Morris, J. C., & Travis, R. (2007). Explaining welfare benefits in the South: A regional analysis. *The American Review of Politics, 28*, 1-18.

Caiazza, A. (2004). Does women's representation in elected office lead to women-friendly policy? Analysis of state-level data. *Women and Politics, 26* (1), 35-70.

Capitman, J., Leutz, W., Bishop, C., & Casler, R. (2005). *Long-term care quality: Historical overview and current initiatives.* Washington DC: National Commission for Quality Long-term Care.

Carter, L. E., & LaPlant, J. T. (1997). Diffusion of health care policy innovation in the United States. *State and Local Government Review, 29*, 17-26.

Castle, N. G. (2001). Citations and compliance with the Nursing Home Reform Act of 1987. *Journal of Health and Social Policy , 13* (1), 73-95.

Castle, N. G., Degenholtz, H., & Engberg, J. (2005). State variability in indicators of quality of care in nursing facilities. *Journal of Gerontology, 60A* (9), 1173-1179.

Center for American Women and Politics. (2001). *Women in state legislatures.* New Brunswick: Eagleton Institute of Politics, Rutgers University.

Centers for Medicare and Medicaid Services, Department of Health and Human Services, §483.25, (2005).

Chou, S.-Y. (2002). Asymmetric information, ownership and quality of care: An empirical analysis. *Journal of Health Care Economics, 21,* 293-311.

Conway, M. M. (2000). *Political participation in the U.S., 3rd Edition.* Washington DC: Congressional Quarterly, Inc.

Czajkowski, T. A. (2009, January). Registered Nurse. (T. Vandecar-Burdin, Interviewer).

Daly, J. M., & Jogerst, G. J. (2006). Nursing home statutes: Mistreatment definitions. *Journal of Elder Abuse and Neglect, 18* (1), 19-39.

Day, P., & Klein, R. (1987). The regulation of nursing homes: A comparative perspective. *The Milbank Quarterly, 65* (3), 303-347.

Denters, B., & Mossberger, K. (2006). Building blocks for a methodology for comparative urban political research. *Urban Affairs Review, 41* (4), 550-571.

Dohm, A. (2000). Gauging the labor force effects of retiring baby-boomers. *Monthly Labor Review, 123* (7), 17-25.

Dowd, S. B., & Durick, D. (1996). Elder abuse: The R.T.'s role in diagnosis and prevention. *Radiologic Technology, 68* (1), 23-28.

Dye, T. R. (1971). State legislative politics. In H. Jacob, & K. N. Vines, *Politics in the American states: A comparative analysis* (pp. 163-209). Boston: Little, Brown, and Company.

Elazar, D. J. (1984). *American federalism: A view from the states. Third Edition.* New York: Harper and Row.

Elwell, F. (1984). The effects of ownership on institutional services. *The Gerontologist, 24* (1), 77-84.

Erikson, R. S., Wright, G. C., & McIver, J. P. (1993). *Statehouse democracy: Public opinion and policy inthe American states.* New York: Cambridge University Press.

Erikson, R., Wright, G.C., & McIver, J.P. (2007). Measuring the public's ideological preferences in the 50 states: Survey responses versus roll call data. *State Politics and Policy Quarterly, 7* (2), 141-151.

Falcone, D., & Broyles, R. (1994). Access to long-term care: Race as a barrier. *Journal of Health Politics, Policy and Law, 19* (3), 583-595.

Fottler, M. D., Smith, H. L., & James, W. (1981). Profits and patient care quality in nursing homes: Are they comparable? *The Gerontologist, 21* (5), 532-538.

Goggin, M. L. (1986). The "too few cases/too many variables" problem in implementation research. *The Western Political Quarterly, 39* (2), 328-347.

Gottesman, L. E. (1974). Nursing home performance as related to resident traits, ownership, size, and source of payment. *American Journal of Public Health, 64* (3), 269-276.

