The Balance of Power in Franchising

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December 3, 2024

This paper quantifies changes in the relative autonomy of franchisees with respect to franchisors over the period 2009-2023. We analyze a large corpus of Franchise Disclosure Documents to detect the presence of 27 contractual clauses that shape the balance of power in the franchising relationship. We find the autonomy of franchisees has decreased since 2009: the vast majority operate on an exclusive basis with a given franchise chain, lack exclusive distributorship rights, face restrictions on sourcing inventory, are limited in the products or services they can offer, and have little control over setting retail prices, among other restrictions. These findings relate to longstanding questions about where to draw the boundary of the firm, opening the 'black box' of firm-specific pay-setting, and the competitive effect of vertical restraints, horizontal consolidation, and corporate structure. (JEL: J42, K21, L42, J31)

Keywords: Vertical restraints; franchising

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"It is not for the real prosperity of any country that such changes should occur which result in transferring an independent businessman, the head of his establishment, small though it might be, into a mere servant or agent of a corporation for selling the commodities which he once manufactured or dealt in, having no voice in shaping the business policy of the company and bound to obey orders issued by others."

Rufus Peckham, *United States v. Trans-Missouri Freight Association*, 166 U.S. 290, 324 (1897)

1 Introduction

Is the capacity to exercise independent business judgment held in fewer and fewer hands? In this paper, we use a novel text-based data source—standard-form franchising contracts and related mandatory disclosures—as well as new methodologies permitting the systematic classification and interpretation of text corpuses to answer this empirical question with respect to the franchising sector in the United States for the period 2009-2023.

Franchising is a business model that consists of legal vertical dis-integration coinciding with some degree of de facto vertical integration and economic control. The franchisor is a corporation that owns one or more brands or trademarks, which it licenses to local operators (franchisees) in exchange for royalties on gross revenue and/or an upfront fee. Franchisees in turn distribute the product or service associated with the brand or trademark to retail customers, according to a standard contract and operating manual. The U.S. Census reported 498,234 franchise establishments in 2017 across 300 industries; more recent estimates from the trade press suggest establishment counts have risen to almost double this number.

The idea that franchisor control over franchisee business conduct may be anticompetitive is the subject of a large literature in Law and Economics (Blair and Lafontaine, 2005; Easterbrook, 1984; Blair and Kaserman, 1983; Asker and Bar-Isaac, 2014). Current antitrust jurisprudence is very permissive toward such control, generally interpreting it as pro-competitive because it realizes efficiency in distribution by aligning the incentives of franchisors and consumers. The trend in intellectual property jurisprudence is similar: increased franchisor control over the trademark is deemed to enhance its value and hence the dynamic return to investment in developing new business models. As a result, substantive regulation of the franchising relationship at the federal level has diminished considerably since the late 1970s (Callaci, 2021*a*).

Instead, the Federal Trade Commission regulates franchising through its Franchise Rule, which mandates that franchisors offering franchises to the public must provide would-be franchisees with a Franchise Disclosure Document (FDD) prior to their agreement to a contract. FDDs follow a standard form with 23 items, including a structured summary of the contractual provisions, a description of the chain and its business, a description of fees and obligations, voluntary disclosures related to franchisee financial performance and mandatory copies of the franchisor's financial statements, as well as the standard franchise contract itself as an appendix. In principle, this allows would-be franchisees to compare terms across competing franchisors, relying on disclosure and the resulting informed franchisee decision-making to regulate abusive practices in the sector, as opposed to ex-post litigation (which strongly favors franchisors) or ex-ante substantive prohibitions or limitations on the provisions of the franchise. Some states further require that FDDs be registered as public records. We constructed the FDD corpus analyzed in this paper primarily from those state-level filings, supplemented from other sources.

Our FDD corpus consists of 33,629 documents from 2009-2023. Each franchise chain issues its chain-specific FDD annually if it is seeking new franchisees. We use text analysis and Natural Language Processing techniques to extract chain names, dates, contractual provisions, chain-level characteristics, and key tables and items from those documents. This permits the construction of a longitudinal and quantitative franchise-chain-level panel dataset, a novel contribution to our knowledge. The final dataset contains 4,371 unique franchises, which is more than the number of active chains in a given year.

Our main finding is that franchisees have become less autonomous, shifting power in the franchising relationship up the supply chain to franchisors. Specifically, we code the FDDs for the presence (or absence) of a suite of contractual provisions, many of which correspond to the notion of vertical restraints from the Industrial Organization literature. These include Resale Price Maintenance, Exclusive Territories, Exclusive Dealing, Exclusive Supply, Full-line Forcing, and Franchisee noncompetes, in addition to contractual provisions relating to dispute resolution, restrictions on speech, data sharing, and breaches of limited liability. To restate our finding, it is that the prevalence of all of the restraints that shift business autonomy from the franchisee to the franchisor has increased (or, in some cases, remained at a very high level throughout our panel), while the prevalence of Exclusive Territories, which provide the franchisee with an exclusive distributorship vis a vis the franchisor's trademark in a given local area, has declined. Altogether this indicates the accumulation of economic power and control at the top of the franchising supply chain.

It is possible that franchisees are compensated for this reduction in their business autonomy in other ways, because, potentially, increased chain uniformity grows the pie and thereby benefits its various stakeholders, and therefore that franchisees optimally trade away their autonomy in exchange for greater profitability. We test for this possibility and conclude it is not operative: franchise fees move in the opposite direction from franchisee autonomy, indicating that the shifting balance of power applies to both quantitative and qualitative aspects of the franchise relationship.

We also investigate the corporate structure of franchise chains by tracking the ownership of multiple chains by holding companies, sometimes called "platforms" in this industry. Most holding companies (as well as individual chains) are privately-held, but some are publicly traded. We also track ownership of chains and holding companies by private equity firms, which are increasingly active in this sector over our sample period.

