# Assessing the Impacts of Political Factors on Nursing Home Regulation

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*This study draws on pertinent literature that includes theories of public administration relating to federalism, intergovernmental relations, and the role of public administrators in the policymaking process, to systematically assess the influence of political factors, oversight, and affiliation/ownership status of nursing facilities on the nursing home regulatory regime inaugurated by the Nursing Home Reform Act of 1987 and its progeny. Specifically, it measures, using regression analysis, variables that account for variations nationwide in the citation of deficiencies for violation of nursing home regulations. Previous studies have speculated on the possible influence of political considerations in citation of deficiencies across states. Our study takes the scholarship one level higher by actually testing the influence of political and other factors on the citation of deficiencies by state inspectors. Our efforts yielded several fruitful findings: (1) we are able to confirm definitively that political factors play an important role in the differences observed across the states in the citation of deficiencies by inspectors; (2) some of our findings are statistically significant, although those findings also uncovered a puzzling result regarding for-profit chains that we attribute to underreporting of deficiencies; and (3) our independent variables accounted for nearly 52 percent of the variance in our dependent variable, a figure deemed respectably high in social science research.*

## I. Introduction and Purpose of Study

Nursing homes are places of residence for persons who require constant nursing home care or have problems coping with activities of daily living because of certain disabling conditions. They are a common technique for delivering long-term care in the U.S. and other industrialized countries (Van Nostrand, Clark and Romoren 1993). Residents of these homes include the elderly (usually individuals 65 years and above) and younger adults with physical or mental disabilities. As the nation's population grays (Schmidt, Shelly and Bardes 2005), more and more Americans are residing in these homes. In 2009, more than 3.2 million people lived in the nation's 16,000 nursing homes (General Accounting Office 2009a; 2009b; Centers for Medicare and Medicaid Services 2009). This trend is expected to increase, beginning from 2011, when the first set of "baby boomers," persons born in 1946, turn 65 and become senior citizens.

This study analyzes the influence of political factors, oversight, and nursing home affiliation or ownership status on enforcement of the nursing home regulatory regime signified by the Nursing Home Reform Act (NHRA)[1] and its progeny. Specifically, it measures, using regression analysis, factors that account for variations across states in the number of deficiencies (or violations of quality nursing home care) cited by nursing home inspectors across the states under the nursing home regulatory regime. Our database comprised a sample of 463 cases, drawn from 49 out of 50 U.S. states, excluding Nebraska, which has a unicameral legislature. Altogether, we tested six hypotheses.

Since its enactment in 1987, government agencies like the U.S. Department of Health and Human Services (DHHS) and the Government Accountability Office (GAO), at the behest of the U.S. Senate, have published tons of volumes that have evaluated the inspection system introduced by the NHRA.[2] The authors of this study are political scientists and one of us cut her research teeth analyzing enforcement of nursing home regulations. This work is the first of its kind, not commissioned by the GAO or related government agency, by public administration scholars that systematically studies the influence of political forces on the installation and denouement of the inspection regime ushered in by the NHRA and its progeny.

The paper is organized as follows. Sections II to IV deal with preliminary or threshold issues that, because of the framing context they provide, are necessary for completion and proper understanding of the research. Section II consists of a discussion on the NHRA, a tool of reform and major element in the regime of nursing regulation in the U.S. Section III presents an overview of the nursing home inspection system. It also, helpfully, clarifies the national government's participation in an issue area which, under the

[1] Because it was passed as part of the Omnibus Budget Reconciliation Act (OBRA), NHRA is somtimes referred to as OBRA. The acronym we choose to use in this study is NHRA.

[2] Some of the numerous studies conducted on this topic in the aftermath of the NHRA include *Nursing Homes: Sustained Efforts Are Essential to Realize Potential of the Quality Initiatives* (2000b); *Nursing Homes: Additional Steps Needed to Strengthen Enforcement of Federal Quality Standards* (1999); *Nursing Home Care: Enhanced HCFA Oversight of State Programs Would Better Ensure Quality* (2000a); *Nursing Homes: Complaint Investigation Processes Often Inadequate to Protect Residents* (1999); *California Nursing Homes: Care Problems Persist Despite Federal and State Oversight (1998)*.

allocation of powers in the U.S. federal system,[3] is a state function. Section IV delves into a discussion regarding the role of administrators in the policymaking process. The presentation justifies our focus on "political factors" in an era of American public administration marked by extensive involvement of public administrators in public policy (not the fiction in the past that claims to separate politics and administration) as well as contributes another angle to the literature that we review in Section V. Section V presents a review of the literature pertinent to this topic. Section VI unveils the definitions and operationalization of key terms in the study. Section VII presents the hypotheses for this study and the assumptions underlying those hypotheses. Section VIII discusses the methodology of the work, while Section IX presents the results of this study and our analysis of those findings.

**II. The Nursing Home Reform Act (NHRA) of 1987**

Signed into law in 1987 by President Ronald Reagan, the NHRA marked the first major overhaul of the national standards for nursing home care since the amendments in 1965 of the Social Security Act that created the Medicare and Medicaid programs.[4] From both legal and policy standpoints, it is a critical element in the regime of nursing home care regulation in the U.S. Under this law, nursing homes applying for certification to participate in the Medicare or Medicaid programs were to provide services designed to ensure that each resident attained and maintained the "highest practicable physical, mental, and psycho-social well-being" (NHRA 1987). This condition, in the most practical terms, guarantees to nursing residents freedom from abuse, mistreatment, neglect, and misappropriation of money and other properties.

A premise underlying the passage of the NHRA is that nursing homes residents do not surrender their rights to protection from acts, such as neglect, abuse, and loss of their belongings, made criminal offenses under this law, when they enter a nursing facility. Specifically, in enacting the NHRA, the U.S. government had three major goals in mind. The first was to establish nationwide standards for quality of care in nursing homes throughout the U.S. A second goal, related to the first, was to establish consistent procedures for the certification process that will determine if and to what extent nursing homes are meeting those standards of quality care. The NHRA requires states to conduct periodic unpublicized inspections of nursing homes that include resident interviews at least once every fifteen months. These inspections were to focus on the overall quality of care, quality of life, and quality of services provided to residents in nursing homes. The third goal was to design a formal program to guarantee and monitor basic rights for nursing home residents. Besides freedom from abuse, mistreatment, and neglect, these rights include freedom from physi-

[3] Because the states are a necessary integral component of the U.S. federal system, to minimize confusion, as much as possible we use the term *national government* (rather than federal government) to refer to the U.S. central government.

[4] The Social Security Act, the cornerstone of the modern American welfare state, was signed into law by President Franklin D. Roosevelt on August 14, 1935. Medicare is a health insurance program for senior citizens aged 65 and older. Medicaid is the nation's main program used to provide health care to Americans with low incomes. In March 2010, the U.S. government, under Barack Obama, adopted yet another overhaul of the health care system that affected these two programs.

cal restraints; the right to be treated with dignity; the right to exercise self-determination; the right to privacy; the right to accommodation of medical, physical, psychological, and social needs; the right to participate in resident and family groups; the right to participate in the review of one's care plan, and to be fully informed in advance about any changes in care, treatment, or change of status in the facility; and the right to voice grievances without discrimination or reprisal, among others (Blackburn and Dulmus 2007).

