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Roman V. Galperin

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Organizational Powers: Contested Innovation and Loss of Professional Jurisdiction in the Case of Retail Medicine

Roman V. Galperin[a]

[a] Carey Business School, Johns Hopkins University, Baltimore, Maryland 21202
Contact: galperin@jhu.edu, https://orcid.org/0000-0001-7742-5865 (RVG)

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Abstract. Innovative technology may reduce organizations' reliance on professionals in the performance of expert tasks, weakening professions' control over work. However, professions resist and challenge such innovation, framing it as unsafe and immoral. This paper theorizes a process by which innovative nonprofessional firms overcome the resistance, enter professionalized markets, and weaken professional control over work. It analyzes the rise of a new organizational form—retail health clinics—that deprofessionalized some medical tasks in U.S. primary healthcare. An analysis of newspaper articles, archival documents, and interviews with key industry participants suggests that retail clinic chains capitalized on long-standing jurisdictional tensions between the physician and nursing professions. The clinics operated by relying on nurses' legal rights to perform physicians' tasks and defended retail medicine as a safe and morally justified innovation by using the nursing profession's established repertoire or frames and arguments. Sentiment analysis of over 1,600 newspaper articles suggests that the legitimacy of retail clinic chains in public discourse improved with the proliferation of the clinics, but the legitimacy of nurse practitioners did not. Nonprofessional firms thus introduced an innovation that weakened professional control over medical work by capitalizing on interprofessional tensions and repurposing professions' own jurisdictional claims.

Supplemental Material: The online appendix is available at https://doi.org/10.1287/orsc.2019.1314.

Keywords: deprofessionalization • professional jurisdictions • healthcare • innovation • discourse analysis

Introduction

Professions acquire and maintain control over the performance of many critical tasks in our economy by making cultural and legal claims of jurisdiction over such tasks (Abbott 1988, pp. 20 and 61; Timmermans 2008). To claim jurisdiction, a profession engages in public discourse, defining certain categories of human and societal problems as amenable to its members' unique skills and knowledge (for a review, see Gorman and Sandefur 2011; see also Kahl et al. 2016). The control over work that may result is valuable to professions because it brings economic rents and status to their members, but it may be detrimental to other market participants when it creates inefficiencies of monopoly and social closure (Weeden 2002, Kleiner and Krueger 2010).

Much of the research on professional work focuses on how occupational groups grow jurisdiction by monopolizing previously nonexpert work (Nelsen and Barley 1997, Fayard et al. 2017) or by wresting control over work from other professions (Abbott 1988, p. 71; Heimer 1999; Bucher et al. 2016). Processes resulting in the loss of control over expert tasks are less understood, despite their importance for theories of organizations and markets. The erosion of a profession's jurisdiction associated with deprofessionalization of its work may affect the profession's social standing and the quality of jobs for its members (Stone 1975, Wallace and Kay 2008). However, it may also reduce frictions in the labor market related to professional licensure and open the market or work domain previously monopolized by the profession to competition from nonprofessional actors (Friedman 1962, Perry 2009, Kleiner et al. 2016).

To date, deprofessionalization has been discussed as deterioration of job conditions experienced by professionals working in large bureaucratic organizations (Wallace 1995, Wallace and Kay 2008; cf. Briscoe 2006). Another important avenue of deprofessionalization—a profession losing jurisdiction as a result of disruptive technological innovation—has received scant attention in the literature. When innovative technology allows firms to encapsulate a profession's knowledge in a tool, such as an expert software system, the profession's tasks may be carried out without involving its practitioners, making expert work accessible not only for workers with lesser qualifications but also for nonprofessionals (Toren 1975, Haug 1988, Galperin 2017). This kind of deprofessionalization is important to understand because it represents a pathway by

which innovative and entrepreneurial firms enter professionalized markets and offer alternative ways of solving expert problems.

Deprofessionalizing innovation that upends the division of expert labor is often a context for research on jurisdictional contests among professionals but not its focus. The loss of jurisdiction owing to a technological shock is considered an exogenous, inevitable event (Abbott 1988, p. 144). Researchers take as a given the capacity of new technology to upset tenuous jurisdictional *settlements*—terms on which professions share a jurisdiction—and thus create opportunities for professionals to renegotiate their division of labor (Barley 1986, Bechky 2003, Karunakaran 2018). Consequently, emergence of the disruptive technology itself is not examined as a point of contestation or as a contingent development.

However, legitimacy is by no means inherent in new technologies, and therefore, a technology's existence does not imply adoption. Instead, legitimacy of innovation is an outcome of a political struggle that includes efforts to convince stakeholders of the new technology's value (Kaplan and Tripsas 2008, Benner 2009, Kahl and Grodal 2016). Therefore, disruptive innovation that deprofessionalizes expert work need not be accepted by market participants as legitimate or useful, and it does not automatically erode professional jurisdiction. Moreover, professions have strong incentives to fight incursions of outsiders to avoid the loss of benefits tied to jurisdictional control (Heimer 1999, Bucher et al. 2016). Their very position as experts in a market allows professionals to proclaim a disrupting innovation to be unsafe, dangerous, and even immoral, thus delegitimizing it in the court of law and public opinion (Willcox 1959, Ferlie et al. 2005). If entrepreneurs introducing innovation that threatens professional control invite strong resistance from incumbent professions, how do such attempts to innovate succeed?

In this paper, I theorize one such mechanism based on the case of the retail health clinic industry in the United States. My analysis of the discourse surrounding the industry's emergence shows that retail clinics have successfully challenged the medical profession's control over work in the primary healthcare market, a canonical setting for studies of professionalization (Freidson 1970, 1986). The emergence of retail medicine threatened to exclude physicians from a number of medical tasks. The medical profession resisted the industry by framing the innovation as unsafe and immoral. However, retail clinic chains overcame the resistance, capitalizing on tensions within the medical profession's own jurisdictional settlement with the subordinate nursing profession. To set up and operate retail clinics without direct physician involvement, the chains relied on nurses' legal rights to perform expert tasks of physicians accumulated by the profession over decades of jurisdictional encroachment. Most intriguing, the industry deployed the nursing profession's repertoire of rhetorical tools to defend the legitimacy of retail medicine as a safe and morally justified innovation in primary care. Sentiment analysis of over 1,600 newspaper articles that mention retail medicine and advanced nurses between 1990 and 2017 suggests that the legitimacy of retail clinic corporations improved as the discourse evolved but that the sentiment toward the nursing profession did not grow more positive. Thus, nonprofessional actors successfully challenged professional control over medical work and captured some of the related economic benefits by repurposing professions' own claims without benefiting the professions involved.

This paper makes several contributions. First, it advances research on deprofessionalization by focusing on its cause—loss of jurisdiction to outside competitors—and theorizing an overlooked mechanism of such jurisdictional erosion. Loss of control over tasks to nonprofessional firms equipped with new technology is not an inevitable outcome but a result of contestation between incumbent professions and their nonprofessional competitors. Second, the paper contributes to the literature on professional work and jurisdiction by linking structural conditions of interprofessional jurisdictional settlements to the vulnerability of professional control. Imbalance between a profession's rights to perform specific tasks and its means to use and defend those rights, such as the one experienced by the nursing profession in its settlement with physicians, creates an opening for nonprofessional competitors, such as corporations.

Finally, this paper contributes to the research on innovation and corporate strategy by theorizing aspects of strategy that allow firms to enter markets with strong professional incumbents. Structural preconditions in the division of professional work may determine the feasibility of such entry, whereas rhetorical approaches based on jurisdictional claim templates offer a way to legitimize innovation in the public discourse that surrounds it.

Professional Jurisdictions and Contestation of Control Over Work

A central premise in the professionalization literature is that occupational groups seek to establish exclusive control over categories of work to achieve closure (Weeden 2002), elevate the status of their members (Wilensky 1964, Sandefur 2001), and receive monopoly rents (Friedman 1962, Kleiner and Krueger 2010). Empirical research largely corroborates the effects of professional monopoly, especially in fields such as medicine, where professions traditionally exert strong

jurisdictional control over work. For example, studies of licensure scope expansion of nurse practitioners (NPs; nurses with advanced degrees and qualifications) show that as NPs grew their legal scope of practice to include some of the physicians' tasks, physicians' salaries decreased along with the costs of some primary care services, suggesting the presence of monopoly rents (Perry 2009, Kleiner et al. 2016).

A profession's power to establish monopoly over certain tasks arises from its capacity to convince the public and the state that its members are uniquely qualified and committed to solve a category of human problems (Freidson 1970, 1986; Larson 1977; Abbott 1988). The claims of jurisdiction may be used to capture control over previously nonprofessional tasks (Nelsen and Barley 1997, Fayard et al. 2017), wrest control from a competing occupational group (Heimer 1999, Bucher et al. 2016), and prevent nonprofessional outsiders, such as corporations, from performing professional work (Willcox 1959).

A profession claims jurisdiction by proposing a particular organization of work around the problem and casting alternative solutions as ineffective, unsafe, and even immoral. Jurisdictional claims thus assert that the performance of particular expert tasks by members of the profession is legitimate—that is, proper and desirable (Suchman 1995)—whereas the solutions put forth by other professions and nonprofessional actors are illegitimate. Professions make claims on the collective level, most often through professional associations and prominent members (Strang and Bradburn 2001, Suddaby and Greenwood 2005, Kahl et al. 2016). This activity not only shapes the public perception of the profession's work but also informs decisions of regulators and legislators, culminating in legal protection of the work from competing practitioners typically enforced through licensure requirements (Freidson 1986). The publicly made claims are enacted in worksites where professionals compete with members of other occupational groups for local control over the performance of tasks comprising their jurisdiction, negotiating the allocation of authority, status, and economic benefits (Barley 1986, Heimer 1999, Kellogg 2009, Huising 2015). Thus, making jurisdictional claims is a core activity that allows professions to capture and maintain control over work.

Mechanisms of Making a Jurisdictional Claim

Recent research on how market audiences evaluate those who serve them suggests the importance of signaling both one's capability to solve a problem and one's commitment to use that capability for the benefit of the client (Phillips et al. 2013, Hahl 2016, Galperin et al. 2019). Accordingly, two types of arguments make up jurisdictional claims advanced by professions: those highlighting the profession's unique capability to solve certain problems and those asserting its commitment to do so for the benefit of clients rather than the profession's economic gain.

A profession asserts capability by arguing that only its members possess the knowledge and skills required to solve a certain category of problems. Such arguments frame the problem in terms of the profession's pool of knowledge (Freidson 1986, Abbott 1988) and assure the audience that the profession has institutional safeguards in place that guarantee the sufficient level of knowledge among its practitioners (Wilensky 1964, Albert et al. 2019). This type of argument commonly includes a contrasting portrayal of other occupations as lacking the necessary qualifications, which makes it most useful for asserting authority and control over work in jurisdictions shared with other professions.

In addition to capability, professions assert their commitment by emphasizing the work of their practitioners as driven by moral motives rather than economic interests (Sandefur 2007). Such arguments frame a profession's work as a calling (Bunderson and Thompson 2009) and imply that its members are committed to serving their clients no matter the economic incentives, even if that commitment causes a loss for the service provider (Turco 2012). This type of argument serves an important role in delegitimizing a specific category of contenders for a profession's jurisdictions—nonprofessional entities, such as corporations.

Through standardization of work, efficiencies of scale, and other means, corporations may develop superior capability to perform some expert tasks and thus may be in a position to challenge the profession's claim of unique ability to solve a problem. However, because perceptions of capability tend to be discounted when coupled with perceptions of low commitment (Hahl and Zuckerman 2014, Galperin et al. 2019), professions defend control by invoking the moral underpinnings of their work and pointing out that corporations lack the commitment to put the client's interests first. Professionals thus claim to act with a moral goal of solving a category of problems, prioritizing service over profit, whereas corporations act with an explicit goal of making profit. These arguments may slow down or stave off deprofessionalization brought about by innovative firms.

Challenges of Entering Professional Jurisdictions with Deprofessionalizing Innovation

The monopoly rents of strong professional control may attract outsiders, such as nonprofessional corporations. However, capturing an established profession's rents is difficult for corporations because they lack both the legal rights required to perform the work, usually encoded in a professional license, and the legitimacy as providers of professional services.

This is problematic for entrepreneurial firms that attempt to perform expert work without reliance on professionals by introducing innovative technology that substitutes for the practitioners' expertise. Technological innovation is not inherently legitimate, and economic actors may use different understandings of technology—or *technological frames*. They "act purposefully to shape which frame comes to predominate in the field. . . . [So the] emergence of a collective technological frame is a contested process" (Kaplan and Tripsas 2008, p. 791). This initial lack of legitimacy for the new way of performing expert tasks opens outsiders to criticism from the incumbent professions that are affected by the innovation.

