

**DATA &
SOCIETY**

PUPPET **ENTREPRENEURSHIP**

Technology and Control in Franchised Industries

BRIAN CALLACI

EXECUTIVE SUMMARY

Franchising is a business form in which a corporation contracts with independent franchisees to operate local establishments rather than directly owning and operating them itself. Franchising replaces salaried employees with independent contractors as managers of local establishments. Like the gig economy, franchising has long promised would-be entrepreneurs a path to independence, the chance to go into business “for yourself, but not by yourself.” However, the franchise model depends on a uniform customer experience across independent franchised establishments. At its core, there is a tension between franchisee independence and corporate franchisor control. While franchisors have always imposed tight restrictions on franchisee decision-making, at least on paper, the rise of digital technologies has dramatically enhanced their ability to force compliance, raising questions about just how independent franchisees really are.

As legal battles rage over whether platform-based, freelance gig workers, who are subject to electronic monitoring and algorithmic management, are independent entrepreneurs or employees, the use of electronic monitoring in other settings like franchising provides a useful lens for policymakers to think about how to assign legal rights and responsibilities. In particular, the existence of intensive surveillance of prescribed work processes that leave little initiative open to workers could help policymakers determine the employment status of freelance workers or workers employed via franchisees or other intermediaries. Yet the creation of decentralized production networks was not a simple process of technological advancement. Changes in law allowed corporations from Nike to Taco Bell to Uber to no longer own the capital or employ the labor used to produce their products or deliver their services. Rather, they rely

on contractual mechanisms such as detailed codified product specifications, or restrictions on competition known as vertical restraints.

After analyzing data from franchise contracts, this report finds that the use of digital surveillance is an important axis along which franchise chains differ. On one hand, franchisors that do not closely monitor tend to rely on their franchisees' skills, credentials, and entrepreneurship. On the other hand, chains that utilize remote monitoring technology tend to have lower skill requirements and impose more prescriptive contracts on franchisees. Most importantly, franchisors that maintain independent, remote access to franchisee computer systems exercise greater control over franchisee decisions than those of franchisors that do not maintain independent access to franchisee data. Since independent decision-making is a defining hall-

mark of independent entrepreneurship, it would seem that franchisees subject to digital monitoring are something less than true entrepreneurs.

CONTENTS

○ Law, Technology, and the Birth of Franchising	2
Technological Change	4
Changes in Law	7
What Is Being Outsourced?	10
○ Data	15
○ Skill and Power	18
○ Restrictions on Franchisee Discretion	21
○ Prediction Model	25
○ Conclusion	27
○ References	29
○ Appendix: Prediction Model	31

LAW, TECHNOLOGY, AND THE BIRTH OF FRANCHISING

The foundation of the McDonald's System and the essence of this Franchise is the adherence by Franchisee to standards and policies of McDonald's providing for the uniform operation of all McDonald's restaurants within the McDonald's System.

—McDonald's franchise agreement

We have independent access to your sales and other restaurant-level information, which is stored on our server, and there are no contractual limits on our right to access such information.

—McDonald's franchise agreement

The United States is a country that uniquely lionizes its entrepreneurs and small business owners. While reluctant to combat economic, racial, and gender-based inequalities through social benefits, minimum wages, strengthening union rights, or affirmative action, it has enthusiastically promoted business creation through small business loans, women and minority-owned business government procurement programs, and general rhetorical boosterism. However, changes in technology and law have placed many forms of ostensibly independent business ownership under increasingly tight corporate control. The intensity of control often resembles employment under a boss rather than true independent entrepreneurship.

In particular, the platform-based gig economy, exemplified by firms like Uber and Lyft, is structured around (mis)classifying workers as independent business owners rather than employees. In California, the brazenness of gig firm misclassification strategies prompted the state legislature to pass a law, AB 5, making it more difficult for firms to claim workers are independent contractors. However, the bill's ramifications extend far beyond the digital gig economy. In particular, 7-Eleven franchisees have claimed that, due to 7-Eleven's tight control over their operations, they are not actually independent business owners and should have the legal rights of employees.¹

Like the gig economy, franchising has long promised would-be entrepreneurs a path to independence, the chance to go into business “for yourself, but not by yourself.” As the slogan suggests, the franchise model, in which branded establishments are operated by independent franchisees as part of corporate chains, depends on a uniform customer experience across independent franchised establishments. At its core, there is a tension between franchisee independence and corporate franchisor control. While franchisors have always imposed tight restrictions on franchisee decision-making, at least on paper, the rise of digital technologies has dramatically enhanced their ability to force compliance, raising questions about just how independent franchisees really are.

During the 20th century, in order to centrally coordinate and control production processes, large corporations like General Motors had to own their plants and directly employ managers. They relied on written reports and robust bureaucracies to keep tabs on each component part of the corporation. In the twenty-first century, the control that McDonald's exercises over its business empire rivals that of mid-century General Motors, but without the need to own restaurants or employ local managers. Computers in the cash register of every franchisee send information to McDonald's headquarters, giving McDonald's extraordinarily frequent and high-quality information over its

1 National Coalition of Associations of 7-Eleven Franchisees. 2020. “As 7-Eleven Fights AB-5, Franchisees Claim the Company Treats Them like Store Managers, not Owners.” Press Release, July 6. <https://ncasef.com/13487-13487/>

network of independents. However, while General Motors bore the legal risks and costs of the plants it owned and the workers it employed, franchisors can classify franchisees as independent entrepreneurs, allowing franchisors to push legal risks, costs, and responsibilities onto franchisees.

As legal battles rage over whether platform-based, freelance gig workers, who are subject to electronic monitoring and algorithmic management, are independent entrepreneurs or employees, the use of electronic monitoring in other settings like franchising provides a useful lens for policymakers to think about how to assign legal rights and responsibilities. While there are important differences between the gig economy and franchising—franchisees sign long term contracts, while gig workers work on-demand, and unlike gig workers, who work alone, franchisees employ their own workers—they have similarities in their reliance on similar legal and technological mechanisms to centralize control. These mechanisms were pioneered by franchisors before the gig economy yet existed. In analyzing data from franchise contracts, this report finds that the use of digital surveillance is an important axis along which franchise chains differ. Most importantly, franchisors that maintain independent, remote access to franchisee computer systems exercise greater control over franchisee decisions than those of franchisors that do not maintain independent access to franchisee data. Since independent decision-making is a defining hallmark of independent entrepreneurship,

it would seem that franchisees subject to digital monitoring are something less than true entrepreneurs. The existence of intensive surveillance of prescribed work processes that leave little room for independent initiative could help policymakers determine the employment status of freelance workers, franchisees, and workers who are indirectly employed through monitored and controlled intermediaries such as franchisees.

Technological Change

Franchising is a business form in which a corporation (a franchisor) contracts with independent franchisees to operate local establishments rather than directly owning and operating them itself. In other words, franchising replaces salaried employees with independent contractors as managers of local establishments. Under a franchise contract, the franchisee gains the right to operate a store under the franchisor's trademark, and in turn agrees to pay a royalty (usually a small percentage of gross sales—around 5–10%). Franchisees are something less than fully independent businesses, however, since they must agree to follow the franchisor's complete package or business format. This includes a uniform brand image, signage and fixtures, and often detailed operating instructions. In 2012, the most recent year for which data are available, franchise establishments accounted for 7.3 million jobs in the United States. Franchised establishments numbered 409,000, 9.8% of all establishments. Sales of

franchised chains were about \$1.3 trillion in 2012, or 7.8% of total US GDP.²

Changes in communications technology in recent decades have facilitated the creation of decentralized business structures like franchising that nevertheless facilitate top-down control. Improved communications technologies, which made it easier to use outside contracts rather than internal bureaucracies to coordinate production processes, contributed to the breakup of large corporations into smaller parts through outsourcing, subcontracting, and franchising.³ In particular, computer technologies made outsourcing arrangements like franchising easier to execute by allowing headquarters to formalize and codify discrete, prescribed tasks and outsource these to subordinate firms. New information and communications technologies also allowed firms to measure the performance of their satellite businesses via remote monitoring, meaning they could increasingly police brand standards and operational processes at subcontractors' establishments from afar.⁴ Independent contractor models, from franchising to gig economy platforms, depend on corporate headquarters having the ability to coordinate

the activities of many workers while skirting the legal tests that trigger employment rights. What is new about the gig economy is the sophistication of the monitoring, and the use of algorithmic techniques and nudges to discipline and manage workers without relying on human supervisors.⁵

Franchisors, whose business model is based on the creation of a uniform branded chain despite independent local ownership, have of course always monitored franchisees for compliance with brand standards. But the availability of technologies shaped their ability to do so. In the 1960s, some franchisors maintained centralized inventory controls, payroll reports, and centralized supply chains through technologies like IBM's 1401 Ramac system (which could receive and process data from telephone or telegraph wires) and wide area telephone service.⁶ By the 1970s, 7-Eleven, according to franchisees, kept in "almost daily touch" with inventories at each store through the store's merchandising logs, where all incoming shipments and sales were recorded. However, despite daily communications with franchisees, a representative from the

2 <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>

3 Lamoreaux, Naomi, Daniel Raff, and Peter Temin. 2003. "Beyond Markets and Hierarchies: Toward a New Synthesis of American Business History." *American Historical Review* 108 (2): 404–33.