This paper contributes to a growing literature that uses FDDs as data to study franchising, including Norlander (2025), which utilizes roughly the same FDD corpus as this paper, and Callaci (2021*b*) and Callaci et al. (2025), which focus on a cross-section of franchise chains for which the authors obtained 2015 FDDs, as well as Lafontaine, Luisetto and Prescott (2024) and Krueger and Ashenfelter (2022). All of the aforementioned papers identify cross-sectional chain variation in the use of various provisions affecting franchising labor markets like the requirement that franchisees impose non-competition agreements on their workers, no-poaching or non-solicitation agreements between franchisees, and restrictions on the dissemination of trade secrets through the mechanism of workers switching jobs and/or chains. (Like the present paper, Lafontaine, Luisetto and Prescott (2024) has a time dimension since those authors obtained FDDs for 297 chains from both 2010 and 2020.) Lafontaine, Saattvic and Slade (2023) and Callaci et al. (2024) likewise investigate the effect of franchise chains' ceasing use of no-poach clauses on outcomes for franchise workers, albeit without using FDDs specifically as their data sources.

This paper, by contrast, shifts the focus directly to the relationship between franchisors and franchisees pertaining to franchisee autonomy broadly, well beyond their workers or the labor markets from which they hire. In that sense it contributes to a literature documenting macro-scale shifts in economic power, including Furman and Orszag (2018), De Loecker, Eeckhout and Unger (2020), Barkai (2020), Autor et al. (2020), Stansbury and Summers (2020), and Pellegrino (2024). The main difference between the present paper and those predecessors is the conception of economic power they rely on and seek to quantify over time. In the former examples, it is either the microeconomic idea of market power, the ability to charge a price in excess of marginal cost, or empirically-observable aggregates like the labor share of firm or industry revenue or the share of corporate profits in total output. We take a more expansive and arguably qualitative view of economic power: the ability to make business-relevant decisions on behalf of economic subordinates. At the same time, we focus on a narrower set of economic relationships wherein we quantify the balance of power: those between franchisors (and their corporate owners and investors), on the one hand, and franchisees, on the other. The setting lends itself to our systematic approach to quantify the balance of power: the franchisor-franchisee relationship is standard enough, and thanks to the Franchise Rule, carries sufficiently standardized documentation that it is relatively straightforward to identify the terms of the relationship that are informative about the balance of power within it.

The paper proceeds as follows: Section 2 explains what the restraints we code for are. Section 3 explains how we analyze the FDD corpus, including how we constructed the rules that determine whether a chain does or does not impose a given restraint or contractual provision in its FDD, and how we aggregate from FDDs to the chain-level panel. Section 4 reports the prevalence of each restraint over time in the panel, as well as comparing that prevalence to the results of a survey of franchisees we conducted. Section 5 tests our interpretation of a shifting balance of power by investigating whether franchisees are compensated for the loss of their autonomy. Section 6 concludes.

2 Restraints

Vertical restraints are contracts or other arrangements between actors in adjacent markets that preempt a material business decision by one or the other party (e.g. with whom to deal, or what prices to set), pertaining to a transaction or economic relationship other than the bilateral one between the contracting parties themselves (Paul, 2023). That broad concept characterizes all of the provisions we code for in our FDD corpus.

The empirical and theoretical literature on vertical restraints in franchising and more broadly tends to focus on whether they are pro- or anti-competitive, which is to say, whether they increase output and/or reduce retail prices in the output market (or the equivalent in the labor market). In this paper, we take no stand on, nor do we test empirically, the competitive effect of the restraints we document. We simply document their prevalence in franchise chains over time, as a measure of the balance of power within the franchisor-franchisee relationship, irrespective of their effects on any other stakeholders.

We began with the set of restraints covered by Callaci (2021*b*), which were initially hand-coded for a cross-section of 530 FDDs filed in Wisconsin for one year. Callaci et al. (2025) reports the prevalence of that set of restraints in the cross-section of franchise chains, both in aggregate and by industry. In the course of constructing and validating the rules associated with each of those restraints for the present, much larger FDD corpus, we formulated additional variables and associated rules to capture the subtleties related to the initial set of restraints. We also investigated aspects of the franchise relationship that are unreported in any other prior work, to our knowledge, including the degree to which franchisees are bound by non-disclosure agreements and subject to other restrictions on commercial speech.

In general, the variables we create and the rules assembled to code for them are not treated as mutually exclusive, by design, even when the meaning of one provision would seem to rule out another. We adopt this approach in light of the high frequency with which we observe contradictory or near-contradictory language in the FDDs. Language that would seem to preserve franchisee autonomy is contradicted by accompanying language that grants the relevant authority to the franchisor or imposes a restriction on the franchisee's use of that autonomy. When such apparent contradictions arise, the FDD is categorized in both ways, with minimal researcher intervention to impose a given construction on the contract.

We divide the restraints and provisions we investigate into eight categories as described below.

1. **Non-competition** restraints: These provisions require the franchisee to be an exclusive distributor for the franchisor either during or, in the case of post-term noncompetes, after the term of the franchise. The franchisor's right to purchase assets at franchise termination or expiration means the franchisee would have to "start from scratch" if he wanted to affiliate with a different chain.

The right of first refusal can be interpreted as a less onerous version of franchisor right to purchase assets, although it could also signify a liquid market for post-term asset purchases, which favors franchisees.

- **Exclusive Dealing**: Franchisee is bound by a noncompete/prohibited from affiliating with a rival chain, or entering the business line independently, during the term of the franchise agreement.
- **Post-term franchisee noncompete**: Franchisee is bound by a noncompete clause and is prohibited from affiliating with a rival chain or entering the business line independently after the conclusion of the term of the franchise agreement.
- **Right to purchase assets**: Franchisor may acquire assets from franchisee following contract expiration/termination. This language is generally accompanied by a valuation method and/or enumeration of the type of assets subject to such a post-term mandatory purchase offer.
- **Right of first refusal**: Franchisor has a right of first refusal to purchase franchisee assets following the franchise term.