In defending their jurisdiction against nonprofessional outsiders, incumbent professions have a distinct advantage of being able to frame their own work as morally motivated and the motivations of nonprofessional firms as immoral. Medicine and law, for example, have repeatedly demonstrated their ability to impede corporate jurisdictional invasions (Abbott 1988, pp. 247–279) by arguing in courts that corporations "can have neither honesty nor conscience [and have] neither education, nor skill, nor ethics" and therefore cannot be allowed to practice a profession (Willcox 1959, p. 437). In the early 20th century, the American legal profession consistently defeated corporations bringing technological innovation that would commodify and deprofessionalize some legal tasks—corporations such as trust companies, title companies, and collection agencies—by blocking their jurisdictional incursions in the court of law and the arena of public opinion with arguments of moral unacceptability. Lawyers argued that allowing commercial interests to govern professional work was unacceptable (Abbott 1988, p. 273). They warned that if corporations were allowed to practice, "the entire practice of the law and the administration of justice [would be] dragged down to the plane of unrestricted commercialism" (New York County Lawyers Association, quoted in Abbott 1988, p. 380, note 36).

A closely related example in the medical profession is the emergence and use of the Corporate Practice of Medicine (CPOM) legal doctrine. Originated in the United States, in "cases involving quackery, commercialization of practice, or other obvious evil" (Willcox 1959, p. 435), the doctrine prohibits medical practice by corporations explicitly on the grounds of incompatibility between commercial interest and the moral motivations of professional work (Freidson 2001). The doctrine "protects the public from possible abuses stemming from commercial exploitation of the practice of medicine" (*County of LA v. Ford*, cited in Willcox 1959, p. 446, note 37) and applies in most states to this day, banning corporate medical practice and restricting the terms of physician employment by hospitals and other care-providing organizations (Michal et al. 2006).

Yet some attempts to innovate by nonprofessional outsiders clearly succeed. The presence of strong professional defenses against corporate entry stands in sharp contrast with the fact that corporations commonly participate in the division of professional work (Starr 1982, Leicht and Fennell 1997, Freidson 2001, Light 2008, Timmermans and Oh 2010). The key to reconciling these facts is recognizing that firms are capable of participating in the public discourse and thus can influence the framing of the innovation that they bring (Kahl and Grodal 2016). In doing so, firms can mimic professions' own rhetorical approaches, framing inefficiencies of monopoly as moral problems that the innovation they bring aims to solve. Professions develop such approaches in shared jurisdictions, where the ownership of tasks is often ambiguous, and several incumbent professions may engage in protracted disputes to renegotiate tenuous settlements that coordinate their division of labor.

Tensions in Interprofessional Settlements and Mutability of Jurisdictions

Many professional jurisdictions are not monolithic but are organized by uneasy truces, or *settlements*, between two or more professions with overlapping claims of control over work (Abbott 1988, pp. 71–77 and 139). Such settlements are rife with tensions that reduce any one profession's control over expert work. For instance, in subordination settlements, where work is performed by a hierarchy of professions, the ownership of tasks is often contested. Some strategic ambiguity about which professional performs what task is inherent in such settlements and often results in conflicting claims over work (Barley 1986, Nelsen and Barley 1997, Huising 2015). Subordinate professionals become accustomed to performing some of the superordinate professionals' tasks delegated for efficiency reasons (e.g., paralegals drafting contracts that lawyers then edit and present to clients) or because superordinate professionals deem the tasks low status and "hive off" such work to subordinate professionals to preserve their own status (Hughes 1958, p. 135; Abbott 1988, pp. 65–68; Nelsen and Barley 1997, p. 621). At a critical point, subordinate professionals may formally claim control over the assimilated tasks and thus upset the settlement.

In the United States, a commonly studied example of a subordination settlement rife with competitive tensions is the division of medical labor between doctors and nurses. Worksite task assimilation by nurses resulted in their encroachment on the physician jurisdiction and enabled the rise of NPs—nurses with advanced practice rights. Over the last few decades, in many states, NPs have won legal autonomy

to practice, rights to prescribe drugs, and authority to get reimbursed by health insurers as primary care providers (Cooper et al. 1998, Cooper 2001, Nancarrow and Borthwick 2005, Perry 2009). To be sure, finalizing a renegotiation of settlement terms is challenging. Many of the nurses' jurisdictional advancements are still tentative (Institute of Medicine 2011), in part because of the resistance from physicians, who stand to lose monopoly rents and professional status by relinquishing jurisdictional control (Perry 2009, Kleiner et al. 2016). Therefore, although the expansion of NPs' legal scope of license allowed them to begin competing with physicians as providers of primary care services in many states, the relative lack of organizational, political, and cultural resources vis-à-vis physicians has been stalling NPs' progress toward becoming fully independent medical practitioners.

As I show next, such tensions and the imbalance between claimed rights and their effective use may allow innovative firms that otherwise have no professional authority to overcome barriers to participation in professional work, enter a professional jurisdiction, and capture some of the associated rents. The firms can do so by co-opting subordinate professionals, using their licenses to ensure the legality of the performance of expert tasks and their profession's jurisdictional claims to assert the safety and the moral acceptability of the innovation.

Methods

Research Setting

To explicate a process of innovation-driven deprofessionalization, I analyze the case of the retail health clinics industry, which disrupted the jurisdiction of the medical profession in the U.S. primary healthcare market. Some long-standing inefficiencies in U.S. healthcare (Garber and Skinner 2008) point to the medical profession's jurisdictional power (Svorny 2004) and make healthcare services a suitable setting to investigate the ability of outsiders to contest a profession's control over expert tasks. The profession's control over the supply of licensed practitioners and its resistance to the jurisdictional growth of subordinate professions such as nursing contribute to poor access to primary care (Laurant et al. 2005, Nancarrow and Borthwick 2005, Bodenheimer and Pham 2010). Resistance to external control over medical work, such as the use of standardized protocols or direct employment of physicians by hospitals, contributes to fragmentation, rising costs, and inconsistent quality of care (Rebitzer and Votruba 2011). Medicine's cultural authority sets the terms of jurisdictional settlements between physicians and other healthcare professionals that govern the division of tasks in organizations and the flows of revenues in the field (Ferlie et al. 2005, Currie et al. 2012).

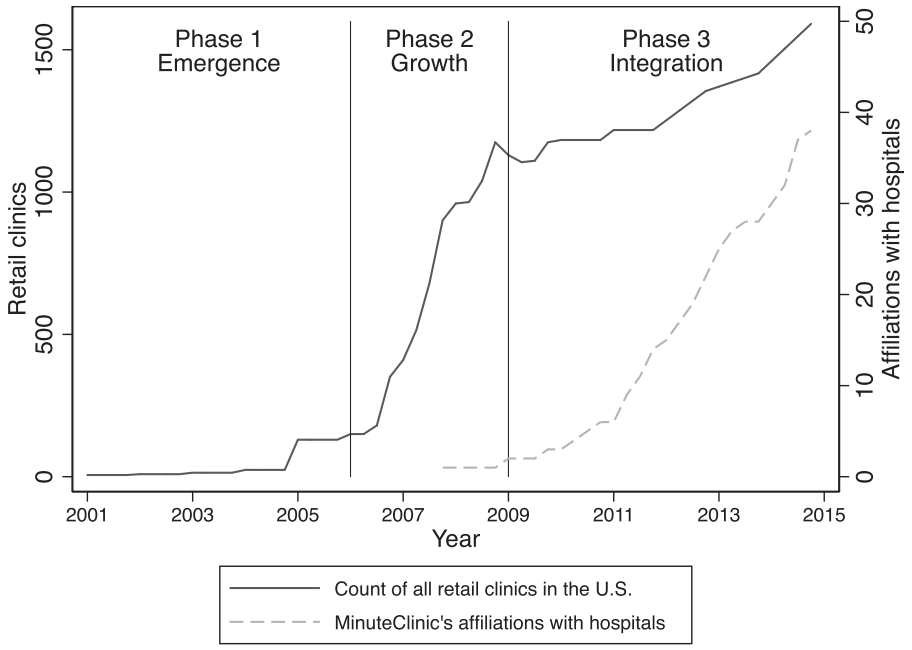
Studying deprofessionalizing innovation in a setting with a strong professional incumbent, such as the medical profession, exposes the challenges of resistance to the innovation and the process of overcoming that resistance. The jurisdictional disruption began when the first retail clinic chain in the United States appeared in Minnesota grocery stores in 2000 under the brand name QuickMedx (rebranded as MinuteClinic in 2002). By 2006, the two largest retail clinic companies—MinuteClinic and TakeCare Health—were acquired by the large retailers CVS and Walgreens, respectively. The subsequent period had the most rapid growth of the retail clinic industry fueled by access to capital provided by the retailers: the industry increased from about 200 clinics in 2006 to over 1,200 by 2009. The industry experienced the strongest resistance from the medical profession during those years, as I show below.

The industry overcame the profession's resistance in the third phase, which started around 2009, and by 2015, the retail clinics industry expanded to over 1,500 establishments receiving over 10 million patient visits annually (Bachrach et al. 2015). Retailers assumed full control over the major retail clinic chains and began systematic efforts to integrate with the primary care field. As Figure 1 shows, for example, having secured strong support from the medical insurers, MinuteClinic, the market leader in the industry, began rapid accumulation of contracts and affiliations with large metropolitan and regional hospital systems during that phase.

The new organizational form of retail clinics was a disruptive innovation in the primary care industry not only because medical services were delivered in a retail store setting. Other core features of the clinics were a departure from the traditional model of primary care delivery at a physician's office: the clinics were open late and on weekends, they required no prior appointment, and they did not require medical insurance, charging instead a flat fee of $35 payable at the time of visit. Patient visits were intended to be brief, and the scope of services at the clinics was explicitly limited to quick tests and treatments of common minor illnesses, such as strep throat, ear infections, minor cuts and bites, skin rashes, pink eye, and seasonal allergies. The "menu" of services offered at the clinics and the exact fees associated with each service were often posted outside the clinic examination rooms.

Most important, the dominant organization of work in a retail clinic explicitly excluded physicians from performing primary care work—none of the large chains had a physician on site. Instead, all services were performed by an NP (or, less often, a physician assistant) working autonomously in a small room and with minimal medical equipment. A software application based on standard protocols of care guided NPs through checking symptoms, administering tests,

Figure 1. Three Phases of Retail Clinic Industry's Growth in the United States



and writing prescriptions. Although retail clinics began accepting insurance and increasing their scope of services within a few years of their initial emergence, the features of convenient location and scheduling, software-supported diagnosing and prescribing, and the absence of physicians on site remained at the core of the new organizational form.

Cutting out physicians from the revenues and control over work in primary care drew ire from the physician profession. The defensive strategies deployed by the profession sought to check the intrusion of retail clinics into the medical profession's jurisdiction and stall the industry's growth. These efforts were focused on the inherent lack of legitimacy of corporate participation in medical practice. However, as the analysis that I present here suggests, retail clinics weathered the attacks on their legitimacy and continued their foray into primary care by relying on NPs' legal rights to practice autonomously and the nursing profession's repertoire of arguments that NPs are well qualified, cost efficient, and morally necessitated providers of primary care. In the short 15 years from the inception of the organizational form, retail clinics established themselves as a legitimate place for convenient, corporate-controlled primary care; grew in number; expanded their scope of practice; and paved the way for one of the major retail store chains—CVS/Caremark—to eventually proclaim itself to be a healthcare company (Monllos 2016).

Data and Sample

Jurisdictional disputes often unfold through public discourse that informs beliefs and frames of market participants (Kahl 2018). Accordingly, my analysis of the case is based on discourse data that capture claims made by the dispute participants. The data also illuminate the claims' antecedents—motives and strategic considerations of claim makers—and consequences—changes in the tone of the discourse as competing claims are made and defended over time.

My discourse data collection was iterative: early analysis and findings prompted collection of additional data to improve and refine my interpretation of the case (Miles et al. 2013). Discourse is exchange and consumption of text by discourse participants and their audiences that unfold over time (Fairclough 1992). Newspaper articles were my main source of data on the discourse because media coverage of the jurisdictional dispute triggered by innovation, such as the one surrounding retail clinics, captures the part of the discourse in which incumbents attempt to challenge the legitimacy of innovative organizations and the organizations' response (Suddaby and Greenwood 2005, pp. 36–37; Kennedy 2008). I supplemented data from the articles with archival records from trade associations, proceedings of state and federal regulatory bodies, and interviews with key industry participants.

