



Management Science

Publication details, including instructions for authors and subscription information:
<http://pubsonline.informs.org>

Religious Affiliation and Wrongdoing: Evidence from U.S. Nursing Homes

Aharon Mohliver, Amandine Ody-Brasier

To cite this article:

Aharon Mohliver, Amandine Ody-Brasier (2022) Religious Affiliation and Wrongdoing: Evidence from U.S. Nursing Homes. Management Science

Published online in Articles in Advance 21 Mar 2022

. <https://doi.org/10.1287/mnsc.2022.4350>

Full terms and conditions of use: <https://pubsonline.informs.org/Publications/Librarians-Portal/PubsOnLine-Terms-and-Conditions>

This article may be used only for the purposes of research, teaching, and/or private study. Commercial use or systematic downloading (by robots or other automatic processes) is prohibited without explicit Publisher approval, unless otherwise noted. For more information, contact permissions@informs.org.

The Publisher does not warrant or guarantee the article's accuracy, completeness, merchantability, fitness for a particular purpose, or non-infringement. Descriptions of, or references to, products or publications, or inclusion of an advertisement in this article, neither constitutes nor implies a guarantee, endorsement, or support of claims made of that product, publication, or service.

Copyright © 2022 The Author(s)

Please scroll down for article—it is on subsequent pages



With 12,500 members from nearly 90 countries, INFORMS is the largest international association of operations research (O.R.) and analytics professionals and students. INFORMS provides unique networking and learning opportunities for individual professionals, and organizations of all types and sizes, to better understand and use O.R. and analytics tools and methods to transform strategic visions and achieve better outcomes.

For more information on INFORMS, its publications, membership, or meetings visit <http://www.informs.org>

Religious Affiliation and Wrongdoing: Evidence from U.S. Nursing Homes

Aharon Mohliver,^a Amandine Ody-Brasier^{b,*}

^aDepartment of Strategy and Entrepreneurship, London Business School, London NW1 4SA, United Kingdom; ^bOrganizational Behavior Area, Yale School of Management, New Haven, Connecticut 06510

*Corresponding author

Contact: acohenmohliiver@london.edu,  <https://orcid.org/0000-0002-0611-8240> (AM); amandine.ody-brasier@yale.edu,  <https://orcid.org/0000-0002-0984-2066> (AO-B)

Received: January 3, 2020

Revised: January 13, 2021; June 1, 2021;
September 3, 2021; October 20, 2021

Accepted: October 21, 2021

Published Online in Articles in Advance:
March 21, 2022

<https://doi.org/10.1287/mnsc.2022.4350>

Copyright: © 2022 The Author(s)

Abstract. We explore the relationship between organizational religious affiliation and wrongdoing using a unique data set on inspections in 16,101 nursing homes over five years. We find that violations of standards of care are more severe in religiously affiliated homes. We track this difference to a reduction in the likelihood that organizational members file complaints rather than poorer behaving caretakers or differential treatment by enforcement agents. Fewer complaints increase the time that religiously affiliated homes operate without monitoring, which allows violations to escalate before they are detected. Our findings highlight an understudied process in the literature on organizational wrongdoing: Although much attention has been devoted to how inspector bias can lead to incorrect conclusions about the true rates of wrongdoing across organizations, religious affiliation can lead to similarly incorrect conclusions—but through an *internal* organizational process.

History: Accepted by Lamar Pierce, organizations.



Open Access Statement: This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. You are free to download this work and share with others for any purpose, except commercially, if you distribute your contributions under the same license as the original, and you must attribute this work as “*Management Science*.” Copyright © 2022 The Author(s). <https://doi.org/10.1287/mnsc.2022.4350>, used under a Creative Commons Attribution License: <https://creativecommons.org/licenses/by-nc-sa/4.0/>.

Supplemental Material: The data files and online appendices are available at <https://doi.org/10.1287/mnsc.2022.4350>.

Keywords: organizational wrongdoing • nursing homes • religious affiliation • social control • selection

1. Introduction

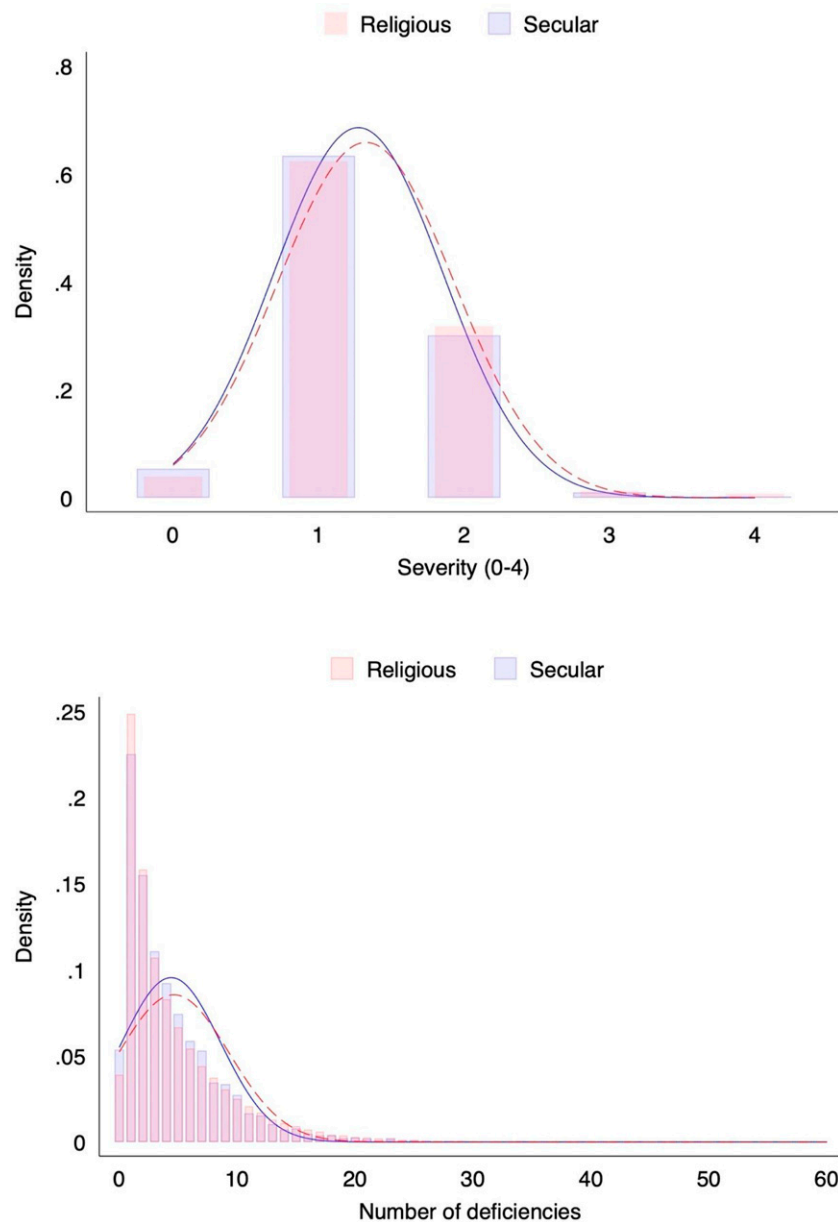
Both religion and wrongdoing have interested scholars across the social sciences for over a century (including Durkheim, Marx, and Weber, among others). Research on the relationship between the two comes primarily from psychology, economics, and sociology but is largely devoid of any organizational context (Evans et al. 1995, Shariff and Norenzayan 2007, Henrich et al. 2010). This may limit our ability to generalize from this research; most activities in modern societies occur within organizations (Perrow 1991), and the organizational context influences the behavior of individuals embedded in them (Palmer 2012, Balasubramanian et al. 2017).

We examine the relationship between an organization’s religious affiliation and wrongdoing in the U.S. healthcare industry, which features many religiously affiliated (RA) organizations. We study nursing homes, where residents are often dependent on their caregivers for the provision of the most basic human needs and where wrongdoing can have particularly dire consequences (Hawes 2003,

Goergen and Beaulieu 2010). A recent *New York Times* report, for example, found that many nursing homes “manipulated the influential star system in ways that have masked deep problems—and left them unprepared for Covid-19” (Silver-Greenberg and Gebeloff 2021).¹

To study the relationship between an organization’s religious affiliation and wrongdoing in this important setting, we combine several data sources: (1) home-level data used by Ody-Brasier and Sharkey (2019), (2) routine inspection data used by *New York Times* investigators (Silver-Greenberg and Gebeloff 2021),² and (3) new granular data on complaint-triggered inspections. In the aggregate, the data suggest that RA homes have more severe violations of standards of care—a difference caused by RA homes having more of the most severe types of violations (Figure 1).

The literature offers two explanations for why RA homes may have more severe violations. The first is that religion influences how individuals behave (Preston and Ritter 2013). This line of reasoning suggests that a religious affiliation influences the true rate of violations, for

Figure 1. Density Plots: Severity and Number of Violations in RA and Secular Care Homes (2010–2015)

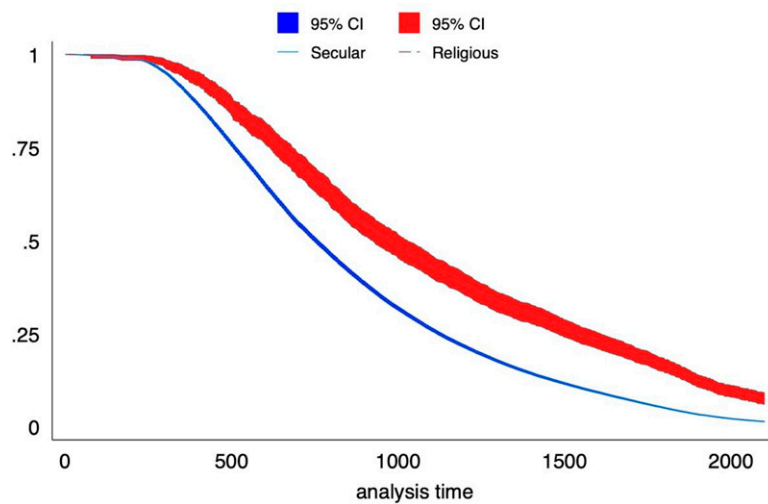
instance, by changing offenders' behavior. The second comes from the literature on inspector bias (Short et al. 2016, Kovacs et al. 2018, Ibanez and Toffel 2020), which implies that a religious affiliation influences how inspectors identify violations. This line of reasoning suggests that because of differential treatment by enforcement and monitoring agencies, violations in RA organizations may *appear* to be different, even when they are not.

We propose a third explanation involving no inspector biases or different behavior by offenders—that religious affiliation stifles complaints to monitoring agencies. Fewer complaints reduce the frequency of inspections, allowing violations to worsen before they are detected. The raw data suggest that RA homes face a 13% lower risk of complaint-triggered

inspections (Figure 2) and that the time between any two complaint-based inspections in RA homes is 15% longer than in secular homes ($p = 0.000$). Our analyses indicate that the increase in the most-severe violations being recorded stems entirely from the subset of inspections triggered by a complaint and not from routine inspections, which are conducted at federally mandated intervals. Overall, what our model suggests is that religious affiliation can change the true severity of violations not by directly treating offenders but by indirectly shielding wrongdoers from inspections.

In the remainder of the paper, we begin by describing the nursing home industry to contextualize religious affiliation and wrongdoing in this setting. We explain what a religious affiliation entails and how

Figure 2. (Color online) Kaplan-Meier Survival Estimates of Complaints (in Days)



state regulators inspect and identify wrongdoing in care homes. We then review the existing literature to draw inferences about the relationship between an organization's religious affiliation, external monitoring (inspector bias), complaints filed by organizational members, and wrongdoing. Next, we describe the data, research design, and findings, followed by additional analyses to rule out some reasonable alternative explanations. We conclude by discussing some implications of our research for the literature on wrongdoing and policy implications for curbing elder neglect and abuse.

2. Care Home Industry in the United States

Care homes, also known as nursing homes, are institutions where elderly people are cared for outside the family home. Most residents today are between the ages of 65 and 84, and many are over 85 (~38.6%). The demand for nursing homes emerged during the second half of the 20th century because of increasing living standards, income, and life expectancy. This industry has expanded rapidly: whereas spending on nursing care facilities across the United States was \$0.8 billion in the 1960s, it reached \$166.3 billion in 2017 (Harris-Kojetin et al. 2019).

2.1. Monitoring Nursing Homes

More than 95% of nursing homes are regulated and monitored by the Centers for Medicare and Medicaid Services (CMS) (Li et al. 2010). We collected data on all recorded violations of standards of care between 2010 and 2015 from reports produced by CMS inspectors (see Online Appendix 1 for examples). These granular, inspection-level data cover 16,101 homes serving approximately 1.6 million residents (CMS 2015).