4 Sturgeon, T. J. 2002. "Modular Production Networks: A New American Model of Industrial Organization." *Industrial and Corporate Change* 11 (3): 451–96.

5 Rosenblat, Alex. 2018. *Uberland: How Algorithms Are Rewriting the Rules of Work*. First edition. Oakland, California: University of California Press.

6 Subcommittee on Antitrust and Monopoly. 1966. *Distribution Problems Affecting Small Business: Part 2, Senate, 89th Congress, January 18-20, Washington, DC, p. 694.*

“Vendors boasted that their new technologies would ‘bring the unit in Kazakhstan as close as the unit in Kansas.’”

franchisor still took inventory in person every four to five weeks.⁷

Up to the 1990s, reliance on mainframe computers made remote data collection and analysis difficult for franchisors. Data were difficult to access, delivered in print form—resulting in no real-time access—and required a deliberate project to tackle every management request for information.⁸ At the beginning of the 1990s, a survey sponsored by the International Franchise Association (IFA), a trade organization, found that 99% of the 146 respondents maintained regular contact with their franchisees by telephone, 97% used meetings, 90% used field calls, and 88% used newsletters. Less popular were press releases, surveys and questionnaires, fax communications, computerized bulletin boards, teleconferencing, and audiotapes.⁹

By the mid-1990s, however, local area networks and the World Wide Web allowed franchisors to capture data closer to real time. Computerized point-of-sale (POS) systems began to replace cash registers during the decade. As the costs of storing and transmitting data fell to the point where companies could collect and centralize massive amounts of POS data across multiple establishments, franchisors deployed POS systems, connected to the internet, to increase their control over their chains. POS systems automated the input of all financial transactions so that monthly, weekly, and even daily reports could be generated and sent to headquarters. Vendors boasted that their new technologies would “bring the unit in Kazakhstan as close as the unit in Kansas.”¹⁰ According to the CEO of Molly Maid, a cleaning franchise, “Now I can determine almost instantaneously the health of a franchisee’s business.”¹¹

POS vendors tailored product offerings to the needs of franchisors from the beginning, creating policy-enabling systems that not only *recorded* information, but *prescribed* franchisee and employee actions through the POS, allowing the franchisor to enforce compliance with headquarters directives.¹² For example, 7-Eleven

7 Committee on Commerce. 1976. *Hearings on the Fairness in Franchising Act, Senate, 94th Congress, April 7, Washington, DC, pp. 354-355.*

8 Hibberd, R. W., and J. E. Kolton. 1994. “Designing a Computerized Franchise Management System.” *Franchising World* 26 (3): 38.

9 Bergler, Gerald W. 1991. “Survey Says Telephones, Meetings Top Franchise Communications Methods.” *Franchising World* 23 (4): 7.

10 Murphy, C. 1996. “New Technology Blossoms in Franchise Land.” *Franchising World* 28 (5): 20.

11 Endoso, J. 1995. “Riding the Technology Wave.” *Franchising World* 27 (4): 6.

12 Uncredited. 1995. “Custom Tech.” *Franchising World* 27 (4): 28.

intensified its already tight surveillance during the 1990s, using the POS system to schedule franchisee activities and calibrate product orders to suit 7-Eleven's new just-in-time delivery system. Headquarters even monitored how much time franchisees spent using the data analysis tools built into the system, ranking franchisees by how often their operators used the computer.¹³ By the 2010s, franchisors like Domino's and McDonald's were using mandatory software to prescribe how franchisees set employee schedules and screened employees.¹⁴

Franchisors began inserting clauses in franchise agreements giving themselves independent access to franchisee data. As *Franchising World* reported at the time,

Most franchisors specifically state their access includes all information entered through their proprietary POS software. This access can give franchisors daily, weekly or monthly access to sales figures, which can assist in operations planning, trend analysis and accurate reporting by franchisees. Through these means, franchisors can confirm that sales reports and royalty payments match POS or other computer sales tracking,

and they can predict incoming royalty revenues.¹⁵

These technological changes took time. A 1997 study of the restaurant and fast food industry showed that only 27% of franchisors required computer usage in the operation of the franchise. Of the franchisors that required computer usage, only 63% allowed themselves complete independent access to the franchisee's computer system.¹⁶ In the sample of 530 contracts issued in 2016 that I collected for this study, 80% gave the franchisor independent data access.

Changes in Law

While new communications technologies were important, the creation of decentralized production networks was not a simple process of technological advancement. Changes in communications technology made it easier for large corporations to monitor service provision and product quality from afar, but prior changes in law greased the skids for them to exercise this level of control. Corporations from Nike to Taco Bell to Uber no longer own the capital or employ the labor used to produce their products or deliver their services. Rather, they rely on contractual mechanisms such as detailed,

13 Shirouzu, Norihiko. 1997. "7-Eleven Operators Resist System to Monitor Managers." *Wall Street Journal*, January.

14 Rogers, Brishen. 2019. "Beyond Automation: The Law & Political Economy of Workplace Technological Change." *Roosevelt Institute Working Paper*, July 8.

15 Sibay, Nada. 1997. "Protecting Franchisee Privacy." *Franchising World* 29 (6): 40.

16 Sibay, Nada. 1997. "Protecting Franchisee Privacy." *Franchising World* 29 (6): 40.

codified product specifications, or restrictions on competition known as *vertical restraints*. Vertical restraints are contractual mandates on separate firms, such as mandatory prices and operating hours. During the early years of franchising in the 1960s and early 1970s, antitrust laws prevented large corporations from dominating small entrepreneurs through many types of vertical restraints. Franchisors led the lobbying effort to roll back restrictions on vertical restraints in the 1960s and 1970s, ultimately setting the stage for the gig economy of the 21st century.

In the legal fights over franchising in the 1960s and 1970s, legislators and the courts initially looked skeptically on the imposition of overly restrictive vertical restraints on franchisees, questioning the legality under antitrust law of big business dominating and controlling individual entrepreneurs through restrictive contracts. In a question that foreshadowed the incredulity of many policymakers over Uber's classification of its drivers as independent contractors rather than employees, in 1965 Jerry S. Cohen, counsel to the Senate Antitrust Committee, asked a franchising lobbyist:

The argument we get here for franchising is that it allows an independent businessman to be independent. But if he is told what product he has to buy,

what prices he has to charge, what operation he has to operate in, then he is no longer independent, is he?¹⁷

According to a Dunkin' Donuts franchisee, franchisees were "virtual employee[s]" of the chain, whom vertical restraints made into "captured customer[s]," who were "restrained by Dunkin' Donuts from full use of [their] abilities."¹⁸

Franchisors, meanwhile, promoted the viewpoint that, without hybrid models like franchising, the US economy would become completely dominated by large corporations, and the great nation of sturdy, independent shopkeepers would be reduced to a nation of subservient clerks. According to this argument, franchising was the only way to keep decentralized independent entrepreneurship, even if a diminished version of it, alive. According to a lobbyist for the IFA in 1970, franchising "may well be one of the most promising hopes for the preservation of the independent small businessman in our society."¹⁹ After the urban uprisings of the 1960s, policymakers turned to franchising as an engine of Black capitalism, hoping that expanding franchise opportunities to Black entrepreneurs would reduce racial disparities in business ownership without requiring the redistribution of wealth or power. Rather than find ways to support independent Black businesses, however, policymakers, the Nixon