2. **Exclusive Territory** restraints: These provisions grant (or deny) an exclusive distributorship to the franchisee, i.e. a local retail monopoly vis a vis the franchisor's brand. They also specify whether the franchisee is permitted to offer products for sale outside his territory (potentially competing with other franchisees, and regardless of whether the franchisee's own territory is exclusive), and whether the franchisor reserves a veto over the specific premises where the franchisee operates.

   - **Exclusive Territory granted**: Franchisor grants an exclusive territory/distributorship to the franchisee in a given area, usually defined geographically. May be termed "designated territory" or "protected territory."
   - **No Exclusive Territory**: No exclusive territory is granted.
   - **Franchisor Reserves Right to Compete**: Irrespective of whether an exclusive territory is granted, there is language reserving the franchisor's right to enter the franchisee's territory or to license other franchisees to do so.

- **Franchisee Confined to Territory**: The franchisee is confined to operate in a given territory (regardless of whether that territory is exclusive) and prohibited from offering products or services for sale outside it.
- **Prior Approval for Franchisee Expansion**: The franchisee must seek prior approval from the franchisor to offer products or services for sale outside a given territory.
- **Franchisor Site Approval**: The franchisor has the right to choose or reject the specific location or premises of the franchise.

3. **Retail Price** restraints: These provisions grant the franchisor the right to set retail prices, either in general or for specific products or transactions.

   - **Resale Price Maintenance**: Franchisor sets retail prices. This includes the requirement that the franchisee "honor all discounts," i.e. must abide by chain-level price promotions and/or accept gift cards purchased from another franchisee, or the franchisor.
   - **Minimum Resale Price Maintenance**: Franchisor sets a minimum resale price, including language that restricts franchisees from obtaining business at the expense of rival franchisees by charging lower prices ("must not discount").

4. **Exclusive Supply** restraints: These provisions relate to whether the franchisee is obligated to source its inventory through contracts and at wholesale prices set by the franchisor, either from third parties or from the franchisor itself. Full-line forcing means the franchisor is obligated to offer all the products or services specified by the franchisor.

   - **Exclusive Supply**: Franchisor must source inventory through contracts negotiated by the franchisor.
   - **Propose New Suppliers**: Franchisee has the right to propose new suppliers to the franchisor, without any obligation on the franchisor's part to condone them.
   - **Full-line Forcing**: Franchisee is required to offer all products/services mandated by the franchisor, and not pick and choose.

- **Prohibition Forcing**: Franchisor has the right to disallow products/services from being sold by the franchisee.
- **Change Product Mix**: Franchisee must comply with changes to the product offerings by the franchisor during the term of the franchise agreement.

5. **Dispute Resolution and Speech Restrictions**: These restraints cover the disclosures that franchisors are obligated to make regarding past or future disputes with franchisees and how they were resolved, as well as prohibiting the franchisee or its employees from disparaging the brand or franchisor.
    - **Mandatory Arbitration**: Franchisees are obligated to bring disputes under the franchising contract to an arbitrator in at least some matters (and possibly all disputes), rather than litigate them.
    - **Speech Restrictions**: Franchisor discloses that it has extant non-disclosure agreements with franchisees in place, and hence they are not at liberty to speak freely with prospective franchisees.
    - **No Speech Restrictions**: Franchisor explicitly states that it does not have extant non-disclosure agreements with franchisees in place and incumbent franchisees are at liberty to speak to prospective franchisees.
    - **Non-disparagement Clause**: Statement that the franchisee (or its employees) may not make any negative statement about franchisor, including language obligating the franchisee to monitor its employees' speech about the brand and/or the franchisor.
    - **Goodwill Clause**: More general statement that the franchisee must protect the goodwill of the franchisor.

6. **Franchisee Organization**: Whether there is or is not an organization of incumbent franchisees that is independent of the franchisor.
    - **Independent Franchisee Organization**: There is an independent franchisee organization.

- **No Independent Franchisee Organization**: There is not an independent franchisee organization.

7. **Data Access**: Requirements related to data-sharing by the franchisee.

   - **Franchisor access to franchisee data**: The franchisee is obligated to share transaction and/or financial data with the franchisor. This is frequently imposed by mandating a specific point-of-sale data collection system be purchased by the franchisee, which could be understood as a special case of exclusive supply.

8. **Breaches of Limited Liability**: The franchisor has recourse to the franchisee's personal estate to satisfy obligations to the franchisor.

   - **Franchisee Personal Guarantee**: Franchisee personally guarantees obligations to the franchisor.
   - **Additional Guarantor**: The franchisee's spouse, children, and/or business partners also guarantee obligations to the franchisor.

3 Data

We sought to build a comprehensive franchise-chain-level panel dataset based on information extracted from a corpus of FDDs that is representative of the franchise sector in the United States. We acquired FDDs used in Norlander (2025) and Arbel (2023). We acquired additional FDDs for the largest franchisors for the year 2009 to improve historical coverage. The corpus of FDDs includes 33,629 documents from the following original sources:

- California Department of Financial Protection and Innovation. (72% of the corpus)
- Minnesota Department of Commerce. (8.9%)
- Wisconsin Department of Financial Institutions. (3.2%)
- Indiana Securities Division. (4%)
- North American Securities Administrators Association. (8.5%)
- FRANdata. (0.5%)

- Miscellaneous sources/posted online. (1.6%)

In general, every franchise chain that operates in a given jurisdiction registers their FDD in that jurisdiction, if registration of FDDs is obligatory. In some states there are exemptions from filing requirements for small or inoperative chains.