The data are appropriate for investigating the relationship between an organization's religious affiliation and wrongdoing for two reasons. First, they are reliable, longitudinal, and comprehensive: typically, a team of about four inspectors visits each care home for several days, follows a prescribed protocol, and writes a detailed report, providing fine-grained information on the type, number, and severity of the violations they identify. These data have been used by investigative reporters to demonstrate that data self-reported by the care homes are unreliable (Silver-Greenberg and Gebeloff 2021). Second, the exact same inspection can be launched in response to one of two *independent* triggers³: a regulatory requirement ("triggered" by federal requirements that apply to all nursing homes) or a formal complaint (triggered by members of the care home). Federal regulation requires that each care home undergo an unannounced routine inspection by state-trained professionals annually.⁴ Formal complaints can be filed against a care home at any time by residents, staff, or family members. Once a complaint is filed, the state regulator is obligated to conduct a formal unannounced onsite inspection. The fact that similar and comprehensive inspections are launched in response to one of two independent triggers (one that applies indiscriminately to every care home and one that does not) allows us to tease out many sources of bias that would otherwise mask the interorganizational effect of a religious affiliation (see Online Appendix 2 for details and aggregate statistics about the inspection process).

2.2. Wrongdoing in Nursing Homes: Elder Neglect and Abuse

The elderly in skilled nursing facilities are among the most vulnerable members of our society. They are dependent on the nursing facility operator for their

food, medicine, medical care, dental care, and a bed; a roof over their heads; and assistance with virtually every daily activity (Shapira 2000, quoted in Hawes 2003, p. 447).

Studying wrongdoing in care homes is important for a large, and growing, number of Americans. In 2015, more than 47 million adults age 65 and older required some form of long-term care (residential or in-home), and this number is expected to nearly double in the next 20 years (Osterman 2017). Yet, elder neglect or abuse has received relatively little attention in the literature (see Hawes 2003 for a review, including a discussion of data collection issues and potential causes; Dyer et al. 2003 for estimations of frequency of wrongdoing toward elders in the general population; and Acierno 2003 for a review of methodological issues in these estimates). This dearth of studies is surprising because wrongdoing toward elders is estimated to be as widespread as wrongdoing toward other vulnerable populations (e.g., children; Acierno 2003) and includes severe acts of neglect⁵ (i.e., refusal or failure to provide food, clothing, medicine, shelter, supervision, and medical care; Clarke and Pierson 1999) and abuse⁶ (e.g., slapping, pushing, inappropriate touching, and sexual assault; Hawes 2003).

The pervasiveness of elder neglect and abuse can be linked, at least in part, to the strong dependence relations of potential victims and would-be wrongdoers. Residents of nursing homes (particularly in long-term-care facilities) are more likely to experience physical or cognitive limitations, significantly increasing their dependence on caregivers (Hawes 2003, p. 252). Dependence creates an opportunity for wrongdoing—intentional or not (Shapira 2000, Goergen and Beaulieu 2010); it also reduces the likelihood that residents will complain. Hawes (2003, p. 247) describes some evidence of neglect and abuse, collected through case studies and interviews, documenting how dependence on caregivers increases the cost of retaliation and results in fewer complaints emerging from the most vulnerable populations.

2.3. Religious Affiliation in U.S. Care Homes

Because of concerns for vulnerable populations, religious organizations have historically been encouraged to take part in the U.S. social welfare system (Ebaugh et al. 2003, 2006). They have played an active role in public debates, from universal healthcare⁷ to the Affordable Care Act (Pew Research Center 2009). For example, the Catholic Church is one of the largest private providers of healthcare in the United States.⁸ The common argument of American lawmakers in support of this active role is that RA organizations are better at delivering such services (Amirkhanyan et al. 2009). They “don’t have giant bureaucracies and endless rules in which they become entangled. They keep their focus on their

mission. They don’t keep hours” (Bush 2002, remarks on the Charity, Aid, and Recovery Act).

More than 15% of the nonprofit homes in our data report a religious affiliation in their annual filings. In these homes, religion is made salient through physical symbols, rituals, and daily interactions with individuals who often share the same faith (Reich 2014),⁹ such as residents, their families, and/or staff members. Consumers are likely to self-select into RA care homes based on their specific religious beliefs (Reinardy and Kane 1999; Castle 2003; Castle and Sonon 2007; Rubinstein et al. 2011; Bielefeld and Cleveland 2013a, b). For example, Rubinstein et al. (2011) find that people select a Catholic nursing home as a direct result of their Catholic faith and the home’s religious tone. This self-reinforcing dynamic makes RA homes particularly attractive to coreligious (often codenominational) residents. Exempt from some antidiscrimination laws, RA homes are also able to preferentially hire job candidates who share their religion or denomination. Selection by care-homes and self-selection by residents facilitate a “strong identity” in these organizations; residents and staff are more likely to be of the same religious group, and residents live on the premises, immersing them in the institution.

2.4. Recording Wrongdoing in Care Homes

2.4.1. Inspections in Care Homes. Whereas religion figures prominently in the identity of RA homes, it plays no role in the legal definitions of what constitutes a violation of the federally mandated standards of care. All nursing homes are required to abide by the same detailed standards of care. Failure to comply can result in financial penalties and, if not rectified, exclusion from federal programs.

State agencies launch an inspection in response to one of two triggers: as part of an annual requirement by federal legislation or in response to a formal complaint—which they are legally obligated to investigate with an on-site inspection. Regardless of the trigger, a team of state-trained professionals is sent unannounced to inspect the facility. The team follows detailed guidelines to monitor compliance in terms of medication management, proper skin care, assessment of residents’ needs, nursing home administration, overall environment, kitchen/food services, and residents’ rights and quality of life.¹⁰ Inspections usually last several days and result in an official report that includes information about the number, type, and severity of the violations the team identified.

2.4.2. Severity Measures and Their Reliability. Inspections, whether routine or following a complaint, are conducted by the same regulatory agency using the same inspector pool (assigned based on availability and workload rather than inspection type) and follow

the same inspection protocols. The reports provide a textual description, a so-called F-tag reflecting the violation type. Inspectors then assign a letter grade to each violation. The grade reflects two dimensions—the violation’s *severity* and its *scope*—on a single 12-point scale (see Figure 3 for details).

The four-level *Severity* score indicates the level of harm caused to residents. An expired carton of milk (Tag F-371), for example, would be categorized at the lowest severity level (“No actual harm with potential for minimal harm,” with letter grade A, B, or C). Death caused by unsafe mobile transfer (Tag F-323) would be categorized at the highest severity level (“Immediate jeopardy to residents’ health or safety,” with letter grade J, K, or L). The three-level *Scope* score captures how widespread the violation is, independent of the level of harm caused (“isolated” (letter grade A, D, G, J), “a pattern” (letter grade B, E, H, K), or “widespread” (letter grade C, F, I, L)). The final grade on the 12-point scale is a composite of severity and scope, as shown in Figure 3.

There are three ways to operationalize how bad a violation is using the 12-point CMS scale: using only severity (the rows in Figure 3), only scope (the columns in Figure 3), or the 12-point scale that collapses severity and scope into one measure.

Guidelines for determining the three-level scope score are relatively open to interpretation. This makes scope susceptible to biases or deliberate gaming. For example, if a home comprises two buildings with one experiencing an extensive pest infestation (Tag F-469), some inspectors could report the violation as “isolated” (emphasizing that only one location is affected) and others could report it as “widespread” (emphasizing that half the residents are affected). A change in scope can have a large impact on the final (12-point) score: in the previous Tag F-469 pest infestation example, a care home will receive a severity score “D” in the first case, and an “F” in the

second (see U.S. Department of Health & Human Services 2019, p. 9).

Subjectivity in determining *severity* is much more constrained because guidelines are clearer, more detailed, and accompanied by examples. Intentional “fudging” of the severity score is also difficult because each violation is accompanied by a textual description, indicating what F-tag and severity should be used. Indeed, these very texts allowed investigative reporters to identify the problematic cases of fudging featured in the *New York Times* article (authors’ interview with Silver-Greenberg and Gebeloff, April 9, 2021). For example, any text indicating that a resident’s right to be free of physical restraint was violated (Tag F-604) requires severity of at least the second level (“No actual harm with the potential for more than minimal harm”) or higher. Because inspector bias is more likely to manifest in the scope component of the grade, we focus on the four-level severity score as the main dependent variable to test our theory: that processes that happen *inside the organization* create differences in recorded (and observed) wrongdoing.

Taken together, these features of the setting make it a convenient one for testing our theory that religious affiliation influences wrongdoing by changing the likelihood that members will complain to outsiders: Religious affiliation is prevalent in this setting, and it can influence only one of the triggers for an inspection (complaint) but not the other (annual federal requirement). Inspections are conducted by the same agencies, using the same staff and identical protocols. Last, religion features prominently in RA care homes, in which providers can discriminatorily select coreligious employees and residents self-select based on religious affiliation, creating a “strong identity.”

Furthermore, this setting uniquely lends itself to a research design that compares the severity of violations

Figure 3. The “12-Point Scale” of Severity and Scope of Violations

SEVERITY	SCOPE		
	Isolated	Pattern	Widespread
Immediate jeopardy* to resident health or safety	J	K	L
Actual harm that is not immediate jeopardy	G	H	I
No actual harm with potential for more than minimal harm but not immediate jeopardy	D	E	F
No actual harm with potential for minimal harm†	A	B	C

* Immediate jeopardy is a situation in which a nursing home’s noncompliance with one or more requirements has caused or is likely to cause serious injury, harm, impairment, or death to a resident.

† If a nursing home has deficiencies with ratings of only A through C, the nursing home is considered to be in substantial compliance with Federal participation requirements.

Source. U.S. Department of Health & Human Services, Office of Inspector (A-09-18-02010; April 2019).

identified during *complaint versus routine inspections in RA versus secular homes*. Any differences in the severity of violations identified in routine versus complaint inspections should reflect differences in the data-generating process that precedes inspections (see Online Appendix 3a for a representation of the process generating observed data on violations and Online Appendix 3b for a representation of the possible sources of bias in these data and our approach in determining an appropriate research design). We next articulate the theoretical underpinnings of our prediction, which is anchored in the literature on labeling (Becker 1963) but applied to the organization instead of the enforcement or monitoring agencies.

3. Theory

Although wrongdoing is often conceived of in absolute terms (an act that violates some rule), sociologists have long recognized that for wrongdoing to exist, an actor needs to violate some rule and that that action needs to be noticed and subsequently labeled wrongful by a social group (Becker 1963, Palmer 2012).¹¹ Samples of wrongdoing therefore contain only those acts that are observed, labeled wrongful, and entered in administrative records (Palmer 2012). These three processes—the detecting, labeling, and recording of wrongdoing—are initiated inside the organization before they occur in external social control agents. Yet most research is concerned with how these processes influence observed samples of wrongdoing through their impact on social control agents (Short et al. 2016, Kovacs et al. 2018, Ibanez and Toffel 2020). As summarized in Figure 4, we propose that organizational attributes predictably influence the detection, labeling, and recording of wrongdoing. In our setting, like many others, this influences how well the organization is monitored, which in turn, impacts the wrongdoing that occurs in it.

A religious affiliation is an important organizational feature that can influence whether and how an action is noticed, interpreted, labeled or recorded, and reported to social control agents. This is because a religious affiliation shapes the organization's formal and informal blueprints. It infuses organizations with a strong identity encompassing core beliefs about higher

purpose, law, and morality. In RA organizations, members often share the same faith and belief systems. As documented in Catholic schools and hospitals (Coleman and Hoffer 1987, Reich 2014), members subjugate themselves to a distinct system of collective beliefs and organizing principles. Religion can thus shape the offenders' justification, the victim's interpretation, and organizational members' expectation that social control agents will be vigilant in investigating the action (see a discussion of sexual abuse of children in the Catholic Church in Keenan 2013). Religions have unique structures, cultures, incentives, norms, and authority relationships—creating, in RA organizations, alternative organizational routes through which actions are interpreted, labeled, and resolved.

Next, we briefly describe existing accounts of biases in data sets of wrongdoing (biases in how social control agents identify and record wrongdoing) and then discuss how organizational attributes (in our case religious affiliation) can produce systematic biases that occur at the level of the organization rather than the monitoring environment.