I collected two samples of newspaper data. First, I collected an exhaustive sample covering retail medicine, which aimed to include every article discussing the topic in all U.S. newspapers. As I show below, my analysis of that sample and the supplementary data suggested that the clinic chains' strategy to gain cultural legitimacy relied on NPs' legal and cultural assets. To improve the reliability of these

qualitative conclusions, I collected additional newspaper data on the discourse around NPs.

Retail Medicine Discourse Sample. I first looked for all articles on retail clinics published in U.S. newspapers between 2000 and 2015, searching the LexisNexis newspaper database for such terms as *retail clinics*, *retail health clinics*, *convenient clinics*, *storefront clinics*, and other ways to refer to retail medicine that I have found while reading the articles. I also searched for all brand names of retail clinics chains that I could identify from reading reports on the industry (e.g., Rudavsky et al. 2009). The search produced an initial sample of 998 articles. I read every article, screening out duplicates, non-U.S. news, and articles unrelated to retail clinics, and I arrived at a sample of 298 articles across 121 newspapers.

NP Discourse Sample. Unlike retail clinics, NPs established themselves as a category well before 2000. Analyzing discourse around NPs, therefore, required finding articles published both before the emergence of retail medicine and during the proliferation of the industry. My sampling frame therefore included a decade before the retail clinics' emergence, starting in 1990. Because articles before 2000 were not available for many of the smaller newspapers in the retail clinics discourse sample, I focused on a subset of newspapers in which the data were available. I searched a ProQuest database for articles mentioning NPs (accounting for variants, such as *advanced practical nurse* (*APN*), *advanced nurse*, etc.) in eight major newspapers: *Chicago Tribune*, *Los Angeles Times*, *New York Times*, *Star Tribune*, *Atlanta Journal–Constitution*, *Washington Post*, *USA Today*, and *Wall Street Journal*. With this approach, I identified a total of 1,629 articles that mentioned NPs.

Supplementary Data. To better understand the details of my historical case, I also collected textual data generated by trade associations and regulatory bodies and conducted interviews with industry participants. Kahl (2018, p. 13) argues that "as representatives of firms, occupations, and industries, trade associations are heavily involved in [interpreting] current events as well as generating texts such as reports, proceedings, and articles that all contribute to the broader market discourse." The documents generated by trade associations improved my analysis in two ways. First, they helped me to identify important events in the case and place these events on the temporal dimension. Second, they illuminated some of the processes—for example, deliberations of professional committees—that shaped the claims made by professions in the discourse surrounding retail medicine. I supplemented the newspaper data and the trade association data with archival documents from deliberations on the regulation of retail clinics at state and federal levels (National Conference of State Legislatures 2017).

In addition, I conducted 23 interviews with retail clinic executives, administrators of physician associations, NPs working in retail clinics, and their medical directors. The chief purpose of the interviews was to better understand the process that led to the defensive steps taken by physician professional associations and the strategies used by the retail clinic chains to overcome the profession's resistance. Because I was interested in the formative years of the industry, relatively few industry executives could provide relevant insights. Of the seven early-days retail clinic executives identified from newspaper articles and through snowball sampling, four agreed to be interviewed. Of the six professional association executives identified in a similar way, all six agreed.

To interview NPs working in retail clinics, I visited several clinics in person in 2009. Those initial interviews led to more interviews through snowball sampling, resulting in a total of seven in-depth, in-person interviews and one telephone interview. Even with the eight interviews, NPs' reflection on their work at retail clinics and their perceptions of the clinics as organizations were remarkably consistent.

To interview medical directors, I searched professional profiles on websites such as LinkedIn.com and identified 63 individuals who reported working as medical directors for a retail clinic chain. Of those, 13 individuals indicated having worked in those roles between 2004 and 2007—the years in which the controversy surrounding retail clinics was at its peak and the industry had not yet established its legitimacy. I was able to interview five of them. In sum, although my supplementary interview sample may not be representative of the industry in its current state, it reasonably represents key decision makers who had shaped much of the jurisdictional dispute analyzed in this paper.

Analytical Approach

To understand changes in jurisdictional control on the level of occupation, prior studies have adopted the historical case analysis approach (Abbott 1988, Halpern 1992, Kahl et al. 2016). Following that research, I used historical case analysis to study retail clinic industry development and the jurisdictional disruption associated with it. My first goal was to develop a qualitative understanding of the process by which innovative firms overcame the incumbent profession's resistance. I used qualitative analysis to achieve that goal. I then tested some of my key findings with

quantitative analysis of the discourse. My strategy in the quantitative step was thus directly informed by my qualitative findings (Jick 1979, Kaplan 2014).

Historical Case Analysis. I conducted my qualitative analysis in several steps consistent with recommendations in Ingram et al. (2012) for historical analysis in organization and strategy research. First, using newspaper and archival data, I identified key events in the case, locating them in time and space. Second, I then used theoretical lenses to interpret the events in their context, identifying aspects of the case that deviate from the commonly accepted model of jurisdictional competition among professions (Abbott 1988, Timmermans 2008). In that step, I analyzed the sample of newspaper articles on retail clinics and NPs inductively by manually coding passages in the articles and cross-validating them with archival documents and data from interview transcripts, refining and simplifying my coding schemes until I gained sufficient clarity in my theoretical interpretation of the case (Miles et al. 2013). I used all 298 articles on retail clinics and a random subsample of 300 articles on NPs. This analysis led me to conclude that the events in the case deviated from the extant model of jurisdictional competition in an important way—nonprofessional firms actively participated in the dispute with the professions. I have also concluded that retail clinics relied on NPs' legal rights to practice autonomously and used the nursing profession's cache of rhetorical arguments to enter the medical profession's jurisdiction and gain legitimacy as a new organizational form.

I then used my understanding of the context and the events in the case to theorize the explanations for the deviations and thus develop an updated model of professional competition that allowed an active role for nonprofessional organizations. I revisited supplementary data from interviews and archival records to reconstruct likely strategic considerations of the actors in the case, thus inferring the processes that could have led to the observed patterns in the discourse data (Ingram et al. 2012, p. 243). To convey the important contextual aspects of the main events in the case and support my theoretical interpretation of it, I present my analysis and findings as an analytical narrative (Bates et al. 1998).

Sentiment Analysis. I complemented my qualitative historical analysis of the case with quantitative analysis of the discourse that aimed to answer two questions: Did the cultural legitimacy of retail clinics systematically improve over time as my qualitative findings suggest? And were the changes because of retail clinic industry's strategies in the discourse rather than just the association of retail clinics with NPs and their long-standing efforts to improve professional standing? The latter question seeks to address an alternative explanation to any improvement in retail clinics' legitimacy as resulting from simply being associated with the nursing profession, the legitimacy of which may have been rising, rather than from strategic use by the firms of NPs' jurisdictional assets. Although such an explanation would still be consistent with the insight that firms can introduce innovation when the dynamics of interprofessional competition are favorable, it would imply a less strategic role for the firms and a more strategic role for the professions.

To answer these questions, I measured changes in the cultural legitimacy of retail clinics and NPs over time as changes in the tone of the discourse—often referred to as *sentiment* in natural-language processing (Liu 2012). I used newspaper articles as data for the sentiment analysis. Media-generated texts are more suitable for the analysis of the tone of the discourse than texts generated by professional or industry associations because, in aggregate, media outlets are more likely to reflect more than just the views of one of the sides to a dispute. Newspapers influence and reflect the views of the discussed issue held by their readers, offering interpretations of the events and developments related to the disputed phenomenon. Newspaper coverage thus approximated the changes in perceptions of retail clinics and NPs. Nevertheless, newspapers may be biased in many ways, and therefore, I accounted for newspaper-specific predispositions toward the topics in the discourse by including newspaper fixed effects in some of my estimations.

To measure sentiment, I followed a methodology described in Silge and Robinson (2018). I tokenized the text of each article into individual words, screening *stop words*—very commonly occurring words such as "a," "the," "in," "to," and so forth—from the text of each article and accounting for negation, and I scored the remaining words using sentiment *lexicons*—collections of word value pairs where value may be negative or positive depending on whether the word usually conveys negative or positive meaning. I used two different well-established sentiment lexicons in my analysis—Bing (Liu 2015) and AFINN (Nielsen 2011)—to ensure that my findings are robust to differences across lexicons. I constructed the main outcome variable of interest, *normalized sentiment* of each article, by calculating the mean value of all sentiment scores of the individual tokens in an article and dividing that value by the natural log of the article length to normalize for wordiness. I describe this methodology in more detail in the online appendix.

I first analyzed sentiment toward retail clinics using the 298 newspaper articles from the retail medicine coverage sample. I measured changes in both the density of coverage and the sentiment of the articles

over time. Although that sample is appropriate for the analysis of retail clinics' legitimacy because it includes every newspaper in the database that has mentioned retail medicine and thus allows me to register the growing recognition of the fledgling phenomenon, the sample is not suitable for the analysis of changes in NPs' legitimacy as a profession. To analyze the sentiment toward NPs, I used all 1,629 articles in the NP discourse sample. Because these articles discussed a variety of topics, to measure sentiment toward NPs more accurately, I excluded paragraphs that did not mention NPs and thus only assessed the sentiment of the text surrounding mention of NPs.

By combining qualitative historical analysis with sentiment analysis, I was able to develop insights into the process by which retail clinics were able to bring deprofessionalizing innovation into primary medical care despite the medical profession's strong resistance.

Contested Innovation of Retail Medicine

The innovation introduced into the U.S. primary healthcare market by retail clinics aimed to increase the efficiency of care delivery. That required excluding physicians from control over the performance of many work tasks that have been traditionally in the medical profession's jurisdiction. As I show next, this aspect of the retail clinics model prompted strong resistance from the medical profession. Retail clinic firms and the retail store chains that operated the clinics had to overcome that resistance. They did so by capitalizing on the long-standing tensions in the medical profession's jurisdictional settlement with the nursing profession. Specifically, retail clinics used the legal rights to perform physicians' work that nurses have accumulated during several decades of encroachment on the physicians' jurisdiction and deployed the nurses' repertoire of cultural arguments, repurposing them to defend the legitimacy of the retail medicine model.

Threat of Retail Clinics to the Medical Profession's Jurisdiction

The resistance to the retail medicine innovation started when rapid growth of the retail clinic industry in the 2006–2009 period presented an unexpected threat to physicians. Medical professional associations mobilized to protect the profession's jurisdiction in primary care after the acquisition of the two largest retail clinic chains by major retailers provided new capital to the clinics and resulted in rapid expansion of the industry. Rumors that Target and Walmart will follow Walgreens and CVS/Caremark by investing in the retail healthcare model unnerved physician associations even more. In its 2006 report, the American Academy of Family Physicians (AAFP) stated,

> Recent dramatic news on the retail medicine front is that Wal-Mart, the nation's largest retailer, is working with eight retail clinics companies to test the in-store clinic concept with the intention of rolling it out to all 3,400 outlets over the next two years. . . . [Wal-Mart] has the size and the resources to establish retail clinics rapidly and on a vast national scale, and this would have a profound impact on health care delivery in the U.S. (American Academy of Family Physicians 2006, p. 380)

The growth of retail medicine posed a threat because a decrease in patient volume at physician practices would endanger revenues and because the absence of physicians in retail clinics could undermine the cultural authority of physicians in primary care. The perception of economic threat was based on a long-standing belief among primary care physicians that profitability of practice depends first and foremost on high volume of patient visits (Carter 2005). As a senior AAFP executive recalled,

> When I [first] read about [retail clinics], my first reaction was very negative. I think because I'm a typical physician, and I . . . that was my gut. And I think that my biggest concern [was] I saw [the clinics] as a competitive force. —Senior executive at AAFP

Retail medicine aimed to establish efficient mass production of primary care services that would not have physicians at the point of delivery. Physicians specifically saw the quick visits for routine medical conditions—of the kind that retail clinics would capture—as a valuable part of a typical practice. Another physician explained,

> All physicians are still mostly fee for service, but they still resent losing visits, and they particularly resent losing visits that are relatively easy. In other words, the amount of mental effort that goes into treating an ear infection versus the compensation you get, it's a much better deal than trying to manage an elderly person with several health problems and a lot of education. You put a lot of medical work into that latter patient, and you still don't get paid a whole lot. —Physician and former senior executive of a large retail clinics chain

These concerns were raised by federal and local chapters of physician professional associations. Even in some publicly recorded policy discussions related to retail medicine, physicians admitted that retail clinics posed an economic threat to the profession. For example, minutes from a 2005 meeting of the state of Rhode Island's Department of Health Primary Care Physician Advisory Committee read,

> Dr. Lerish voiced concern that MinuteClinic, Inc. has submitted an application for Initial Licensure Review to operate six Organized Ambulatory Care Facilities within CVS stores in RI. . . . MinuteClinics are economically designed to skim sick visits, creating another impact on primary care practice income. (Rhode Island PCP Advisory Committee 2005)

Medicine's Defensive Action: Framing the Retail Medicine Innovation as Illegitimate

The medical profession reacted to retail medicine emergence by questioning the legitimacy of the clinics as a new form of practice. In its attempt to shape the discourse around retail clinics, the profession addressed the public and the state through official statements from professional associations, open editorials, and comments in newspaper articles by individual physicians. The innovation of retail medicine was deemed illegitimate for two reasons: it was unsafe, and it was morally unacceptable.