Grabowksi, D. C., & Gruber, J. (2007). Moral hazard in nursing home use. *Journal of Health Economics, 26*, 560-577.

Grabowski, D. C., Feng, Z., Intrator, O., & Mor, V. (2004). Recent trends in state nursing home payment policies. *Health Affairs - Web Exclusive*, 363-373.

Gray, V. (1973). Innovation in the states: A diffusion study. *The American Political Science Review, 67* (4), 1174-1185.

Grogan, C. (2008). The medicalization of long-term care: Weighing the risks. In C. M. Mara, & L. K. Olson, *Handbook of long-term care administration and policy* (pp. 47-72). Boca Raton: CRC Press.

Harrington, C., Carrillo, H., & Blank, B. W. (2007). *Nursing facilities, staffing, and facility deficiencies, 2000 through 2006.* San Francisco: Department of Social and Behavioral Sciences, University of California.

Harrington, C., Woolhandler, S., Mullan, J., Carrillo, H., & Himmelstein, D. U. (2002). Does investor-ownership of nursing homes compromise the quality of care? *Internationl Journal of Health Services, 32* (2), 315-325.

Harris, D. K., & Benson, M. L. (2006). *Maltreatment of patients in nursing homes: There is no safe place.* Binghamton: The Haworth Pastoral Press.

Hawes, C. (2003). Elder Abuse in Residential Long-Term Care Settings: What is Known and What Information is Needed? In R. J. Bonnie, & R. B. Wallace, *Elder mistreatment: Abuse, neglect, and exploitation in an aging America* (pp. 446-500). Washington, DC: The National Academies Press.

Hawes, C. (1987). Nursing home reform and the politics of long-term care. *PS, 20* (2), 232-241.

Hays, S. P. (1996). Patterns of Reinvention: The nature of evolution during policy diffusion. *Policy Studies Journal, 24* (4), 551-566.

Holstein, M., & Cole, T. R. (1996). The evolution of long-term care in America. In R. H. Binstock, L. E. Cluff, & O. von Mering, *The future of long-term care: Social and policy issues* (pp. 19-48). Baltimore: The Johns Hopkins University Press.

Horowitz, A. (1985). Sons and daughters as caregivers to older parents: Diffferences in role performance and consequences. *The Gerontologist, 25* (6), 612-617.

Hovey, W. (2000). The worst of both worlds: Nursing home regulation in the United States. *Policy Studies Review, 17* (4), 43-59.

Ingle, W. K., Cohen-Vogel, L., & Hughes, R. (2007). The public policy process amongst southeastern states: Elaborating theories of regional adoption and hold-out behavior. *The Policy Studies Journal, 35* (4), 607-628.

Jacoby, W. G., & Schneider, S. K. (2001). Variability in state policy priorities: An empirical analysis. *The Journal of Politics, 63* (2), 544-568.

Jogerst, G., Daly, J., Dawson, J., Peek-Asa, C., & Schmuch, G. (2006). Iowa nursing home characteristics associated with reported abuse. *Journal of the American Medical Directors Association* , 2003-2007.

Kaiser Family Foundation. (2005). *Kaiser State Health Facts*. Retrieved October 19, 2008, from Total Medicaid Enrollment, FY2005: http://wwwstatehealthfacts.org.

Kane, R. L., Kane, R. A., Ladd, R. C., & Veazie, W. N. (1998). Variation in state spending for long-term care: Factors associated with more balanced systems. *Journal of Health Politics, 23* (2), 363-389.

Kansas Department on Aging, Statutes and Regulations for the Licensure and Operation of Nursing Facilities §28-39-152 (1999).

Katz, M. B. (1984). Poorhouses and the origins of the public old age home. *The Milbank Memorial Fund Quarterly, 62* (1), 110-140.

Kodner, D. L. (1996). Foreseeing the future of long-term care: The highlights and Implications of a Delphi study. In R. H. Binstock, L. E. Clluff, & O. V. Mering, *The future of long-term care: Social and policy issues* (pp. 275-292). Baltimore: Johns Hopkins University Press.