Disconcerting stories of widespread lapses in nursing home care across the nation predated and gave rise to the passage of the NHRA in 1987. For example, as early as 1974, one analyst wrote a book on tender loving-greed, which work detailed how the nursing home industry was exploiting America's old people (Mendelson 1974). Subsequently, in 1986, the Institute of Medicine conducted a study, at Congress's urging, that turned up incidents of low-quality care to nursing home residents, including abuse and neglect; the report embodied recommendations for "improving the quality of care in nursing homes" (Institute of Medicine 1986). An occurrence that could have helped to frame these detailing of problems and accompanying suggestions for change appeared to have been a statement made in May of 1975 by the Commissioner of the Administration on Aging, which instructively portrayed residents of nursing homes as "powerless" (Ombudsmen Program History 2010). The official first observed that the U.S. "has been conducting investigations, passing new laws, and issuing new regulations relative to nursing homes at a rapid rate during the past few years" (Ibid.). However, "[a]ll of this activity will be of little avail unless our communities are organized in such a manner that new laws and regulations are utilized to deal with the individual complaints of older people who are living in nursing homes[,]" given that "[t]he individual in the nursing home is powerless" (Ibid.). The commissioner then poignantly closed with the notation that "[i]f the laws and regulations are not being applied to [nursing home residents], they might just as well not have been passed or issued" (Ibid.).

Tremendous progress in promoting access to better-quality care for residents in nursing facilities across the country has been made in the more than two decades since the passage of the NHRA (U.S. Senate Special Committee on Aging 2010). Of the range of seven sanctions for violations summarized in Table 1 of this article that exists today, only two, namely denial of payments and terminations, were in place before the enactment of the NHRA.

Despite these advances, much still remains to be done to meet the target of services for residents that meets their "highest practicable physical, mental, and psycho-social well-being." For example, in 1998, the Senate Special Committee on Aging held hearings to investigate reports of widespread death and suffering caused by inadequate staffing and quality of care in nursing home facilities across the nation (Healthcare Professions Delivery Systems 2010). Findings of studies conducted in California showed that 30 percent of nursing homes in that state had violations of standards that subjected residents to actual harm or put them in jeopardy of serious injury (Ibid.). Elsewhere in the country, 33 percent of nursing homes demonstrated substandard conditions, with only 2 percent actually meeting quality standards (Ibid.). These deficiencies prompted the Clinton administration to announce a Nursing Home Initiative, aimed at improving *enforcement* of nursing home quality standards (Hoovey 2000). To achieve this goal, the national government unveiled several steps that included inspection of nursing homes at random times, including weekends and evenings; targeting of repeat offenders with serious violations for frequent follow-up inspections; termination of federal

**Table 1. Enforcement Sanctions**

| Sanctions | Description | In Place Before NHRA | Added or Expanded Under NHRA |
|---|---|---|---|
| Civil Monetary Penalties | Penalties ranging from $50 to $10,000. | | X |
| Temporary Management | The nursing home accepts a substitute manager appointed by the state with the authority to hire, terminate, and re-assign staff; obligate funds; and alter facility procedures as appropriate. | | X |
| Denial of Payments | Medicare and/or Medicaid payments can be denied for all covered residents or for newly admitted residents. | X | X |
| Directed In-Service Training | The nursing home is required to provide training to staff on a specific issue identified as a problem in the inspection. | | X |
| Directed Plan of Correction | The facility is required to take action within specified time frames according to a plan of correction developed by the HCFA, the state, or the temporary manager. | | X |
| State Monitoring | An on-site state monitor can be placed in the nursing home to help ensure that the home achieves and maintains compliance. | | X |
| Termination | The provider is no longer eligible to receive Medicare and Medicaid payments for beneficiaries residing in the facility. | X | |

*Source: GAO (1999).*

funding to states which fail to provide adequate inspections; imposition of immediate sanctions against nursing homes found guilty of a repeat offense where a resident is harmed; and permission for states to impose civil monetary penalties for serious or chronic violation of quality standards (Healthcare Professions Delivery Systems 2010)

Still, problems remain in nursing home services. Hearings conducted in 2003 by the Senate Special Committee on Aging yielded a number of troubling findings. These included information that: 27 percent of nursing homes across the country were cited with violations

that exposed residents to the risk of death or serious injury; inspectors often failed to identify key conditions, such as pressure sores, malnutrition, and dehydration amongst residents; complaints by residents, family members, and nursing home staff often went uninvestigated; enforcement mechanisms often failed; and 54 percent of nursing homes had inadequate amount of nurse aide time per resident (Healthcare Professions Delivery Systems 2010). More recent reports by both governmental and non-governmental organizations testify to these lingering problems. A report in 2008 by the inspector general of the DHHS revealed that, in 2007, over nine of every ten nursing homes in the U.S. were cited for violations of federal health and safety standards (Pear 2008).[5]

Bearing directly on our focus here on the inspection system, a commentary on the report attributed to the American Health Care Association, a trade group, assessed that the system "does not reliably measure quality. It does not create any positive incentives" (Pear 2008). It assessed inspectors to be "subjective and inconsistent" because "[t]hey interpret federal standards in different ways," and it found cases in which nursing home operators billed the national government for services that "were not provided, or were so wholly deficient that they amounted to no care at all" (Ibid.). Similarly, the GAO found that, from 2002 to 2007, "approximately 70 percent of federal comparative inspections identified state inspections missing at least one deficiency at the potential for more than minimal harm level, and in all but five states, the number of state [inspections] with such missed deficiencies was greater than 40 percent…The most frequently missed deficiencies identified on comparative [inspections]…involved poor quality of care" (GAO 2009a, 4). Finally, an important *New York Times* study in 2007 of more than 15,000 nursing homes nationwide, over 1,000 of those purchased by large private investment groups, found that nationwide many operators of nursing homes reaped lucrative profits as observable declines occurred in the nursing home care that they rendered to residents (Duhigg 2007).

## III. The Nursing Home Inspection System

The nursing home inspection system is a complex arrangement characterized by scattered authority over the program between the national and state governments in the tradition and spirit of intergovernmental relations (Stillman 2010, 117-18; Milakovich and Gordon 2009, 110). Under the scheme of the U.S. federal system, nursing home services are a "local" issue vested in the states, rather than a sphere of responsibility entrusted to the national government. The NHRA was a policy designed to promote uniform standards across the nation in a key service area under state authority. Consistent with the federal scheme, state governments oversee the licensing of nursing homes. Two programs which, along with the NHRA, provided the entry point for the national government's involvement in nursing home regulation are Medicare and Medicaid. All or part of a nursing home may participate in either or all of these two programs. Nursing homes that participate in the programs are then subject to federal requirements regarding staffing and quality of care for residents. Medicare

[5] The report in question was *Appropriateness of Minimum Nurse Staffing Ratios in Nursing Homes* (2007). The report uncovered that about 17 percent of nursing homes had deficiencies that caused "actual harm or immediate jeopardy" to patients (Pear 2008). Problems identified included infected bedsores, mix-ups of medication, poor nutrition, and abuse and neglect of patients (about 20 percent of all complaints verified belonged in this last category).

and Medicaid cover more than two-thirds of the nursing home residents in the U.S. at a cost of more than $75 billion annually (Pear 2008).