The safety concern resulted from the exclusion of physicians from practice in retail clinics. These arguments focused on NPs being inadequate substitutes for physicians. The moral unacceptability of the clinics had to do with their commercial nature. The clinics were thus framed as lacking the capability and the commitment to provide medical services in a way that would be acceptable. Table 1 summarizes these arguments.

Unsafe: NPs Cannot Substitute for Physicians. Major physician professional associations argued that the retail medicine model of care allowed NPs to practice without adequate supervision from physicians. For example, the AAFP issued a statement on retail clinics that read in part,

> [Health] professionals such as nurse practitioners should only operate . . . under responsible supervision of a practicing, licensed physician, . . . [and retail clinics] must have a referral system to physician practices. (American Academy of Family Physicians 2006, p. 382)

In Massachusetts, an AAFP state chapter submitted a statement to the state's Public Health Council in 2008 as part of public hearing on retail medicine. The statement read,

> The Massachusetts Academy of Family Physicians is gravely concerned that . . . [the retail clinic model] does not meet the current standard for physician supervision of "extenders" such as nurse practitioners, [and] therefore it might amount to these practitioners practicing medicine without a medical license. (Massachusetts AAFP 2007)

These arguments were even more prominent in the media coverage at the time of the retail clinic industry's most rapid expansion. Physicians warned the public that the minimal physician involvement in medical practice at the clinics is detrimental to the quality of care and may be outright dangerous. The president-elect of the AAFP argued,

> To allow retail clinics, with their limited physician involvement, to participate in managing diseases that, although perhaps simple in outward appearances, are often complex, would be a disservice to our patients and, ultimately, it would lower the overall quality of medical care. (Bachman 2007, p. 8)

Excluding physicians from the delivery of primary care at the clinics was argued to be unsafe; only physicians have the capacity to properly diagnose patients, and only they can decide which tasks in their jurisdiction are "simple" and therefore can be delegated. As a physician noted, in discussing retail medicine,

> Seemingly "simple" [medical] cases often aren't simple. Physicians spend years studying and practicing medicine to discern whether an apparently "simple" symptom indicates a more significant problem. (Starz 2006, p. B-7)

The inadequacy of NPs as independent providers was implicit in some statements about retail clinics and explicit in others. As superordinate professionals, physicians were reluctant to cede any authority in medical work to NPs, despite the fact that NPs have won the legal rights to perform much of that work and have been providing care autonomously in physicians' offices for many years. Instead, physicians warned that NPs were not qualified to practice without significant physician supervision.

> Nurse practitioners and physician assistants, who typically staff the clinics, "are very important parts of healthcare teams," said Dr. Ted Epperly, president of the American Academy of Family Physicians and a family doctor in Boise, Idaho. But "for them to create retail health clinics and take care of the community as if they were family physicians, that's not their skill set." (Merrick 2009, p. B.1)

> Nurse practitioners [are] well trained and skilled, and they provide a great service in doctors' offices. However, in a setting where a physician is not present to examine patients, there is a risk of an inaccurate diagnosis or of missing a serious medical condition. (Starz 2006, p. B-7)

Table 1. Incumbent Profession's Arguments Against the Legitimacy of Deprofessionalizing Innovation

Fundamental concerns about innovation	Typical arguments	Medical profession's arguments against retail medicine
Unsafe: lack of capability to serve	Expert tasks require knowledge and skills that incumbents have and outsiders do not	Absence of physicians at retail clinics is dangerous for patients; NPs are not qualified to provide care independently
Immoral: lack of commitment to serve	Professional work requires putting service ahead of economic gain	Retail clinics are corporations with a goal of making profit rather than serving patients; medicine is not a business but a calling

Immoral: Commercialism of Retail Medicine Puts Profit Ahead of Service. The second core argument against the legitimacy of retail medicine relied on the notion that medicine should not be a business. In an editorial, the president of the Medical Association of Georgia argued that the organization of medical work as a business (such as at a retail clinic) violates core values of the profession.

> Medicine is a science rather than a business. [As] corporate, profit-driven health care permeates medicine in America, [who] do you think cares more about patient safety—your physician or big business? (*Atlanta Journal–Constitution* 2006, p. 18A)

Similarly, the official statement on retail clinics by the AAFP pointed out that retail medicine is part of the larger unfortunate trend toward "consumerism" in medicine.

> [Retail clinics] are for-profit business entities, and [the] Academy has no real leverage to control their business model. . . . [They are part of] the wider phenomenon of consumerism in health care. (American Academy of Family Physicians 2006, p. 382)

In other newspaper articles, retail clinics were referred to as "drive-through medicine" (Christie 2009) and "the ultimate commodification of health care" (Hughs 2007). The fact that MinuteClinic hired Michael Howe, the former CEO of the fast-food chain Arby's, to be its new chief executive officer (CEO) only encouraged such rhetoric.

In short, physicians argued that corporate entry into primary care that bypassed physician control over medical work was an illegitimate and outright dangerous development. However, despite setbacks experienced by retail clinics in some states, such as Rhode Island, where it took MinuteClinic nine years of trying before it opened its first clinic (*Providence Business News* 2015), or Massachusetts, where regulatory approval of the first retail clinic took two years, and no clinics were allowed within the city limits of Boston (Robeznieks 2009), by and large the efforts of the medical profession to influence the public opinion and invoke the law to stop proliferation the clinics were futile. Of the 13 restrictive bills proposed in state legislatures with physician sponsorship, only two—in Florida and Massachusetts—became law, and although they were restrictive, the laws did not make retail clinics illegal; therefore, both states saw continued growth of the industry.

Most important, retail clinics saw a steady increase in patient visits, which suggests that the public was not convinced by the physicians' arguments. This lack of conviction may have resulted, in part, from strong counterarguments that retail clinic corporations put forth to mitigate the threat to their legitimacy. The industry strategy relied on using NPs' underutilized jurisdictional rights and the rhetorical tools accumulated by the profession in its competition with the medical profession.

Retail Clinic Firms' Strategy to Legitimize the Innovation

In their attempt to legitimize retail medicine model, retail clinic chains relied heavily on NPs' progress toward independent practice of medicine. NPs' accumulated jurisdictional gains helped to overcome the legal barriers to entry into the medical care market and respond to the questions about the cultural legitimacy of the innovation.

Repurposing of NPs' Accumulated Legal Rights

The requirement to obtain a license to practice medicine—enforced by every state's law with penalties, including criminal prosecution—necessitated some formal involvement of licensed medical professionals in retail medicine, even for the performance of the most simple, standardized, and automated medical work (Baker 1984, Hiemenz et al. 2014). The CPOM doctrine, which does not allow "a business corporation to practice medicine or employ a physician to provide professional medical services" (Michal et al. 2006, p. 2), required formal physician ownership of any organization that delivers medical care. Accordingly, retail clinics traversed the legal barrier of licensure by maintaining the legal fiction of operating as physician practices while maintaining noninvolvement of physicians in practice, relying instead on NPs.

To comply with legal requirements, retail clinic corporations engaged in formal collaborative partnerships with small physician groups and organized legally as physician practices. However, to maintain the cost efficiency of operations, clinics did not involve physicians in any of the day-to-day medical work, limiting their role to remote supervision through periodic reviews of a sample of patient charts (Bohmer and Groberg 2002, Schleiter 2010, and author interviews). A report by the American Medical Association details that approach.

> To avoid violating the CPOM doctrine, [retail] clinic operators have adopted such various ownership configurations as the "captive physician" model, in which a [clinic] is legally owned by a physician or a group of physicians but is closely tied to a corporation by a series of management or other contracts. For regulatory purposes, these clinics' operations are considered the private practice of medicine. (Schleiter 2010, p. 560)

A medical director at one of the large retail clinic chains similarly explained,

> In each state, there's regulation that requires physician ownership. So, for every company that owns retail clinics there's a professional corporation, the president of which is a state-licensed physician. And then there's contractual agreements between any retail organization like Walgreens, or CVS, or any of the entities that own the clinics nationally, they have local agreements that define the relationship between the professional corporation and the physician. —Former medical director, large retail clinic chain

The companies thus carefully chose their clinics' legal organization in every state to satisfy local licensure and regulatory requirements.

> In every state, before we opened, we retained local legal counsel, because not only are the policies and the regulations different, but the practices are different as well. So, local legal counsel, local medical director, local nurse practitioners. —Former senior executive, large retail clinic chain

However, involving physicians in day-to-day medical practice at the clinics would not only threaten corporate control over work at retail clinics but also—and more importantly—would increase costs, thus eliminating economies of scale. As a former retail clinic executive explained, "it would be ridiculous to staff [the clinics] with physicians. Physicians' average annual salary [was] $150,000. Nurse practitioners' [was] $75,000." Accordingly, none of the largest retail clinic chains had physicians present on site. As a former medical director of a large retail clinic chain explained,

> There is not much face-to-face interaction between a [collaborating] physician and the nurse practitioners. There are monthly meetings and phone conferences and kind of teaching. . . . [And] the medical directors assigned to the clinics are available 24/7, if nurses [practicing at the clinics] have a question. . . . Medical directors have to review a certain percentage of the clinic charts. —Former medical director of a large retail clinic chain

Retail clinic chains could exclude physicians from practice only because of the NPs' progress in expanding their practice rights, which allowed NPs in most states to practice with only remote supervision by physicians or no physician supervision at all. Retail clinics thus relied on the organization of medical work that, although satisfying the legal requirements, pushed the limits of physician nonparticipation in the performance of the work. With that approach, a small number of nominally collaborating physicians provided remote supervision of many NPs staffing the clinics.

Overcoming the legal barriers of license, however, only allowed them to establish operation of the clinics on the ground. The demand for retail clinics' practices and, ultimately, the industry's long-term growth and survival depended on the ability of retail clinic chains to neutralize the delegitimizing rhetoric of the medical associations and convince the public and the state of the legitimacy of retail medicine as an innovation. Retail clinics achieved that goal by using professions' own tools of claim making.

Repurposing of NPs' Frames and Rhetorical Strategies

In their defense against the physician profession's attempts to cast retail medicine as illegitimate, retail clinic companies used the repertoire of arguments that NPs have previously developed in their efforts to compete with physicians and gain standing as independent primary care providers. For example, in articles discussing the major healthcare reform proposed by President Clinton in 1993—about a decade before the rise of retail medicine—the debate about the role of NPs was already at the center.

> Seeing an opportunity in President Clinton's effort to restructure the healthcare system, nursing advocates have mounted a national campaign to change that. . . . Now, as both members of and consultants to Hillary Rodham Clinton's health-care reform team, they are pressing for increased autonomy for nurses and elimination of financial barriers. "We've simply tried to lay out the case that *continuing to let physicians always control care doesn't make economic sense and doesn't make quality-of-care sense*," says Virginia Trotter Betts, president of the American Nurses Association. (Petty 1993, p. B.1; emphasis added)

NPs' efforts to increase their legitimacy as primary care providers in the 1990s relied on two arguments. First, NPs' skills and expertise make them safe and competent primary care providers. Second, allowing NPs to be independent care providers is a cost-efficient proposition that helps to solve two moral problems: the rising healthcare costs in the United States and poor access to primary care. For instance, both arguments were apparent in discussions of proposed expansion of the NPs' prescription rights.

> [Proponents of increasing NPs' practice and prescription rights] argue that since [NPs] are paid less [than physicians], increased use of their services could cut costs further, at no risk to patients. And, says Ms. Hutto [a lobbyist for NPs], "If it's safe for advanced nurse practitioners to prescribe to rural and medically underserved populations, it's safe for them to prescribe to everyone." (Johannes 1994, p. T.3)

> [NPs] also say they offer an alternative to the 44 million Americans who currently lack health care. "A lot of people fall through the cracks," says Melanie Goodman, president of the California Coalition of Nurse Practitioners. (Hamilton 2000, p. S1)

The retail clinic industry repurposed that rhetorical strategy in its attempts to legitimize the new organization of primary care work. The two types of arguments used by NPs mapped well onto the medical profession's criticism of retail clinics as unsafe and immoral. To counter physicians' claims that retail clinics lack the capability to provide safe medical care, retail clinics argued that they rely on NPs, who are well qualified for the work that they do at the clinics, echoing the older arguments of NPs that nurses are well qualified to perform most of the primary care tasks independently. The software controlling medical work at the clinics was framed as an additional layer of assurance of NPs' competencies. To counter physicians' claims that retail medicine is immoral because it is a profit-driven business, retail clinics pointed out that the efficiency of the retail medicine model addresses important societal problems of rising healthcare costs and poor access to care, echoing similar arguments advanced by NPs a decade earlier. The similarities between the arguments used by retail clinics between 2004 and 2017 and those used by NPs a decade earlier are summarized in Table 2.