17 Subcommittee on Antitrust and Monopoly. 1965. *Distribution Problems Affecting Small Business. Part 1: Franchising Agreements, Senate, 89th Congress, March 2-4, Washington, DC, p. 55.*

18 Subcommittee on Minority Small Business Enterprise and Franchising. 1973. *The Role of Small Business in Franchising, House, 92nd Congress., June 20, Washington, DC, pp. 107-109.*

19 Subcommittee on Urban and Rural Economic Development. 1970. *The Impact of Franchising on Small Business. Part 1, Senate, 91st Congress, January 27, Washington, DC, p. 142.*

White House in particular, promoted franchising opportunities within large corporate chains. This strategy not only confused supporting franchising with supporting small businesses, but also typically consigned Black franchisees to the least desirable and profitable locations.²⁰

Courts came to accept the argument that franchising was the last hope to preserve the ideal of small business in a modern industrial economy. According to a district court in one of the first cases upholding a franchisor's vertical supply restraints, "If our economy had not developed [franchising], these individuals would have turned out to have been employees."²¹ Franchising seemed like a promising compromise between the ideal of independent entrepreneurship and the apparent reality of corporate domination. Small business could survive in a corporate economy, but only by hitching itself to big business, giving up some of its independence in exchange for continued existence. Franchising enjoyed its breakthrough victory in 1977 with *Continental Television Inc. v. GTE Sylvania Inc.*, which gave franchisors wide latitude to impose non-price vertical restraints, such as territorial, supplier, and customer restrictions.²² Uber and Lyft,

which control prices and dispatch rides through contract rather than employment relationships, were built on the foundation of *Sylvania*.²³

This confluence of new communications technologies and a new legal environment helped create what David Weil called the "fissured workplace."²⁴ In fissured workplaces, the lead firm (such as a franchisor) focuses on the most lucrative activities (such as a licensing trademark), and outsources lower-profit activities to third parties. An important advantage to headquarters of fissured workplaces is that they allow headquarters to outsource legal responsibility for employment relationships. Workers at a McDonald's franchise, because they are not employees of McDonald's, have few legal rights under wage and hour, safety, and union laws against the headquarters corporation. Instead, workers must seek redress from the less wealthy franchisee, which, because of vertical restraints, enjoys limited ability to improve working conditions. Platform-based gig firms sit at the far extreme of the fissured workplace, as they classify each individual worker as an independent entrepreneur rather than an employee.

20 Chatelain, Marcia. 2020. *Franchise: The Golden Arches in Black America*. New York: Liveright.

21 *Susser v. Carvel Corp.*, 206 F. Supp. 636, 640 (S.D.N.Y. 1962).

22 *Continental Television Inc. v. GTE Sylvania Inc.*, 433 U.S. 36 (1977). Since *Leegin Creative Leather Products Inc. v. PSKS Inc.*, they have had similar freedom to impose price vertical restraints. *Leegin Creative Leather Products Inc. v. PSKS Inc.*, 551 U.S. 877 (2007).

23 Steinbaum, Marshall. 2019. "Antitrust, the Gig Economy, and Labor Market Power: Work After the End of Employment." *Law and Contemporary Problems* 82 (3): 45–64.

24 Weil, David. 2014. *The Fissured Workplace: Why Work Became so Bad for so Many and What Can Be Done to Improve It*. Cambridge: Harvard University Press.

Struggles over the legality of vertical restraints and the acceptability of intrusive remote surveillance was a twentieth-century instantiation of a longstanding conflict over the meaning of entrepreneurship. American free-labor ideology arose in the mid-nineteenth century in confrontation with chattel slavery and indentured servitude, and tied notions of white manhood to self-employment, self-mastery, and economic independence.²⁵ Americans struggled to adapt to the post-bellum rise of large corporations and the consignment of legally free workers to the perceived degradation of mere employment at the command of another. Over the course of the Progressive and New Deal eras, the United States slowly provided some groups of workers with special rights and protections tied to employee status, while still denying many of these rights to independent contractors, foremen, and entire occupations that racist legislators wanted excluded from legal protections, such as agricultural and domestic workers.²⁶ (New efforts to exclude classes of workers from labor protections include the Uber- and Lyft-backed, recently passed Proposition 22 in California, which puts transportation and delivery gig workers outside state labor law protections.) Despite the expansion of employment rights, the ideal of sturdy independent entrepreneurs, contrasted

with the perceived subservience of employees, nonetheless maintained a powerful hold on the American psyche until the 1970s. As late as 1973, Justice William O. Douglas intoned, “A nation of clerks is anathema to the American antitrust dream.”²⁷

However, the goal of preserving independent entrepreneurship slowly vanished from anti-trust jurisprudence over the 1970s and 1980s, replaced by theories of economic efficiency developed in the field of economics.²⁸ Economics has nothing to say about whether it is good or bad to have a nation of clerks, and its approach to franchising does not ask whether vertical restraints or remote digital monitoring restrain the entrepreneurial independence of franchisees. Rather, economics is concerned with whether vertical restraints and monitoring are efficient, meaning producing the highest output at the lowest cost. In the context of franchising, that means asking if they solve what are known as *principal-agent conflicts*.

What Is Being Outsourced?

Headquarters and local managers have what economists call a principal-agent relationship, in which a principal, such as Burger King Corp., contracts with an agent to conduct activities

25 Gourevitch, Alex. 2014. *From Slavery to the Cooperative Commonwealth: Labor and Republican Liberty in the Nineteenth Century*. New York: Cambridge University Press; Steinfeld, Robert J. 2014. *The Invention of Free Labor: The Employment Relation in English and American Law and Culture, 1350-1870*. Durham: University of North Carolina Press.

26 Vinel, Jean-Christian. 2013. *The Employee: A Political History*. Philadelphia: University of Pennsylvania Press.

27 *United States v. Falstaff Brewing Corporation*, 410 U.S. 526, 1973.

28 Eisner, Marc Allen. 1991. *Antitrust and the Triumph of Economics: Institutions, Expertise, and Policy Change*. Chapel Hill: University of North Carolina Press.

on its behalf, like managing local restaurants. Corporate headquarters has two options when it comes to operating local establishments: It can hire a manager, who is paid a salary, and monitor that manager to make sure the outlet is run well. Alternatively, headquarters can outsource the operation of the outlet to a franchisee, an independent contractor who, instead of being paid a salary, keeps the profits from the enterprise and pays a royalty fee to the franchisor.

When headquarters outsources to an independent franchisee as their agent, what exactly are they outsourcing? One possibility is that franchisors outsource entrepreneurial initiative to franchisees with superior local knowledge and the drive to take advantage of it. Francine Lafontaine and Sugato Bhattacharya argue that the advantage of local franchisees relative to headquarters staff is precisely their superior information about local market conditions.²⁹ Franchisors choose whether to employ salaried managers or contract with independent franchisees based on the magnitude of this information asymmetry.³⁰

Similarly, the risk and incentives model of Canice Prendergast predicts that under conditions of high volatility and uncertainty, principals do not know which tasks should be undertaken or

“When headquarters outsources to an independent franchisee as their agent, what exactly are they outsourcing?”

how, so they delegate authority to their agents, who receive pay in the form of output-based incentives rather than fixed salary. In contrast, under lower levels of uncertainty, principals *do* know what tasks should be undertaken and how. In these circumstances, principals prescribe actions and monitor agent behavior for compliance.³¹ According to the Lafontaine and Bhattacharya and Prendergast models, franchise contracts outsource *entrepreneurship*: the franchisee’s superior ability to act dynamically on local information.

Another possibility is that franchisors don’t outsource entrepreneurship to franchisees, but rather the raw expenditure of effort. In this case, the principal-agent problem concerns *conflicts of interest* over effort levels. In most circumstances, a local manager will likely not want to work as hard or as diligently as headquarters would like them to. Think about your own job. You may take pride in your work, and work very hard, but your manager would

29 Lafontaine, Francine, and Sugato Bhattacharya. 1995. “The Role of Risk in Franchising.” *Journal of Corporate Finance* 2 (1-2): 39–74.