The Centers for Medicare and Medicaid Services (CMS), a division of the DHHS,[6] is the federal agency that oversees Medicare and Medicaid. In setting up the agency, the national government sought to "establish consistency among the regions in the processes used to assess" state inspection agencies' performance (U.S. Senate Special Committee on Aging 1999, 10). Through the oversight program, the U.S. government "evaluate[s] the adequacy of each state [inspection] agency's performance in ensuring quality care in nursing homes" (GAO 2000, 3). The CMS implements federal requirements on Medicare and Medicaid governing nursing home residents. Specifically, the agency issues explicit regulations that guide inspections of these homes. Overall, there are more than 150 regulatory standards covering many aspects of resident life, including protection from physical or mental abuse, inadequate care practices, and preparation and storage of food that nursing homes must comply with at all times. Additionally, the CMS issues reports and service manuals.

Consistent with its authority over Medicare and Medicaid, the CMS enters into contracts with states which permit these states to monitor nursing homes who provide care to beneficiaries of these two programs. These contracts include the conduct of onsite inspections to determine whether each state's nursing homes meet the minimum Medicare and Medicaid quality and performance standards. The organ of state government that typically handles this duty is the health department or department of human services. Under existing law, states conduct inspections of nursing homes within their jurisdiction about once every fifteen months, or more frequently, if the nursing home is performing poorly. States also investigate complaints about nursing home care.

State inspections take place in teams. Each team consists of trained inspectors, fire safety specialists, and at least one registered nurse. The team evaluates whether and to what extent each nursing home it inspects meets individual resident's needs. To achieve this goal, it looks at many aspects of quality, including resident care processes, staff/resident interaction, and satisfaction of standards for safe construction, among others. The team interviews a sample of residents and family members about their lives within the nursing home, as well as interviews caregivers and administrative staff using an established protocol. The team also reviews clinical records.

When an inspection team finds that a home does not meet a specific regulation, it issues a deficiency citation. Depending on the nature of the problem, the CMS can take action against the nursing home. Under existing law, the CMS can take a variety of actions, including fining the nursing home, denying payment to the home, assigning a temporary manager, or installing a state monitor (see Table 1). The CMS considers the *extent of harm* caused by the failure to meet requirements when it takes an enforcement action (see Table 2).

The CMS may choose to terminate its agreement with a nursing home where a home cited for violation does not correct its deficiency. When this occurs, the affected nursing

[6] Much of the ensuing discussion in this section, all the way to the paragraph before the last, comes from Medicare.gov (Official U.S. Government Site for Medicare), "About Nursing Home Inspections." http://www.medicare.gov/nursing/AboutInspections.asp (accessed April 24, 2010).

**Table 2. Scope and Severity of Deficiencies**

| Severity Category | Scope | | | Sanction[a] | |
|---|---|---|---|---|---|
| | Isolated | Pattern | Widespread | Required | Optional |
| Actual or potential for death/serious injury[b] | J | K | L | Group 3 | Group 1 or 2 |
| Other actual harm | G | H | I | Group 2 | Group 1[c] |
| Potential for more than minimal harm | D | E | F | Group 1 for categories D and E; group 2 for category F | Group 2 for categories D and E; group 1 for category F |
| Potential for minimal harm (substantial compliance) | A | B | C | None | None |

*Source: GAO (1999).*

[a] Group 1: sanctions are directed plan of correction, directed in-service training, and/or state monitoring. Group 2: sanctions are denial of payment for new admissions or all residents and/or civil monetary penalties of $50 to $3,000 per day of noncompliance.
Group 3: sanctions are temporary management, termination, and/or civil monetary penalties of $3,050 to $10,000 per day of noncompliance.

[b] This category is referred to in the regulations as "immediate jeopardy."

[c] Sanctions for category I also include the option for temporary management.

Note: The letters in the "isolated," "pattern," and "widespread" categories show the severity of the deficiencies, where "A" is a problem with the potential for minimal harm and is an isolated incident. The letter "L" indicates that there is a facility problem that is widespread and many residents have actually been harmed or have the potential for being harmed.

home loses its certification to provide care to Medicare and Medicaid beneficiaries and the beneficiaries residing in the home at the time of the termination must be transferred to another certified facility.

To facilitate accomplishment of its inspection role under the NHRA, the CMS is divided into ten regions covering all 50 U.S. states and territories (Guam, Puerto Rico, Samoa, and the Virgin Island) (see Table 3). Each regional office has inspection responsibility for the states and territories under its jurisdiction (see Table 3). To coordinate operations under this complex system, there is a Center for Medicaid and State Operations (CMSO).[7] In dis-

[7] To demonstrate the sheer clearinghouse character of the CMSO, the regional offices are not subordinate to the CMSO. Instead, the office and the ten regional offices report directly to a CMSO administrator. Differences between the CMSO and the regional offices that cannot be settled informally are referred to the CMSO administrator for resolution.

**Table 3. Centers for Medicaid and Medicare Services Ten Regional Offices Location, States in Each Region, Inspection Staffing, and Comparative Inspections**

| Regional Offices | States in Each Region | Number of Nursing Homes in the Region | Number of Regional Inspectors | Number of Required Comparative Inspections |
|---|---|---|---|---|
| Region I, Boston, MA | ME, VT, NH, MA, CT, RI | 1,170 | 12 | 59 |
| Region II, New York, NY | NY, NJ, Puerto Rico, Virgin Island | 1,020 | 7 | 51 |
| Region III, Philadelphia, PA | PA, MD, DE, WV, VA | 1,526 | 12 | 76 |
| Region IV, Atlanta, GA | GA, FL, KY, TN, NC, SC, GA, AL, MS | 2,772 | 18 | 139 |
| Region V, Chicago, IL | MN, WI, IL, MI, IN, OH | 3,784 | 22 | 189 |
| Region VI, Dallas, TX | NM, TX, OK, AR, LA | 2,398 | 11 | 120 |
| Region VII, Kansas City, MO | MO, IA, KS, NE | 1,693 | 12 | 85 |
| Region VIII, Denver, CO | UT, WY, MT, ND, SD | 666 | 8 | 33 |
| Region IX, San Francisco, CA | CA, NV, AZ, HI, Guam, Samoa | 1,681 | 11 | 84 |
| Region X, Seattle, WA | AK, ID, OR, WA | 497 | 9 | 25 |

*Source: GAO (2000).*

charging their duties, CMS' regional offices can use one of three inspection techniques: (1) the state agency quality improvement program (QIP), (2) observation, and (3) comparative inspections, or a combination of these three methods (GAO 2000). Under the QIP, state inspection agencies conduct self-assessment at least once a year to determine if they are in compliance with standards. A major limitation of this technique is that the CMS regional offices do not independently validate the information that the states provide to them; consequently, it is not certain whether or not all serious problems are identified and corrected. For, example, the GAO (2000)[8] found that some states were not promptly reviewing complaints filed against nursing homes and that those same states had not mentioned this problem in their

[8] One report by the GAO (2000) indicates that in 90 percent of the cases this is the method CMS regional offices use.

QIP reports. Furthermore, the regional offices do not have a policy that spells out consequences for noncompliance with the QIP.

Under the observational inspection, regional inspectors observe state inspectors as they conduct portions of their inspections of nursing homes. This is a technique that the CMS regional offices favor (GAO 2000). Although this technique helps identify state inspectors' training needs, like the QIP, it has its own limitations. One obvious limitation is that the regional inspectors' presence may make the state inspectors more attentive to their tasks, compared to when they are not being observed.