Capability and Safety of NP-Centered Retail Medicine. Retail clinic executives and collective representatives argued that NPs are well qualified for the work they do at the clinics. For example, the Convenient Care Association (CAA)—the industry's trade group—stated on its website,

> [Retail health clinics] are usually staffed by NPs, who have proven through their 40-year history to provide high quality, patient centered, compassionate care. . . . [Research] has shown that they provide care comparable in quality to that provided by Primary Care Physicians. (CCA 2010)

MinuteClinic's statement to Massachusetts regulators, who were considering whether to allow retail clinics in the state and, if so, how tightly to regulate them, similarly emphasized the high qualifications of NPs at the clinics along with their legal capacity to practice.

> Our patients are treated by highly qualified and trained clinical professionals using the principles of evidence-based medicine to assure consistently high quality. In Massachusetts, each MinuteClinic location will be staffed by board-certified family practice nurse practitioners who have in place collaboration or supervision agreements with qualified physicians that fully comply with state law requirements. (*Messenger-Inquirer* 2009)

In the media, clinic executives responded to concerns about NPs' ability to practice autonomously by asserting that they "feel very comfortable about [NPs'] skills and training for family medical problems" (Geron 2006). When retail clinics began expanding their scope of service to include management of chronic conditions, clinic executives justified the expansion by again stating their confidence in NPs' professional abilities.

> Dr. Troyen A. Brennan, Chief Medical Officer of CVS Caremark, said nurse practitioners are "well trained to address diseases like diabetes [and] hypertension." (Merrick 2009, p. B.1)

Among the 298 articles in the qualitative sample, almost all mentioned NPs as the providers of care in retail clinics, about one-half of the articles (157) highlighted NPs' central role there, 62 articles suggested that medical services provided by NPs at the clinics are of comparable or better quality than the services at a physician office, and 51 mentioned that the care is less costly.

Cost Efficiency and Better Access to Care Are Moral Virtues of Commercialism. The second argument—that the care provided by NPs in retail clinics is cost efficient—was used to assert the moral virtues of a business-like approach to medicine. Retail clinic

Table 2. Similarity of Legitimacy Arguments Used by Retail Clinics and NPs Before Them

Delegitimizing: physicians' arguments against retail clinics	Responding	
	Retail clinics' arguments between 2004 and 2017	NPs' arguments between 1990 and 2000
Unsafe: lack of capability to serve	Safe: (1) clinics rely on NPs who are well qualified to treat minor medical conditions and (2) sophisticated technology to ensure best practices and track outcomes	Safe: NPs are well qualified to treat most conditions in primary care
Immoral: lack of commitment to serve	Morally justified: retail clinics are cost and time efficient and thus, address two moral problems: (1) rising healthcare costs and (2) poor access to care	Morally justified: NPs are cost-efficient practitioners; giving NPs full practice rights addresses two moral problems: (1) rising healthcare costs and (2) shortage of physicians

executives highlighted that the new model of care addresses a growing societal problem.

> "Everybody recognizes that health care costs are out of control," said MinuteClinic CEO Michael Howe, who was recruited a year ago from fast-food giant Arby's. "General Motors says it pays more for health care than for steel.... Starbucks pays more for health costs than for coffee beans. I think the vision of health care as a business proposition has the ability to change health care in the United States." (Fiedler 2006)

The business orientation of retail clinics was presented as a benefit rather than a liability, contrary to what the physician associations were arguing.

> "We went into [retail clinics business] thinking we'd take the best of medicine and put it into retail" [Target Corp.'s medical director says], "what we learned is that you can take the best of retail and put it into medicine." (Crosby 2010, p. 1D)

From that perspective, the involvement of corporations, such as retail chains, in the work within the medical profession's jurisdiction represented a positive development for primary care services in the United States. As president and CEO of CVS/Caremark, Larry J. Merlo remarked,

> As the delivery of health care evolves with an emphasis on better health outcomes, reducing chronic disease and controlling costs, CVS Caremark is playing an expanded role in providing care through our pharmacists and nurse practitioners. (*Ponoco Record* 2014)

Retail medicine thus was positioned to solve the moral problems of healthcare cost and access. Of the 298 articles in the sample, 107 stated that retail clinics address the problems of shortage of physicians and poor access to care, 59 mentioned that the clinics offer an option to low-income patients, and 53 stated that retail clinics fill a

Table 3. Illustrative Examples of the Legitimacy Arguments Used by Retail Clinics and by NPs Before Them

Arguments used by retail clinics between 2004 and 2017	Arguments used by NPs between 1990 and 2000
Clinics rely on NPs who are well qualified to treat minor medical conditions.	NPs are well qualified to treat most conditions in primary care.
[Retail clinic chain Take Care] vouches for the training of its nurse practitioners...."Our nurse practitioners follow clinical protocols based on guidelines established by the medical community to diagnose, treat and prescribe for standard family illnesses," said Peter Miller, president and CEO of Conshohocken, PA-based Take Care. (Japsen 2006, p. 3.3) "You hear concerns about quality of care," says [MinuteClinic's CEO] Howe. "The facts don't support the histrionics. [Our nurse] practitioners are perfectly trained for these conditions." (Roan 2007, p. F.1)	Mary Mundinger, dean of Columbia University's School of Nursing, noted that nurse practitioners have been delivering primary care since 1965 and that hundreds of studies have examined the quality of their work, including their diagnostic ability and management effectiveness. "There is not a single study that shows any lapses," said Ms. Mundinger, "and most of the studies have been done by physicians." (Herbert 1993, p. A.27) "Nurse practitioners have the same skills in detecting and managing illness as primary care physicians," [Mundinger] says. "What patients get in addition to that is a specialist in health education and promotion and illness prevention." (Hamilton 2000, p. S1)
Retail medicine is efficient and thus addresses the moral problems of rising healthcare costs and poor access to care.	NPs are cost-efficient practitioners; giving NPs full practice rights addresses the moral problems of rising healthcare costs and shortage of physicians.
"This really can be part of improving health care," says MinuteClinic CEO Michael Howe, former CEO of Arby's. "The problem we're solving is an access problem," says Peter Miller, CEO of Take Care Health Systems. (Schmit 2006, p. 1A) "Increased regulation [of retail clinics] has the potential to restrict access to these health-care services and create more costs to patients," Walgreens spokesman Michael Polzin said. "That would work against the growing concern over affordable, quality health care that our [clinics] are directly addressing." (Japsen 2007a, p. 5.1) "If the AMA is going to push this agenda, they may find that legislators and their constituents have been demanding accessible and affordable health care for years," said Walgreens spokesman Michael Polzin. "And that is exactly what retailers are delivering as a supplement to the primary care physician. As they push back against retail clinics, it would result in higher health-care costs and prevent some patients from receiving care that they are receiving." (Japsen 2007b, p. 3.1)	"Nurse-payment restrictions especially hurt elderly people in underserved areas. Some of them often forgo primary care because they can't afford to pay nurses," says Jan Towers of the American Academy of Nurse Practitioners. "Not every nurse practitioner is Mother Teresa. If they can't be paid, it's hard for them to practice," says Ms. Towers. As a result, she says, many of these low-income people get care from hospital emergency rooms, which costs taxpayers in the long run. (Petty 1993, p. B.1) "The bean counters in managed-care organizations love us," said Ms. Pearson, the nursing journal editor and herself a nurse practitioner.... The entry of these lower-cost medical professionals into the pool of primary-care providers is bound to put downward pressure on costs, analysts say. (Freudenheim 1997, p. 1)

void. Importantly, 25 articles proposed that the popularity of retail clinics signifies a broader demand for "consumer-driven care" that will address the shortcomings of the old primary care delivery model.

Examples in Table 3 illustrate that arguments made by retail clinics' borrowed directly from NPs' campaign for renegotiation of the nursing profession's role in medicine, in which the nursing profession stated that NPs are cost-efficient and well-qualified providers of primary care who can help alleviate physician shortages and increase access to care in rural areas.

In short, in defending their legitimacy, retail clinic corporations relied on the rhetorical toolkit that NPs have previously developed in their jurisdictional struggle with physicians. Such a strategy could have been mutually beneficial: with NPs at the center of the retail clinics model, the increasing legitimacy of the model could have contributed to the NPs' professional standing. Yet some important aspects of the work organization at the clinics suggest that the gains in legitimacy were not symmetrical for retail clinics and NPs. Qualitative and quantitative evidence suggests that retail clinics benefited from the strategy, whereas the professional standing of NPs did not improve.

Retail Medicine's Gain and NPs' Lack of Gain of Cultural Legitimacy

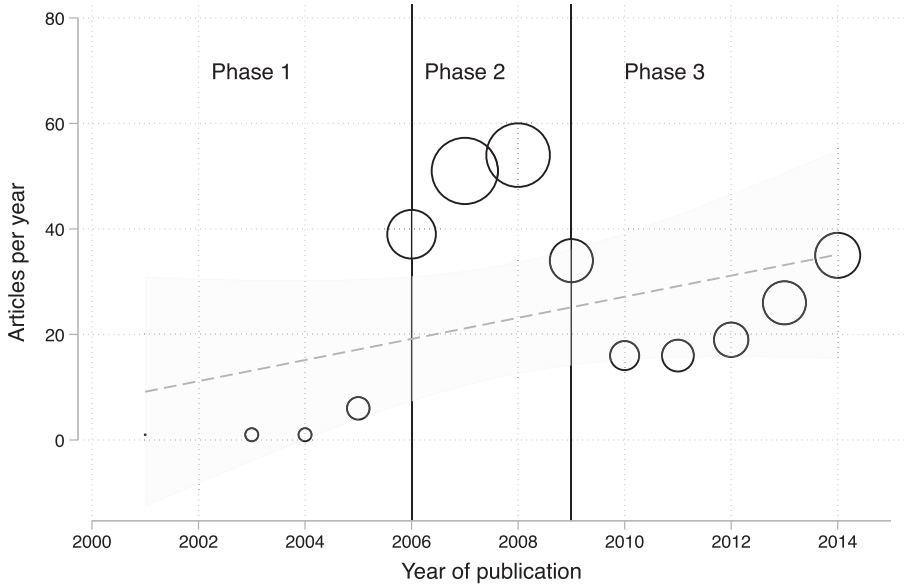
The analysis thus far suggests that cultural legitimacy of retail clinics improved as a result of the industry's strategies in the discourse. As I show next, the analysis of the media sentiment toward the industry provides additional support for this conclusion. Moreover, the analysis of NPs' cultural standing as an occupational group suggests that retail medicine's gain of legitimacy was not just an outcome of the association of retail clinics with the nursing profession.

Retail Clinics' Standing in the Media Discourse

The retail medicine industry has been continually improving its standing in the public discourse. The attention of the media toward retail clinics grew as the industry expanded. As Figure 2 shows, the number of articles and the number of newspapers discussing retail medicine grew in a nonlinear fashion. Although there was little growth in the first phase of the industry's development, the coverage has increased dramatically during the second phase. The number of articles per year exceeded 50 during 2008 and 2009, and the number of distinct newspapers covering the industry as it reached its peak grew to 40 newspapers that had at least one article on the industry in 2008. Most of the coverage seems to have been sparked by the entry of large retail chains into the business as CVS, Walgreens, Target, and Walmart stores started opening retail clinics and, in the case of the first two, acquiring leading retail clinic chains. Although the coverage of the topic fell by the end of the second phase, it then continued to grow throughout the third phase as retail clinics began integrating into the primary care field.

The increasing attention to the industry from newspapers does not, by itself, suggest increasing acceptance. It is apparent from the quotes above that at least some articles included criticism of the industry by the medical profession and therefore could undermine rather than help the legitimacy of retail clinics. Formal sentiment analysis of the articles' text allows us to assess changes

Figure 2. Coverage of Retail Medicine in U.S. Newspapers



Note. Circle size reflects the number of unique newspapers.