30 Of course, corporate headquarters assigns franchisees to locations, and franchisees are often asked to relocate away from their home areas to take up a franchise. This is a factor in franchisee redlining litigation (Chatelain 2020).

31 Prendergast, Canice. 2002. “The Tenuous Tradeoff Between Risk and Incentives.” *Journal of Political Economy* 110 (5): 1071–1102.

probably like you to work even harder than you do. Moreover, it is impossible for headquarters to know exactly how hard or faithfully managers are working, and it costs money to monitor them. Again, think about your own job, and the latitude you have to spend time on social media during work hours, or take an extra 15 minutes at lunch, without your supervisor knowing. When agents have this ability to pursue their own narrow interests in conflict with those of their principal, principal-agent conflicts arise.

Because the franchisee profits directly from how well they run the establishment, they have skin in the game and their interests become aligned with those of the franchisor. Franchisees automatically get more income if they work harder, so they won't take extra time at lunch or goof off on social media. There is therefore less of a need to expend resources monitoring them. In the language of principal-agent models, franchise contracts make franchisees "residual claimants" —the recipients of the entire net income of the establishment after the contractually mandated costs are paid (minus the small royalty). This aligns franchisee incentives with the franchisor's interests. The standard principal-agent models of franchising emphasize how franchise contracts resolve principal-agent conflicts in this way.³²

Franchise contracts designed to resolve principal-agent conflicts over effort will look different from franchise contracts seeking to tap into the entrepreneurial skill of local franchisees. The effort-intensive type of franchising resembles an employment relationship in the level of control and monitoring. For example, Ray Kroc, founder of the McDonald's franchising system, was explicit in his commitment to the effort-intensive, quasi-employment version of franchising. He was committed to not allowing franchisees to exercise any independent thought in operating local restaurants. According to Kroc, "The only way we can positively know that these units are doing what they are supposed to do ... is to give them no alternative whatsoever. You can't give them an inch."³³ A franchise consultant quoted speaking around the year 2000 was even more explicit.

I have to tell you, an entrepreneur makes the worst franchisee. You might think that they would do well, but it is just the opposite. For one thing, they'll never listen to you.... You don't want any creative thinkers, either. Again, these people will not follow your system, and instead they'll look for ways to do their own thing. You want someone who follows the rules. ... You do not want any risk takers. Look for people with longevity in their job, in

32 Mathewson, G. Frank, and Ralph A. Winter. 1985. "The Economics of Franchise Contracts." *The Journal of Law and Economics* 28 (3): 503–26; Norton, Seth W. 1988. "An Empirical Look at Franchising as an Organizational Form." *The Journal of Business* 61 (2): 197–218; Rubin, Paul H. 1978. "The Theory of the Firm and the Structure of the Franchise Contract." *The Journal of Law & Economics* 21 (1): 223–33.

33 Love, John. 1995. *McDonald's: Behind the Arches*. New York: Bantam.

their marriage, and in their community. . . . Above all, you need to find people with a lot of energy.³⁴

Monitoring technology also allows franchisors, by surveilling franchisees, to indirectly monitor frontline workers *through* surveillance of franchisees, *without directly employing either franchisees or workers*. By monitoring the POS system for how long it takes to process an order, a franchisor can discipline a franchisee for failing to follow the operations manual. The franchisee is then compelled to discipline the worker at the cash register. The franchisor gets the labor relations outcome it wants, without bearing the costs or risks of employing the worker. Franchisor surveillance of franchisees would then function as a type of refractive surveillance, in which surveillance of one group (franchisees) can provide information about a completely separate group: workers.³⁵

In the absence of intense monitoring and contractual restrictions, franchisors would only be able to set broad goals. That would leave franchisees the latitude to chart their

own course, relying on their own skills, entrepreneurial abilities, and discretion. Free from intense monitoring and prescriptive contracts, franchisees would have the ability to pursue a wide range of labor market strategies, including employee skilling and high-wage, high-productivity workplaces.

According to the IFA's prediction in 1997, POS monitoring tech "will reduce training expenses. It can help employees with infrequently performed tasks by providing prompts and reminders, and can get new employees up to speed more quickly."³⁶ The firms that market POS and other monitoring technology to businesses have long pitched their products as tools for reducing worker theft and lowering worker training costs by simplifying and regimenting tasks.³⁷ Franchisor firms pursuing a prescribe-and-monitor approach are likely to rely on regimented task management and effort-intensive rather than skill-intensive labor strategies. Low wages, which lead to costly, high worker turnover, are less of a problem when the labor process is deskilled and new workers can be trained quickly and monitored intensely.

34 Birkeland, Peter M. 2002. *Franchising Dreams: The Lure of Entrepreneurship in America*. Chicago: University of Chicago Press, pp. 90-91.

35 Levy, Karen, and Solon Barocas. 2018. "Privacy at the Margins Refractive Surveillance: Monitoring Customers to Manage Workers." *International Journal of Communication* 12 (0): 23; Nguyen, Aiha, and Alexandra Mateescu. 2019. "Explainer: Algorithmic Management in the Workplace." *Data & Society*. <https://datasociety.net/library/explainer-algorithmic-management-in-the-workplace/>.

36 Grunberg, Daniel B. 1997. "Technology and Front Line Staff." *Franchising World* 29 (4): 32.

37 Van Oort, Madison. 2019. "Employing the Carceral Imaginary: An Ethnography of Worker Surveillance in the Retail Industry." In Benjamin, Ruha, ed. *Captivating Technology: Race, Carceral Technoscience, and Liberatory Imagination in Everyday Life*. Durham: Duke University Press, 209-226.

The remainder of this report examines a data set created from 530 franchise contracts to look for patterns in which chains seek to control their franchisees and monitor them remotely, and which do not. It finds that remote monitoring tends to co-exist with other features of franchised chains, specifically relying on inexperienced franchisees and tightly controlling franchisees through vertical restraints. Furthermore, chains with these characteristics—remote monitoring, inexperienced franchisees, and tight control—are found most commonly in hospitality industries.

This clustering of franchisor characteristics into these two groups suggests that there are two distinct business models of franchising. The first model is an entrepreneurial model in which franchisees operate under a shared brand name but are trusted and empowered to run independent businesses, using discretion and taking risks in a manner consistent with business ownership. The second model is an effort-intensive, quasi-employee model in which franchisees execute prescribed tasks under close monitoring by the franchisor. The activity being outsourced in the first is entrepreneurial skill, consistent with business ownership. The activity being outsourced in the second is brute effort, more consistent with employment as a middle manager than business ownership.

By analyzing contracts to determine whether an independent business is truly responsible for entrepreneurial decisions, or just executing orders from corporate headquarters, this

typology could help policymakers assess the interrelated legal issues of misclassification and joint employment. In misclassification, an issue endemic to the gig economy, an employee is wrongly classified as an independent. In joint employment, an issue more relevant to franchising and other subcontracting relationships, corporations indirectly control wages and working conditions, while avoiding the legal responsibilities of employment relationships, by employing workers through third parties (like franchisors) that they minutely monitor and control.

DATA

Under the Federal Trade Commission's Franchise Rule, franchisors must provide prospective franchisees with a Franchise Disclosure Document (FDD) providing certain information about the franchisor and its business, along with a copy of the uniform franchise contract. While the Federal Trade Commission does not impose a filing requirement, and so does not collect copies of these documents, several states require all franchisors doing business in that state to file a copy of their FDD. Wisconsin is one of these. I collected all 1,029 FDDs filed in Wisconsin in 2017. While filed in Wisconsin, these are uniform franchise contracts, and each disclosure document contains data covering the entire United States. Any departures for specific states, due to differences in state laws and regulations, are attached as riders to the official FDD.

Coding information on contract terms and franchisor characteristics, I create a data set from a sample of 530 of these contracts. Rather than take a random sample, I instead exclude all franchise chains with fewer than 80 outlets nationwide. The reason is to leave out fly-by-night marginal operators and small chains, creating a sample containing only the established chains that have reached substantial size.