Under the comparative inspection, CMS regional inspectors inspect some of the nursing homes that the state inspectors evaluated to see if they can replicate the state inspectors' results. This inspection system requires the CMS regional inspectors to conduct validation inspections of at least 5 percent of the Medicare/Medicaid certified nursing homes in their region within 2 months of the state inspection teams' completion of their inspections (GAO 2000). Comparative inspections are the most effective technique for evaluating state inspection agencies' performance. For example, one review of 64 cases showed that the regional inspectors found more serious deficiencies than the ones identified by the state inspectors in two-thirds of the inspections conducted, implying that some state inspectors do not identify serious deficiencies (GAO 2000). However, this is the method least used by regional inspectors. Further, most of the regional offices only conducted one or two comparative inspections per year; although they are required by law to inspect 5% of the homes under their jurisdiction (GAO 2000). Rather, as we indicated before, these inspectors favor observational inspection and the QIP.

A high level of consistency in the processes used to assess state inspection agencies' performance across the ten regional offices is crucial for ensuring that states are being held uniformly accountable to federal standards (GAO 2000; U.S. Senate Special Committee on Aging 1999). However, in going about their oversight function, CMS regional inspectors employ different methods that work against the goal of a uniform standard envisaged by the regime of state inspection that the NHRA and its progeny set up. This occurrence leads to variations in oversight across the regions (GAO 2000) that can effectively jeopardize quality of care in nursing homes across the nation (GAO 1999; 2000; U.S. Special Committee on Aging 1999). One GAO study found that some regions select facilities with no established patterns of deficiencies, while other regions focus on facilities that the state inspectors have already identified as having serious deficiencies to conduct oversight inspections (GAO 2000). The problem with the latter technique is that regions that use this technique are less likely to identify situations in which state inspectors underreported or overlooked serious deficiencies.

Some, such as the GAO, have argued that the CMS has few disciplinary remedies or sanctions at its disposal that it could use to prod poor performing state inspection agencies to correct widespread problems with their inspection process (GAO 2000). It is also true that the CMS does not always put to full effect, the supposedly limited power that the agency has at its disposal. For example, as of 2000, CMS has only reduced state funding once and has never terminated a state inspection agency's contract (U.S. Senate Special Committee on Aging 1999).

Strong enforcement of nursing home regulations counts (Rudder and Phillips 1995; Spector and Takada 1991). Identifying breaches that compromise quality of care and warrant a deficiency citation is critical to the nursing home inspection system and under prevailing law. Inspectors' citation of deficiencies influences the types of sanctions imposed on nursing homes (see Tables 1 and 2). Of particular relevance to this study, external actors can influence the nursing home inspectors' decisions to cite a deficiency (GAO 2009a; Deason 2000; Harrington and Carrillo 1999). Indications abound that state inspectors are not citing deficiencies when serious quality of care problems exist due to a range of reasons that includes pressure from external actors (GAO 2009a; 2008).

**IV. The Role of Public Administrators in the Policymaking Process**

The emerged wisdom today is that administrative agencies play an important role in the policymaking process (Milakovich and Gordon 2009). That was not always the conventional wisdom. Instead, for a long time before now, the view, signified by the politics-administration dichotomy, was that agency involvement in policy, to the extent that involvement occurred at all, was limited to mere execution of policies designed by politicians. Under the politics-administration dichotomy, "[t]he bureaucracy was to administer, in an impartial and nonpolitical fashion, the programs created by the legislative branch, subject only to judicial interpretation" (Milakovich and Gordon 2009, 41). Woodrow Wilson epitomized this notion. Taking as his premise the position that running a constitution was becoming harder to manage than framing one. Wilson in his seminal essay on the Study of Public Administration in America, stressed the need to develop effective administrative services free from congressional "meddling" (Stillman 2010, 410). To him, "[a]dministrative questions are not political questions;" instead public administration was a "field of business" "removed from the hurry and strife of politics," and "[a]lthough politics sets the tasks for administration, it should not be suffered to manipulate its offices" (Stillman 2010, 10).

Subsequent administrative thinkers shared this view. White, in his (otherwise) seminal text in public administration, published in 1926, advocated a politically-neutral public administration focused exclusively on attainment of economy and efficiency in government service (Milakovich and Gordon 2009, 41). Similarly, Goodnow (1900, 83) held the view that "political control over administrative functions is liable…to produce inefficient administration in that it makes administrative officers feel that what is demanded of them is not so much work that will improve their own department, as compliance with the behests of the political party."

But almost before the politics-administration doctrine took hold in American public administration, an alternative world view evolved regarding the "proper relationship" between politics and administration (Stillman 2010, 410). The first shot in the alternative view came from Woodruff (1919, 37) who, positing that "politics and administration take part jointly in every act performed," indicated that, contrary to any dichotomy, the two spheres of government "are two parts of the same mechanism, related in much the same way as two elements in one chemical compound whose combined qualities give character to the substance." The long list of administrative thinkers who, more recently, have attacked the politics-administration dichotomy includes the distinguished administrative theorist Waldo. Waldo (1948, 123-

29) concluded, following (his characteristically) extensive review of the literature, that "any simple division of government into politics-and-administration is inadequate."

In sum, the alternative view regarding the "proper relationship" between politics and administration culminated into a "complementarity" model which depicts that relationship as "characterized by interdependency, extensive interaction, distinct but overlapping roles, political supremacy, and administrative subordination coexisting with reciprocity of influence in both policy making and administration" (Svara 1999, 678). In essence, administrative agencies influence the policy process and are, in turn, influenced by political factors and external actors. We do not dispute the interfacing role that administrative agencies play and the reciprocity of influence between the policy process and public agencies. However, in this study, we do our best to isolate and measure these political factors, along with other variables, that influence state inspectors enforcing the NHRA. This is consistent with Waldo's suggestion that the politics-administration doctrine, although we do not invoke it in this work, could still serve useful purposes that could, right on point for our purpose in this study, include measurement. Fortunately too, in this study, we also limit our measurement of *political factors* narrowly to political party affiliation, although we do not dispute that other factors involved in this study, such as oversight, and affiliation of nursing homes are embedded within the wider framework of politics.

**V. Review of Literature on This Topic**

The review of literature performed in this section revolves around three issues central to this article from which three areas, unlike the role of public administrators in the policymaking (covered in the last section). These are: political factors, oversight, and affiliation or ownership of nursing home facility. We also draw the hypotheses we test in this study. We take these three issues in turn.

*Political Factors*

In this study, as indicated in our introduction but also in the sections below, we have limited our definition of political factors to the two major political parties, without suggesting that the positions or activities of these two parties exhaust the universe of political forces in the U.S., for they do not. Available literature reveals that the Democratic Party, due to its historical ties with labor unions, tends to *favor* regulation while the Republican Party, due to its equally historical connection to industry, tends to *disfavor* regulation. This orientation is observable with respect to nursing home policy, where evidence abounds of a tendency for the Democratic Party to introduce regulatory measures and support strong enforcement of regulations in place, compared to the Republican Party, which tends to oppose new regulations and, sometimes, works to reduce costs associated with enforcing provisions of the NHRA (Americans for Democratic Action 2005). For example, the group Americans for Democratic Action accused the U.S. Congress, at the time controlled by the Republican Party, of not appropriating sufficient funds to enforce the NHRA, not providing funding for personnel and training necessary for proper inspection of nursing homes, and of not doing much to promote effective sanctions against non-compliant nursing homes, among other charges (Ibid.). Among recent U.S. presidents, Ronald Reagan, George H. W. Bush, and George W. Bush, all opposed regulation of

nursing homes, with President Reagan noted for his apostleship of deregulation, and President George W. Bush, his solicitude for the "market-based approach" (Center for Medicare Advocacy, Inc. 2009). In contrast, William J. Clinton, a Democrat, favored regulation of nursing homes. Under Clinton's administration, the national government introduced new initiatives referred to in part II of this paper, including increased oversight of state inspections, termination of federal funding, and publication of inspection results on the Internet, designed to promote increased enforcement of existing laws (Hoovey 2000, 49). There can be no better testimony to the antipathy of the Republican Party and governments controlled by this party toward regulation, compared to the Democratic Party and governments controlled by this party, than the unobtrusive passage of the NHRA in 1987, in the dying days of the Reagan administration, as a part of the Omnibus Budget Reconciliation Act.