Lammers, W. W., & Liebig, P. S. (1990). State health policies, federalism, and the elderly. *Publius, 20* (3), 131-148.

Levit, K., Smith, C., Cowan, C., Lazenby, H., Sensenig, A., & Catlin, A. (2003). Trends in U.S. health care spending, 2001. *Health Affairs, 22* (1), 154-164.

Liu, D., & Castle, N. G. (2005). Have facilities changed their Nursing Home Compare quality measure scores over time? *Long-Term Care Interface, 6* (11), 21-34.

Lockhart, C., & Giles-Sims, J. (2007). Cross-state variation in conceptions of quality of nursing facility long-term care for the elderly. *Journal of Aging and Social Policy, 19* (4), 1-19.

Mara, C. M. (2008). History, Concepts, and Overview. In C. M. Mara, & L. K. Olson, *Handbook of long-term care administration and policy* (pp. 3-18). Boca Raton: CRC Press.

Mead, L. M. (2004). State political culture and welfare reform. *The Policy Studies Journal, 32* (2), 271-296.

Mertler, C. A., & Vannatta, R. A. (2005). *Advanced and multivariate statistical methods: Practical application and interpretation, 3rd Edition.* Glendale: Pyrczak Publishing.

Miller, E. A. (2005). State health policy making determinants, theory, and methods: A synthesis. *Social Science and Medicine, 61*, 2639-2657.

Miller, N. A., Harrington, C., Ramsland, S., & Goldstein, E. (2002). State policy choices and Medicaid long-term care expenditures. *Ressearch on Aging, 24*, 413-444.

Minnesota Department of Health, Chapter 4658 §4658.0525 (2005).

Minority Staff of the House Committee on Government Reform. (2001). *Abuse of residents is a major problem in U.S. nursing homes.* Washington, DC: House of Representatives.

Mitty, E. (2001). *Encyclopedia of aging, Third edition.* New York: Spring Publishing Co.

Mooney, C. Z. (2001). Regional effects on state policy diffusion. *Political Research Quarterly, 54* (1), 103-124.

Mor, V., Zinn, J., Angelelli, J., Teno, J. M., & Miller, S. C. (2004). Driven to tiers: Socioeconomic and racial disparities in the quality of nursing home care. *The Milbank Quarterly, 82* (2), 227-256.

Morehouse, S. M., & Jewell, M. E. (2003). *State politics, parties, and policy.* Lanham: Rowman and Littlefield Publishers, Inc.

Morris, J. C., Lombard, J. R., & Greentree, V. W. (2009). An analysis of the determinants of state reproductive health care policies: Ideology, party competition, and political culture. *Presented at the 2009 Meetings of the Midwest Political Science Association.* Chicago, IL.

Mui, A. C. (1995). Caring for frail elderly parents: A comparison of adult sons and daughters. *The Gerontologist, 35* (1), 86-93.

Munroe, D. J. (1990). The influence of registered nurse staffing on the quality of nursing home care. *Research in Nursing and Health, 13*, 263-270.

Myers, J. (2005, September 10). Doctor scrutiny a pain, AG says. *Tulsa World* , pp. A13, A15.

National Centers for Health Care Statistics. (2004). *National Nursing Home Survey.* Retrieved June 2008, from National Center for Health Care Statistics - Monitoring the Nation's Health: National Centers for Health Care Statistics

Nyman, J. A. (1987). Improving the quality of nursing homes: Regulation or competition? *Journal of Policy Analysis and Management , 6* (2), 247-251.

Office of the Inspector General . (1999). *Quality of care in nursing homes: An overview.* New York: Department of Health and Human Services.

Osborne, D., & Gaebler, T. (1992). *Reinventing government: How the entrepreneurial spirit is transforming the public sector.* New York: Penguin Books USA Inc.