3.1. Organization's Religious Affiliation Influencing Social Control Agents

In any group of actors, a shared identity can affect the vigilance and quality of monitoring, biasing the observed data on misconduct. This problem was recognized by Sutherland (1940), who was the first to argue that white-collar crime is much more prevalent than it may appear to be because data on crime are collected by enforcement agencies who oversample from lower social classes and categorize some criminal behavior as wrongful, but not others:

The conception and explanations of crime which have just been described are misleading and incorrect.... The conventional explanations are invalid principally because they are derived from biased samples. The samples are biased in that they have not included vast areas of criminal behavior of persons not in the lower class. (p. 2)

Contemporary research extends this argument to implicit (Bertrand et al. 2005) or explicit oversampling on race, gender, and social status (Graffin et al. 2013, Arnold et al. 2018). A religious affiliation, as a strong identity that

Figure 4. Theoretical Model



places the organization within a clearly defined social group, may lead to similar inspector–inspected dynamics. Inspectors may perceive RA homes as more caring and upright, leading to more lenient inspections or harsher judgments if what inspectors observe on the ground does not conform with their beliefs.

Furthermore, if the inspectors are themselves religious, the visit to a RA home may exert a direct “treatment” effect on them. A vast literature shows that religious individuals respond less negatively to adverse events in the presence of religious cues (Inzlicht and Tullett 2010). For example, compared with secular individuals, religious individuals feel less anxiety and more control when facing negative life events (Kay et al. 2010), and, as Inzlicht and Tullett (2010) show, priming religious individuals with the concept of God lowers the level of neural signals linked to anxiety. Religious inspectors may therefore perceive a violation as less severe when surrounded by religious symbols, as is the case in many RA care homes.

In sum, religious affiliation can elicit bias from inspectors. This may result in more (less) frequent inspections, more (fewer) violations identified during inspections, or higher (lower) severity grades assigned to them. When inspectors are themselves religious, the ubiquity of religious symbolism they are exposed to in RA homes may also lead them to perceive violations as less severe (Inzlicht and Tullett 2010). We address these and other potential types of inspector bias directly in our research design and additional tests (Sections 6.2.1 and 6.2.2).

3.2. Organization’s Religious Affiliation Influencing Members of the Organization

Organizational attributes can produce systematic differences in how actions are interpreted and whether they are reported and recorded in administrative data. We focus on one attribute (religious affiliation) and one path through which data on wrongdoing can be biased—the likelihood that organization members will report wrongdoing to social control agents. Online Appendices 3a and 3b summarize the possible relationships between the true (unobserved) rate of violations and the data reported in administrative records. If our assumptions are correct (we articulate those in Section 5 and describe them in Online Appendices 3a and 3b), we can infer differences in the underlying rates of violations in RA versus secular homes by comparing violations identified in them during routine versus complaint-triggered inspections. We briefly discuss the paths that can create the observed difference in violations between RA and secular organizations (direct, indirect through biased inspections and indirect through interorganizational processes) in this section.

3.2.1. Religious Affiliation Influencing Wrongdoing.

Existing theory offers mixed predictions on whether a religious affiliation will increase or decrease wrongdoing (Tracey 2012, Chan-Serafin et al. 2013). On one hand, religion can increase prosociality and care for others. On the other hand, religious norms—for example, norms about the treatment of women and LGBTQ (Lesbian, Gay, Bisexual, Transsexual and Queer) individuals—can decouple from societal norms and lead to behaviors viewed as wrongful in society at large but not by members of the religious group (for a discussion of this possible decoupling, see Greve et al. 2010, Palmer 2012 and Mohliver 2019). Religion could also provide a sense of righteousness and increase moral disengagement, which can result in wrongdoing that is perceived as justified by a higher cause (Chan-Serafin et al. 2013). Because religion can temper or increase wrongdoing, depending on specific religious norms and their alignment with societal expectations, we do not offer predictions for whether religious affiliation will increase or decrease violations in our sample.

3.2.2. Religious Affiliation Influencing Complaints.

In contrast to the direct effect of a religious affiliation on wrongdoing, a large amount of literature allows us to infer how religious affiliation influences the interpretation, labeling, and reporting of wrongful acts to social control agents.

Organized religion is a type of organizational form: it has distinct structures, divisions of labor, rules, and definitions of appropriate behavior. There are specific chains of command, authority relationships, and sometimes even court systems to resolve disputes (e.g., ecclesiastical courts in the Catholic Church, rabbinical courts in Judaism, and the Islamic Sharia laws). Theological positions on such issues as the role of the priest and the emphasis—or lack thereof—on engaging with broader social issues shape these systems (Hinings and Raynard 2014). The dispute-settlement process is usually handled by the organization, “which enhances its capacity for self-protection through dispute containment. Whether the organization reacts openly and responsively or secretively and defensively, disputes are contained and relatively few cases become a matter of public record” (Bromley 1998, p. 147). Consequently, RA organizations feature a “dual organizational structure”: that of the organization and that of the religion it is affiliated with (Chaves 1993). All else equal, this dual structure should reduce the likelihood of complaints filed with external monitors.

Religion influences the interpretation of actions, and a religious affiliation may “treat” victims to perceive a given act as less wrongful. When faced with adverse events, religious individuals respond less negatively (Inzlicht and Tullett 2010), experiencing less anxiety and a greater sense of control (Kay et al.

2010). Faced with identical acts, religious members of RA organizations may thus experience negative events as less negative than they would if they were not primed with the concept of God to a similar extent (see Online Appendices 4a and 4b for sample activity schedules taken from RA and secular homes).¹² This suggests that the same action may be labeled wrongful in a secular but not in a RA home.

In addition, there are compelling reasons to expect that even if religious affiliation does not influence the labeling of wrongdoing, it reduces the likelihood of reporting it. Religion uses a wide range of social control methods: early socialization, parental reinforcement, appeals to tradition and an all-seeing judge, and collective activities that foster social ties, facilitate internal monitoring, and increase the cost of disobedience (Iannaccone 1998). In RA organizations, these methods often rely on social control that is identity-based (i.e., a collective identity dictating behavior; see Tracey 2012) and/or peer-based (i.e., the belief that one's behavior is being monitored by others).

Identity-based social control results in a feeling of “oneness” with the organization and a tendency to divert attribution of negative events away from the organization: attributing abuse to external factors, for example, or rationalizing negative events (Zavyalova et al. 2016). RA homes can use identity-based social control to draw on spiritual and emotional values and discipline their members, such as demanding sacrifice in the name of religious service (Kanter 1968). Reich (2014) describes how a Catholic hospital leveraged identity-based social control mechanisms to defeat unionization efforts:

A nun approached a pro-union worker and told her she was “greedy” for wanting a union.... The rhetoric that the hospital used, one organizer explained, “made it very clear that supporting the union means you’re against the hospital. Which is a big deal... that resonates with people in a big way.” This organizer recalled that people turned against the union faster than he ever expected. (p. 118)

Peer-based social control may exert an even stronger influence on behavior in organizations. Sociologists documented that religious groups have dense networks of relational ties, which facilitate higher levels of cooperation, oversight, and social control (Coleman 1990). O'Reilly and Chatman (1996) suggest that in religious cults, peer-based social control stifles dissent. They describe religious denominations where “criticism is not appreciated and obedience is expected,” with “those out of favor being deprived of friends” (p. 178–179). Some religious organizational contexts may therefore promote destructive conformity (Pratt 2000). Reich (2014, p. 118) provides examples at a Catholic hospital: “Workers were ‘scared of retaliation, ... scared to say anything’.”

In sum, an organization's religious affiliation often fosters a cognitive and emotional link between the organization and its members (Ashforth and Mael 1989, Mael and Ashforth 1992, Dutton et al. 1994), whereby the latter internalize norms of solidarity with and loyalty to the organization (O'Reilly and Chatman 1996). Socialization techniques can also ensure that members' actions will be dictated by the supposed will or purpose of the organization they identify with (Coleman 1990, p. 295). The internalization process can further prompt members to act in the organization's interests instead of their own (Kanter 1968, O'Reilly and Chatman 1996). Indeed, evolutionary sociology contends that this feature of religion—concealing wrongdoing from outsiders—may be a product of evolutionary selection processes: Religions that discouraged members from exposing faults to outsiders survived and religions that did not were selected out (Atran and Henrich 2010).¹³

We would therefore expect that *religiously affiliated care homes face lower risks of complaints from their members than secular care homes do*.

3.3. How Complaints Can Influence Wrongdoing

Monitoring, or even just the expectation of being monitored, increases compliance. In the absence of monitoring, violations can spread and worsen. This implies a simple but critical relationship between religious affiliation, complaints, and wrongdoing: fewer complaints lead to fewer inspections, allowing violations to worsen before they are detected (Figure 4).

An extensive amount of literature supports this notion of the “slippery slope” effect (Welsh et al. 2015). This effect can be amplified when the violations are embedded in an organizational context: for example, in the context of financial reporting, Gino and Bazerman (2009) find that people are more accepting of others' unethical behavior when ethical degradation occurs slowly over time. In a review of the literature, Moore and Gino (2013) highlight the interaction between sociopsychological mechanisms and organizational processes:

Social norms and social categorization can serve as facilitators of moral neglect and [we] have identified two main ways in which this occurs. First, because we look to others for norms of appropriate behavior, we tend to emulate their behavior, regardless of its moral content. Second, social categorization creates in-groups with whom we identify and feel psychologically close, and we can be easily blinded to the unethical consequences of their behavior. (p. 71)

The threat of being caught and punished curbs wrongdoing, and when the threat of reporting and punishing becomes rarer, wrongdoing worsens. In a series of laboratory experiments, Gino et al. (2013)

find that the opportunity to avoid monitoring increases unethical behavior—even more than in conditions where monitoring is entirely absent. Spicer and Thomas (1982) show that a reduction in the perceived likelihood of being audited increases tax evasion. Bar-Ilan and Sacerdote (2001) show that the probability of running a red light decreases sharply as the probability of being caught increases. Gneezy (2005) finds that wrongdoing—including lying, cheating, and stealing—is strongly influenced by expectations of detection and punishment (see also Fisman and Miguel 2007). In short, much research suggests that wrongdoing increases when monitoring, or even the expectation of monitoring decrease.

We therefore expect that *in religiously affiliated homes, the number and severity of violations identified in complaint-based inspections (which are rarer) are, on average, higher.*

4. Data

We used CMS reports to construct an inspection-level data set of all violations between 2010 and 2015.¹⁴ To receive Medicaid or Medicare funds, a nursing home must be inspected. This means that our data set covers virtually all nursing homes in the United States ($n = 16,101$). The data include information on the number and severity of violations. We collected additional care home-level data, including some characteristics of the facility and its residents. Last, we manually collected and coded information about the denominational affiliation of care homes in our data set.

The sample includes 104,204 reports occurring over five years of uninterrupted inspections. Some observations have missing variables. According to CMS, data are missing for one of two reasons: either the facility was recently opened (unable to report some survey items like annual performance) or it failed to report them for an unknown reason. Failure to report is not random with regard to our main variable of interest (Ody-Brasier and Sharkey 2019, Silver-Greenberg and Gebeloff 2021), and removing these observations would introduce a bias to our data. To minimize this problem, instead of deleting missing observations, we manually inspected the data and imputed missing values when possible. Our final sample includes 70,635 observations with some remaining missing data.

5. Empirical Approach

Our research design aims at minimizing the influence of biases that may be external to the organization (especially inspector bias, targeting, etc.). This guided the choice of our dependent variables (e.g., a four-point scale for violation severity) and our research design (comparing violations identified in response to

complaints versus routine inspections). Because federal law requires that every home be inspected annually (regardless of any attribute), religious affiliation can influence only one of the two inspection triggers: complaints.¹⁵ The raw data indeed confirm that the time between any two routine inspections in RA and secular homes is similar in magnitude and statistically identical ($\sim 1\%$ longer for RA homes, $p = 0.145$). By contrast, the time between any two complaint-based inspections is significantly longer RA homes (15%, $p = 0.000$). Any other possible source of influence (e.g., inspector bias) should be similar for routine and complaint inspections.

Our main remaining statistical concerns are the nonrandom allocation of religious affiliation and any bias that results from an interaction of complaints with individual inspectors. Specifically, we need to account for (1) unobserved heterogeneity between RA and secular homes; (2) unobservable, residual biases from state regulators; and (3) unobservable, residual biases from individual inspectors who behave differently during routine compared with complaint inspections. We address nonrandom allocation of religious affiliation by (i) including state fixed effects (comparing homes embedded in similar regulatory environments and populations) and (ii) using coarsened exact matching (CEM) to compare observationally similar RA and secular homes. We address residual inspector bias by (i) collecting qualitative evidence on repeat interactions and aggregate data on biases in response to complaints (Online Appendix 2), (ii) conducting subsample analyses for large states (with many homes and many inspectors) and small states (with few homes and few inspectors) (Section 6.2.2), and (iii) running our models on counties with a religiously homogeneous population (Section 6.2.2).