Shifting our focus from the national to state governments, the center of gravity of nursing home care inspections, political chief executives also influence regulatory agencies, using their appointment powers. For example, Wood and Waterman (1991) found political appointment to be, for modern chief executives, governors included, a key mechanism of political control that ranks over and above changing budgets, legislation, congressional signals, and administrative reorganization. These executives choose political appointees for reasons that include the appointees' ability to implement their programs. For instance, the political appointees who manage state environmental protection agencies have been shown to impact the number of enforcement actions imposed on firms (Scholz, Twombly, and Headrick 1991). Additionally, the actions of these appointees match the political ideology of the executives who appointed them.

*Oversight*

Much of the analysis above relating to political party affiliation applies here. In other words, just as with regulation, oversight of nursing homes is stronger under Democratic governments, both at the national and state levels, compared to under governments controlled by the Republican Party. The reader should also note that, from a broader perspective, enforcement, touched upon above, encompasses oversight.

*Affiliation or Ownership of Nursing Home Facility*

Of the estimated 16,000 nursing homes in the United States, about 67 percent are owned by for-profit organizations, 27 percent by non-profit organizations, and 6 percent by government entities (Pear 2008). Even before the passage of the NHRA in 1987, the relationship between affiliation or ownership of nursing homes and quality of care was an issue of keen concern in the literature (Shaughnessy *et al.* 1983; Winn and McCaffree 1976; Holmberg and Anderson 1968). However, while some of these studies found a relationship between ownership status and quality of care, others uncovered no such linkage. One of the studies in the first category was by Shaughnessy *et al.* (1983) which found that nursing homes affiliated with hospitals afford better quality of care, compared to freestanding nursing homes. Another is Greene and Monahan (1981), a comparison of for-profit and other types of nursing homes found quality in for-profit homes to be lower. Among the latter category were Winn and McCaffree (1976) and Holmberg and Anderson (1968), both of which found little

difference in the quality of care provided by for-profits nursing homes, compared to not-for-profit facilities.

In the aftermath of the NHRA, studies by the DHHS indicated that nursing homes owned by for-profit organizations receive the most citation of deficiencies, compared to those owned by non-profit organizations or the government. For example, in 2007, 94 percent of for-profit nursing homes were cited for deficiencies, compared to 91 percent of homes owned by the government, and 88 percent of nonprofit homes (Pear 2008). Similarly, for-profit nursing homes accumulated a higher average number of deficiencies than the other categories of nursing homes. According to the DHHS report, for-profit nursing homes averaged 7.6 deficiencies per home, compared to 5.7 percent for nonprofit homes, and 6.3 percent for homes owned by the government (Pear 2008; see also, McGregor *et al.* 2005; O'Neill *et al.* 2003; Banaszak-Holl *et al.* 2002; Harrington *et al.* 2001, 2002; Spector, Selden, and Cohen 1998; Aaronson, Zinn, and Rosko 1994; Davis 1993; Kanda and Mezey 1991).

Two things for-profit nursing homes, especially those run by large private investment companies, do that have a negative effect on nursing home care, according to a *New York Times* study based on analysis of government records from 2000 to 2006, collected by the CMS, are (1) cutting costs, and (2) using ownership devises, such as complicated corporate structures, they make it difficult for plaintiffs damaged by low-quality care to bring suit, insulate these companies from costly lawsuits (Duhigg 2007). Concerning the first, Professor Harrington of the University of California in San Francisco, who has studied nursing homes extensively and some of whose works we used in building our argument in this piece, was quoted as stating that "[t]he first thing [these private] owners do is lay off nurses and other staff that are essential to keeping patients safe" (Duhigg 2007). Harrington added instructively that these "chains have made a lot of money by cutting nurses, but it's at the cost of human lives" (Ibid.).

**VI. Definitions and Operationalization of Key Terms in This Study**

Our focus in this study is the regime of nursing home regulation marked by the NHRA of 1987 and its progeny, such as the initiatives announced by the U.S. government in 1998 under President Clinton, designed to better enforce this law. Specifically, our dependent variable or the matter in this study under examination is the average number of quality of care deficiencies against a nursing home cited by a state or regional inspector. Our independent variables or the factors we hypothesize to affect the dependent variable are "*political factors*," *oversight*, and *affiliation or ownership status of nursing homes*. A *deficiency* is an emblem of violation that a state or regional inspector, in the course of inspection, cites "when a nursing home fails to meet a specific requirement" (DHHS 2003). The severities of those violations (judged by their capacity for injury to a resident), together with scopes (whether isolated, formed a pattern or are widespread) and sanctions for those violations, are summarized in Table 1. As earlier indicated, the CMS maintains a list of over 150 regulatory standards covering numerous aspects of a nursing home resident's life, and one recent study, measured these deficiencies to include dietary services, physician services, rehabilitative services, dental services, pharmacy services, and infection control, among others (Harrington *et al.* 2002). We operationalize *deficiencies* in this study as the average number of deficiencies cited per facility by state and year (see description of our variables in Table 4).

**Table 4. Description of the Variables**

| Variable | Definition | Mean (SD) | Range | N |
|---|---|---|---|---|
| Deficiencies | The average number of deficiencies cited per facility by state and year | 6.08 (2.65) | 1.5 – 15.6 | 490 |
| Hospital Affiliation | Percent of certified hospital-based facilities by state and year | 15.06 (11.47) | 0 - 69.2 | 490 |
| Chain Affiliation | Percent of facilities that were owned or leased by multi-facility organizations by state and year | 52.71 (12.99) | 8.1 - 79.8 | 490 |
| Governor | Categorical measure for the party affiliation of the governor by state and year[9] | | 0 – 1 | 477 |
| Republican | Dummy variable where both houses of the legislature are controlled by the Republican Party by state and year | | 0 – 1 | 473 |
| Democrat | Dummy variable where both houses of the legislature are controlled by the Democratic Party by state and year | | 0 – 1 | 473 |
| Split | Dummy variable with each house of the legislature controlled by one of the two dominant Parties (Republican and Democrat) by state and year | | 0 – 1 | 473 |
| Region 1 | | | 0 - 1 | 490 |
| Region 2 | | | 0 - 1 | 490 |
| Region 3 | | | 0 - 1 | 490 |
| Region 4 | | | 0 - 1 | 490 |
| Region 5 | | | 0 - 1 | 490 |
| Region 6 | | | 0 - 1 | 490 |
| Region 7 | | | 0 - 1 | 490 |
| Region 8 | | | 0 - 1 | 490 |
| Region 9 | | | 0 - 1 | 490 |
| Region 10 | | | 0 - 1 | 490 |

[9] The party affiliation of the governor of the state was coded 0 = Republican Party and 1 = Democratic Party. Governors identified as independents were excluded from the analysis