Palmer, R. H., Donabedian, A., & Povar, G. J. (1991). *Striving for quality in health care: An inquiry into policy and practice.* Ann Arbor: Health Administration Press.

Paxton, P. (1997). Women in national legislatures: A cross-national analysis. *Social Science Research , 26,* 442-464.

Payne, B. K., & Gainey, R. R. (2004). Social and government altruism, deterrence theory, and nursing hom regulatory violations: A state-level analysis. *Journal of Crime and Justice, 27* (2), 59-78.

Price, M. (2005, September 16). Agency stiffens pain-control rules. *Tulsa World* , p. A13.

Radcliff, B., & Saiz, M. (1998). Labor organizations and public policy in the American states. *The Journal of Politics, 60* (1), 113-125.

Roby, J., & Sullivan, R. (2000). Adult protection service laws: A comparison of state statutes from defintion to case closure. *Journal of Elder Abuse and Neglect , 12* (3/4), 17-51.

Rule, W. (1981). Why women don't run: The critical contextual factors in women's legislative recruitment. *The Western Political Quarterly , 34* (1), 60-77.

Sainfort, F., Ramsay, J. D., & Monato Jr, H. (1995). Conceptual and methodological sources of variation in the measurement of nursing facility quality: An evaluation of 24 models and an empirical study. *Medical Care Research Review, 52,* 60-87.

Schell, E. (1993). The origins of geriatric nursing: The chronically ill elderly in almshouses and nursing homes, 1900-1950. *Nursing History Review, 1,* 203-216.

Schlesinger, M., & Heldman, C. (2001). Gender gap or gender gaps? New perspectives on support for government action and policies. *The Journal of Politics, 63* (1), 59-92.

Shapiro, R. Y., & Mahajan, H. (1986). Gender differences in policy preferences: A summary of trends from 1960's and the 1980's. *Public Opinion Quarterly, 50,* 42-61.

Sharkansky, I., & Hofferbert, R. I. (1971). Dimensions of state policy. In H. Jacob, & K. N. Vines, *Politics in the American states: A comparative analysis* (pp. 315-353). Boston: Little, Brown, and Company.

Soss, J., Schram, S. F., Vartanian, T. P., & O'Brien, E. (2001). Setting the terms of relief: Explaining state policy choices in the devolution revolution. *American Journal of Political Science, 45* (2), 378-395.

Sparer, M. S. (1993). States in a reformed health system: Lessons from nursing home policy. *Health Affairs, Spring,* 7-20.

Stemkowski, S. A., & Brandon, W. P. (2008). Public financing of long-term care. In C. M. Mara, & L. K. Olson, *Handbook of long-term care administration and policy* (pp. 387-414). Boca Raton: CRC Press.

Stone, R., Cafferata, G. L., & Sangl, J. (1987). Caregivers of the frail elderly: A national profile. *The Gerontologist, 27* (5), 616-626.

Subcommittee on Long-Term Care. (1974). *Nursing home care in the United States: Failure in public policy.* Washington DC: U.S. Government Printing Office.

Swan, J. H., Harrington, C., de Wit, S. K., & Zhong, M. (1997). State-imposed limits on Medicaid reimbursement for nursing facility care. *American Journal of Public Health, 87* (7), 1211-1213.

Swan, J. H., Harrington, C., & Pickard, R. B. (2001). Explaining state Medicaid nursing home reimbursement. *Journal of Health and Social Policy, 12* (4), 53-73.

Tucker, H. J. (1982). It's about time: The use of time in cross-sectional state policy research. *American Journal of Political Science, 26* (1), 176-196.

University of Minnesota. (2008, December). *NH Regulations Plus.* Retrieved 2008, from http://www.hpm.umn.edu/nhregsPlus/index.htm

U.S. Census Bureau. (2006). *American FactFinder.* Retrieved June 26, 2008, from United States - Population 65 Years and Over in the United States.