5.1. Variables

5.1.1. Dependent Variables. *Complaint* is a dummy variable equal to one for inspections triggered by a complaint.

Number of violations is a count variable of the number of violations identified during the inspection.

Severity captures the most severe violation identified in an inspection record. The severity of each violation is coded as an ordinal variable following CMS guidelines: zero when no deficiency is reported, one for violations coded A–C, two for violations coded D–F, three for violations coded G–I, and four for violations coded J–L (Figure 3). For example, if a home receives three violation citations of letter grades B, C, and F, then *Number of violations* is coded three and *Severity* is coded two (for letter grade F).

As explained earlier, we use this four-point severity score for several reasons. First, it is consistent with our conceptualization of severity because it

corresponds to the level of harm caused. Second, it is consistent with how regulators use this score; see, for example, how some state-level Offices of the Legislature Auditor rely on four severity levels (A–C, D–F, G–I, and J–L) to determine fines.¹⁶ Last, this is consistent with some academic work in public health (Castle et al. 2011) and economics (Ruffini 2021), where measures combine the three scope levels. Because scope is distinct from *Severity* but an important dimension nonetheless, we run our analyses using two alternative dependent variables: the 12-point scale (A–L) that collapses severity and scope and a disaggregated scope variable (coded one for “isolated” incident, two for “pattern,” and three for “widespread”).

5.1.2. Independent Variables. *Religious* is a dummy variable, set to one for RA homes. We used data from Form CMS-2540-10 to create this variable.

CMS does not gather information about specific denominations, so we manually collected data on RA home denominations. We visited the website of each RA home and recorded the most granular information available. Following Steensland et al. (2000), we then grouped affiliations into broader categories (see Online Appendix 5 for the detailed coding scheme). Our sample includes *Catholic* (21%), *Mainline Protestant* (31%), *Evangelical Protestant* (9%), *“Christian”* (15%), *Other* (e.g., *Jewish*; 1.5%), and *Multidenominational* (4%). The coding process was straightforward for some affiliations (e.g., *Catholic*) but difficult for others—especially for distinguishing between *Mainline* and *Evangelical Protestant*.¹⁷ We therefore caution against comparing regression coefficients across denominations.

5.1.3. Control Variables. At the inspection level, *Lagged severity* controls for the severity of the worst violation identified in the previous inspection. This helps alleviate concerns about path dependence (e.g., a home with a history of excellent reports may subsequently experience relatively lenient inspections). *Days to inspection* captures the number of days elapsed since the last inspection. *Follow-up inspections* are coded as one when an inspection is to follow up on substantive issues flagged in a prior inspection (these typically occur within weeks of the prior inspection). Analyses that exclude these inspections are reported in Online Appendix 6.

At the facility level, *Star rating for quality* captures the quality of care. The “five-star system” has been criticized for self-reported components (Silver-Greenberg and Gebeloff 2021). We use the score computed by CMS, which is only one of the five-star system’s three subcomponents. The quarterly data used in this rating reflect outcome-based measures that are known to capture the quality of care provided in a nursing home. We chose this

subcomponent because it is less prone to gaming by care homes than, for example, the staffing rating (Ody-Brasier and Sharkey 2019). *For profit* is a dummy variable that takes the value of one if the care home is for profit. *Number of residents* captures facility size and is measured as the natural logarithm of the reported number of residents. To proxy for strain, whereby homes that are underperforming would compromise standards of care to reduce costs, we used the *Occupancy rate*, the annual ratio of residents to beds. We also computed the driving *Distance to the closest competitor* to control for the availability of substitutes and competitive pressures. To account for differences in the profile of residents across homes, we used two measures: the *Proportion of residents dependent on Medicaid* (in %) and the *Proportion of white residents* (in %). *Month* and *Year* are used as dummy variables to account for temporal trends in our data.

5.2. Estimation Strategy

To examine the risk of complaints, we used survival analysis. These are best suited for estimating the occurrence of events over time (in our case, complaint-triggered inspections). Although the hazard rates appear to be parallel between groups on a log scale with regard to the smoothing, we tested the proportional hazard rates assumption. Our analysis of residuals helped identify the variables that violate this assumption. We followed Cleves et al. (2008) and compared goodness-of-fit indicators (Akaike information criterion) for nonnested models (Castilla 2007). These analyses led us to select a Weibull monotonic function for time. Our survival models allow for multiple failures (i.e., complaint-based inspections) per nursing home.¹⁸

To model the *severity* of violations, we used generalized ordered logit models. These can estimate models that are less restrictive than the proportional odds models but more parsimonious than a nonordinal model, such as multinomial logistic regressions (Williams 2006). We used an iterative process to identify the partial proportional model that best fit the data and to identify those variables that did not meet the proportional odds assumption.

We also tested differences in the *number* of violations between RA and secular homes using negative binomial models. Less than 7% of our observations resulted in no violation being identified, meaning zero-inflated specifications were not appropriate. A negative binomial specification was also more appropriate than Poisson models (deviance of goodness-of-fit: $p = 0.0000$; Pearson goodness-of-fit: $p = 0.0000$).

5.3. Addressing Unobserved Heterogeneity

Although our analyses include a variety of important controls, there might be some heterogeneity between RA and secular care homes that influences complaints or violations and that these controls do not capture.

Based on recent press coverage (Ornstein and Groeger 2012, Silver-Greenberg and Gebeloff 2021), we were particularly concerned that state-trained inspectors systematically differ in their assessments of severity across state lines. Recall that despite following the same federal guidelines, inspections are conducted by state agencies. We approached this issue by using state fixed effects in all our analyses (we clustered the standard errors by state).

We were also concerned that homes cater to different pools of residents depending on local market characteristics. Ideally, one would compare a RA and a secular home operating in the same local market and catering to similar residents. To get as close as possible to this scenario, we adopted a case-control design using CEM (Iacus et al. 2012). This nonparametric method of preprocessing the data helps “control for some or all of the confounding influences of pretreatment control variables by reducing the imbalance between treated and control groups.”¹⁹ It also has several advantages over other techniques like propensity score matching (Rogan and Sorenson 2014).

We constructed a control sample by pairing each RA home with observationally equivalent secular homes. We matched observations on the U.S. state in which the home is located, on home size (*number of residents*), and residents’ sociodemographic characteristics (*proportion of residents on Medicaid (%)* and *proportion of white residents (%)*). There is a tradeoff between coarser- and finer-grained matching. We followed Rogan and Sorenson (2014) and aimed for a case/control ratio of 1:10. Balance tables reveal that the matching of observations significantly reduced observed differences between religious and secular care homes (Table 1). We report our main regression results using the full and matched samples.

6. Results

6.1. Main Analyses

Table 2 presents the descriptive statistics and correlations for the full sample.

Figure 1 shows the raw data for severity and number of violations in RA and secular care homes. RA care homes seem to have slightly more violations and substantially more of the most severe violations: namely, level 3 or 4 (i.e., actual harm or immediate jeopardy).

Next, we examined the number of days between two complaint inspections and between two routine inspections for both RA and secular homes. The time between any two routine inspections is virtually identical for secular and RA homes (381 versus 377 days, respectively; $p = 0.145$), but the time between two complaint-triggered inspections is significantly longer for RA homes (156 versus 180 days, respectively; $p = 0.000$). Figure 2 shows the Kaplan-Meier survival estimates for secular and RA homes receiving a complaint. We checked the equality of the survivor functions across groups and found that RA homes receive fewer and less frequent complaint-triggered inspections than their secular peers: $\chi^2(1) = 265.30$, $p = 0.000$ (Wilcoxon); $\chi^2(1) = 276.94$, $p = 0.000$ (Tware), and $\chi^2(1) = 175.84$, $p = 0.000$ (Peto). The risk of a complaint inspection is thus significantly lower for RA homes, consistently across the entire range of survival time. Unsurprisingly, the relationship between time and violation severity is positive (see Online Appendix 7): the longer the home operates without monitoring, the worse the violations can become. Overall, the raw data suggest that RA organizations differ in the number and severity of violations and that, before accounting for differences between the two types of homes, RA homes are at lower risk of experiencing a complaint inspection.

Table 1. Balance Tables

Variables	Full sample					CEM sample				
	Secular		Religious		Difference	Secular		Religious		Difference
	Mean	Standard deviation	Mean	Standard deviation		Mean	Standard deviation	Mean	Standard deviation	
1 <i>Complaint inspection</i>	0.43	0.50	0.32	0.46	0.12	0.41	0.49	0.32	0.47	0.09
2 <i>Severity of violations</i>	1.98	0.55	1.94	0.60	0.04	1.97	0.56	1.94	0.60	0.03
3 <i>Number of violations</i>	4.85	4.86	4.54	4.24	0.31	4.67	4.62	4.51	4.21	0.16
4 <i>Days to inspection</i>	234.96	161.08	276.07	157.46	−41.12	244.85	161.67	275.28	157.55	−30.43
5 <i>Severity (lagged)</i>	1.97	0.56	1.92	0.61	0.05	1.96	0.57	1.92	0.62	0.03
6 <i>Follow-up inspection</i>	0.45	0.50	0.32	0.47	0.12	0.42	0.49	0.33	0.47	0.09
7 <i>Quality rating</i>	3.46	0.94	3.53	0.92	−0.06	3.42	0.93	3.52	0.92	−0.10
8 <i>For profit</i>	0.77	0.42	0.00	0.00	0.77	0.74	0.44	0.00	0.00	0.74
9 <i>Number residents (log)</i>	4.41	0.58	4.36	0.63	0.05	4.33	0.52	4.36	0.61	−0.02
10 <i>Occupancy rate</i>	82.26	14.63	86.57	14.48	−4.32	82.58	14.26	86.66	14.41	−4.08
11 <i>Distance to competitor</i>	8.09	33.78	7.54	15.67	0.56	8.72	32.06	7.62	15.81	1.10
12 <i>% Medicaid residents</i>	62.65	20.93	48.36	21.33	14.30	57.60	20.10	48.64	21.12	8.96
13 <i>% white residents</i>	80.77	22.38	93.20	13.59	−12.44	92.84	11.56	93.89	11.74	−1.05

Table 2. Descriptive Statistics and Correlations (Full Sample)

Variables	Mean	Standard deviation	1	2	3	4	5	6	7
1 <i>Complaint inspection</i>	0.43	0.49							
2 <i>Religious home</i>	0.04	0.19	−0.0449*						
3 <i>Severity of violations</i>	1.98	0.55	0.2111*	−0.0143*					
4 <i>Number of violations</i>	4.84	4.84	−0.4047*	−0.0122*	0.0678*				
5 <i>Days to inspection</i>	236.46	161.14	−0.4515*	0.0479*	−0.1537*	0.1278*			
6 <i>Severity (lagged)</i>	1.97	0.56	0.0663*	−0.0157*	0.0905*	0.0468*	−0.1833*		
7 <i>Follow-up inspection</i>	0.44	0.50	0.0681*	−0.0456*	0.0487*	0.1085*	−0.5297*	0.2725*	
8 <i>Quality rating</i>	3.47	0.94	−0.0410*	0.0127*	−0.0505*	−0.0165*	0.0579*	−0.0543*	−0.0524*
9 <i>For profit</i>	0.75	0.44	0.1184*	−0.3372*	0.0356*	0.0289*	−0.1408*	0.0388*	0.1173*
10 <i>Number residents (log)</i>	4.41	0.58	0.1467*	−0.0169*	0.0745*	−0.0174*	−0.1741*	0.0809*	0.1494*
11 <i>Occupancy rate</i>	82.42	14.65	−0.0376*	0.0556*	−0.0136*	−0.0408*	0.0584*	−0.0150*	−0.0403*
12 <i>Distance to competitor</i>	8.07	33.29	−0.0253*	−0.0031	−0.0034	0.0097	0.0252*	−0.0038	−0.0281*
13 <i>% Medicaid residents</i>	62.13	21.11	0.0828*	−0.1277*	0.0560*	0.0647*	−0.1116*	0.0589*	0.0860*
14 <i>% white residents</i>	81.19	22.25	−0.0767*	0.1017*	−0.0096	−0.0525*	0.0892*	−0.0114*	−0.0762*
			8	9	10	11	12	13	
9 <i>For profit</i>			−0.0130*						
10 <i>Number residents (log)</i>			0.0343*	0.0996*					
11 <i>Occupancy rate</i>			0.0857*	−0.0988*	0.3260*				
12 <i>Distance to competitor</i>			−0.0047	−0.0487*	−0.0879*	−0.0306*			
13 <i>% Medicaid residents</i>			−0.0066	0.2074*	0.2849*	0.0906*	0.0296*		
14 <i>% white residents</i>			−0.1597*	−0.1836*	−0.2449*	−0.0049	0.0533*	−0.3371*	

*Significant at $p < 0.001$.