**Table 4. Description of the Variables** *(continued)*

| Variable | Definition | Mean (SD) | Range | N |
|---|---|---|---|---|
| 1995 | | | 0 - 1 | 490 |
| 1996 | | | 0 - 1 | 490 |
| 1997 | | | 0 - 1 | 490 |
| 1998 | | | 0 - 1 | 490 |
| 1999 | | | 0 - 1 | 490 |
| 2000 | | | 0 - 1 | 490 |
| 2001 | | | 0 - 1 | 490 |
| 2002 | | | 0 - 1 | 490 |
| 2003 | | | 0 - 1 | 490 |
| 2003 | | | 0 - 1 | 490 |
| 2004 | | | 0 - 1 | 490 |
| Lag of Deficiencies | | 5.84 (2.56) | 1.5 - 18.4 | 490 |

As indicated earlier, we measure "*political factors*" narrowly as *political party affiliation*. As we also earlier indicated, in so doing, we do not suggest that party affiliation exhausts the universe of political factors, for it does not. To the contrary, all the variables we test in this study may, equally, as well be denominated "political." It should finally be pointed out that, although our literature review refers to political party events at both the national and state levels, our level of analysis in this study, and to which level we limited our data collection, is the *state* by *year*. This is because of data constraints, but more importantly because the inspection system that forms our object of inquiry in this study is mainly state-based over the years 1995 through 2004.

There are two integral elements to the *political party affiliation* (PPA) variable used in this study: affiliation of the governor (governor), and affiliation of the legislature (legislature). The *governor* is a categorical measure coded 0 for the Republican Party and 1 for the Democratic Party (see Table 4). We excluded governors identified as independents from the analysis. The *legislature* is a dummy variable operationalized in terms of whether or not both chambers of the legislature were controlled by the Democratic Party or the Republican Party (see Table 4). For this variable, there were altogether three categories: (1) states with a legislature dominated or controlled by the Democratic Party, (2) states with a legislature dominated or controlled by the Republican Party, and (3) states where neither of the two political parties has achieved domination or maintained a majority. This last scenario or combination occurs within the context of a bicameral legislature where either the Democratic or Republican Party controls one chamber of the legislature, while the other party controls the other.

Consistent with the admonition in statistical research regarding dummy variables (Gujarati 1992), one of these three combinations, namely, legislatures dominated or controlled by the Republican Party, was used as comparison category. Because Nebraska has a unicameral legislature, the state was excluded from the analysis and our database covered the remaining 49 states of the union.

*Oversight* in this study is a term tied inextricably to the nursing home inspection system. The term is measured as a set of regional/spatial variables that isolates and holds out CMS region 9, encompassing the State of California, as comparison category. Region 9 is the focus of numerous GAO studies analyzing the problems with the inspection system.

*Affiliation or ownership status of nursing homes* refers to the ownership status of a nursing home; whether, for example, as we indicated in our literature review, such a facility is owned by a for-profit organization, by a non-profit organization, or by a governmental entity. Two ownership categories this study used are non-profit *hospital-affiliated* and for-profit *chain affiliated* nursing homes. *Hospital affiliation* was operationalized as the percentage of certified hospital-based facilities in a state by year (see Table 4). *Chain affiliation* was operationalized as the percentage of facilities that were owned or leased by multi-facility organizations in a state by year (see Table 4).

## VII. Hypotheses and Underlying Assumptions

### *A. Political Party Affiliation*

> *Hypothesis No. 1:* States with governors affiliated with the Democratic Party are more likely to experience more citation of deficiencies, compared to states with a Republican governor.

The assumption underlying this hypothesis is that, compared to the Republican Party, officials of the Democratic Party, including governors, are more predisposed to strong enforcement of regulations that turn into citations of deficiencies. In the nursing home setting, this strong predisposition includes a greater willingness to provide funding for enforcement of nursing home regulations. In contrast, members of the Republican Party, including governors, have a tendency to block or blunt strong enforcement of nursing home regulations. As one interest group once poignantly pointed out, referring to Republican members of the U.S. Congress, such "rearguard" actions could include not appropriating sufficient funds to enforce a law, not providing funding for personnel and training necessary for proper inspection of nursing homes, and not doing much to promote effective sanctions against non-compliant nursing homes, among other steps (Americans for Democratic Action 2005).

> *Hypothesis No. 2:* States with a legislature dominated or controlled by the Democratic Party are more likely to experience a higher number of deficiency citations, compared to states with legislatures dominated or controlled by the Republican Party.

The assumption underlying this hypothesis is the same as that for hypothesis No. 1 above. The premise, applicable also to hypothesis No. 1, is that from a general standpoint, the Republican Party and its officials, including state legislators, tend to favor less regulation of nursing home care or to toss off "rearguard" obstacles in the way of existing regulations, while the Democratic Party tends to initiate those regulations and or to support stronger enforcement of the ones already on the books.

> *Hypothesis No. 3:* States with a legislature whose control is split (in the sense that each major political party controls one chamber of the legislature) are more likely to experience a higher number of deficiency citations, compared to states with a legislature dominated or controlled by the Republican Party.

The assumption underlying this hypothesis is that full control of the legislature, signified by a legislature dominated or controlled by the Republican Party, in our comparison variable, is necessary for large numbers of deficiency citations. The likelihood for high deficiency citations slips away even with the least loss of control evident in a legislature with split control. That is, we argue that in states with a split legislature are more likely to cite more deficiencies in comparison to a unified Republican legislature.

*B. Oversight*

> *Hypothesis No. 4:* Deficiency citations in regional offices 1, 2, 3, 4, 5, 6, 7, 8 and 10 will be different from citation of deficiencies in regional office 9.

Region 9 encompassing the State of California, an object of extensive study, whose problems with nursing home oversight have also been well documented in the literature, is the jurisdiction we used as our comparison category. While problems with oversight of state inspection agencies are not limited to California, our reasoning in secluding region 9, comprising this vast state, as the comparison category is that it is one region whose problems has been extensively studied and documented (GAO 1998). For instance, approximately one-third of the nursing homes in California had citations for deficiencies that actually harmed or put residents in jeopardy of serious harm (Healthcare Profession Delivery Systems 2010).

*C. Nursing Home Affiliation*

> *Hypothesis No. 5:* Citation of deficiencies by inspectors will decrease with increases in the percentage of non-profit hospital-affiliated nursing homes.

> *Hypothesis No. 6:* Citation of deficiencies by inspectors will increase with increases in the percentage of for-profit chain nursing homes.

The general assumption underlying these hypotheses is that, compared to non-profit hospital-affiliated nursing homes, nursing homes owned by for-profit chains in an attempt to increase profits, are more likely to engage in cost-cutting measures that militate against quality nursing home care. These measures range from firing nurses necessary to keep residents safe to insulating themselves from costly lawsuits by utilizing dubious ownership devises such as complicated corporate structures that make it difficult for residents damaged by incompetent nursing care (or their relatives) to bring legal action.

*D. Time Controls*

To account for "extraneous" factors other than the variables examined in this paper that could affect our dependent variable, we included controls for the time period 1995 through 2004. Our justification for implementing the time controls is as follows. In 1995, the then Health Care Financing Administration (HCFA), subsequently renamed the CMS, advised states to streamline their inspection processes to reduce operating costs. Some states streamlined their processes in 1995 and 1996. Our supposition is that the changes in the inspection processes that likely resulted from streamlining could have impacted deficiency citations issued by state inspectors. In sum, we take into account "extraneous" forces that are not accounted for in the regression model we estimated by using time controls.