We construct the panel dataset from this classified document-level output by means of document metadata we extract, which includes the franchise chain that issued the FDD, the year it corresponds to, and other document-level characteristics. We then fuzzy match the document-level chain-identifying metadata to a master list of franchise chains we obtained from FRANdata. Once a franchise chain identifier (as well as a year) has been assigned to each document, we construct the panel dataset by taking the modal value for each binary variable across all the FDDs corresponding to that franchise chain and year. This implicitly allows the text of the FDD to vary across our various data sources, since there are frequently multiple documents corresponding to each franchise chain-year cell. In principle the FDD is supposed to be invariant for each chain-year, though there are clauses that stipulate certain provisions do or do not apply in different jurisdictions given variations in state law related to franchising. However, in practice, the FDD for a given chain may not scan identically across sources/repositories, hence the need to aggregate within each chain-year cell.

Finally, given the general invariance of FDD provisions over time and the fact that chains that do not change their FDD are not necessarily obligated to re-file with state agencies in every year, we fill in missing chain-year observations by carrying forward the value of a given variable observed for the chain in a previous year, if any. We do not do the same going backward in time. To give an example: if the chain's oldest FDD in the document corpus is dated 2013, then the chain appears again in 2017 and every year thereafter, that chain will have missing data for 2009-2012, the 2013 values for each variable will be carried forward to 2014-2016, and then the true values assigned based on each subsequent year's FDD. Almost all chains remain in the panel through 2023, the final year for which we have FDDs. The only reason a chain disappears prior to that is 1. it has no FDD in that year, and 2. The FRANdata master list of chains identifies it as "no longer franchising."

The full, unbalanced panel dataset covers 15 years of data for 4,371 unique franchises. Data for 17,162 of the 65,565 chain-year observations is traced to a specific document. By carrying forward FDD-derived observations from earlier years, our unbalanced panel data covers 23,912 chain-years.

Figure 1 reports the count of distinct franchise chains and outlets in each year of the complete panel data, and table 1 reports aggregated chain-level data at an annual frequency. The panel grows over time, but particularly in the early years, most likely because of the increasing availability of machine-readable state-registered FDDs as online repositories were created in the early 2010s. Franchising is also a growing business model generally, so the upward trend in the size of the panel partly reflects the entry of new franchise chains and the growth of existing ones.

3.1 Methods

We extract unstructured concepts and semi-structured data from FDDs. Based upon the literature and our understanding of restraints in franchising that influence the balance of power, we sought to identify the presence or absence of the above restraints in franchise documents.

The methodology we employ for constructing novel concept classifiers is introduced in Meisenbacher and Norlander (2023) and deployed to study FDDs in Norlander (2025). We summarize it here for easy reference, but readers interested in more detailed discussion of the methodology in contrast to alternatives are referred to those predecessors.

We first identify and locate 'keywords' in the text that correspond to a given meaning (vertical restraint or provision in our case), excerpt the text around the specified keywords from the larger document to create a "context window," then subject the context window to a set of rules pre-determined to denote that the text in question has a given meaning, in our case, the presence or absence of a given restraint or contractual provision. The rules are given priority such that the presence of a higher-priority rule in a given context window over-rides the way a lower-priority rule would otherwise classify the document with respect to one or more variables. The output is document-level metadata where each concept extracted is represented as a binary variable.

We construct the list of rules corresponding to a given binary variable (or set of related binary variables) by drawing a random sample of context windows corresponding to each keyword and rule from the corpus and classifying the random sample. Once we have a complete list of rules (i.e., further sampling yields no change to the list of rules or prioritization of rules corresponding to the variable), we run the completed rules on the entire document corpus to generate a binary classification of each document in the corpus for each variable. We then spot-check the coding of individual FDDs to ensure that our rules generated the correct interpretation of that document's meaning.

The overall aim is to formulate a set of rules that can be applied to the entire FDD corpus consistently and comprehensively, in order to make reliable empirical claims both about the representation of each restraint or contractual provision in the overall franchise sector as well as over time.

The approach is qualitative, i.e., we examine a sample of text containing keywords, write rules that classify that text, and assert whether or not specific language conveys a given meaning, then automate the extrapolation of those rules on the larger document corpus. This method contrasts with other approaches to text analysis (Arold et al., 2024), but has the advantage of allowing high-precision identification of concepts in a large corpus.

In addition to identifying concepts in unstructured text, we also seek to extract structured information from the FDDs. Item 20 Table 1 of the FDD reports the number of outlets that are company owned and managed, the number that are franchisee owned and operated, and the total number of outlets for the prior three years. Item 20 Table 5 reports the projected openings for the following year, including the number of agreements signed with no outlet opened to date, the projected number of new franchisees, and the number of projected company-owned outlets.

Item 20's Table 1 contains four columns and nine rows. Item 20's Table 5 contains four columns and one or more rows (some franchisees report results for individual states). We extract this structured information by searching for Item 20 in the text of each PDF, and identify the page location of Table 1 and Table 5. We extract Table 1 and Table 5 with Camelot, a Python package that enables extraction from formatted tables in PDFs. As Camelot does not work on scanned images or documents without formatting, we also extract pages as an image and run the image of the page through a series of advanced open-source OCR models: GOT OCR 2.0 (Wei et al., 2023, 2024), a transformer based image to text OCR model, Microsoft Phi Vision 3.5, a vision language model, and Surya OCR and Tabled. We discard outliers and indecipherable data that does not conform to the structure of Table 1 or Table 5.

4 Results

4.1 Results in the Unbalanced Panel

Figure 2 reports the baseline results: the prevalence of each of the restraints described in section 2 in the unbalanced franchise chain panel. The main finding is that the provisions that shift authority to the franchisor have increased their prevalence over time, while the provisions that give the franchisee something in return (most notably, an exclusive distributorship) have diminished.