The results of the Weibull nonproportional hazard models are reported in Online Appendix 8. For the full sample, the hazard rate for RA homes is only 0.87 times that for secular homes at any time (nonexponentiated $\beta = -0.136$, $p = 0.000$). For the matched sample, it is 0.89 (nonexponentiated $\beta = -0.114$, $p = 0.003$). We conclude that the hazard of a complaint inspection is lower in RA than in secular homes.

The results of a generalized ordered logit predicting *severity* are reported in Table 3. We begin by examining whether RA homes experience more severe violations. We do not find that this is the case: in Model 1, the coefficient for *Religious* is positive but not statistically significant ($\beta = 0.051$, $p = 0.382$). The variable *Religious* meets the parallel-lines assumption, unlike *Complaint*, which we add in the next model and report for each severity level. Model 2 shows that inspections triggered by a complaint tend to identify worse violations and that this effect is most acute at the highest severity levels. For example, a complaint inspection multiplies the odds of identifying violations of the maximum possible severity (level 4; i.e., immediate jeopardy) by 7.21 ($=\exp(1.976)$).

In Model 3, we introduced the interaction *Religious home* \times *Complaint*, which meets the parallel-lines assumption. Interaction effects are difficult to interpret in nonlinear models; we thus report the predictive margins holding all controls at the mean (see Online Appendix 9a for details). The predicted probability of identifying violations of the worst possible severity (level 4) is 3.34% if the home is secular and 4.51% if RA (i.e., 1.35 times the probability of a secular home). The difference is considerably smaller and in the

opposite direction (although not statistically significant) for violations identified during routine inspections: the predicted probability of a level 4 violation is 0.45% in secular homes and 0.38% in RA homes.

It is violations of the highest severity that underlie the difference between RA and secular homes during complaint inspections. For example, the predicted probability of identifying violations whose severity is at least of level 3 (i.e., actual harm) is 9.82% if the home is secular and 12.61% if it is RA. Here, too, the severity in RA compared with secular homes is nearly identical for routine inspections: the predicted probability is 1.66% in secular homes and 1.42% in RA homes.

Models 4, 5, and 6 replicate these analyses on the matched sample with results that are consistent with those for the full sample: in Model 4, *Religious* has no significant main effect on severity ($\beta = 0.043$, $p = 0.452$); in Model 5, complaints are associated with significantly more severe violations, increasing the odds of identifying violations of the worst possible severity by 2.41 ($=\exp(0.880)$). In Model 6, the coefficient on the interaction between *Religious* and *Complaint* is positive and significant. The predicted probability of identifying violations of the highest severity during complaint inspections is 3.17% in a secular home and 3.95% in a RA home. In the matched sample, too, the difference between secular and RA homes virtually disappears for routine inspections: the predicted probability is 0.35% for secular and 0.31% for RA homes. Overall, these results suggest that complaint inspections identify worse violations in RA homes than in secular homes, whereas routine inspections do not.

Table 3. Generalized Ordered Logit Models Predicting Violation Severity by Inspection Trigger (Four-Point Scale)

	Variables	Full sample			CEM sample		
		(1)	(2)	(3)	(4)	(5)	(6)
0	<i>Religious home</i> ^a	0.051 (0.058)	0.051 (0.059)	−0.146+ (0.085)	0.043 (0.058)	0.042 (0.059)	−0.110 (0.087)
	<i>Complaint</i>		0.982*** (0.148)	0.969*** (0.148)		0.880*** (0.130)	0.863*** (0.131)
	<i>Religious × Complaint</i> ^a			0.412*** (0.113)			0.315** (0.121)
	Constant	4.197*** (0.230)	3.617*** (0.225)	3.633*** (0.225)	4.395*** (0.334)	3.743*** (0.329)	3.765*** (0.327)
1	<i>Complaint</i>		0.662*** (0.111)	0.649*** (0.111)		0.669*** (0.110)	0.652*** (0.111)
	Constant	2.290*** (0.217)	1.822*** (0.227)	1.838*** (0.227)	2.598*** (0.344)	2.016*** (0.335)	2.037*** (0.334)
2	<i>Complaint</i>		1.910*** (0.088)	1.896*** (0.087)		1.942*** (0.112)	1.923*** (0.111)
	Constant	−3.032*** (0.197)	−4.745*** (0.214)	−4.727*** (0.213)	−2.689*** (0.318)	−4.536*** (0.337)	−4.512*** (0.336)
3	<i>Complaint</i>		1.976*** (0.133)	1.961*** (0.132)		2.109*** (0.117)	2.090*** (0.117)
	Constant	−4.500*** (0.242)	−6.297*** (0.249)	−6.278*** (0.247)	−4.279*** (0.364)	−6.313*** (0.353)	−6.289*** (0.352)
	Log likelihood	−41,054.53	−39,714.22	−39,707.97	−23,053.79	−22,257.32	−22,253.79
	Wald test ^b			0.0000			0.0000
	N	70,635	70,635	70,635	38,863	38,863	38,863

Notes. There is no single “base” category (Williams 2006). The models are akin to a series of logistic regressions. In the first panel, it is like a logistic regression where category 0 = 0 and categories 1, 2, 3, 4 = 1. In the second panel, it is 0 and 1 = 0 and 2, 3, 4 = 1; third panel, 0, 1, 2 = 0 and 3, 4 = 1; and fourth panel, 0, 1, 2, 3 = 0 and 4 = 1. For further details about the interpretation of these models, see <https://www3.nd.edu/~rwilliam/gologit2/tsfaq.html>. Standard errors in parentheses clustered by state. All models include state, month, and year dummies and the following controls: Days to Inspection, Lagged severity, Follow-up inspections, Quality rating, For profit, Number residents, Occupancy rate, Distance to competitor, % Medicaid residents, % white residents.

^aVariables meet the parallel lines assumption.

^bWald test: Complaint + Religious × Complaint = 0.

+ $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; two-tailed tests.

We next explored two different ways to measure how “bad” a violation is: a 3-point ordinal measure of scope and the CMS 12-point scale. The results are reported in Table 4, for the full and matched samples. The dependent variable in Models 1 and 2 is the 12-point scale, and in Models 3 and 4, it is the scope measure. The results are consistent with those in our main models. Religious affiliation has no significant effect on the 12-point scale or the 3-point scope measure (respectively, in the full sample, $\beta = -0.039$, $p = 0.539$; $\beta = 0.074$, $p = 0.263$). Complaints are associated with an increase on the 12-point scale and in scope. The interaction between a complaint inspection and a religious affiliation is positive and significant for the 12-point scale and positive but only two-tailed significant for the 3-point scale (respectively, in the full sample, $\beta = 0.239$, $p = 0.020$ and $\beta = 0.150$, $p = 0.198$). We cannot rule out that RA increases scope as well, but our results do not support it as strongly as they do for severity. Overall, these analyses suggest that (i) alternative ways of coding the dependent variable do not fundamentally change the results, (ii) it is possible that both the severity and the scope of the violations

identified are greater during complaint inspections in RA homes than in secular homes, and (iii) an increase in the severity of the actions occurring in these homes, not an increase in the number of residents affected by these actions, seems to be driving this effect.

We next turn to the number of violations identified. Table 5 shows the results of the negative binomial models. Model 1 suggests that RA homes have slightly more violations than their secular peers ($\beta = 0.052$, $p = 0.018$). In Model 2, we add the *Complaint* variable and see that the effect of religious affiliation remains significant ($\beta = 0.050$, $p = 0.013$). Interestingly, we also see a negative and significant effect of *Complaint* on the number of violations identified: compared with routine inspections, complaint inspections result in almost one fewer violation ($\beta = -0.935$, $p = 0.000$). It thus appears that complaint inspections identify severer but fewer violations. This result could indicate that, during a complaint-triggered visit, inspectors are especially focused on the violations reported by complainants and perhaps less focused on identifying other violations. It could also reflect the fact that violations accumulate over time (recall that

Table 4. Generalized Ordered Logit Models Predicting Scope/Severity and Scope by Inspection Trigger

	Severity and scope (12-point scale)		Scope (3-point scale)	
	(1) Full sample	(2) CEM sample	(3) Full sample	(4) CEM sample
<i>Religious</i> ^a	−0.039 (0.063)	−0.036 (0.063)	0.074 (0.066)	0.084 (0.065)
<i>Complaint</i>	1.976*** (0.141)	2.080*** (0.145)	0.867*** (0.153)	0.953*** (0.120)
<i>Religious × Complaint</i> ^a	0.239* (0.103)	0.184+ (0.102)	0.150 (0.116)	0.147 (0.118)
Log likelihood	−86,788.32	−47,985.18	−61,672.99	−34,208.11
Wald test ^b	0.0000	0.0000	0.0000	0.0000
N	70,524	38,808	70,635	38,863

Notes. For Models 1 and 2, the results presented here correspond to the third panel, where category 0, 1, 2 = 0 and 3, 4 = 1 (i.e., letter grade “G”, for “actual harm”, or worse). For Models 3 and 4, the results presented here correspond to the first panel, where category 0, 1 = 0 and 2, 3 = 1 (i.e., more than “isolated” incident). Standard errors in parentheses clustered by state. All models include state, month, and year dummies and the following controls: Days to Inspection, Lagged severity/scope, Follow-up inspections, Quality rating, For profit, Number residents, Occupancy rate, Distance to competitor, % Medicaid residents, % white residents.

^aVariables meet the parallel lines assumption.

^bWald test: Complaint + Religious × Complaint = 0.

+ $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; two-tailed tests.

the time between routine inspections is on average longer). Model 3 shows that the interaction between *Complaint* and *Religious* is positive and significant ($\beta = 0.109$, $p = 0.080$) and that the main effect of *Religious* becomes statistically insignificant (see Online Appendix 9b for the predictive margins). Complaint inspections identify 2.97 violations in RA homes but no more than 2.62 in secular ones.

The results for these analyses on the matched sample are similar for the effect of *Religious* affiliation and *Complaint* ($\beta = 0.048$, $p = 0.043$ in Model 4; $\beta = -0.868$, $p = 0.000$ in Model 5). We also find a positive but insignificant interaction for *Complaint × Religious* ($\beta = 0.046$,

$p = 0.357$). The predictive margins suggest that during complaint inspections, 2.80 violations are identified on average in RA homes compared with just 2.59 in secular homes. In sum, these results provide tentative evidence of differences in the number of violations between the two types of homes, but the statistical significance and economic magnitude of the effect are limited.

6.2. Supplementary Analyses

6.2.1. Secular Conflict-Resolution Mechanisms. A possible explanation for the longer periods between complaints in RA homes is that they have internal

Table 5. Negative Binomial Models Predicting the Number of Violations by Inspection Trigger

	Full sample			CEM sample		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Religious homes</i>	0.052* (0.022)	0.050* (0.020)	0.017 (0.024)	0.048* (0.024)	0.047* (0.022)	0.033 (0.023)
<i>Complaint</i>		−0.935*** (0.079)	−0.938*** (0.080)		−0.868*** (0.065)	−0.870*** (0.066)
<i>Religious × Complaint</i> ^a			0.109+ (0.062)			0.046 (0.050)
Constant	0.728*** (0.095)	1.294*** (0.087)	1.297*** (0.087)	0.870*** (0.117)	1.383*** (0.123)	1.385*** (0.122)
Lnalpha	−0.705 (0.041)	−1.062 (0.044)	−1.062 (0.044)	−0.777 (0.038)	−1.094 (0.049)	−1.094 (0.049)
Log likelihood	−178,682.20	−170,329.88	−170,325.11	−96,781.46	−92,810.54	−92,809.72
Wald test ^b			0.0000			0.0000
N	70,635	70,635	70,635	38,863	38,863	38,863

Notes. Standard errors in parentheses clustered by state. All models include state, month, and year dummies and Days to inspection, Lagged severity, Follow-up inspections, Quality rating, For profit, Number residents, Occupancy rate, Distance to competitor, % Medicaid and % white residents.

^aDefault category is random inspection in secular home.

^bWald test: Complaint + Religious × Complaint = 0.

+ $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; two-tailed tests.

mechanisms for resolving issues that would have otherwise led to formal complaints.²⁰ To assess this explanation, we collected data on whether the care home has “family councils” or “residents councils”—institutionalized voluntary groups that help solve residents’ problems. We created a categorical variable capturing whether the home (1) has no such council (2.46%), (2) has only a family council (0.25%), (3) has only a resident council (68.97%), or (4) has both a family and a resident council (28.31%). If RA homes experience fewer complaints because they have religious mechanisms for resolving conflicts, the difference between RA and secular care homes should be partially explained by controlling for the existence of these institutions that are designed to solve problems internally.