**VIII. Methodology**

The population of our study consisted of 49 of the 50 U.S. states, excluding Nebraska which has a unicameral legislature. We employed a longitudinal cross-sectional design utilizing annual state-level panel data for the ten-year period from 1995 through 2004. Last but not least, to ascertain whether a statistical relationship exists between our dependent and independent variables and, if so, the extent of that relationship, we ran regression analyses for this study. The estimate of our regression model is as follows:

$$Deficiencies_{i,t} = Political\ Factors_{i,t}\ (Governor_{i,t} + State\ Legislature_{i,t}) + Oversight_{i,t}\ (CMS'\ Ten\ Regional\ Offices_{i,t}) + Nursing\ Home\ Affiliation_{i,t}\ (Chain_{i,t} + Hospital_{i,t}) + Time\ Controls_{t}\ (1995_t + 1996_t + 1997_t + 1998_t + 1999_t + 2000_t + 2001_t + 2002_t + 2003_t + 2004_t) + e_{i,t}$$

where "i" represents the states and "t" the year.

In estimating our regression model, we used a fixed group and time effect model fitted with least squares dummy variables. But ordinary least squares regression estimation is bedeviled by the assumptions of independently distributed error terms (no autocorrelation) and constant error variance across observations (homoscedasticity). Data used in this study, such as time series cross-sectional data, tend to violate these assumptions and create problems of autocorrelation and heteroscedasticity that could result in false inferences. To get around these problems, before estimating our regression model, we used Cochrane-Orcutt and Glejser procedures to test, respectively, for autocorrelation and heteroscedasticity. Our tests revealed the presence of autocorrelation and heteroscedasticity, which problem we then cor-

**Table 5. Estimated Model of the Factors Influencing Deficiencies (Quality of Care) in Nursing Homes: 1995 Through 2004**[10]

| | Coefficients[11] (S.E.) | t-value |
|---|---|---|
| Quality of Care – Deficiencies | | |
| *Regional/Spatial Controls (Administrative Oversight)* | | |
| Region 1 | -1.216 (.334) | -3.64 *** |
| Region 2 | -1.144 (.444) | -2.58 *** |
| Region 3 | -.888 (.278) | -3.19 *** |
| Region 4 | -.524 (.239) | -2.20 ** |
| Region 5 | -1.055 (.287) | -3.68 *** |
| Region 6 | -.699 (.276) | -2.54 ** |
| Region 7 | -.578 (.308) | -1.88 * |
| Region 8 | -.736 (.265) | -2.78 *** |
| Region 10 | -.315 (.268) | -1.18 |
| *Executive Oversight* | | |
| Democratic Governor | -.055 (.112) | -0.50 |
| *Legislative Oversight* | | |
| Unified Democratic Legislature | .246 (.150) | 1.65 * |
| Split Legislature | .115 (.148) | 0.78 |
| *Facility Affiliation* | | |
| Hospital | -.002 (.006) | -0.38 |
| Multi-facility Organization (Chain) | -.012 (.006) | -1.89 * |
| *Time Controls* | | |
| 1996 | -.411 (.214) | -1.92 * |
| 1997 | .248 (.221) | 1.12 |
| 1998 | .710 (.222) | 3.20 *** |
| 1999 | .892 (.220) | 4.06 *** |
| 2000 | .779 (.219) | 3.56 *** |
| 2001 | .996 (.216) | 4.60 *** |
| 2002 | .499 (.217) | 2.30 ** |
| 2003 | 1.836 (.214) | 8.59 *** |
| 2004 | 2.781 (.211) | 3.15 *** |
| Lag of Deficiencies | .794 (.026) | 30.99 *** |
| *Intercept Term* | 1.468 (.572) | 2.57 ** |
| F (df) | F (23, 439) = 22.30 *** | |
| Adjusted R2 | .5147 | |

*Note: Significance at the 0.01, 0.05, and 0.10 levels is indicated by ***, ** and *, respectively.*

[10] The state of Nebraska was not included in this model because it has a unicameral legislature
[11] N = 463

rected by applying a robust estimation procedure on an autoregressive model using a lag of the dependent variable (to estimate the time effect). Our test for multicollinearity yielded a Pearson correlation coefficient of less than .6, an occurrence which suggests that our independent variables were not highly correlated with each other. Specifically, all of the independent variables, except for nursing home affiliation (chain and hospital), were categorical variables. Consequently, we performed correlation analysis only on facility affiliation. The Pearson correlation coefficient (r) between chain and hospital was -.144.

Table 4 summarizes the set of variables used in this study. The following is a discussion about the sources from which we collected our data for this study. The information for our political factor variables (measured narrowly in terms of political party affiliation) was taken from the World Almanac and Book of Facts for the years which we consulted, 1995 through 2004. We obtained data for the ten CMS regional offices from the CMS website. We next created dummy variables in our model to account for events, outside the factors we studied in this paper, occurring in the years 1995 through 2004. We obtained our data for *affiliation or ownership status of nursing homes* from Online Survey and Certification Reporting System (OSCAR). This source, whose validity and reliability as a database has been established, contains deficiency citation data inputted by state inspection agencies and nursing home staff on an ongoing basis (Harrington *et al.* 2000a).

**IX. Results and Analysis**

To restate, this study measured the effects of political factors, oversight of the nursing inspection system, and nursing home affiliation on state citation of deficiencies in nursing home care nationwide over the period 1995 through 2004. The F-test of our regression model yielded a statistically significant result ($F(23, 439) = 22.30$) and our model accounted for (or "explained") approximately 52 percent of the variation in inspectors' citation of deficiencies (see Table 5). Additionally, consistent with our predictions, we found variations in the number of deficiencies, measured as average quality of care deficiencies, cited by nursing home inspectors over the years and across the states. As shown in Table 4, while on average, nursing home inspectors cited about 6 deficiencies a year by state ($M = 6.08$, $SD = 2.65$), there were instances where the citations were as low as about 2 deficiencies per year in a state and as high as about 16 deficiencies a year by state.

A similar pattern was observed regarding the lag number of average deficiencies cited, which ranged from an average of 1.5 to 18.4 with a mean score of 5.84 ($SD = 2.56$). Although the mean score for the number of deficiencies cited was higher than the mean score for the lag number of deficiencies cited, the lag number of deficiencies cited had a relatively wider variation. This indicates extreme deficiency citations in the lag variable. Stated yet differently, there appears to be relatively more citation of quality of care deficiencies in the years following 1995. While citing more deficiencies after 1995 might be attributed to several factors, including improved oversight of the state inspection process, it might also point to less compliance and poor quality of care. However, considering that state inspectors have been found to overlook or understate serious problems with quality of care in nursing homes (GAO 2009a), the amount of deficiencies cited may not give the true picture of deficiencies across the states.

We now present the results of the hypotheses delineated in section VII of this article, taking the hypothesis in their numerical order. Hypothesis No. 1 predicts that states with a governor affiliated with the Democratic Party are *more likely* to experience more citation of deficiencies, compared to states with a Republican. There is not enough evidence from our study to support this hypothesis. Instead, contrary to our expectation, the result showed that states with governors affiliated with the Democratic Party experienced fewer citations of deficiencies than states with governor affiliated with the Republican Party. That is; the observed difference is *not* statistically significant.

Hypothesis No. 2 predicts that states with a legislature dominated or controlled by the Democratic Party are *more likely* to experience a higher number of deficiency citations, compared to states with legislatures dominated or controlled by the Republican Party. Our regression analysis bore out this analysis and, at the 90 percent level, the finding was statistically significant.