Exclusive dealing, exclusive supply, and, to a lesser degree, full-line forcing are arguably constitutive of the franchising business model, and they all have high and more-or-less constant prevalence over the length of the panel. Exclusive dealing increases from 65% to 75% prevalence during the panel. Exclusive supply is at nearly complete prevalence throughout. Full-line forcing starts at over 80% prevalence and increases from there. All of these pertain to the franchisee's obligation to affiliate with and carry the products of just one franchise brand, and not anything else. Full-line forcing means the franchisee must offer all the products associated with that brand, not only the profitable ones. Altogether, it is perhaps unsurprising that most chains include some form of each. Further, the prevalence of the franchisor's right to prohibit the franchisee from carrying specific products increases from around 50% to over 60%, and the prevalence of the franchisor's right to change the mix of products the franchisees are obligated to offer during the franchise term increases from 10% to over 15%.

Post-term franchise noncompete clauses, by contrast, may be considered to be surprising in this context since a considerable part of the industrial organization literature on franchising presumes that the franchisee chooses freely with which brand to affiliate. If the franchisee ends up bound by a post-term noncompete, that means the prospective franchisee faces a free choice once, at the outset of his career in franchising, which is also when he would be least knowledgeable about the true commercial value of alternative franchise brands. Moreoever, if franchisor right to purchase assets really does act to inhibit the secondary market for franchisee assets post-franchise-term, then the assumption that franchisees do freely choose with which brand to affiliate is clearly flawed.

Exclusive territories diminish considerably over the course of the panel, from a majority of chains at the beginning to around 20% by the end. Moreover, "Franchisor Reserves Right to Compete" is at almost complete prevalence by the end of the panel, suggesting that even the 20% of ostensible exclusive territory-granting chains that persist are nonetheless offering less than an ironclad guarantee of a local monopoly. The traditional interpretation of franchise restraints is that the overall brand value is enhanced if the franchisees are obligated to conform to the franchisor's business model, including by not competing against one another. The carrot in that arrangement is the exclusive territory—an exclusive license to share in the value of the brand in a local area. That exclusive territories are no longer being granted implies that the franchisor can enforce the uniformity it needs to operate the chain without cutting franchisees in on the proceeds of brand uniformity in return. Finally, the restraints that prevent franchisees from offering products outside their territory, as well as the franchisor's veto over the specific location of the franchisee's premises, have increased gradually over time. Many franchise chains apparently both confine their franchisees to operating in a specific designated geography and do not guarantee them an exclusive distributorship even within that geography.

There are significant increases in the prevalence of both retail price restraints, Resale Price Maintenance (which does not specify whether it is setting maximum or minimum prices, except in the cases where it is recording an "honor all discounts" policy, since that is setting a maximum price for a specific transaction or set of transactions) as well as minimum resale price maintenance (which includes prohibitions on under-pricing and competing for the retail customers of rival franchisees, or the franchisor). The logic of recording any degree of franchisor involvement in retail price-setting as constituting Resale Price Maintenance is that either promoting or prohibiting certain pricing conduct can rule out entire business models, or else impose them on the franchisee. For example, honor all discounts means that the franchisee is obligated to implement the franchisor's policy of price discrimination, which may be against the franchisee's interest but not the franchisor's.

Franchisor control over retail pricing also inhibits steering. For example, the franchisee may want to steer customers away from products on which it earns a loss, thus franchisor control over retail pricing is necessary to enforce full-line forcing and exclusive supply. In this sense, the various facets of franchisor control reinforce each other. It's also striking that all of these provisions are increasing in prevalence while the prevalence of exclusive territories is declining, in light of Asker and Bar-Isaac (2014), who model those restraints as sharing the franchisor's monopoly profit with franchisees as a means of excluding upstream entry. The treatment of all of these restraints is parallel in that account, whereas our findings suggest, again, that franchisees don't need to be cut in on franchisor profits in order to induce them to exclude competition (if that's what the other restraints are doing).

The findings with regard to non-disclosure and speech restrictions imposed on franchisees are interesting and novel, to our knowledge. Between 30 and 40% of chains disclose that at least some franchisees are bound by NDAs (with a slight upward trend over time), while slightly fewer state explicitly that franchisees are not bound by NDAs (likewise showing a slight upward trend). Almost 80% of chains include a requirement that franchisees not jeopardize the franchisor's goodwill. The more extreme form of speech restriction, a non-disparagement clause imposed on the franchisee and/or its employees, applies to only a small minority of chains, but that too shows a slight increasing trend over time. About half of chains utilize a mandatory arbitration clause for franchisor-franchisee disputes.

Very few chains have an independent association of franchisees that is recognized by the franchisor (and the share that explicitly states that they do not is rising, currently above 60%). About 20% of chains require franchisees to share either or both of point-of-sale or financial data. In the case of point-of-sale data, that is often enforced by requiring franchisees to use a specific data system licensed by the franchisor.

Finally, breaches of limited liability are common and increasingly prevalent. Over 90% of chains make the franchisee put up a personal guarantee of obligations to the franchisor, and over 70% extend that to the franchisee's family and/or business associates. If limited liability is a constituent of the corporate form, then it seems that ostensibly independent franchise businesses are not fully able to avail themselves of it.

4.2 Results in the Balanced Component of the Panel

Given the starkly increasing number of chains represented in the unbalanced panel dataset over time, as shown in figure 1, a natural question is whether declining franchisee autonomy is due to individual chains altering their policies over time, or due to the entry of new chains with less franchisee autonomy. To answer this question, we created two balanced-panel subsets of the larger unbalanced panel, spanning 2009-2023. The first also spans 2009-2023 and consists of 172 chains. The second spans 2013-2023 and contains 743 chains. For each of those panels, we recompute restraint prevalence by chain over time.