Table 6 reports the models when we include this variable. The first column is a survival analysis that suggests that compared with homes with no council, having (only) a resident council, or both resident and family councils significantly increases the hazard of a complaint inspection. Whatever the hazard rate of a complaint at a particular time for homes with no council, the hazard rate for homes with (only) a resident council or with both councils is 1.19 times that value (nonexponentiated $\beta = 0.174$, $p = 0.005$; $\beta = 0.172$, $p = 0.014$). We note the lack of a statistically significant effect for (only) Family council—perhaps because of their small number. Importantly, column (1) shows that the effect of a religious affiliation on the hazard of receiving a complaint inspection is unchanged: RA homes have a hazard rate 0.88 times that of secular ones (nonexponentiated $\beta = -0.130$, $p = 0.021$).

Column (2) looks at the severity of the violations identified. Again, the generalized ordered model shows that the coefficient on the interaction *Religious* \times *Complaint* has a positive and significant effect on severity ($\beta = 0.430$, $p = 0.000$). Column (3), a negative binomial model predicting the number of violations, is also consistent with our main model: controlling for resident and/or family councils leaves the coefficient on the interaction of *Complaint* \times *Religious* positive and marginally significant ($\beta = 0.108$, $p = 0.081$). In sum, Internal conflict-resolution mechanisms do not substitute or explain away the effect of being religiously affiliated.

6.2.2. Inspector Bias. Perhaps the most salient concern in our analysis is that inspectors may be biased toward (or against) RA care homes. Many mechanisms can lead to such bias; inspectors could have an affinity for a particular religion or denomination, or they could have a history of inspecting a specific home, creating dyadic favoritism (Online Appendix 3b illustrates where inspector biases can enter the data-generating process). Our research design partially alleviates these concerns (see Online Appendix 3b). For generalized bias, if an inspector has some implicit or explicit bias toward a religion (for example, if the inspectors are

affected by the religious symbolism), we should not expect this bias to depend on whether they visit the home for a routine inspection or a complaint inspection. In all our models, RA homes did not differ from secular homes during routine inspections. If the difference in the recorded violation during complaint-triggered inspections was because of inspector bias, we would expect to see some of this bias in the data from routine inspections.

However, more complex relationships may exist. For example, RA organizations may be better able than secular homes to form favorable dyadic relationships with inspectors, and these relationships may manifest more strongly in one type of inspection than in another. We tried to address this concern by exploiting, in our data, variation in the baseline likelihood of repeated interactions. Some U.S. states have only a few inspectors and a small number of care homes. Delaware (population, 1 million; size, 5,133 km²), for example, has only 46 CMS-regulated nursing homes and a handful of state inspectors. By contrast, California (population, 40 million; size, 423,970 km²) has 1,219 CMS-regulated care homes and, during the time our data were collected, employed 500 to 600 inspectors. The likelihood that a given inspector repeatedly visits the same care home is significantly lower in California than in Delaware. We used this feature to conduct a subsample analysis for the largest U.S. states with high numbers of care homes and inspectors (where repeat interactions are least likely) to the smallest states with the lowest numbers of inspectors and homes (where repeat interactions are most likely).

The results of the subsample analyses are reported in Table 7, Panels A (New York, Florida, and California) and B (Rhode Island, Delaware, and Connecticut). In large states where dyadic favoritism is least likely, the coefficient for *Religious* home remains negative and significant in the survival model (column (1)). This suggests that, even in states where inspectors are unlikely to form relational ties with care homes, RA homes are at a lower risk of complaint-triggered visits (nonexponentiated $\beta = -0.312$, $p = 0.018$). The interaction *Religious* \times *Complaint* is positive and significant in the generalized ordered logit model ($\beta = 0.893$, $p = 0.002$), which predicts the severity of the violations identified (column (2)). As for the number of violations identified (Model 3), the interaction *Religious* \times *Complaint* remains positive and statistically significant ($\beta = 0.302$, $p = 0.000$). Perhaps unsurprisingly, the results are significant and in the expected direction for the Rhode Island, Delaware, and Connecticut subsample (where dyadic favoritism is most likely). Overall, these results are consistent with the previous findings—even in states where dyadic favoritism is least likely, religious affiliation seems to reduce the risk of complaints, and RA homes have more and worse violations during complaint inspections.

One might also worry that inspector bias against a RA home would have more room to manifest itself

Table 6. Supplementary Analyses: Secular Conflict-Resolution Mechanisms

	Complaint	Severity	Number
	(1) Survival model	(2) Generalized ordered logit	(3) Negative binomial
<i>Religious</i>	−0.130* (0.056)	−0.155+ (0.087)	0.016 (0.024)
<i>Resident/family council</i>	0.172* (0.070)	0.031 (0.083)	0.064* (0.029)
<i>Family council only</i>	−0.391 (0.313)	−0.271 (0.208)	−0.125+ (0.071)
<i>Resident council only</i>	0.174** (0.062)	0.058 (0.085)	0.062* (0.030)
<i>Complaint</i>		1.465*** (0.154)	−0.938*** (0.080)
<i>Religious × Complaint</i>		0.430*** (0.116)	0.108+ (0.062)
Constant	−28.765*** (1.035)		1.257*** (0.095)
Lnalpha			−1.062 (0.044)
Wald test ^a		0.0000	0.0000
Log likelihood	11,635.34	−39,936.11	−170,317.35
N	71,410	70,635	70,635

Notes. Standard errors in parentheses clustered by state. All models include state, month, and year dummies and the following controls: Days to inspection (except Model 1), Lagged severity, Follow-up inspections, Quality rating, For profit, Number residents, Occupancy rate, Distance to competitor, % Medicaid residents, % white residents.

^aWald test: Complaint + Religious × Complaint = 0.

* $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; two-tailed tests.

during complaint inspections, when inspectors can punish the targeted home. To examine this possibility, we collected 2010 census data and computed a county-level measure of religious homogeneity.²¹ We wanted to check whether our results hold where religious homogeneity is particularly strong (top decile) and the likelihood that an inspector and a home manager share the same faith is high: in such counties, bias against RA homes for complaints is less likely. The results are reported in Table 8; again, they remain consistent with those we presented in the main analyses. In these counties, the hazard of facing a complaint is lower for RA homes than it is for secular ones (nonexponentiated $\beta = -0.268$, $p = 0.098$). The violations identified during complaint-based inspections are significantly more severe ($\beta = 0.695$, $p = 0.003$) and marginally more numerous ($\beta = 0.152$, $p = 0.103$) in RA homes than in secular homes. What's more, the interaction estimates of complaints with severity in the counties with the greatest religious homogeneity are larger than the estimates in the main analysis (all counties). Together, these results suggest that this type of inspector bias is unlikely to be driving our results.

6.2.3. Breakdown by Denomination. We theorized that attributes of the religion—such as specific authority relationships, procedures for handling conflict, or beliefs in forgiveness, God, and an afterlife—may reduce the tendency of organization members to file

complaints with state regulators. Because these attributes vary across denominations, we wished to examine whether different denominations show different dynamics related to complaints and violations.

In additional analyses (see Online Appendix 10), we replaced the *Religious* variable with dummy variables for each denomination. The survival model in the first column shows that Catholic nursing homes are significantly less likely to experience complaint inspections. We observe effects in the same direction, but of different magnitudes, for two other denominations: Mainline Protestant and Other. We also observe results that are directionally consistent with our main models for the number and severity of violations (most strongly for Catholic homes). Interestingly, the coefficient for Multidenominational homes, whose religious identity is not homogeneous, is positive—albeit not statistically significant (nonexponentiated $\beta = 0.134$, $p = 0.317$). Thus, multidenominational homes seem just as likely as secular homes to have a formal complaint filed against them.

Although we advise caution in interpreting these results for any specific denomination, these analyses provide suggestive evidence that a religious affiliation impacts both complaints and severity of violations—where the magnitude and significance of the effects vary across denominations but the effects are all directionally similar: fewer complaints and more severe violations. A plausible explanation is that the magnitude of the effect differs because religions (and denominations)

Table 7. Subsample Analyses

	Complaint	Severity	Number
	(1) Survival model	(2) Generalized ordered logit	(3) Negative binomial
Panel A: Large U.S. states			
<i>Religious</i>	−0.312* (0.132)	−0.129 (0.216)	−0.001 (0.022)
<i>Complaint</i>		0.522** (0.162)	−1.315*** (0.287)
<i>Religious × Complaint</i>		0.893** (0.288)	0.302*** (0.051)
Constant	−30,556*** (5.037)		1.783*** (0.087)
Lnalpha			−1.368 (0.144)
Wald test ^a		0.0001	0.0002
Log likelihood	3,182.19	−7,084.20	−25,547.75
N	11,341	11,242	11,242
Panel B: Small U.S. states			
<i>Religious</i>	−0.292* (0.146)	−0.232 (0.205)	0.179** (0.063)
<i>Complaint</i>		0.993* (0.432)	−0.432*** (0.099)
<i>Religious × Complaint</i>		1.154** (0.441)	0.209* (0.084)
Constant	−28.966*** (1.042)		2.177*** (0.578)
Lnalpha			−1.151 (0.109)
Wald test ^a		0.1736	0.0000
Log likelihood	186.99	−754.54	−4,080.87
N	1,561	1,538	1,538

Notes. Standard errors in parentheses clustered by state. All models include state, month, and year dummies and the following controls: Days to inspection (except Model 1), Lagged severity, Follow-up inspections, Quality rating, For profit, Number residents, Occupancy rate, Distance to competitor, % Medicaid residents, % white residents.

^aWald test: Complaint + Religious × Complaint = 0.

* $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; two-tailed tests.

vary greatly in structure, culture, authority relationships, and norms.

7. Discussion and Conclusions

7.1. Key Contributions

In the United States, RA organizations have unique privileges, including the ability to discriminate in hiring. Many of these privileges are premised on the assumption that these organizations are more effective at and compassionate in delivering services—especially to vulnerable populations. However, casual observation and evidence from research suggest that a religious affiliation hardly guarantees the absence of wrongdoing (Gibelman and Gelman 2004, Bielefeld and Cleveland 2013b).

In the context of U.S. nursing homes, we explore the frequency and severity of wrongdoing in religious and secular organizations using unique data on the outcomes of state inspections—some triggered by regulatory requirements and some by complaints. This provides a useful setting for investigating a question of theoretical importance to research on wrongdoing

in organizations: How observed samples of wrongdoing can be influenced by selection processes that happen inside the organization (Stroube 2021). In our setting, this manifests in the extent to which individuals in religious and secular organizations are willing to expose wrongdoing to monitoring and regulatory agencies. We find that wrongdoing in RA organizations is adversely impacted by the complaint behavior of their members: complaints are less likely to be filed against RA homes than against secular homes, leading to relatively longer periods between inspections (i.e., monitoring by state regulators) and worse violations being identified once inspections occur.

The influence of detection and labeling processes on the production of wrongdoing was central to early work on deviance (Becker 1963) but is largely absent from contemporary literature on organizational wrongdoing (some exceptions include Mohliver 2019 on ambiguity in the labeling of stock-option backdating; chapter 11 in Palmer 2012 on detection by social control agents; Stroube 2021 on allegations in police misconduct; and Zhang et al. 2021 on liminal prescribing

Table 8. Subsample Analyses: U.S. Counties with Greatest Religious Homogeneity (Top Decile)

	Complaint	Severity	Number
	(1) Survival model	(2) Generalized ordered logit	(3) Negative binomial
Religious	−0.268+ (0.162)	−0.165 (0.155)	−0.034 (0.056)
Complaint		0.810*** (0.193)	−0.999*** (0.102)
Religious × Complaint		0.695** (0.237)	0.152 (0.093)
Constant	−32.489*** (1.968)		1.310*** (0.160)
Lnalpha			−1.117 (0.067)
Wald test ^a		0.0000	0.0000
Log likelihood	3,390.56	−8,208.84	−37,365.85
N	15,689	15,504	15,504

Notes. Standard errors in parentheses clustered by state. All models include state, month, and year dummies and the following controls: Days to inspection (except Model 1), Lagged severity, Follow-up inspections, Quality rating, For profit, Number residents, Occupancy rate, Distance to competitor, % Medicaid residents, % white residents.