I code each franchise contract for whether it gives the franchisor the right to independently access franchisee data. An example of contract language that gives the franchisor independent access to franchisee data is in the Applebee’s franchise agreement:

All Applebee’s Restaurants must have a POS [Point of Sale] computer system that meets Applebee’s specifications. The POS systems approved by Applebee’s are specifically designed for tracking information relevant to the Restaurant’s business. The POS systems are integrated with support and reporting tools that enable us to have independent immediate access to the information monitored and stored by the POS system, and there is no contractual limitation on our use of the information we obtain.³⁸

I calculate proportions of contracts that include language giving the franchisor independent access to franchisee data for each two-digit

NAICS (North American Industrial Classification System) industry. Table 1 shows that there is some between-industry variation in the use of monitoring technology in the sample of franchise contracts. Eighty-eight percent of retail chains require franchisees to grant franchisors such access, while only half of the six chains in the financial services industry do so.

Table 1.
Franchisor Right to Access Data by 2-Digit NAICS Industry

INDUSTRY	PROPORTION OF CONTRACTS	N
Building Services	0.71	55
Construction	0.76	34
Education	0.71	17
Finance	0.50	6
Fitness & Recreation	0.86	29
Health	0.72	29
Hospitality	0.84	187
Manufacturing	0.82	11
Other services	0.80	44
Professional Services	0.77	30
Real Estate	0.62	26
Retail Trade	0.88	57
Wholesale Trade	0.40	5

Table 2.
Franchisor Right to Access Data, Hospitality Industries

INDUSTRY	PROPORTION OF CONTRACTS	N
Full-Service Restaurants	0.93	29
Hotels and Motels	0.74	39
Limited-Service Restaurants	0.83	78
Recreation and Vacation Camps	0	1
Snack and Non-Alcoholic Beverage Bars	0.92	40

Since the hospitality industry is by far the largest two-digit NAICS industry in the sample, I break it down into its more detailed industries in Table 2. While over 90% of snack and non-alcoholic beverage bar or full-service restaurant chains remotely surveil franchisees, only 74% of hotels and motels do so.

There are many potential reasons for this between-industry variation, which will be explored below. An early hypothesis that emerges from this industry data, however, is that many of the industries with relatively low levels of data surveillance—such as finance, real estate, and education—are industries where workers are relatively well-trained and well-paid professionals doing tasks that are difficult to minutely prescribe and track. Moreover,

the products offered are intangible services provided directly by the franchisee, without large workplaces of employees to monitor and manage. Industries with high levels of data access—retail trade and restaurants—tend to contain hourly workers who are employees of the franchisees doing more regimented tasks, and the products offered include tangible items requiring inventory management.

SKILLS AND POWER

Related to the relationship between local knowledge, volatility, and monitoring is the matter of franchisee skills and credentials. Skills and credentials—scarce resources that are costly to obtain—confer power on the humans who possess them.³⁹ Plumbing franchises, for example, require franchisees to already have years of training and an occupational license behind them before they can open shop. The difficulty of automating or codifying a plumber’s diagnostic abilities and manual dexterity, and the occupational licensing requirement, give plumber franchisees power against plumbing franchisors. They are not reliant on being trained in the franchisor’s off-the-shelf system to enter the line of business. Other things being equal, a franchisor or employer must pay a premium to the holder of skills and credentials.

³⁹ Note that while this power can lead to higher wages, the skills-wage relationship posited here differs from that in the “human capital” theory of wages, which holds that more-skilled workers receive higher wages because skills make them more productive.

Monitoring technology, however, helps franchisors take franchisee skills, codify them into operations manuals, and centralize them in management. Braverman (1998) [1974] studied what he called “the separation of conception from execution” and the centralization of the former in management under mass production technologies. He argued that this process served to deskill and disempower craft workers relative to management, transforming workers into fungible units of labor power.⁴⁰ While mass production deskilled craft workers in manufacturing industries, in the franchising context, this deskilling is applied to craftspeople or middle managers who operate local establishments.

The length of the training program a franchisee must undergo is a measure of pre-existing franchisee skill and credential requirements. A chain designed to use unskilled and inexperienced franchisees—franchisees who will follow the rules codified in the manual rather than

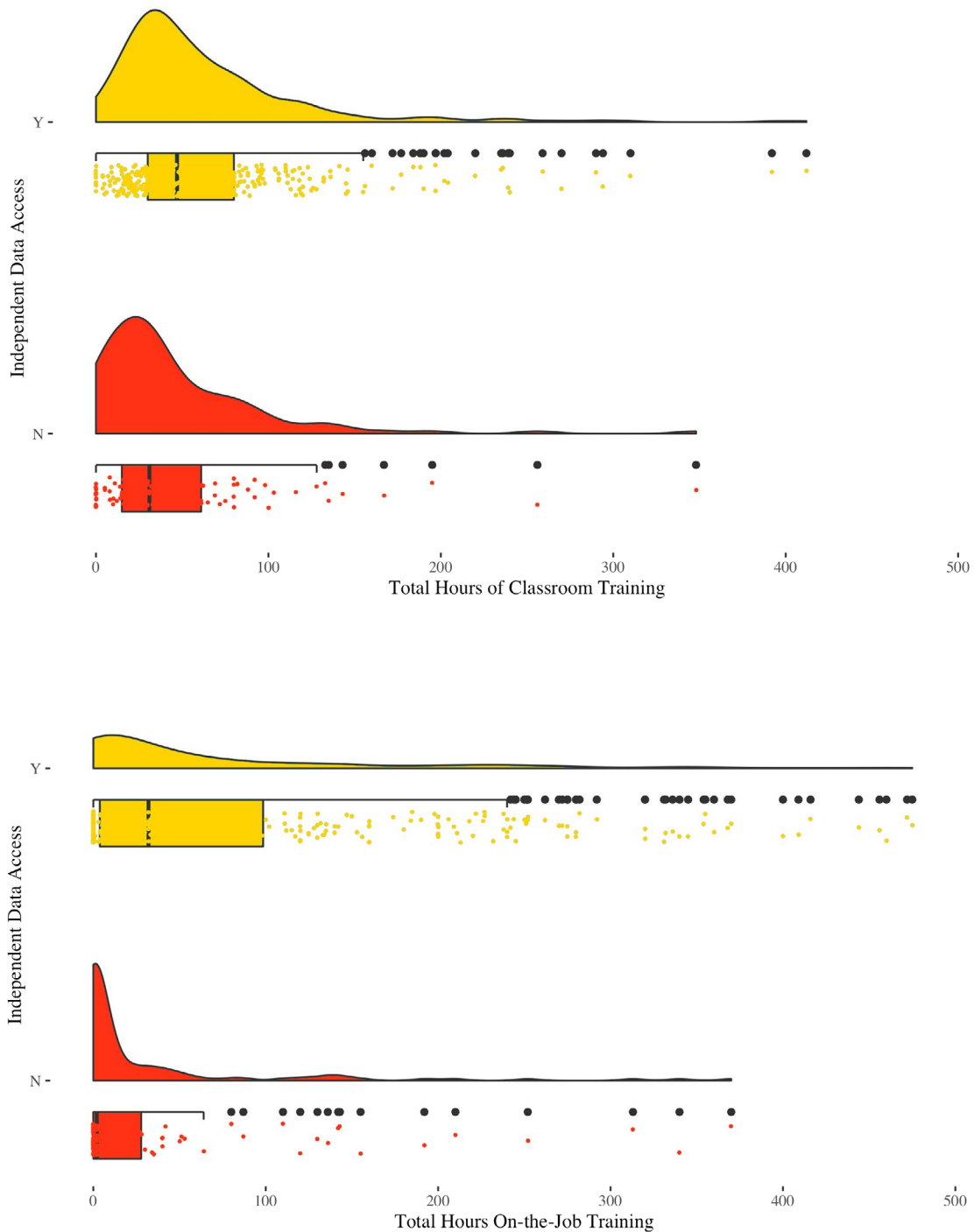
bring their own expertise to the relationship—will have to institute a longer training program than franchisors that contract with already-experienced franchisees and delegate operational decisions to them. Franchise contracts contain information on the length of the training program, broken down by classroom and on-the-job training. The data are shown in three different ways. The colored dots represent the raw numbers, each point corresponding to a single franchise contract. This allows the viewer to see the whole distribution of observations. The shaded blobs represent the density distribution of the data—the probability that an observation will occur at each level of outlet turnover shown on the horizontal axis. The rectangles are boxplots, in which the edges of the box represent the interquartile range; the heavy vertical line through the box represents the median, and the black dots represent outliers.