Table 4. Summary Statistics for Sentiment Analysis

Samples of newspaper articles	Normalized sentiment (Bing)					Normalized sentiment (AFINN)					Mentions retail clinics: Proportion
	N	Mean	SD	Min	Max	*N*	Mean	SD	Min	Max	
Retail clinics sample, all	298	–0.008	0.07	–0.22	0.32	298	0.113	0.12	–0.23	0.66	1.00
NP sample, all	1,629	–0.013	0.24	–0.91	0.91	1,488	0.068	0.44	–1.8	2.7	0.08
NP sample by newspaper											
Chicago Tribune	237	0.024	0.25	–0.72	0.72	217	0.073	0.43	–1.4	1.1	0.12
Los Angeles Times	200	–0.054	0.24	–0.46	0.56	182	0.013	0.47	–1.4	1.3	0.07
New York Times	320	–0.041	0.24	–0.91	0.62	287	0.048	0.45	–1.8	1.3	0.04
Star Tribune	170	–0.030	0.26	–0.43	0.72	151	0.040	0.46	–1.3	1.2	0.14
Atlanta Journal–Constitution	150	0.018	0.26	–0.72	0.91	140	0.140	0.49	–1.2	2.7	0.10
Washington Post	371	0.000	0.23	–0.51	0.62	345	0.071	0.41	–0.9	1.5	0.04
USA TODAY	66	–0.017	0.24	–0.56	0.43	56	0.019	0.49	–1.7	0.9	0.08
Wall Street Journal	115	0.013	0.21	–0.72	0.48	110	0.160	0.37	–0.9	1.0	0.11

Note. SD, standard deviation.

in tone over time. I conducted the analysis first using the sample of articles on retail clinics and then replicated it using the sample of articles on NPs (below). Descriptive statistics for both samples are summarized in Table 4.

Figure 3 shows normalized sentiment values for all 298 newspaper articles in the qualitative sample plotted over time. The data are summarized in a binned scatterplot (Stepner 2014). The pattern in Figure 3 suggests that the sentiment of articles has turned more positive over time. An estimated linear trend is imposed onto the plot for reference. Regression results, reported in Table 5, confirm these conclusions. The coefficients for *publication year* are positive and significant in Table 5, Models (1) and (2), suggesting that the sentiment grew more positive by about 0.004 (or about 0.06 standard deviation at $p < 0.05$) for every additional year of coverage when using the Bing sentiment lexicon and by about 0.009 (0.08 standard deviation at $p < 0.001$) when using the AFINN lexicon. That is, the sentiment grew by more than one-half of a standard deviation over a decade. In Table 5, Models (3) and (4) report coefficients for an alternative approach of assessing the change: instead of estimating a linear growth in sentiment, they compare the sentiment across the phases of the retail clinic industry development using indicator variables for phases 2 and 3 (with phase 1 as a reference category). The coefficients are positive for both phases, although not significant for phase 2 at conventional levels.

In sum, the prominence of retail clinics as a media topic and the positive sentiment of the coverage seem to have grown over time. These results are consistent with the growing legitimacy of retail clinics as a new form of primary care delivery.

Figure 3. Binned Scatterplot of the Sentiment of Newspaper Articles Over Time Based on the Sample of 298 Articles That Mention Retail Clinics

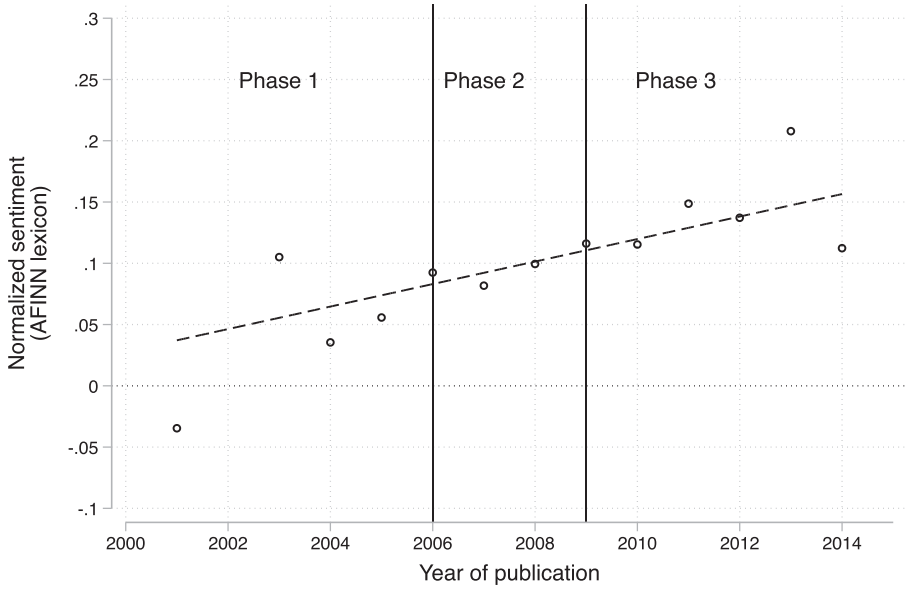


Table 5. Regressions of Newspaper Articles Sentiment on Time: Retail Clinics Articles Sample

	(1)	(2)	(3)	(4)
Variable	Bing	AFINN	Bing	AFINN
Publication year	0.004*	0.009***		
	[0.002]	[0.003]		
Phase 1 (omitted reference category)			—	—
Phase 2			0.005	0.013
			[0.009]	[0.013]
Phase 3			0.028*	0.060***
			[0.013]	[0.017]
Constant	–7.607*	–18.336***	–0.020*	0.084***
	[3.465]	[5.259]	[0.008]	[0.010]
Observations	298	298	298	298
Adjusted R^2	0.018	0.043	0.021	0.037

Notes. OLS coefficients are shown. Robust standard errors in brackets are clustered at newspaper level.
*$p < 0.05$; ***$p < 0.001$.

NPs' Professional Standing and Retail Medicine

Although the retail medicine industry enjoyed gains in its cultural legitimacy, it is possible that the higher legitimacy of retail clinics resulted from their association with NPs as a by-product of the legitimacy of the nursing professions that may have been rising. Moreover, it could suggest that the nursing profession relied on the organizational form of retail clinic as a vehicle to improve the profession's own standing vis-à-vis physicians and could imply lesser importance of retail clinics' agency in the case. Qualitative and sentiment analyses offer evidence counter to this explanation.

NPs in Retail Clinics as Worksites. Three aspects of NPs' work at retail clinics suggest that, as a profession, they have not gained standing with the proliferation of retail medicine: the restricted scope of services offered by retail clinics, the software-mediated control over NPs' work, and the performance of nonprofessional tasks by NPs in the clinics. First, NPs' practice was restricted by the clinics' narrow scope of services. Some nurses raised this issue in the media.

> [A] nurse practitioner with The Little Clinic who is helping the company recruit nurses, acknowledges that some nurse practitioners might find [the practice at the clinic] limiting professionally. At a doctor's office, she would provide such advanced procedures as gynecological exams and monitoring patient's cholesterol levels. However, in-store clinics strive for quick, inexpensive walk-in care, so they limit their scope to treating sinus infections, earaches and other minor ailments. (Sasso 2006, p. 1)

In interviews, NPs consistently noted the narrowness of their scope of practice at retail clinics, contrasting it with the breadth of medical tasks that the NP license allows them to perform in other settings.

> What I'm doing [at the retail clinic] is, like, one percent of what my scope would allow me to do in this state. . . . I recognize that my scope of practice—legally what I'm able to do, what I'm trained to do, what I'm capable of doing—is very limited in a retail environment. —NP working at a large retail clinic chain

Second, the use of practice support software was also damaging to the public image of NPs as independent professionals in part because the control of the software over NPs' work was conspicuous to patients. NPs followed prompts on screen, asking patients predefined questions, filling in answers, and, on occasion, struggling to proceed with the visit when interactions with the patient veered off script. The software encoded the diagnosis and treatment of the clearly defined medical conditions within the clinics' scope of service and closely controlled application of that knowledge by NPs. As a retail clinic chain's executive described it,

> The first goal [of the software] was to guide diagnosis and treatment. So, if the nurse practitioner did not follow the protocol that was embedded in the software based on national guidelines, the system froze and the nurse practitioner was unable to electronically generate a prescription, was unable to print the education sheet, and unable to complete the visit and provide the patient with their diagnostic record. It absolutely guaranteed consistency of service regardless of the nurse practitioner or the [clinic] location. . . . We built the software around our business model to maximize efficiency. —Former senior executive at a large retail clinic chain (the software was similarly described in *The News & Observer* 2008 and Fiedler 2006)

A medical director at a retail clinic chain similarly remarked,

> I have rarely seen such a well-organized system of adhering to guidelines that are really up-to-date. And these guidelines are incorporated in the [diagnosis support software] protocols. . . . It's just a path that the nurses follow, so there's really no space for subjective interpretation of what to do. —Medical director at a retail clinic chain

Third, another major aspect of work at retail clinics that undermined NPs' professional standing was the inclusion of low-status, nonprofessional tasks into the NPs' set of responsibilities. Although the autonomous practice at retail clinics meant that NPs were not subject to on-site supervision by a physician, such extraction of NPs from the typical worksite hierarchy of a medical office also meant that NPs lacked their own subordinates to whom they could delegate low-status tasks. This related to medical work because retail clinics did not have medical workers, such as licensed practical nurses (LPNs), who would be subordinate to NPs in a more traditional practice setting. As an NP at a retail clinic noted,

> [In a typical primary care office] an LPN would give the shots, any immunizations I needed to make sure [the patient] is up-to-date. I'd order [the immunization], put my chart up and then [the LPN] would do whatever I ordered, basically. Here, it's just me. —NP at a retail clinic

NPs also had to perform clearly nonprofessional tasks that could be seen as "scut work" by professionals. Cost-efficiency goals required NPs to be responsible for all aspects of the clinics' day-to-day operation—processing billing and insurance paperwork for patients, maintaining patients' medical records, ordering supplies for the clinic, and even cleaning the examination rooms. The addition of such nonprofessional responsibilities was an unpleasant surprise to some NPs at retail clinics.

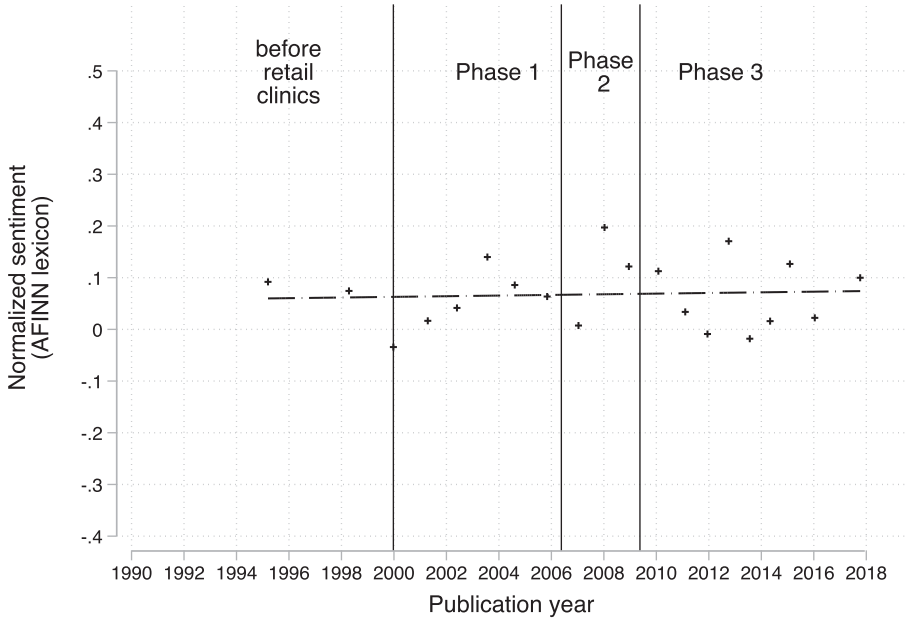
> At first, I thought, "Nothing wrong with mopping the floor, emptying the garbage. I can do that." And I thought, "It's kind of humbling. I didn't go to school to do that."...When they hired me, they never said "You're going to be the receptionist, you're going to be the cashier, you're going to be the janitor, and then you're going to be the nurse practitioner."...And, they never said "You need to, you know, solicit the business." They want us to go out and greet people that enter the store and, you know, "Are you familiar with [our retail clinic]?" —NP working at a large retail clinic chain

A former executive at a large retail clinic chain noted that the inclusion of low-status tasks into the responsibilities of NPs at retail clinics was necessitated by the goal of cost efficiency.