^aWald test: Complaint + Religious × Complaint = 0.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$; two-tailed tests.

practices of physicians in the prescription drug epidemic). This is surprising, particularly because theories incorporating detection (but not labeling) by social control agents have gained popularity over the last two decades (see review by Greve et al. 2010). By showing how different rates of complaints in RA and secular organizations may influence the underlying number and severity of violations in these homes, we draw attention to the importance of interorganizational detection and selection—not as statistical concerns but as theoretical mechanisms that indirectly shape wrongdoing in organizations.

In studying RA care homes, we also contribute to a small but growing literature on religion in organizations (Filistrucchi and Prüfer 2018). Prior work suggests that religion has far-reaching societal implications (King and Haveman 2008), affecting a variety of economically important behaviors such as criminal activity, substance abuse, and physical and mental health as well as marriage, fertility, and divorce. Nearly half of adult Americans say that religion is “very important” in their life (Newport 2016), and a growing number of businesses promote themselves as faith based (Tracey 2012): Chick-fil-A restaurants are closed on Sunday and invoke Christian principles in their mission statement; JetBlue Airways, whose founder claims that his faith shapes how he does business, relocated their reservation services to Salt Lake City; Forever 21 conveys born-again Christian values on their shopping bags; Corporate Chaplains of America is in the booming business of placing chaplains in companies at the request of chief executive officers and owners (The Economist 2007). Understanding how these organizations behave has profound practical implications.

In the debate over how religion affects organizational outcomes (Odom and Boxx 1988), our study point to heterogeneity between denominations. Attributes of religious organizing, instead of a belief in God, likely play a role in reporting and, in turn, producing wrongdoing in religious organizations. For religious groups, studies suggest that measures of involvement or commitment—including beliefs, attendance, and contributions—correlate with a denomination’s overall strictness (Iannaccone 1998). From this viewpoint, the growing intensity of American religion (Schnabel and Bock 2017) raises interesting questions: With the decline of moderate religion and the growing share of individuals who self-identify as intensely religious (i.e., strong affiliation, frequent religious practice, and biblical literalism), a darker side of social control may become more prevalent in RA organizations. This is an open empirical question that merits further study.

Our findings also speak to research on organizational control, which has received relatively little attention in recent scholarship (Sitkin et al. 2010). Organizational scholars have identified various forms of control: the personal and authoritarian control of workers by company owners, technological forms of control, and bureaucratic control, the form most prevalent in modern organizations (Weber 1978). This paper describes a subtler, less direct way of controlling organizational members through identity- and/or peer-based mechanisms. Like the notion of concertive control, our results indicate that religion can extend the consensus on values, high-level coordination, and self-management well beyond small work teams (Barker 1993). Future work may consider whether similar dynamics occur in other organizations that likewise employ social control, like the police (Stroube 2021) or the military.²²

Finally, this paper should be of interest to policy-makers, who emphasize the role of patients' voices in enforcing quality standards in healthcare organizations. Complaints have become a crucial mechanism by which members have recourse in response to their care organization's quality-related deficiencies (for a review, see Sawicki 2015). This holds especially for nursing homes in which voice is a more practical option—for both residents and their families—than exit. "Having the opportunity to bring their concerns to regulatory authorities or air them in the public sphere is an essential mechanism for patients and advocates" (Sawicki 2015, p. 3). We argue that routine inspections play a critical role in maintaining quality standards in healthcare organizations. After all, if in some organizations individuals are less likely to complain, then—absent the continuation of unannounced routine inspections—the regulator's ability to enforce minimal standards of care could be compromised.

7.2. Limitations

Our study is not without limitations. First, as in most archival studies of wrongdoing, we cannot observe the true rate of violations. Online Appendices 3a and 3b outline multiple possible sources of bias for our sample of wrongdoing. We address some in the paper (e.g., different types of inspector bias and internal conflict-resolution mechanisms), but others cannot be addressed using our data. For example, if some state inspection agencies systematically discourage complaints against RA homes, we would not be able to account for this in our analyses.

A second limitation is that religious affiliation is not randomly assigned. Care homes choose to be religious or secular, a choice that reflects the preferences of owners and characteristics of the homes, leaving open the possibility that an omitted variable that we did not consider affects our results. We try to address this issue by matching institutions on observable characteristics, a method that reduces the sample to observationally similar homes and that should capture unobserved differences. This approach minimizes unobserved spurious correlations, but it might not eliminate them.

A third limitation is that we do not assign inspectors to care homes randomly; nor do we have data about the inspectors themselves. Our interviews, conducted in one state (as others were interrupted by the COVID-19 crisis), indicated that inspectors do not select which homes they inspect and that the inspection process does not change depending on whether it was triggered by a complaint or not. If an inspector can select which care homes they inspect in other states and choose to respond to a complaint in a RA home more severely, this may create a pattern similar to the one we observe. This type of bias—one that results from attribution that inspectors make about complaining in RA versus secular homes—cannot be

addressed with the data we have collected. Nevertheless, we believe the paper represents a first step in addressing a serious empirical problem and an overlooked theoretical question in the literature on organizational wrongdoing.

Acknowledgments

The authors would like to thank Marissa King, Celia Moore, Olenka Kacperczyk, and Thomas Roulet for their useful feedback. Aharon Mohliver and Amandine Ody-Brasier contributed equally to the manuscript. The paper benefited from the comments of seminar participants at the Junior OT conference at McGill in Montreal, Judge Business School, and INSEAD. The authors would also like to thank the reviewers and the Associate and Department Editors for their thoughtful comments and suggestions.

Endnotes

¹ According to the *New York Times* (Silver-Greenberg and Gebeloff 2021), nearly 130,000 nursing home residents have died from COVID-19.

² We interviewed the *New York Times* reporters and confirmed that the data they used do not include complaint inspections.

³ We conducted several tests for the independence of the two types of inspections detailed in the robustness tests and appendices. We discuss other potential violations of this independence, and implications of those for our findings, in Section 7.2.

⁴ "Nursing homes that participate in the Medicare and/or Medicaid programs have an onsite recertification (standard) 'comprehensive' inspection annually on average, with very rarely more than fifteen months elapsing between inspections for any one particular nursing home" (CMS 2015, p. 2).

⁵ "Failure to provide goods and services necessary to avoid physical harm, mental anguish, or mental illness" (Hawes 2003, p. 450, taken from OBRA 1987 legislation).

⁶ "The willful infliction of injury, unreasonable confinement, intimidation, or punishment which results in physical harm, pain or mental anguish" (Hawes 2003, p. 449).

⁷ For example, the Catholic Hospital Association strongly opposed universal health insurance in 1943 (Reich 2014).

⁸ Although many religious health systems can trace their origins to acts of charity, they adapted to address the needs of a new clientele of paying patients (Reich 2014). In his detailed work on U.S. hospitals, Reich reports that these organizations were—by the turn of the 20th century—deriving three-quarters of their revenues from patient payments.

⁹ This is something we also observed in our setting. With two research assistants, we visited the website of every RA home in our sample, and we searched for photographs of the facilities and daily activities schedules. We also interviewed nursing home managers and conducted onsite visits. For illustrative purposes, Online Appendix 4a contains a typical monthly schedule of a RA home.

¹⁰ The list of standards of care is available from the CMS Technical Users' Guide (February 2015).

¹¹ In moral philosophy, the relation between wrongdoing and monitoring is first raised in Plato's *Republic* (book 2, chapter 1).

¹² Considering nursing home residents in particular, these dynamics are especially likely to come into play: 65% of Americans over 65 say that they "pray daily or more often." These older individuals have often received extended exposure to religion, and 40% report that they "rely most on religious teachings and beliefs on questions of right or wrong" (Pew Research Center 2009).

¹³ Interestingly, for instance, the Catholic Hospital Association lobbied in favor of the Hill–Burton Act, which was enacted in 1946 and guaranteed loans for the construction of religious hospitals with minimal government oversight (Reich 2014).

¹⁴ This was not straightforward: The “Deficiencies” data files compiled by CMS include all violations identified by inspectors but omit inspections that identified no violation. Because this could bias our analyses, we collected additional data: specifically, we used yearly firm-level CMS data files from the Nursing Home Compare initiative that track the last three inspections conducted in the home; these data contain little information about inspection outcomes but they do include all inspections—including those resulting in zero violations being identified. We matched these data with our original data set. Between 6% and 7% of our observations (in any given year) result in zero violation being identified.

¹⁵ We discuss the residual inspector-level bias formally in Online Appendix 3.

¹⁶ See <https://www.auditor.leg.state.mn.us/ped/pedrep/0505all.pdf> (p. 10, accessed September 1, 2021).

¹⁷ For example, 12% of RA homes described themselves as “Lutheran.” Lutheran Church–Missouri Synod, Wisconsin Evangelical Lutheran, and Other Lutheran Churches are all classified as “Evangelical Protestant,” but American Lutheran Church, Evangelical Lutheran, Lutheran Church in America, Latvian Lutheran, and Lutheran are considered “Mainline Protestant.” For such cases, we identified the county in which the home was located and, using the 2010 county-level census on religiosity, selected the affiliation with most adherents in the county (in this example, either “Mainline” or “Evangelical Protestant”).

¹⁸ This feature is crucial because a nursing home can easily receive more than a single complaint; as a result, however, the reported descriptive statistics do not include life tables.

¹⁹ See <https://gking.harvard.edu/cem> (accessed September 1, 2021).

²⁰ However, this would not explain why RA homes have more severe violations during complaint inspections.

²¹ We computed a Herfindahl Index by using the “market share” of Catholics, Evangelical Protestants, Mainline Protestants, and Others in each U.S. county (for details about the Census coding scheme, see Grammich 2012; <http://www.usreligioncensus.org>; accessed September 1, 2021).

²² As a first step in this direction, we returned to our data and identified all nursing homes operated by the U.S. Department of Veterans Affairs (VA): we were curious about whether we might observe similar dynamics in this military setting. Although our sample is too small to make any conclusive claims, the data seem to suggest that these homes’ military identity (an archetypal example of a “strong identity”) is associated with more egregious violations during complaint inspections. However, we do not find that it reduces the risk of complaint inspections, either because of the small sample size in our analysis or for other reasons.

References

- Acierno R (2003) *Elder Mistreatment: Epidemiological Assessment Methodology* (National Academies Press, Washington, DC).
- Amirkhanyan AA, Kim HJ, Lambright KT (2009) Faith-based assumptions about performance: Does church affiliation matter for service quality and access? *Nonprofit Volunteer Sector Quart.* 38(3):490–521.
- Arnold D, Dobbie W, Yang CS (2018) Racial bias in bail decisions. *Quart. J. Econom.* 133(4):1885–1932.
- Ashforth BE, Mael F (1989) Social identity theory and the organization. *Acad. Management Rev.* 14(1):20–39.
- Atran S, Henrich J (2010) The evolution of religion: How cognitive by-products, adaptive learning heuristics, ritual displays, and group competition generate deep commitments to prosocial religions. *Biological Theory* 5(1):18–30.
- Balasubramanian P, Bennett VM, Pierce L (2017) The wages of dishonesty: The supply of cheating under high-powered incentives. *J. Econom. Behav. Organ.* 137:428–444.
- Bar-Ilan A, Sacerdote B (2001) *The Response to Fines and Probability of Detection in a Series of Experiments* (National Bureau of Economic Research, Cambridge, MA).
- Barker TR (1993) Tightening the iron cage: Concertive control in self-managing teams. *Admin. Sci. Quart.* 38(3):408–437.
- Becker HS (1963) *Outsiders: Studies in the Sociology of Deviance* (Free Press of Glencoe, London).
- Bertrand M, Chugh D, Mullainathan S (2005) Implicit discrimination. *Amer. Econom. Rev.* 95(2):94–98.
- Bielefeld W, Cleveland WS (2013a) Defining faith-based organizations and understanding them through research. *Nonprofit Volunteer Sector Quart.* 42(3):442–467.
- Bielefeld W, Cleveland WS (2013b) Faith-based organizations as service providers and their relationship to government. *Nonprofit Volunteer Sector Quart.* 42(3):468–494.
- Bromley DG (1998) Linking social structure and the exit process in religious organizations: Defectors, whistle-blowers, and apostates. *J. Sci. Study Religion* 37(1):145–160.
- Bush GW (2002) Remarks on proposed charity aid, recovery, and empowerment legislation. Accessed September 1, 2021, <https://www.presidency.ucsb.edu/documents/remarks-proposed-charity-aid-recovery-and-empowerment-legislation>.
- Castilla EJ (2007) *Dynamic Analysis in the Social Sciences* (Elsevier, Amsterdam, Netherlands).
- Castle NG (2003) Searching for and selecting a nursing facility. *Medical Care Res. Rev.* 60(2):223–247.
- Castle NG, Sonon KE (2007) The search and selection of assisted living facilities by elders and family. *Medical Care* 45(8):729–738.
- Castle NG, Wagner LM, Ferguson JC, Handler SM (2011) Nursing home deficiency citations for safety. *J. Aging Soc. Policy* 23(1):34–57.
- Chan-Serafin S, Brief AP, George JM (2013) How does religion matter and why? Religion and the organizational sciences. *Organ. Sci.* 24(5):1585–1600.
- Chaves M (1993) Denominations as dual structures: An organizational analysis. *Soc. Religion* 54(2):147–169.
- Clarke ME, Pierson W (1999) Management of elder abuse in the emergency department. *Emergency Medicine Clinics North Amer.* 17(3):631–644.
- Cleves M, Gould W, Gould WW, Gutierrez R, Marchenko Y (2008) *An Introduction to Survival Analysis Using Stata* (Stata Press, College Station, TX).
- CMS (2015) *Design for Nursing Home Compare Five-Star Quality Rating System: Technical Users’ Guide* (CMS, Baltimore, MD).
- Coleman JS (1990) *Foundations of Social Theory* (Harvard University Press, Cambridge, MA).
- Coleman JS, Hoffer T (1987) *Public and Private Schools: The Impact of Communities* (Basic Books, New York).
- Dutton JE, Dukerich JM, Harquail CV (1994) Organizational images and member identification. *Admin. Sci. Quart.* 39(2):239–263.
- Dyer CB, Connolly M-T, McFeeley P (2003) *The Clinical and Medical Forensics of Elder Abuse and Neglect* (National Academies Press, Washington, DC).
- Ebaugh HR, Chafetz JS, Pipes PE (2003) Where’s the religion? Distinguishing faith-based from secular social service agencies. *J. Sci. Study Religion* 42(3):411–426.
- Ebaugh HR, Chafetz JS, Pipes PE (2006) Where’s the faith in faith-based organizations? Measures and correlates of religiosity in faith-based social service coalitions. *Soc. Forces* 84(4):2259–2272.