Results for the 2009-2023 balanced panel are reported in figure A.1 and for the 2013-2023 balanced panel in figure A.2. They show the same pattern as in the unbalanced panel results reported in figure 2. If anything, the pattern in the balanced panel is more stark, indicating that long-standing chains changed their practices over the sample period in the direction of less franchisee autonomy.

4.3 Patterns at the Industry Level

Given the wide prevalence of the franchising business model over a variety of consumer-facing goods and services sectors, we further break down the panel dataset by industry. Specifically, we compute the top 10 4-digit NAICS industries by franchise chain count in the panel and separately report restraint prevalence in those 10 industries. The count of chains from each industry is reported in figure C.1 of appendix C, and we further report the pattern of restraint prevalence for each industry in the following figures.

The broad takeaway from this is that the overall pattern of reduced franchisee autonomy is not industry specific—the patterns discussed in subsection 4.1 above hold for all of the 10 industries, although there is variation between them as to the level of prevalence of various restraints, mostly due to small chain counts in some industries in the early years of the panel.

4.4 Franchisee Survey Results

In order to supplement and validate our findings from text analysis of FDDs, we conducted a survey of franchisees. Specifically, we extracted telephone numbers from Item 20 of the FDDs, which lists the contact information of incumbent franchisees specifically for the purpose of inviting would-be franchisees to obtain information about the conduct of the franchisor from franchisees of longer standing. (This is the import of the related disclosure of past Non-Disclosure Agreeements that would inhibit such information sharing, which we use to construct our Speech Restrictions and No Speech Restrictions binary variables.) Appendix B gives the protocol for this survey, including the text of the questions that were asked.

We asked several questions related to the franchisees' experience of franchisor control. Specifically, we asked the franchisees about the following:

1. Whether they are bound by a post-term noncompete clause.
2. Whether they have an exclusive territory.
3. Whether they or the franchisor set retail prices.
4. Whether they choose their suppliers, or the franchisor does.
5. Whether they are restricted as to whom they could sell their franchise business.
6. Whether they are obligated to sell all the products or services mandated by the franchisor, or can pick and choose.

Altogether, we had 96 chain-identifiable survey responses to these questions, covering 85 distinct chains. 75 chains had one franchisee response, 9 chains had two franchisee responses each, and one chain had three franchisee responses.

We proceed to compare the survey responses to the text analysis of the relevant chain's FDDs previously reported. Specifically, since the survey was conducted in only one wave in 2024, we retain the most recent year observation for each chain in the panel dataset, which is usually 2023. We then compare variation between each possible answer to the survey question and the prevalence of relevant restraints reported in the panel. The results are visualized in figure 3.

- **Franchisee Noncompete**: The survey question asked "Are you bound by a noncompete clause that would prevent you from affiliating with a different corporate headquarter after your current franchise agreement expires?" As written, this question refers specifically to post-term noncompetes, but we compare the prevalence of both that and Exclusive Dealing (which prohibits affiliation with a rival chain or entering the business line independently during the term of the franchise) across respondents who indicated that they either were or were not bound by a noncompete. The prevalence of both restrictions, Post-term Noncompete and Exclusive Dealing, is higher for franchisees who indicated they were bound by a noncompete, but not by a great deal. 35% of franchisees who answered they are not bound by a noncompete in fact are, per the FDD text analysis, and 76% are required to be exclusive to the franchisor during the franchise term. Those numbers are 41% and 84% for respondents who said they were bound by a noncompete.

- **Exclusive Territory**: The survey question asked "Do you have an exclusive franchise territory?" We compare the Yes/No answers to this question to three franchise restraints: whether an exclusive territory is granted, whether an exclusive territory is explicitly denied, and whether there is language reserving the franchisor's right to invade the territory or license other franchisees to do so. The results are similar to the previous survey question: franchisees who indicated they have an exclusive territory are more likely to have one in fact, per the FDD data, but the difference is only 11 percentage points (28% versus 17%), which is almost exactly mirrored by the relative prevalence of an explicit denial of an exclusive territory. It's important to note one weakness in our approach, which could apply particularly to cases like exclusive territories where the prevalence has changed significantly over time as shown in figure 2(B): we are comparing the most recent observation for a given chain to survey responses from franchisees who could have entered the business at any time, and who may be operating under contracts that are no longer being offered to new franchisees, which is what the FDD pertains to. Hence, it is logically and empirically possible for a franchisee who said they have an exclusive territory but whose chain is coded as not offering exclusive territories to in fact have one, i.e., to be "grandfathered in." Interestingly, there is almost complete prevalence of language reserving the franchisor's right to compete in both groups: 100% for the no-exclusive-territory survey responses, versus 96% for the survey respondents who answered that they do have an exclusive territory. This finding validates our interpretation of this language as countermanding the upfront promise of an exclusive territory "in the fine print."

- **Resale Price Maintenance**: The survey question was "Do you decide the prices you charge customers for your goods or services, or does the corporate headquarter decide that?" We compare the two retail price restraints we coded in the FDD data, Resale Price Maintenance and Minimum Resale Price Maintenance, to respondents who answered either "I decide" or "The corporate headquarter decides." Here the prevalence of the Resale Price Maintenance restraint is slightly lower for respondents who answered that the franchisor decides retail prices (50% versus 55%), but the prevalence of Minimum Resale Price Maintenance is higher: 33% versus 23%.