40 Braverman, Harry. 1998 [1974]. *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press.

Figure 1 does indeed show that chains that require long training programs, particularly on-the-job training, are more likely to remotely surveil franchisees. The difference is quite

large: the median franchisor remotely monitors franchisees requires 34 hours of on-the-job training, versus two hours for chains that do not monitor.

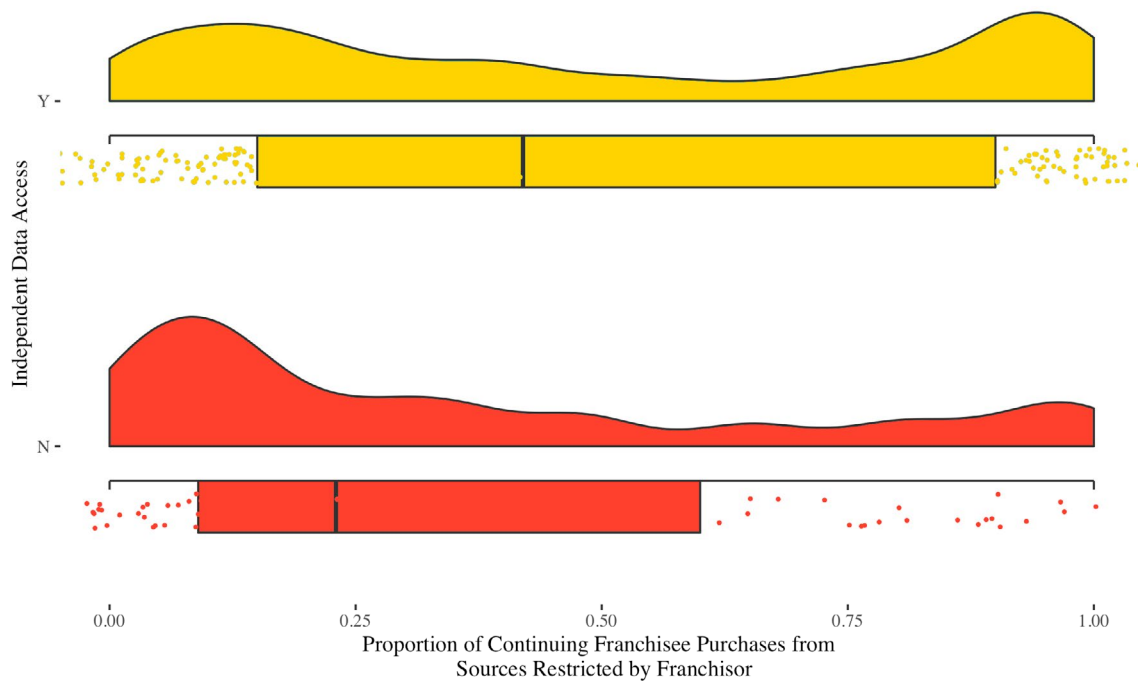
Figure 1. Length of Franchisee Training Program



RESTRICTIONS ON FRANCHISEE DISCRETION

Monitoring is further associated with longer on-the-job training periods, suggesting that franchisors face a choice between delegating authority to skilled, trusted entrepreneurs or contracting with less-skilled quasi-employee franchisees whom they must train and closely monitor. Contracts provide us with direct information on how much authority each franchisor delegates to franchisees. Using this information, we can study the relationship between each franchisor's level of prescriptiveness vs. delegation and the use of remote monitoring technology. The level of prescriptiveness is determined by the presence or absence of vertical restraints: contract terms that dictate how independent franchisees must run their business. Looking at how many, and which, vertical restraints are imposed in a franchise contract can help us create a sort of index of how tightly franchisors control their franchisees.

Figure 2. Franchisor Control over Franchisee Purchases



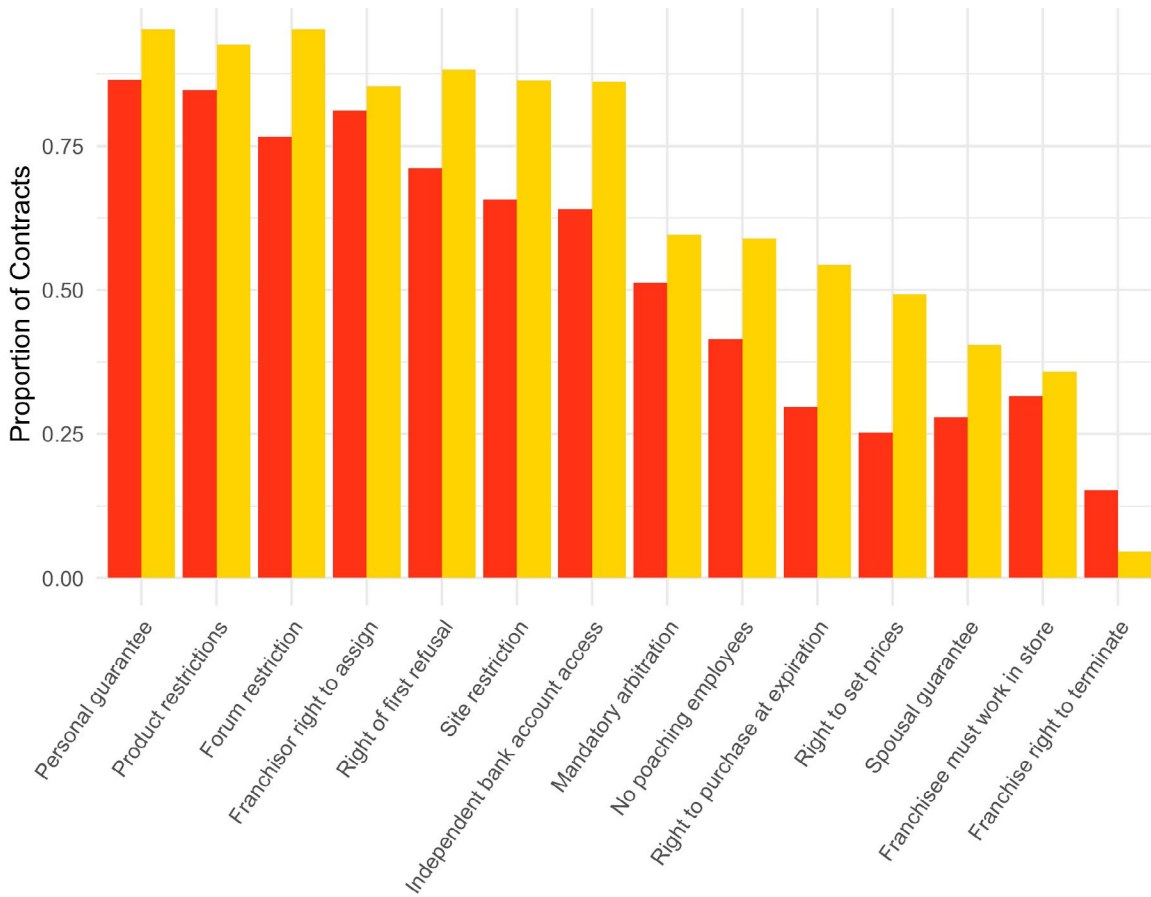
An important type of vertical restraint is supplier restrictions. The FDDs disclose what proportion of a franchisee’s ongoing expenses must be purchased from sources of supply restricted by the franchisor. Figure 2 presents the distribution of this proportion for chains that do vs. chains that do not remotely surveil franchisees. Franchisors that remotely surveil franchisees on average control a much higher proportion of franchisee supplier decisions than those that do not. The distribution for the “do not monitor” franchisors is bunched close to zero, with the median at 23%. The distribution for the “do monitor” franchisors has two peaks: a shorter one around 15% and a taller one at 90%, with a median at 42%. Monitoring and franchisor restrictions of franchisee supply decisions go hand-in-hand.