Hypothesis No. 3 predicts that states with a legislature whose control is split (in the sense that each major political party controls one chamber of the legislature) are *more likely* to experience a higher number of deficiency citations, compared to states with a legislature dominated or controlled by the Republican Party. There is not enough evidence from our study, based on our regression analysis, to support this hypothesis.

Hypothesis No. 4 predicts that the number of deficiency citations in regional offices 1, 2, 3, 4, 5, 6, 7, 8, and 10 will be different from the number in Regional Office 9, set aside as our comparison category. Evidence from our study confirmed this hypothesis. Our regression result showed that, compared to Region 9, all of the other CMS regions reported fewer citations of deficiencies, and the differences in citation deficiencies were statistically significant, except for Region 10, comprising Alaska, Idaho, Oregon, and Washington states. Several factors, including differences in budgetary allocations, quality, and size of inspection staff, inconsistent standards of evaluation from region to region, time spent on oversight inspections, and different methods for conducting oversight inspections, might account for the variations in inspectors' citations of deficiencies. Accordingly, with the spotlight placed on problems of nursing home oversight in California, it is possible that Region 9, encompassing California, may have tightened its oversight inspection process, an occurrence that probably accounted for the region's citing more deficiencies than the other regions.

Hypothesis No. 5 predicts that citation of deficiencies by inspectors will *decrease* with *increases* in the percentage of non-profit nursing homes. Our finding supported this hypothesis. Intriguingly, the result was *not* statistically significant.

Hypothesis No. 6 predicts that citation of deficiencies by inspectors will *increase* with *increases* in the percentage of for-profit chain nursing homes. Our analysis uncovered a statistically significant relationship at the 90 percent level between these two variables included in our regression model, however, not the positive one we postulated. In other words, controlling for all of the other variables, an *increase* in the percentage of for-profit chain nursing homes in a state, results in a *decrease* in the citation of deficiencies. This finding is most puzzling and a result we surmise might be due to underreporting of deficiencies or, less plausibly, chance.

Below is a recapitulation of the results from the hypotheses we tested in this study:

| Hypothesis | Statement | Finding |
|---|---|---|
| 1. | Relationship between party affiliation and citation of deficiencies (Democratic governor) | Not supported, although the observed difference is not statistically significant |
| 2. | Relationship between party affiliation and citation of deficiencies (unified Democratic legislature) | Supported and statistically significant |
| 3. | Relationship between party affiliation and citation of deficiencies (split-control legislatures) | Not supported and the observed difference is not statistically significant |
| 4. | Relationship comparing variations in CMS regional offices 1-8 and 10 with Regional Office 9 (encompassing CA) | Supported and observed differences are statistically significant, except for Region 10 |
| 5. | Hospital-affiliated nursing homes and citation of deficiencies | Supported but not statistically significant |
| 6. | Chain nursing homes and citation of deficiencies | Intriguingly not supported and statistically significant |

**X. Conclusion**

This study analyzed the impacts of political factors, oversight, and affiliation or ownership status of nursing homes on the enforcement of the nursing home regulatory regime represented by the NHRA and its progeny. Our specific aim was to understand the factors that influence variations in the citation of deficiencies for violation of nursing home care standards by regional and state inspectors charged with responsibility for implementing the nursing home regulatory scheme. Our database comprised a sample of 463 cases, drawn from 49 out of the 50 U.S. states, excluding Nebraska, which has a unicameral legislature. Altogether, we developed and tested six hypotheses.

We are avid students of public administration, and, in conducting this study, we first had to address our emphasis on "political factors" in American public administration which, duly awake to the extensive involvement of unelected bureaucrats in policymaking, long ago yanked off, as fiction, the doctrine that claimed to separate politics from administration. Our justification for the measurement of the seemingly political variables that formed the focus in this study was that the immersion of public administrators in politics, in negation of the politics-administration doctrine, does not forbid our measuring factors that would seem political,

so long as we are able to isolate and diligently pinpoint which factors we are measuring. To be on the safe side, we also confined our measurement of political factors to political party affiliation, all the while keeping our eyes wide open to the fact that all the factors involved in this study, including oversight, and nursing home ownership are embedded in politics.

Generally, our findings matched with our conceptual framework and the literature as well as provided definitive evidence that political factors, in the manner we measured those variables in this paper, influence the citation of deficiencies by inspectors monitoring nursing homes. There was insufficient evidence to support our hypothesis that states with governors affiliated with the Democratic Party would experience more citation of deficiencies, compared to states with a Republican governor. However, there was support for the state legislature variable. States with legislatures dominated or controlled by the Democratic Party registered a higher number of deficiency citations, compared to states controlled by the Republican Party. Oversight similarly influenced inspectors' citation of deficiencies. Except for Region 10, practically all of the regional office variables were statistically significant. Moreover, compared to Region 9 (our comparison category), all of the other regions registered fewer citations of deficiencies. This finding might reflect underreporting of deficiencies, variation in the oversight methods employed by the regional offices, or better quality of care in most of the regions, compared to Region 9. Contrary to the literature and our expectation, for-profit chain facilities received fewer citations of deficiencies. This finding as well might reflect underreporting among inspectors, given GAO studies that rank these chain homes to be the most poorly performing. Previous studies have speculated on the possible influence of political factors in the citation of deficiencies for violation of nursing standards by inspectors (GAO 2009a; Harrington and Carrillo 1999). This article is the first of its kind, by political scientists drawing on public administration concepts, to systematically measure and test the influence of political factors on the citation of deficiencies by state inspectors enforcing the NHRA and its progeny.

Despite the useful light that it sheds on the operations of the nursing home regulatory regime, this study, like any other, has its limitations or caveats. One major limitation was our measure of oversight among the ten CMS regional offices. Data constraints prevented us from capturing components of the oversight system likely to impact citation of deficiencies, such as inspectors' qualifications, hours worked, experience, number of comparative inspections conducted per year, number of observational inspections conducted each year, type and number of training provided to state inspectors, size of the annual budget, and number of remedies and sanctions imposed on state inspection agencies. Thus, while these and other factors, such as differences in staff size, number of hours spent conducting inspections, and budgetary allocations, might provide a more accurate understanding of variations across CMS regional offices, the unavailability of data limited this study to the use of dummy variables. To minimize problems, such as underreporting, that plague the inspection system and promote better monitoring of state inspection agencies, CMS regional offices must begin requiring state inspectors to select homes that have no established patterns of deficiencies and they must begin to follow the regulation mandating them to engage in comparison inspection of 5 percent of the homes in each region of operation. Additionally, CMS should pay particular attention to states with a Republican-controlled legislature given their tendency to

cite fewer deficiencies (in light of the underreporting of serious deficiencies across the states).

Future studies on this topic should focus on the factors we used in this study as well as broader constructs of variations across CMS regional offices' oversight. They should also examine interaction among variables that can influence inspectors' citation of deficiencies. The need for such interaction is reinforced by the variance in deficiency citations unexplained by this study (over 48%), an occurrence that suggests the operation of some other factors, not included in our own model, that influence inspectors' citation of deficiencies. Still, our study increased understanding about the impact of political and not so political factors, such as oversight, and nursing home status, on citation of deficiencies for violations governing regulations of nursing homes. Future studies should examine how to improve consistency across the CMS's regional offices oversight in order to ameliorate state inspection processes and ultimately quality of care in nursing homes that takes into account the influence of state-level political factors. By this study, we have provided some foundation that those future studies could build on, keeping a close eye on the limitations that we have identified.

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