- **Exclusive Supply**: The survey question asked "Do you decide which supplier(s) you buy from, does the franchisor decide, or is it a mix?" We compare answers to this question to two restraints coded from FDDs: Exclusive Supply and Franchisee Can Propose New Suppliers. The prevalence of Exclusive Supply is complete and uniform across all three survey responses, which may be partly due to the fact that we assign the binary for Exclusive Supply if language restricting franchisees to purchase or source *any* inventory or equipment appears in the FDD, whereas there is probably variation in most chains in terms of which inputs must be sourced exclusively from franchisor-negotiated contracts, or alternatively sourced by the franchisee.

  The finding with respect to Franchisee Can Propose New Suppliers is suggestive: 50% prevalence among respondents who said they can choose their own suppliers, 73% among respondents who said the franchisor chooses suppliers, and 64% among respondents who answered "A mix." We interpreted this restraint to be a weaker form of exclusive supply, i.e., franchisees can find their own suppliers but the franchisor has a veto. The pattern in the survey responses indicates that franchisees do not see it the same way: having to ask permission to source from a new supplier indicates franchisor control, not its absence, and (to speculate slightly) having experience asking may be what informs franchisees' understanding of whether they are or aren't bound by exclusive supply, as opposed to the text of the contract or the habit of obtaining supply through franchisor-negotiated contracts. Note also from figure 2(D) that Franchisee Can Propose New Suppliers increases prevalence over the length of the panel.

- **Restrictions on Franchise Sales**: The survey question asked "If you wanted to sell your franchise business, can you sell to whomever you want, does the corporate headquarter restrict whom you can sell to, or are you obligated to sell only to the corporate headquarter?" We compare the three possible responses to this question to Franchisor Right to Purchase Assets and Franchisor Right of First Refusal to Purchase Assets. In this case there is not a lot of variation in restraint prevalence across survey answers, likely because there is not much variation in the FDD data on these two restraints (figure 2(A)). The likely explanation is that franchisees answering the survey are overwhelmingly still active, hence they may not have practical experience selling a franchise business.

- **Full Line Forcing**: The survey questions asks “Can you pick and choose which products or services to sell, or must you sell all of the products or services mandated by the corporate headquarter?” We compare the two possible responses, “I can choose” and “I cannot choose," to three restraints: Full Line Forcing, Franchisor Can Prohibit Products, and Franchisor Can Change Product Mix. Full Line Forcing is at complete prevalence in both sets of responses, but the other two are markedly higher among respondents who answered “I cannot choose products.”

One interpretation of these responses indicating that franchisees who believe themselves not to be bound by various restraints are in fact bound by them per our analysis of the applicable FDD is that broadly speaking, franchisees are less autonomous in reality than they think they are, and may be headed for a reckoning. If that is the case, the Franchise Rule may not be doing an adequate job to inform prospective franchisees about the true terms of the franchise relationship. However, another plausible interpretation is that the control evidenced in the FDDs does not practically impinge on franchisees' conduct of their business, i.e. the contract allocates formal powers to the franchisor that they do not exercise in practice. A third interpretation, noted above in the discussion of exclusive territories, is that the FDDs are inherently forward-looking: they report the terms on which new franchises are offered to would-be franchisees, which are not necessarily those under which pre-existing incumbent franchisees operate. In that case, the reduction in franchisee autonomy we document from the FDD data leads the actual experience of franchisees as actually-existing franchise terms change slowly, following changes in formal terms detectable in the FDDs.

5 Testing Interpretations

A natural question that arises in considering the chain-level panel results reported in section 4 is whether the apparent reduction in franchisee autonomy and shift in the balance of power to favor franchisors represents an actual welfare loss on the part of franchisees and concurrent transfer of surplus to franchisors. An alternative explanation, one that finds substantial theoretical support in the Industrial Organization literature on franchising and vertical restraints more broadly, is that greater franchisor control "grows the pie" for all parties to the franchising relationship. In that case, franchisees may not be left worse-off by their declining autonomy, if franchisor control limits free-riding, eliminates double margins (i.e. reduces retail prices, engendering a more competitive overall brand), incentivizes franchisors to invest in new products or services whose marketing and distribution they would otherwise fear going awry, or any number of other benefits that greater chain uniformity might engender. Hence, we would expect compensating differentials: a reduction in autonomy would be offset by increases in franchisee welfare.

We test whether franchisees are in fact made worse-off by declining autonomy using chain-level data on franchise fees. Specifically, we investigate what happens to franchise fees when a chain varies its usage of a given restraint. If adopting the restraint reduces franchisee autonomy, then a positive correlation between that restraint and fees indicates the balance of power has shifted in favor of franchisees: franchisee welfare is reduced in both qualitative and quantitative dimensions. Conversely, a negative correlation indicates that compensating differentials are at play: franchisees are being compensated for surrendering their autonomy (ostensibly for the larger benefit of the brand) with lower fees. The reverse pattern would be true for terms that benefit franchisees: their adoption would be negatively correlated with fees if their usage signified the balance of power favored franchisees, and it would be positive if there are compensating differentials.

5.1 Analysis of Franchise Fees

There are two broad categories of franchise fee payable by the franchisee to license the franchisor's brand, operating manual, and overall business model. Upfront or initial fees are specified as a dollar amount payable as a start-up cost. We extract initial fee data from the FDDs in our corpus. Royalties are assessed as a percentage of franchisee gross revenue. A further royalty payment to cover chain-level advertising is reported separately. Since the statements about royalties are highly variable in the FDDs themselves, we have not been able to use our large-scale text analysis tools to extract them from the FDDs in a unified and reliable way. Instead, we rely on *Entrepreneur* magazine's annual Franchise 500 ranking, constructed as an aid for comparative assessment of alternative brands for prospective franchisees. The annual Franchise 500 list (which in fact includes more than 500 chains in each iteration) is published by the magazine in what amounts to a repeated cross-section with strong year-to-year overlap, which we link to our overall unbalanced panel data. Hence, the royalty data is reported more sparsely than the initial fee data.