Figure 2 presents bar charts representing a whole suite of other contract terms restricting franchisees. As these are binary contract terms—the contracts either do or do not contain them—they are better represented by a bar chart. Teal bars represent franchisors that do remotely monitor franchisees, red bars represent franchisors that do not. The height of each bar represents the proportion of franchise contracts in the sample that contains each contract term. The contract terms are as follows:

- Personal guarantee: The franchisee must give the franchisor recourse to their personal assets in the event of litigation or bankruptcy, putting the franchisee’s house, car, and savings at risk.

- Product restrictions: The franchisee must not offer for sale any products not approved by the franchisor.
- Forum restriction: The franchisee cannot sue the franchisor in their home jurisdiction, but must travel to the franchisor's jurisdiction if they seek to sue the franchisor for any reason (or if the franchisor sues them).
- Franchisor right to assign: The franchisor has an unrestricted right to sell the chain and transfer the franchise contract to a new franchisor.
- Right of first refusal: The franchisee must allow the franchisor the right to match any price should the franchisee seek to sell the franchise. This depresses the resale value of the business.
- Site restriction: The franchisee must win franchisor approval for the location of the franchised establishment.
- Independent bank account access: The franchisor has the ability to withdraw funds directly from the franchisee's bank account, without making a request or getting a court order.
- Mandatory arbitration: The franchisee surrenders the right to a jury trial.
- No poaching employees: The franchisee agrees not to hire employees away from any other outlet within the chain.
- Right to purchase at expiration: At the end of the franchise contract, the franchisor has the right to buy the business according to a predetermined valuation formula. The formula is typically based on the physical assets of the business, and does not include goodwill.
- Right to set prices: The franchisor has the right to impose maximum or minimum price floors or ceilings.
- Spousal guarantee: The franchisee's spouse must give the franchisor recourse to their personal assets in the event of bankruptcy or litigation.
- Franchisee must work in store: The franchisee is required to personally supply labor; passive investors not allowed.
- Franchisee right to terminate: The franchisee has the right to terminate the agreement at any time, without cause.

Figure 3. Proportion of Contracts with Selected Contract Terms



Contract terms
 Height of each bar measures the proportion of contracts in the sample that impose each contract term, by whether (Y) or not (N) the contract also gives the franchisor the right to independently access franchisee data.

Independent Data Access
 N
 Y

Figure 3 shows that franchisors that remotely monitor franchisees write more prescriptive contracts across the board. The less franchisors delegate authority to franchisees and the more they dictate franchisee actions (evidenced by the contractual controls imposed on them), the more they have to monitor franchisee compliance with those dictates. The difference is especially pronounced for business decisions like mandatory hours of operation (70% vs. 43%), price controls (49% vs. 25%), and choice of location

(86% vs. 66%). The only contract term more commonly found in contracts of franchisors that do not remotely monitor franchisees is the one contract term allowing more rather than less freedom to franchisees: the franchisee’s right to terminate without showing cause.

PREDICTION MODEL

The data presented so far suggest that remote monitoring tends to occur together with certain other characteristics of franchised chains. More specifically, the descriptive analysis above suggests that monitoring tends to coincide with heavy reliance on vertical restraints and the use of inexperienced, uncredentialed franchisees who must undergo relatively lengthy training programs before they can open shop.

“Remote monitoring and vertical restraints tend to occur together: where we see one, we are very likely to see the other.”

In addition to the visualizations displayed earlier in this report, another way to look at the data is to put the franchisor characteristics into a prediction model and see what aspects of franchise contracts and franchised chains are associated with the use of remote monitoring technology. Table 3 in the appendix displays the results of a series of what are known as logit regression models. In logit regression, the response variable, in this case remote monitoring, takes on a value of one if it is present in each franchise contract, and zero if it is absent. Other features of the franchise contract and chain are then put into a model to see how well they predict whether chains remotely monitor franchisees or not.

Combining the vertical restraints together to create a vertical control index, and including other variables capturing the industry each chain is in, the length of the training program, and other characteristics of the franchisor, the prediction model shows that vertical restraints

strongly predict the presence or absence of remote monitoring, with additional variables having little predictive power in addition to vertical restraints. While much of the variation in remote monitoring remains unexplained by the variables in the model, and is likely due to chain-specific idiosyncrasies, the presence of numerous vertical restraints is highly predictive of remote monitoring. This suggests that remote monitoring and vertical restraints tend to occur together: Where we see one, we are very likely to see the other. Remote monitoring and intense franchisor control seem to hang together as part of a coherent business model. Relatively long training programs are also correlated with remote monitoring, but the length of the training program is not as highly predictive of remote monitoring as vertical restraints are. Interestingly, the franchisors' industry has little predictive power compared to the existence of numerous vertical restraints.

CONCLUSION

According to the theoretical models discussed in this paper, there are two distinct reasons to franchise an establishment. The first is to delegate decision-making to better-informed local agents, who are empowered to make important decisions using entrepreneurial skill and discretion. Franchise contracts under this model leave important decisions up to franchisees, and, because franchisors are not prescribing tasks in minute detail, intense monitoring is not useful.

The second reason is to mitigate principal-agent conflicts over effort levels with local managers. Local managers have incentives to slack off. Franchise contracts, which make them the recipients of the profits of the establishment, align their incentives with headquarters. Under this second model, franchisors prescribe what the franchisee must do and how to do it, and monitor for compliance. In important respects this second type of franchisee is more like an employee than an entrepreneur.

Although the research in this paper is descriptive rather than causal, it has uncovered some apparent differences across franchised chains. Chains that utilize remote monitoring technology have lower skill requirements and impose more prescriptive contracts on franchisees. In short, chains in the sample that remotely monitor franchisees rely less on the entrepreneurial discretion of franchisees. These franchisors are not seeking entrepreneurship from their independent contractor franchisees. They are seeking a supply of labor effort, where that effort is precisely channeled to tasks the franchisor prescribes. Whatever the technicalities of employment law, that kind of franchisee is not what most of us would consider an independent businessperson; they are more like a middle manager.

In terms of policy, franchising, like the gig economy, sits in a loophole between antitrust and labor law. Despite intense monitoring and control, gig workers and franchisees are not protected by labor law. Despite refractive surveillance, employees of franchisees do not

have employment status with the franchisor whose contractual mandates govern their working conditions. It may be time for policymakers and the courts to rethink the legal implications of remote surveillance and reconsider the move in recent decades toward more permissive antitrust treatment of vertical restraints. Traditional common law definitions of “employee” have relied on findings of control over the means of work to determine employment status. The existence of remote surveillance technology could help courts determine whether a worker is an employee rather than an independent contractor, and whether a franchisor is a joint employer of the employees of franchisees. In short, employment and antitrust law should make corporations choose: Do they want independent entrepreneurs, or employees? They have had it both ways for too long.