- Evans TD, Cullen FT, Dunaway RG, Burton VS (1995) Religion and crime reexamined: The impact of religion, secular controls, and social ecology on adult criminality. *Criminology* 33(2):195–224.
- Filistrucchi L, Prüfer J (2018) Faithful strategies: How religion shapes nonprofit management. *Management Sci.* 65(1):188–208.
- Fisman R, Miguel E (2007) Corruption, norms, and legal enforcement: Evidence from diplomatic parking tickets. *J. Political Econom.* 115(6):1020–1048.
- Gibelman M, Gelman SR (2004) A loss of credibility: Patterns of wrongdoing among nongovernmental organizations. *Voluntas* 15(4):355–381.
- Gino F, Bazerman MH (2009) When misconduct goes unnoticed: The acceptability of gradual erosion in others' unethical behavior. *J. Experiment. Soc. Psych.* 45(4):708–719.
- Gino F, Krupka EL, Weber RA (2013) License to cheat: Voluntary regulation and ethical behavior. *Management Sci.* 59(10):2187–2203.
- Gneezy U (2005) Deception: The role of consequences. *Amer. Econom. Rev.* 95(1):384–394.
- Goergen T, Beaulieu M (2010) Criminological theory and elder abuse research—Fruitful relationship or worlds apart? *Ageing Internat.* 35(3):185–201.
- Graffin SD, Bundy J, Porac JF, Wade JB, Quinn DP (2013) Falls from grace and the hazards of high status: The 2009 British MP expense scandal and its impact on parliamentary Elites. *Admin. Sci. Quart.* 58(3):313–345.
- Grammich CA (2012) 2010 U.S. Religion Census: Religious Congregations & Membership Study: An Enumeration by Nation, State, and County Based on Data Reported for 236 Religious Groups (Association of Statisticians of American Religious Bodies, Kansas City, MO).
- Greve HR, Palmer D, Pozner JE (2010) Organizations gone wild: The causes, processes, and consequences of organizational misconduct. *Acad. Management Ann.* 4(1):53–107.
- Harris-Kojetin L, Sengupta M, Lendon JP, Rome V, Valverde R, Cafrey C (2019) Long-term care providers and services users in the United States, 2015–2016. National Center for Health Statistics. *Vital Health Statist.* 3:43.
- Hawes C (2003) *Elder Abuse in Residential Long-Term Care Settings: What Is Known and What Information Is Needed?* (National Academies Press, Washington, DC).
- Henrich J, Ensminger J, McElreath R, Barr A, Barrett C, Bolyanatz A, Cardenas JC, et al (2010) Markets, religion, community size, and the evolution of fairness and punishment. *Science* 327(5972):1480–1484.
- Hinings CR, Raynard M (2014) Organizational form, structure, and religious organizations. *Res. Sociol. Organ.* 41:159–186.
- Iacus SM, King G, Porro G (2012) Causal inference without balance checking: Coarsened exact matching. *Political Anal.* 20(1):1–24.
- Iannaccone LR (1998) Introduction to the economics of religion. *J. Econom. Literature* 36(3):1465–1495.
- Ibanez MR, Toffel MW (2020) How scheduling can bias quality assessment: Evidence from food-safety inspections. *Management Sci.* 66(6):2396–2416.
- Inzlicht M, Tullett AM (2010) Reflecting on God: Religious primes can reduce neurophysiological response to errors. *Psych. Sci.* 21(8):1184–1190.
- Kanter RM (1968) Commitment and social organization—Study of commitment mechanisms in utopian communities. *Amer. Sociol. Rev.* 33(4):499–517.
- Kay AC, Gaucher D, McGregor I, Nash K (2010) Religious belief as compensatory control. *Personality Soc. Psych. Rev.* 14(1):37–48.
- Keenan M (2013) *Child Sexual Abuse and the Catholic Church: Gender, Power, and Organizational Culture* (Oxford University Press, New York).
- King MD, Haveman HA (2008) Antislavery in America: The press, the pulpit, and the rise of antislavery societies. *Admin. Sci. Quart.* 53(3):492–528.
- Kovacs B, Lehman D, Carroll GR (2018) Boundary kinking in public grading schemes: The effects of tie strength in social relationships. *Acad. Management Proc.*, vol. 2018(1) (Academy of Management, Briarcliff Manor, NY), 10704.
- Li Y, Harrington C, Spector WD, Mukamel DB (2010) State regulatory enforcement and nursing home termination from the Medicare and Medicaid programs. *Health Service Res.* 45(6, Pt 1):1796–1814.
- Mael F, Ashforth BE (1992) Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *J. Organ. Behav.* 13(2):103–123.
- Mohliver A (2019) How misconduct spreads: Auditors' role in the diffusion of stock-option backdating. *Admin. Sci. Quart.* 64(2):310–336.
- Moore C, Gino F (2013) Ethically adrift: How others pull our moral compass from true North, and how we can fix it. *Res. Organ. Behav.* 33:53–77.
- Newport F (2016) Five key findings on religion in the U.S. Accessed September 1, 2021, <https://news.gallup.com/poll/200186/five-key-findings-religion.aspx>.
- O'Reilly CA, Chatman JA (1996) Culture as social control: Corporations, cults, and commitment. *Res. Organ. Behav.* 18:157–200.
- Odom RY, Boxx WR (1988) Environment, planning processes, and organizational performance of churches. *Strategic Management J.* 9(2):197–205.
- Ody-Brasier A, Sharkey A (2019) Under pressure: Reputation, ratings, and inaccurate self-reporting in the nursing home industry. *Strategic Management J.* 40(10):1517–1544.
- Ornstein C, Groeger LV (2012) Two deaths, wildly different penalties: The big disparities in nursing home oversight. *ProPublica* (December 17). Accessed September 1, 2021, <https://www.propublica.org/article/two-deaths-different-penalties-disparities-in-nursing-homes-oversight>.
- Osterman P (2017) *Who Will Care for Us? Long-Term Care and the Long-Term Workforce* (Russell Sage, Chicago).
- Palmer D (2012) *Normal Organizational Wrongdoing: A Critical Analysis of Theories of Misconduct in and by Organizations* (Oxford University Press, Oxford, UK).
- Perrow C (1991) A society of organizations. *Theory Soc.* 20(6):725–762.
- Pew Research Center (2009) Religious groups weigh in on healthcare reform. Accessed September 1, 2021, <https://www.pewforum.org/2009/10/08/religious-groups-weigh-in-on-health-care-reform/>.
- Pratt MG (2000) The good, the bad, and the ambivalent: Managing identification among Amway distributors. *Admin. Sci. Quart.* 45:456–493.
- Preston JL, Ritter RS (2013) Different effects of religion and God on prosociality with the ingroup and outgroup. *Personality Soc. Psych. Bull.* 39(11):1471–1483.
- Reich AD (2014) *Selling Our Souls: The Commodification of Hospital Care in the United States* (Princeton University Press, Princeton, NJ).
- Reinardy J, Kane RA (1999) Choosing an adult foster home or a nursing home: Residents' perceptions about decision making and control. *Soc. Work* 44(6):571–585.
- Rogan M, Sorenson O (2014) Picking a (poor) partner: A relational perspective on acquisitions. *Admin. Sci. Quart.* 59(2):301–329.
- Rubinstein RL, Black HK, Doyle PJ, Moss M, Moss SZ (2011) Faith and end of life in nursing homes. *J. Aging Res.* 1–7.
- Ruffini K (2021) Worker earnings, service quality, and firm profitability: Evidence from nursing homes and minimum wage reforms. University of California, Berkeley Working Paper.
- Sawicki NN (2015) Complaints to professional and regulatory bodies. Cohen G, Hoffman AK, Sage WM, eds. *The Oxford Handbook of U.S. Health Law* (Oxford University Press, New York).
- Schnabel L, Bock S (2017) The persistent and exceptional intensity of American religion: A response to recent research. *Soc. Sci.* 4:686–700.

- Shapira EZ (2000) Elder abuse: Society's forgotten issue. *General Dentistry* 48(5):490–492.
- Shariff AF, Norenzayan A (2007) God is watching you—Priming god concepts increases prosocial behavior in an anonymous economic game. *Psych. Sci.* 18(9):803–809.
- Short JL, Toffel MW, Hugill AR (2016) Monitoring global supply chains. *Strategic Management J.* 37(9):1878–1897.
- Silver-Greenberg J, Gebeloff R (2021) Maggots, rape and yet five stars: How U.S. ratings of nursing homes mislead the public. *New York Times* (August 4), Accessed September 1, 2021, <https://www.nytimes.com/2021/03/13/business/nursing-homes-ratings-medicare-covid.html>.
- Sitkin S, Cardinal L, Bijlsma-Frankema K, eds. (2010) *Organizational Control* (Cambridge University Press, Cambridge, UK).
- Spicer MW, Thomas JE (1982) Audit probabilities and the tax evasion decision: An experimental approach. *J. Econom. Psych.* 2(3):241–245.
- Steensland B, Robinson LD, Wilcox WB, Park JZ, Regnerus MD, Woodberry RD (2000) The measure of American religion: Toward improving the state of the art. *Soc. Forces* 79(1):291–318.
- Stroube B (2021) Using allegations to understand selection bias in organizations: Misconduct in the Chicago Police Department. *Organ. Behav. Human Decision Processes* 166:149–165.
- Sutherland EH (1940) White-collar criminality. *Amer. Sociol. Rev.* 5(1): 1–12.
- The Economist (2007) Praying for gain. *The Economist* (August 23), Accessed September 1, 2021, <http://www.economist.com/node/9687820>.
- Tracey P (2012) Religion and organization: A critical review of current trends and future directions. *Acad. Management Ann.* 6(1):87–134.
- U.S. Department of Health & Human Services (2019) Trends in deficiencies at nursing homes show that improvements are needed to ensure the health and safety of residents. Accessed September 1, 2021, <https://oig.hhs.gov/oas/reports/region9/91802010.pdf>.
- Weber M (1978) *Economy and Society: An Outline of Interpretive Sociology* (University of California Press, Berkeley).
- Welsh DT, Ordóñez LD, Snyder DG, Christian MS (2015) The slippery slope: How small ethical transgressions pave the way for larger future transgressions. *J. Appl. Psych.* 100(1):114–127.
- Williams R (2006) Generalized ordered logit partial proportional odds models for ordinal dependent variables. *Stata J.* 6(1):58–82.
- Zavyalova A, Pfarrer MD, Reger RK, Hubbard TD (2016) Reputation as a benefit and a burden? How stakeholders' organizational identification affects the role of reputation following a negative event. *Acad. Management J.* 59(1):253–276.
- Zhang V, Mohliver AC, King MD (2021) Where is all the deviance? Liminal and deviant prescribing underlying the prescription drug epidemic. Working paper, University of Wisconsin-Madison.