> Absolutely every aspect of the clinic was scrubbed with cost in mind. That's why it was 80 to 110 square feet. That's why we used kitty litter to dispose of the urine samples. That's why we didn't have a receptionist. —Former executive at a large retail clinic chain

In short, the practice of NPs in retail clinics had features that did not provide the nursing profession with the cultural boost that the notion of independent practice implies. Amid these apparent threats to the professional status and discretion of NPs working at retail clinics, the industry also did not help to solidify NPs' legal rights to practice. With the exception of one

Figure 4. Binned Scatterplot of the Sentiment of Mentions of NPs Over Time Based on the Sample of 1,629 Newspaper Articles



state, retail clinics did not facilitate expansion of the legal scope of NP practice because the scope was sufficient for the limited set of simple medical conditions addressed at the clinics. Additionally, as sentiment analysis suggests, proliferation of retail medicine did not contribute to the cultural legitimacy of NPs.

Sentiment of the Discourse Around NPs. The standing of NPs in retail clinics as worksites is related to but distinct from the public perception of the profession. To measure changes in the public perception, I conducted sentiment analysis using the sample of articles mentioning NPs across eight newspapers. Figure 4 summarizes the sentiment toward NPs in a binned scatterplot. It appears to be flat over the entire time window on average, showing no clear signs of linear change in the positive direction. In Figure 4 and all following regressions, I account for time-invariant differences across the newspapers in the sample—that is, for any predisposition of a given media outlet toward the topics of NPs or retail medicine—by controlling for newspaper fixed effects.[1] Results of the regression analysis presented in Table 6 confirm the absence of positive growth in the sentiment toward NPs because neither the coefficients for the publication year nor the coefficients for phases of the retail clinic industry development are large or statistically significant, and most coefficients are negative.

Figure 5 and Table 7 show results of a similar analysis in which I separately account for newspaper articles that, in addition to mentioning NPs, also mention retail medicine. Figure 5 shows a pattern that is consistent with the growth in positive sentiment over time toward retail clinics and no change in the sentiment toward NPs: the linear trend for retail clinics–related articles is positive, whereas the one for nonretail medicine–related articles is flat. Regression coefficients estimated in Table 7, Models (1) and (2), are consistent with this assessment—the coefficients for calendar year, which represent the slopes of the linear trend for nonretail clinics articles (i.e., those that only mention NPs), suggest no growth: the slope is negative in Table 7, Model (1), and is approximately zero in Table 7, Model (2). The coefficients for the interaction between the indicator for retail clinics' topic and year, which represent the slopes of the linear trends for retail clinics–related articles (those that mention both NPs and retail clinics), are positive and remarkably similar in magnitude to the coefficients in Table 5, Models (1) and (2). None of the coefficients are statistically significant at conventional levels. For retail clinics–related articles in the sample, this may be a result of the small number of articles on the topic that are present in the sample ($n = 125$), which leads to larger estimated standard errors.

As an alternative to assessing the linear trend, I also estimated changes in the sentiment of the two types of articles by phases of retail clinics' development (Table 7, Models (3) and (4)). That approach required restricting the sample by excluding articles published before the emergence of retail clinics (i.e., before 2000); the indicator for that time period is exactly collinear with the indicator for retail clinics–related articles because no articles on retail clinics were

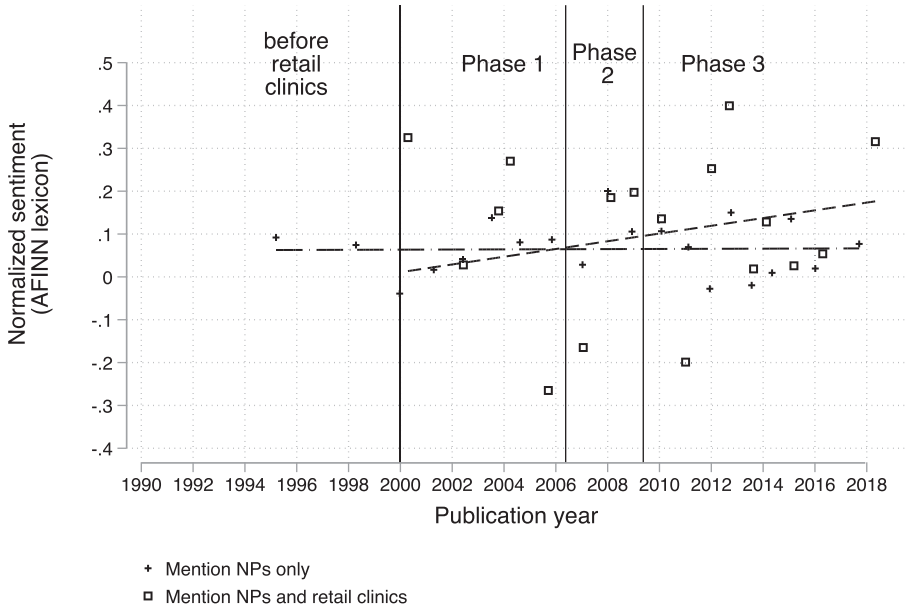
Table 6. Regressions of Newspaper Articles Sentiment on Time: NP Articles Sample

	(1)	(2)	(3)	(4)
Variable	Bing	AFINN	Bing	AFINN
Publication year	–0.001	0.001		
	[0.002]	[0.002]		
Phase 0 (omitted reference category)			—	—
Phase 1			–0.015	–0.033
			[0.022]	[0.046]
Phase 2			–0.008	0.040
			[0.018]	[0.042]
Phase 3			–0.015	0.001
			[0.028]	[0.051]
Constant	1.225	–0.948	0.035^{+}	0.075^{+}
	[3.253]	[4.743]	[0.017]	[0.038]
Observations	1,629	1,488	1,629	1,488
Adjusted R^2	0.008	0.004	0.007	0.005

Notes. OLS coefficients are shown. Outcome variables are normalized article-level sentiments calculated using either Bing or AFINN lexicon. Robust standard errors in brackets are clustered at newspaper level. All models include newspaper fixed effects (coefficients not shown for brevity) as indicators for *Chicago Tribune*, *Los Angeles Times*, *New York Times*, *Star Tribune*, *Atlanta Journal–Constitution*, *Washington Post*, *USA Today*, and *Wall Street Journal*.

$^{+}p < 0.10$.

Figure 5. Binned Scatterplot of the Sentiment of Mentions of NPs and Retail Clinics Over Time Based on the Sample of 1,629 Newspaper Articles



published in that period. The reference category in the regression is then the NP mentions only in articles published in the first phase of the retail clinic industry development.

Coefficients in Table 7, Model (3), suggest that changes in the Bing sentiment with respect to that category are ambiguous for articles on NPs only and positive for articles that also mention retail clinics, although none of the

Table 7. Regressions of Newspaper Articles Sentiment on Time and Mentions of Retail Clinics: NP Articles Sample

	(1)	(2)	(3)	(4)
Variable	Bing	AFINN	Bing	AFINN
Publication year	−0.001	0.000		
	[0.002]	[0.002]		
Retail clinics article (1 = yes; 0 = no)	−10.042	−22.999	−0.065	−0.070
	[11.540]	[22.105]	[0.063]	[0.102]
Retail clinics article × *Publication year*	0.005	0.011		
	[0.006]	[0.011]		
Phase 1 (omitted reference category)			—	—
Phase 2			0.012	0.052^{+}
			[0.017]	[0.023]
Phase 3			−0.002	0.023
			[0.019]	[0.028]
Phase 2 × *Retail clinics article*			0.005	0.161
			[0.090]	[0.113]
Phase 3 × *Retail clinics article*			0.026	0.112
			[0.066]	[0.080]
Constant	1.058	0.055	0.024^{+}	0.025
	[3.024]	[4.740]	[0.012]	[0.014]
Observations	1,629	1,488	1,350	1,239
Adjusted R^2	0.011	0.003	0.010	0.010

Notes. OLS coefficients are shown. Outcome variables are normalized article-level sentiments calculated using either Bing or AFINN lexicon. Robust standard errors in brackets are clustered at newspaper level. All models include newspaper fixed effects (coefficients not shown for brevity) as indicators for *Chicago Tribune*, *Los Angeles Times*, *New York Times*, *Star Tribune*, *Atlanta Journal–Constitution*, *Washington Post*, *USA Today*, and *Wall Street Journal*.

$^{+}p < 0.10$.

estimates are precise enough to be statistically significant. Table 7, Model (4), estimates the same changes using the AFINN lexicon and suggests that articles on NPs had a marginally significant positive boost in phase 2 of retail clinics' development and a smaller statistically insignificant positive change in phase 3. The coefficients for articles that also mention retail clinics are also positive and of greater magnitude, but they are not precise enough to be statistically significant.

In sum, it seems that the coverage of retail clinics has grown more positive over the three phases of the industry's growth—significantly so when using the expansive sample of all articles on the retail clinics industry and only suggestively so when using a smaller subsample of retail medicine articles in the eight large U.S. newspapers. The estimated coefficients are remarkably similar in sign and magnitude across the two samples, which suggests that retail medicine experienced a boost in positive coverage. At the same time, the sentiment of articles discussing NPs has remained unchanged, on average, after retail clinics' emergence. This suggests that the profession did not experience a boost in legitimacy similar to the one experienced by the retail medicine.

Discussion

The case of the retail clinics industry emergence in the United States demonstrates that incumbent professions resist deprofessionalizing innovation by casting it as an illegitimate and immoral change in the way that expert work is done. The innovative retail clinics firms overcame resistance by capitalizing on interprofessional competitive tensions and repurposing frames and arguments comprising professions' own jurisdictional claims. The firms relied on the cultural and legal assets accumulated by the nursing profession in its struggle to renegotiate its subordinate position in medicine. Remarkably, the social standing of the nursing profession did not improve with the growth of retail medicine, whereas the cultural legitimacy of the industry grew. Thus, nonprofessional corporations were able to participate in and profit from medical work without advancing the jurisdictions of the incumbent professions.

These findings suggest a model of deprofessionalization that differs from prior literature. The underlying processes and conditions of that model have implications for theories of professional jurisdictions and innovation strategy.

Deprofessionalization as Loss of Control Over Work to Nonprofessional Competitors

Understanding deprofessionalization is important for understanding the evolution of professional jobs and addressing inefficiencies and inequality in markets for professional services (Weeden 2002, Kleiner and Krueger 2010). However, research on deprofessionalization most often focuses on the *consequences* of weakened professional control over work—such as degradation of expert workers' autonomy and discretion in performance of expert tasks and the decline in professional identification and commitment (Wallace and Kay 2008). Rather than focusing on the outcomes, I argue for the importance of studying the antecedents such changes—the contestation and loss of control over expert tasks to nonprofessional outsiders. This requires a shift of focus from professionals to tasks: from the occupational group to its competition with other economic actors who offer alternative solutions to problems within the profession's jurisdiction.

This view builds on the theory of professions proposed by Abbott (1988) and, importantly, extends it by including nonprofessional firms as potential competitors for control over expert tasks. The firms compete with professions by relying on a deprofessionalizing innovation. The threat of deprofessionalization provokes defensive response from professions because it challenges the legitimacy of the innovation. To capture control over contested work, firms need to assert the legitimacy of their services in public discourse. If they are successful, the firms capture control over the work, and the work is effectively deprofessionalized.

Theorizing deprofessionalization as an ecological process highlights the importance of professions' collective agency in maintaining cultural discourse around their work, which has not played a significant role in prior research on deprofessionalization. Collective level of action has also receded to the background in much of the recent literature on professions, which often focuses on how professional authority and control over work are negotiated in individual worksites through local competition among occupational groups (Heimer 1999, DiBenigno and Kellogg 2014) and between professional and nonprofessional workers (Huising 2014, Lifshitz-Assaf 2018). However, in the long run, a profession's power depends on its cultural authority. A profession's ability to shape public discourse around various solutions to human problems predicates its jurisdiction in the marketplace and individual worksites. Through the discourse, professionals collectively frame their solutions to problems as more legitimate than those of their competitors (Kahl et al. 2016). Victories and losses on the collective level determine the cultural and material resources available to individual professionals and, with that, their chances of gaining or maintaining jurisdiction in worksites.

Deprofessionalization is then better understood as an outcome of contests for jurisdiction unfolding at the collective level rather than a degradation of working conditions resulting from employment of professionals in corporate worksites. Bureaucratization of practice and technological change in professional work are the necessary but not sufficient

conditions for deprofessionalization. Professionals' expert status in markets gives them the power to resist these pressures toward deprofessionalization, proclaiming any change in the way that their work is done as unsafe and immoral and thus rejecting it as illegitimate. To wrest control over expert tasks from professionals, those who introduce innovation must overcome the cultural illegitimacy of the proposed changes in a public rhetorical contest.