References

- Bergler, Gerald W. 1991. "Survey Says Telephones, Meetings Top Franchise Communications Methods." *Franchising World* 23 (4): 7.
- Birkeland, Peter M. 2002. *Franchising Dreams: The Lure of Entrepreneurship in America*. 1 edition. Chicago: University of Chicago Press.
- Bowles, Samuel. 1985. "The Production Process in a Competitive Economy: Walrasian, Neo-Hobbesian, and Marxian Models." *The American Economic Review* 75 (1): 16–36.
- Braverman, Harry. 1998. *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press.
- Callaci, Brian. 2018. "Franchising as Power-Biased Organizational Change." *Washington Center for Equitable Growth Working Paper*.
- Chatelain, Marcia. 2020. *Franchise: The Golden Arches in Black America*. 1 edition. New York: Liveright.
- Committee on Commerce. 1976. *Hearings on the Fairness in Franchising Act*. Senate, 94th Congress, April 7, Washington, DC.
- Eisner, Marc Allen. 1991. *Antitrust and the Triumph of Economics: Institutions, Expertise, and Policy Change*. Chapel Hill: University of North Carolina Press.
- Endoso, J. 1995. "Riding the Technology Wave." *Franchising World* 27 (4): 6.
- Felstead, Alan. 1993. *The Corporate Paradox: Power and Control in the Business Franchise*. New York: Routledge.
- Gourevitch, Alex. 2014. *From Slavery to the Cooperative Commonwealth: Labor and Republican Liberty in the Nineteenth Century*. New York: Cambridge University Press.
- Grunberg, Daniel B. 1997. "Technology and Front Line Staff." *Franchising World* 29 (4): 32.
- Hibberd, R. W., and J. E. Kolton. 1994. "Designing a Computerized Franchise Management System." *Franchising World* 26 (3): 38.
- Krueger, Alan B., and Orley Ashenfelter. 2017. "Theory and Evidence on Employer Collusion in the Franchise Sector." Working Paper 614. Princeton University.
- Lafontaine, Francine, and Sugato Bhattacharya. 1995. "The Role of Risk in Franchising." *Journal of Corporate Finance* 2 (1-2): 39–74.
- Lamoreaux, Naomi, Daniel Raff, and Peter Temin. 2003. "Beyond Markets and Hierarchies: Toward a New Synthesis of American Business History." *American Historical Review* 108 (2): 404–33.
- Levy, Karen, and Solon Barocas. 2018. "Privacy at the Margins Refractive Surveillance: Monitoring Customers to Manage Workers." *International Journal of Communication* 12 (0): 23.
- Love, John. 1995. *McDonald's: Behind the Arches*. New York: Bantam.
- Mathewson, G. Frank, and Ralph A. Winter. 1985. "The Economics of Franchise Contracts." *The Journal of Law and Economics* 28 (3): 503–26.
- Murphy, C. 1996. "New Technology Blossoms in Franchise Land." *Franchising World* 28 (5): 20.
- Nguyen, Aiha, and Alexandra Mateescu. 2019. "Explainer: Algorithmic Management in the Workplace." *Data & Society*. <https://datasociety.net/library/explainer-algorithmic-management-in-the-workplace/>.
- Norton, Seth W. 1988. "An Empirical Look at Franchising as an Organizational Form." *The Journal of Business* 61 (2): 197–218.
- Prendergast, Canice. 2002. "The Tenuous Tradeoff Between Risk and Incentives." *Journal of Political Economy* 110 (5): 1071–1102.
- Rogers, Brishen. 2019. "Beyond Automation: The Law & Political Economy of Workplace Technological Change." *Roosevelt Institute Working Paper*, July 8.
- Rosenblat, Alex. 2018. *Uberland: How Algorithms Are Rewriting the Rules of Work*. First edition. Oakland, California: University of California Press.
- Rubin, Paul H. 1978. "The Theory of the Firm and the Structure of the Franchise Contract." *The Journal of Law & Economics* 21 (1): 223–33.
- Ruckelshaus, Catherine, Rebecca Smith, Sarah Leberstein, and Eunice Cho. 2014. "Who's the Boss: Restoring Accountability for Labor Standards in Outsourced Work." National Employment Law Project. <http://www.nelp.org/content/uploads/2015/02/Whos-the-Boss-Restoring-Accountability-Labor-Standards-Outsourced-Work-Report.pdf>.
- Shapiro, Carl, and Joseph E. Stiglitz. 1984. "Equilibrium Unemployment as a Worker Discipline Device." *American Economic Review* 74 (3): 433–44.
- Shirouzu, Norihiko. 1997. "7-Eleven Operators Resist System to Monitor Managers." *Wall Street Journal*, January.

Sibay, Nada. 1997. "Protecting Franchisee Privacy." *Franchising World* 29 (6): 40.

Steinbaum, Marshall. 2019. "Antitrust, the Gig Economy, and Labor Market Power: Work After the End of Employment." *Law and Contemporary Problems* 82 (3): 45-64.

Steinfeld, Robert J. 2014. *The Invention of Free Labor: The Employment Relation in English and American Law and Culture, 1350-1870*. Durham: University of North Carolina Press.

Sturgeon, T. J. 2002. "Modular Production Networks: A New American Model of Industrial Organization." *Industrial and Corporate Change* 11 (3): 451-96.

Subcommittee on Antitrust and Monopoly. 1965. *Distribution Problems Affecting Small Business. Part 1: Franchising Agreements*. Senate, 89th Congress, March 2-4, Washington, DC.

———. 1966. *Distribution Problems Affecting Small Business: Part 2*. Senate, 89th Congress, January 18-20, 26-67, Washington, DC.

Subcommittee on Urban and Rural Economic Development. 1970. *The Impact of Franchising on Small Business. Part 1*. Senate, 91st Congress, January 27, 1970.

Uncredited. 1995. "Custom Tech." *Franchising World* 27 (4): 28.

Van Oort, Madison. 2019. "Employing the Carceral Imaginary: An Ethnography of Worker Surveillance in the Retail Industry." In Benjamin, Ruha, ed. *Captivating Technology: Race, Carceral Technoscience, and Liberatory Imagination in Everyday Life*. Durham: Duke University Press, 209-226.

Vinel, Jean-Christian. 2013. *The Employee: A Political History*. Philadelphia: University of Pennsylvania Press.

Weil, David. 2014. *The Fissured Workplace: Why Work Became so Bad for so Many and What Can Be Done to Improve It*. Cambridge: Harvard University Press.

Appendix: Prediction Model

Table 3. Logit regression of remote monitoring on vertical restraints and other franchisor characteristics

	Response variable = Independent Data Access (Y/N) Std. errors in parentheses				
	(1)	(2)	(3)	(4)	(5)
Vertical restraint index		0.396*** (0.054)	0.399*** (0.058)		0.440*** (0.068)
Hours of on-the-job training				0.002** (0.001)	0.000 (0.001)
Outlet turnover rate				-0.378 (0.392)	0.029 (0.507)
Average Initial Investment (\$000s)				0.000 (0.000)	0.000* (0.000)
Number of outlets				0.000 (0.000)	0.000 (0.000)
Number of states with outlets				-0.030** (0.012)	-0.014 (0.014)
Age of brand (years)				-0.024*** (0.006)	-0.022*** (0.008)
N	529	496	496	508	476
2-Digit NAICS Industry Fixed effects	Y	N	Y	N	Y
McFadden Pseudo R-squared	.04	.19	.22	.10	.29
				*p<0.1; **p<0.05, ***p<0.001	

Notes: Vertical restraint index = the sum of the vertical restraints in Figure 2 and Figure 3, where Y = 1, N = 0. Hours of on-the-job training = the midpoint between the maximum and minimum hours requirements disclosed in the Franchise Disclosure Document. Outlet turnover rate = number of outlets (franchised and company-owned) that have gone out of business or changed hands in the past three years divided by the number of outlets in the beginning year. Average initial investment = the midpoint between the maximum and minimum investment required to open a franchised outlet disclosed in the FDD. The number of outlets is the number of US outlets in each chain. The number of states with outlets is the number of states in which the chain has outlets. The age of the brand is the number years since the first outlet opened under the chain's current brand name.

Table 3 presents regression results for a series of logit prediction models. Roughly speaking, the McFadden Pseudo R-squared gives the proportion of the variation in the response variable that can be “explained” by the variation in the independent variables. Column (1) presents results for a regression containing only industry fixed effects (capturing features of franchised chains that vary according to what industry the chain is in), which, perhaps surprisingly, have little explanatory power. Column (2) presents results for a regression with only one independent variable—the vertical restraints index, which is the number of vertical restraints imposed

in the franchise contract plus the proportion of supplies that the franchisee must purchase from restricted sources. The vertical restraints index is highly correlated with the presence of remote monitoring. Moreover, it explains a large amount of the variation in the presence of remote monitoring—about 20%. The remaining columns show that adding additional variables does not increase the predictive power of the model very much beyond the regression with vertical restraints as the sole independent variable. Much of the variation, however, is unexplained by the model, likely due to chain-specific idiosyncrasies.

Acknowledgements

Data & Society would like to thank the Ford Foundation and the W.K. Kellogg Foundation for their support of this work. The author would like to thank the Center for Engaged Scholarship and the Washington Center for Equitable growth for support while gathering data for this report, and Marcia Chatelain, Molly Laas, Larry Mishel, Zephyr Teachout, and participants in the Data & Society research seminar for comments on earlier drafts. All remaining errors are the author's alone.

Data & Society is an independent nonprofit research institute that advances new frames for understanding the implications of data-centric and automated technology. We conduct research and build the field of actors to ensure that knowledge guides debate, decision-making, and technical choices.

www.datasociety.net

@datasociety

Designed by Yichi Liu

**DATA &
SOCIETY**

www.datasociety.net

@datasociety