U.S. Census Bureau. (n.d.). *Census Regions and Devisions of the United States.* Retrieved November 16, 2008, from www.census.gov/geo/www/us_regdiv.pdf

Unruh, L., & Wan, T. T. (2004). A systems framework for evaluating nursing care quality in nursing homes. *Journal of Medical Systems, 28* (2), 197-214.

Vaca, K. J., Vaca, B. L., & Daake, C. J. (1998). Review of nursing home regulations. *MedSurg Nursing*, *7* (3), 165-170.

Vladeck, B. C. (1980). *Unloving care: The nursing home tragedy.* New York: Basic Books, Inc.

Volden, C. (2006). States as policy laboratories: Emulating success in the children's health insurance program. *American Journal of Political Science, 50* (2), 294-312.

Volden, C. (2002). The politics of competitive federalism: A race to the bottom in welfare benefits? *American Journal of Poltical Science, 46* (2), 352-363.

Wallace, S. P. (1990). Race versus class in the health care of African-American elderly. *Social Problems, 37* (4), 517-534.

Walshe, K. (2001). Regulating U.S. nursing homes: Are we learning from experience? *Health Affairs, 20* (6), 128-144.

Warren, K. F. (2008). *Encyclopedia of U.S. campaigns, elections and electoral behavior.* Thousands Oaks, CA: Sage Publications, Inc.

Weissert, W. (2008). Long-Term Care Politics and Policy. In C. M. Mara, & L. K. Olson, *Handbook of long-term care administration and policy* (pp. 319-362). Boca Raton: CRC Press.

Wiener, J. M., & Stevenson, D. G. (1998). State policy on long-term care for the elderly. *Health Affair, 17* (3), 81-100.

Wiggins, C. W., Hamm, K. E., & Bell, C. G. (1992). Interest-group and party influence agents in the legislative process: A comparative state analysis. *The Journal of Politics, 54* (1), 82-100.

Winzelberg, G. S. (2003). The quest for nursing home quality: Learning history's lessons. *Archive of Internal Medicin , 163* (21), 2552-2556.

Wright Jr, G. C., Erikson, R. S., & McIver, J. P. (1987). Public opinion and policy liberalism in the American states. *American Journal of Political Science, 31* (4), 980-1001.

Wunderlich, G. S., & Kohler, P. O. (2001). *Improving the quality of long-term care.* Washington DC: National Academy Press.

Zinn, J., Spector, W., Hsieh, L., & Mukamel, D. B. (2005). Do trends in the reporting of quality measures on the Nursing Home Compare web site differ by nursing home characteristics. *The Gerontologist, 45* (6), 720-730.

Table 4.14. Correlations Between Independent Ratio-Level Variables

	% Nonprofit Nursing Homes	% Profit Nursing Homes	% Government Nursing Homes	Average Nursing Home Size	Number of Nursing Homes	% Population 85+	% Female Population
%Nonprofit Nursing Homes	1.00	-.885**	.136	-.111	-.142	.270	-.211
% Profit Nursing Homes		1.00	-.581**	.265	.292*	-.064	.445**
% Government Nursing Homes			1.00	-.371**	-.375**	-.338*	-.578*
Average Nursing Home Size				1.00	.356*	.008	.531**
Number of Nursing Homes					1.00	.093	.260
% Population 85+						1.00	.462**
% Minority Population	-.172	.100	.088	.270	.128	-.437**	-.021
Per Capita Income	.129	-.049	-.120	.474**	.194	-.108	.071
% Elderly Receiving Medicaid	-.165	.159	-.049	-.046	.085	-.186	.192
Medicaid Payment per Elder	.384**	-.327*	.026	.282*	.005	.364**	.221
Public Opinion Ideology	.100	-.026	-.117	.334*	.062	.026	.149
% Contiguous Neighbors Exceed	-.088	.226	-.328*	.067	.062	.026	.183