This updated model of deprofessionalization has at least two advantages. First, it better accounts for the variation in the degree of deprofessionalization across occupational groups affected by the same technological change by modeling it as an outcome of jurisdictional competition in the public discourse, which the groups sometimes win and sometimes lose. This is consistent with findings of Kahl et al. (2016), who suggest that a profession's ability to frame its work as relevant for new technology may determine its survival. The model of deprofessionalization proposed here extends that argument to linking intermediate, gradual changes in a profession's standing to its performance in the public discourse. Continuous losses of jurisdiction may ultimately result in a profession's demise, but intermediate changes may be just as important if they affect the profession's monopoly power in the market.

Second, in a departure from the prior view on deprofessionalization and in contrast with the assumptions in Kahl et al. (2016), the model offered here treats technological change as endogenous to professions' performance in the public discourse. A technological innovation deprofessionalizes expert work only when it is successfully defended in the discourse by those who bring it amid incumbent professions' resistance. As Kaplan and Tripsas (2008, p. 793) suggest, in establishing legitimacy of an innovation, "actors' interactions can be highly political as they attempt to get their own technological frame to predominate in the industry. . . . Contestation is an essential part of the process by which collective technological frames emerge and shape the evolution of the technology." Innovative entrepreneurs, therefore, only achieve legitimacy when they are successful in advancing specific frames for their core technology.

Including contests of legitimacy in the public discourse into the model of deprofessionalization also suggests an alternative explanation for an ambiguous finding on the professionalism of expert workers in bureaucratic firms. Although some studies find that professionals lose discretion and autonomy in corporate organizations (Oppenheimer 1972, Haug 1988), others find that the professionalism of those working in larger firms is higher (Briscoe 2006, Wallace and Kay 2008). Prior explanations for this inconsistency focused on the professionals' access to resources in larger firms. The case of retail clinics introduces a different mechanism. As professions challenged by innovation engage in public discourse with nonprofessional outsiders, their defense builds on moral arguments: professional work is not about economic gain and therefore should not be judged on the basis of economic efficiency. Instead, practicing a profession is a calling, and the work is morally motivated (Sandefur 2007). Because public discourse affects professional identity and commitment (Barley et al. 2016, Galperin 2017), professionalism of those working in contested worksites, such as large bureaucratic organizations, may be affected by the public arguments made by their occupational group. The strategic need of a profession to defend its collective control over work triggered by proliferation of professionals employed by bureaucratic organizations may thus boost individual practitioners' professional identity and commitment, affecting their perception of and resistance to external control and other deprofessionalizing aspects in worksites.

In short, the ecological view of deprofessionalization allows us to better theorize its sources and outcomes. This updated model of deprofessionalization also has implications for the literature on professional jurisdictions.

Participation of Firms in the Competition of Professions for Jurisdiction

Although scholars of professions consider organizations as important contexts where professionals compete for authority, some have also argued that organizations have a more active role in the division of expert labor (Krause 1996, Freidson 2001, Timmermans 2008). Yet there is a lack of clarity on how jurisdictional contests are affected by organizations, especially nonprofessional organizations such as corporations. The mechanisms of influence proposed to date are indirect. Krause (1996) argued that corporations may affect professional work through regulatory function of the state, thus shaping the legal context of professional work. Others have emphasized the constraining effect of bureaucracy, which is more prevalent in a corporate environment, on professional practices (Starr 1982, Leicht and Fennell 1997). Still others have proposed that the logic of capitalism, epitomized by corporations, sometimes dominates the markets where professionals work, thus influencing professional practice (Light 2000, Freidson 2001).

The case presented here offers evidence that corporations may participate in jurisdictions directly by bringing in deprofessionalizing innovations, defending them in public discourse, and thus capturing control over expert tasks. An important determinant of whether corporations succeed in bringing such innovations is the presence of cleavages in interprofessional settlements related to an imbalance between nominal rights to perform expert tasks and effective use of those rights

by professionals. Retail clinics capitalized on such an imbalance by offering a new venue for NPs to use their rights to independent practice, which the profession had accumulated but had not effectively used, continuing to practice largely as subordinates to physicians. However, because retail clinics also exercised tight centralized control mediated by expert software over every aspect of medical work in the new worksites, the firms were able to maintain control over the work and the associated revenues. As a consequence, NPs were able to practice without immediate physician supervision but did not gain collective standing as a profession.

Structural conditions of interprofessional division of labor therefore affect the likelihood of external entry by corporations. The important linking factor is the imbalance between nominal and effective rights of professions to exclusively perform a set of expert tasks. Although a profession's jurisdiction is generally understood as rights to perform expert tasks, professionals holding these formal rights still need access to various other more material resources to be able to perform the tasks. Corporations offer such resources because the value of organizations as market actors is rooted in their ability to efficiently use capital and other resources to facilitate work (Zuckerman 2010). However, the legitimacy of corporate involvement in expert work depends on the corporations' ability to defend it as effective, safe, and morally acceptable. This, in turn, depends on their ability to use the co-opted professions' frames and arguments to frame corporate performance of expert tasks.

This strategically important imbalance between nominal and effective rights is most likely to be present in settlements where professions have a recent history of expanding their jurisdiction. Of the various types of jurisdictional settlements (see Abbott 1988, pp. 71–77 and 139), subordination settlements are more likely to fit this expectation. Because of the heightened chances of long-standing competition for control between the professions in a subordination settlement, there is likely a cache of accumulated arguments and frames that justifies the expansion of the subordinate profession's jurisdiction. Subordinate professionals may also serve as a relatively cost-efficient source of labor for the nonprofessional firms that need to involve professionals for legal licensure reasons.

Although subordination settlements are common in professionalized fields, not all result in tensions. Barley et al. (2016) observe, for example, that technician occupations—which are often subordinate to professions—are common and central in the contemporary complex division of professional labor. However, although technicians are sensitive to how much others value and respect their expertise in worksites, they often make little effort to improve their collective occupational standing by renegotiating the subordination settlement terms. The lack of collective professional aspirations may imply that some subordination settlements may harbor few internal tensions and that worksite assimilation in such settlements may not lead to the formal expansion of the subordinate occupation's rights to expert work. This suggests a scope condition: the presence of the collective desire of the subordinate professionals to move up the status hierarchy in the division of expert labor is required to create the tensions in the jurisdiction that result in the nominal-effective rights imbalance.

Corporate participation in professional work may also be possible in other types of settlements. If competition for jurisdiction in a settlement creates legitimate frames and arguments for doing the tasks differently, and if one of the professions needs to secure resources for the effective use of its accumulated jurisdictional rights, there is a possibility that innovative firms co-opt the professionals and use their frames and arguments to legitimate entry.

The structural preconditions for corporate entry proposed here augment our theories of professional competition for jurisdiction. It is important to distinguish between two dimensions of jurisdictional control: the possession of rights to perform expert tasks and the ability to effectively use those rights. Subordinate occupational groups accumulate the rights but may lack the ability to use them fully. Innovative firms may offer the resources required to use those rights, but they may also maintain control over the work through the very resources they offer—for example, by retaining control over budgets, operational aspects of worksites, and even the expert tasks themselves, as retail clinics have done by using diagnostic support software. Distinguishing between jurisdictional rights and their use thus allows us to account for direct participation of nonprofessional firms in the division of expert labor.

Innovation Strategy in Professionalized Markets

The model of deprofessionalization proposed here has implications for the literature on innovation in markets. Entry into professionalized markets by innovative firms—for example, retailers in primary healthcare, algorithmic advisors in financial services (Logg et al. 2019), document assembly software providers in legal services (Mountain 2007), or drone manufacturers in aviation (Helmore 2009)—is a kind of technological innovation where establishing acceptance of a new technological frame is especially important and challenging. Because incumbent professions have the incentives and the levers to resist adoption of the new frame, innovative firms may be more successful if they anticipate the resistance to the adoption of their innovation and account for it in developing their market entry strategies.

The case presented here specifically points to interprofessional tensions as an important factor in devising such strategies. For example, the feasibility of entry may depend not necessarily on the strength of the dominant profession in the field but rather on the relative strength of the second strongest profession, most often a subordinate one. The stronger the subordinate profession, the more dangerous its legal and cultural assets are for the dominant profession should these assets be repurposed by the corporate intruders to support their own entry.

The case of retail medicine also highlights the importance of a coordinated rhetorical strategy to support new entry into a professionalized market as culturally legitimate. Although research on technological frame adoption argues that innovation is not always adopted even if it has superior properties over the existing technology, the discourse around retail medicine suggests an even more extreme possibility—that technical superiority of an innovation may be construed as a liability. Although a new technology may be more efficient than the performance of the same work by expert practitioners, the efficiency need not be accepted as a universal virtue by market participants, and therefore, it does not necessarily make the innovation legitimate. When their jurisdiction is threatened, professions tend to cast economic efficiency as an undesirable feature of professional work by framing it as a property of commercialism, which puts profit ahead of service.

For the efficiency of new technology to be a virtue, those who bring the innovation to market ought to frame it as such. Retail clinics used NPs' frame of efficiency as an answer to the problem of access to care. By pointing out the lack of access, especially among the most vulnerable populations, retail clinics (as NPs before them) pointed out physicians' failure to follow through on their *moral responsibility* as a dominant profession. A history of moral arguments made by subordinate professions may therefore be a valuable asset for new entrants seeking to legitimize their innovation.

Generalizability and Future Research

Because the focus of this paper is on the emergence of one organizational form, the analysis presented here is necessarily limited. Some observers of the retail clinics industry claim that growth of retail medicine has increased access to primary care and may have lowered costs while maintaining quality (Mehrotra et al. 2009, Schleiter 2010). Given that the healthcare industry accounts for a large part of the economy in the United States and many other countries, the policy implications of understanding the drivers of increased efficiency of services in this case alone are consequential.

However, the case of retail medicine is hardly unique. Innovation-based entry of nonprofessional firms has been noted in other professional domains, such as law (Mountain 2007), dentistry (Edelstein 2011), civil aviation (Nicas 2014), and education (Walker 2016). The model of deprofessionalization as a process in which loss of control over expert tasks to nonprofessional firms that bring innovation and defend it in the public discourse aims to be general. Its applicability in other professional contexts is the task for future work.

One such task could be establishing the importance of a profession's capability to act collectively and stymie deviant views of deprofessionalizing innovation among its own members. Research on professional elites (Freidson 1984, Hafferty and Light 1995, Leicht and Fennell 1997) suggests that the agenda for collective action of a profession is set by its "elite" members who not only may be out of touch with the realities of work faced by rank-and-file professionals but also may actively pursue an agenda that likely worsens rank-and-file professionals' work conditions as long as that agenda benefits the standing of the profession as a whole. The case of retail clinics suggests that such trade-offs may be costlier to professions than has been previously understood. To the extent that corporate intruders rely on defection of individual professionals to carry out the work in the corporate worksites and thus comply with licensure requirements, the fracturing of professions and the alienation of rank-and-file members may help corporate recruitment of collaborating professionals. Identifying what opens individual members of an otherwise hostile profession to collaboration with innovative new entrants is therefore an interesting question for future study.

Conclusion

Innovative technologies may allow for a new organization of expert work that makes professionals unnecessary for the performance of some expert tasks. However, the ability of professions to defend their control and their rents from capture by innovative firms requires specific strategies from the new entrants to overcome the resistance and legitimate their entry.

The core argument of this paper is that tensions in settlements between professions create openings in the system of professional jurisdictions for outsiders, including nonprofessional market actors, such as corporations. When nonprofessional firms leverage the cleavages in the division of expert labor, repurpose professions' own cultural tools, and thus legitimate radical change in the way that expert tasks are done, the innovation is adopted, and professional work effectively gets deprofessionalized. This process model casts deprofessionalization as an outcome of an ecological competition, thus focusing on the causes of deterioration in professional jobs rather than the deterioration itself.

It also includes nonprofessional firms into theories of professional jurisdiction, suggesting specific conditions that make participation of such firms in professionalized markets more or less likely and offering directions for future research on innovation strategy in markets that rely on expert work.

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Endnote

[1] The results remain virtually identical without the fixed effects, although the model fit predictably drops. The binned scatterplots in Figures 4 and 5 account for fixed effects by turning the source data into mean-deviated residual values by newspaper. That is, the procedure runs an OLS regression of newspaper fixed effects on the outcome variable (sentiment), calculates residuals for each article from its newspaper mean, adds back the grand mean, and uses the resulting values to calculate means for each bin.

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Roman V. Galperin is an associate professor of management and organization at Carey Business School, Johns Hopkins University. He received his PhD from the Massachusetts Institute of Technology Sloan School of Management. He studies how signals and perceptions of expertise influence markets for professional services, facilitate knowledge exchange in organizations, and shape careers of knowledge workers.