	% Nonprofit Nursing Homes	% Profit Nursing Homes	% Government Nursing Homes	Average Nursing Home Size	Number of Nursing Homes	% Population 85+	% Female Population
% Women in the Legislature	.036	-.029	-.001	-.058	-.118	-.053	-.311*

*Correlation significant at .05 level, **Correlation significant at .01 level

Table 4.14 Continued

	% Minority Population	Per Capita Income	% Elderly Receiving Medicaid	Medicaid Payment per Elder	Public Opinion Ideology	% Contiguous Neighbors Exceed	% Women in the Legislature
% Minority Population	1.00	.135	.236	-.355*	.091	-.445**	-.165
Per Capita Income		1.00	-.181	.497**	.722**	.101	.448**
% Elderly Receiving Medicaid			1.00	-.349*	-.029	-.187	-.321*
Medicaid Payment per Elder				1.00	.370**	.220	.218
Public Opinion Ideology					1.00	-.027	.519**
% Contiguous Neighbors Exceed						1.00	.206
							1.00

*Correlation significant at .05 level, **Correlation significant at .01 level

Coding Sheet

State: _____

Q1. State regs have QOC section?	☐ Yes	☐ No
Q1b. Other areas in which state regs exceed federal regs per NH Regs Plus?	☐ Yes # _____	☐ No
Q2. States regs exceed federal regs?	☐ Yes	☐ No
Q2a. Activities of daily living?	☐ Yes # _____	☐ No
Q2b. Vision and hearing?	☐ Yes # _____	☐ No
Q2c. Pressure sores?	☐ Yes # _____	☐ No
Q2d. Urinary incontinence?	☐ Yes # _____	☐ No
Q2e. Range of motion?	☐ Yes # _____	☐ No
Q2f. Mental and psychosocial functioning?	☐ Yes # _____	☐ No
Q2g. Nasogastric tubes?	☐ Yes # _____	☐ No
Q2h. Accidents?	☐ Yes # _____	☐ No

Q2i. Nutrition?	□ Yes □ No # _____
Q2j. Hydration?	□ Yes □ No # _____
Q2k. Special needs?	□ Yes □ No # _____
Q2l. Unnecessary drugs?	□ Yes □ No # _____
Q2m. Medication errors?	□ Yes □ No # _____
Q2n. Influenza and pneumococcal immunizations?	□ Yes □ No # _____
Q2other. Other areas not in federal regs?	□ Yes □ No # _____
Q3Total. Total number of areas state regs exceed federal regs.	# _____
Q4. Year of QOC/most recent change/amendment	Year:
Q5. Ownership of nursing homes Source:	_____ % nonprofit _____ % profit _____ % gov't
Q6. Average nursing home size Source:	_____ # of beds
Q7. Number of nursing homes Source:	_____ #

Q8. Percent population 85+ Source:	_____ %
Q9. Percent female population Source:	_____ %
Q10. Percent minority Source:	_____ %
Q11. Per capita income Source:	$_____
Q12. Percent elderly receiving Medicaid Source:	_____ %
Q13. Medicaid reimbursement rate Source:	$_____
Q14. Public opinion ideology Source:	_____ # (-100 to 0 to +100)
Q15. Party control legislative branch Source:	□ Republican (0) □ Democrat (1)
Q16. Party control executive branch Source:	□ Republican (0) □ Democrat (1)
Q17. Percent of women in the legislature Source:	_____ %
Q18. Political culture Source:	□ Individualistic (0) □ Moralistic (1) □ Traditionalistic (0)
Q19. State region Source:	□ Eastern (1) □ Southern (0) □ Midwest (0) □ West (0)
Q20. Percent of contiguous neighbors which exceed federal regs Source:	_____ %
Q21. AFDC/TANF policy stringency Source:	□ Strong (1) □ Moderate (0) □ Weak (0)
Q22. Mandatory reporting of elder abuse Source:	□ Yes □ No

Coding for State Region

Taken from The Council of State Governments: <u>www.csg.org</u>

<u>Eastern Region:</u>

Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York,

Pennsylvania, Rhode Island, Vermont

<u>Midwestern Region:</u>

Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, North Dakota, Ohio,

South Dakota, Wisconsin

<u>Southern Region:</u>

Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi,

Missouri, North Carolina, Oklahoma, South Carolina, Texas, Tennessee, Virginia, West

Virginia

<u>Western Region:</u>

Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico,

Oregon, Utah, Washington, Wyoming

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Presentations:

Plichta S.B., T. Vandecar, S. Tiraphat, and C. Houseman, 2005. Rape Victims: Are Primary Care Practices Prepared? *Presented at the 133rd Annual meeting of the American Public Health Association*, Philadelphia, PA.

Camarena, M. and T.J. Vandecar-Burdin, 2005. "Before You Seek Funding: Defining Community Needs." *Presented as part of the Collaborating to Fund Literacy in Hampton Roads Series.* Sponsored by the Hampton Roads Literacy Partnership, Norfolk, VA.

Vandecar-Burdin, T.J. and C. Barbosa, September, 2004. "Preliminary Report of Findings From the VDH Sexual Assault Study." *Presented to the Virginia Sexual Assault Advisory Committee, Richmond, VA.*

Wilson-John, W. and T.J. Vandecar-Burdin. 2003. "Creating Connections with Part C Data: iTOTS Report Demonstration and Training." *Second Annual Infant and Toddler Connection of Virginia Conference,* Roanoke, VA.

Vandecar, T.J. and R.R. Gainey. November, 1997. "The Impact of Legal and Extra-Legal Factors on Sentencing Outcomes." *American Society of Criminology*, San Diego, CA.

Vandecar, T.J. and J.A. Nolan. November 1997. "Bailing Out of Bonds: The Effect of Victim/Offender Relationships and Other Factors in the Setting of Bail." *American Society of Criminology,* San Diego, CA.

Publications and Reports:
Chappell, Allison, T., Mona J.E. Danner, Tancy Vandecar-Burdin (2008). Chesapeake Police Department Community-Police Satisfaction Survey, Summer 2008. Submitted to the Chesapeake Police Department.

Vandecar-Burdin, Tancy J., "Victimization", in The Blackwell Encyclopedia of Sociology, ed. G. Ritzer (Oxford: Blackwell Publishing, 2007), vol 10:5189-5191.

Payne, Brian, Dianne Cyr Carmody, Stacey Plichta, Tancy Vandecar-Burdin (2007). Domestic Violence Training Policies: Their Influence on Training Participation and Awareness. *Affilia: Journal of Women and Social Work* 22:292-301.

Plichta, Stacey, Tancy Vandecar-Burdin, Rebecca Odor, Shani Reams, Y. Zhang. (2006). The Emergency Department and Victims of Sexual Violence: An Assessment of Preparedness to Help. *Journal of Health and Human Services Administration* Winter: 285-308.

Payne, Brian. K., Dianne Carmody, Stacey Plichta, Tancy Vandecar-Burdin, Gina Respass, Kara Hoofnaggle (2005). Domestic Violence Training Needs in the Commonwealth of Virginia: Results of a Needs Assessment. Submitted to the Virginia Institute of Social Services Training Activities.

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Magistrate, Fourth Judicial District, 811 E. City Hall Avenue, Room 109, Norfolk, VA, 1997-1998.

Teaching Experience:
Instructor. Old Dominion University, Department of Sociology and Criminal Justice, 1998-1999. Taught: Introduction to Criminology (1998-1999) & Criminal Justice Systems (1998).

Applied Research and Computer Skills:

Computer Skills:	Research Skills:
SPSS	Survey construction & administration
Interviewer (CATI)	Data management
Microsoft Office	Data analysis
Teleform (scannable forms)	Focus group moderation
Inquisite (web survey)	Program evaluation