Our aim in this subsection is both to report overall time trends in the different types of franchise fee, as well as to test how responsive initial fees are to within-chain changes in the restraints described in section 2. Figure 4 reports the former: median and weighted average initial fees and royalty rates in the panel. The weights are the chain outlet counts taken from Item 20, Table 1 of the FDDs. The results are similar to restraint prevalence reported in figure 2: all three types of fee are increasing over time, although the royalty rates appear to be a somewhat standard 6% for the base royalty and 2% for the advertising royalty.

We then test for correlation between fees and specific restraints and contractual provisions, focusing on within-chain variation in contractual provisions due to unobserved heterogeneity in brand value across chains that might be a greater determinant of the fees paid to license a brand than the relative autonomy of franchisees within the brand. We run regressions with the following form:

$$fee_{jt} = \beta \cdot restraint_{jt} + \gamma_j + \lambda_t + \epsilon_{jt} \tag{5.1}$$

where fee_{jt} is the upfront fee paid to license brand j in year t, $restraint_{jt}$ indicates whether chain j utilizes a given restraint (of those described in section 2) in year t, γ_j are chain fixed effects, λ_t are year fixed effects, and ϵ_{jt} is the error term. This specification identifies the effect of within-chain changes in the terms of the franchising relationship on franchise fees. We only use the upfront fee and not the royalty data from the Franchise 500 due to the latter's sparseness with respect to the overall panel and relative uniformity across chains, though as figure 4 shows, all three fee types broadly move together. Finally, we divide the restraints into two groups: those that reduce franchisee autonomy and those that increase it. Several of the restraints whose interpretation is ambiguous in this respect are left out of this analysis.

Figure 5 reports the estimated $\hat{\beta}$s from equation 5.1. For the autonomy-reducing restraints, most coefficient estimates are positive (and of the four negative negative coefficient estimates, none is significantly different from zero), indicating that chains that adopt these restraints tend to increase their initial fees. For the autonomy-increasing provisions (of which there are only three: exclusive territory granted, franchisee may propose suppliers, and that an independent organization of franchisees exists), two out of the three coefficients are negative and the positive one (for franchisee may propose new suppliers) is not significantly different from zero. The patterns in both are consistent with the hypothesis that chains in which franchisee autonomy is reduced also increase fees (and those where it increases reduce fees), meaning that fees and autonomy are positively correlated—consistent with the shifting balance-of-power hypothesis (toward franchisors, given the results in section 4), and inconsistent with the compensating differentials hypothesis. Quantitative and qualitative terms of the franchisor-franchisee bilateral relationship move together. Our conclusion is that the balance of power has shifted toward franchisors with respect to both economic autonomy and welfare/bargaining surplus.

5.2 Corporate Structure

A further component of our analysis of the political economy of franchising is to identify corporate links between chains in our panel dataset. Many franchise chains are part of holding companies, consolidated either through mergers of pre-existing franchise chains or originated by the holding companies themselves to enter new markets or launch new business models and brands. We can use this to test whether that consolidation prefigures the decline in franchisee autonomy.

We compute the Herfindahl-Hirschman Index (HHI) at the 4-digit NAICS industry level (by year) for each of the top 10 industries in the panel dataset in two different ways. The first computation assumes that each franchise chain is independent, and the second attributes chain ownership to the holding company level (and treats chains that are not owned by holding companies as independent). We compute market share using the outlet count derived from Item 20, Table 1 of the FDD, extracted using the algorithm described in section 3.1.

Our results are reported in figure 6. Overall chain-level concentration is between 0.1 and 0.2 in each industry, most likely due to our implicit assumption of a US-wide geographic market, as well as the fact that 4-digit NAICS industries are significantly larger than the typical antitrust market consisting of substitute goods or firms. More importantly, we do not observe a pronounced time trend in concentration within industries despite increasing franchise chain ownership by holding companies. The offsetting factor is likely entry by new franchise chains, which counterbalances the consolidation of incumbents.

Hence, we can reject increased franchisor consolidation as an explanation for declining franchisee autonomy.

6 Conclusion

In this paper we quantify the balance of power between franchisors and franchisees through the large-scale text analysis of a text corpus consisting of tens of thousands of Franchise Disclosure Documents spanning 2009-2023. We code those documents with respect to 27 binary variables signifying vertical restraints and contractual provisions that allocate decision-making autonomy within the franchise relationship. Our main finding is that the autonomy of franchisees has diminished with respect to franchisors over our study period, confirmed through an analysis of franchise fees that indicates a positive correlation between qualitative shifts in the balance of power favoring franchisors and the fees that franchisees have to pay. We further compare our results to a survey of franchisees that ascertained their perception of their own autonomy.

Prior research using a cross-section of franchise chains (Callaci et al., 2025) indicates that reductions in franchisee autonomy have negative consequences for workers in franchising labor markets, perhaps because franchisees with diminished margins on which to earn profits and/or adjust to shocks target worker surplus for appropriation. That finding is consistent with concentrated power in supply chains reverberating to the detriment of workers who work for disempowered suppliers (Wilmers, 2018). Insofar as temporal variation in the utilization of franchise restraints has been available prior to this paper, it indicates that removing franchise no-poaches has positive repercussions for franchise workers (Callaci et al., 2024). These previous findings indicate that the more power is concentrated in the hands of franchisors, the more other stakeholders, beyond franchisees, lose out. Given the wide-scale power shift we document in this paper, further research identifying both its causes and consequences is warranted.

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Figure 1. Count of Franchise Chains and Outlets, 2009-2022. The number of chains per year refers to the width of the panel dataset, which is growing over time due to the increasing number of documents in the FDD corpus (as well as the growth of the franchising sector overall). The count of outlets derives from Item 20, Table 1 of the FDD, which reports the chain-level outlet count in the previous three years before the FDD was filed.

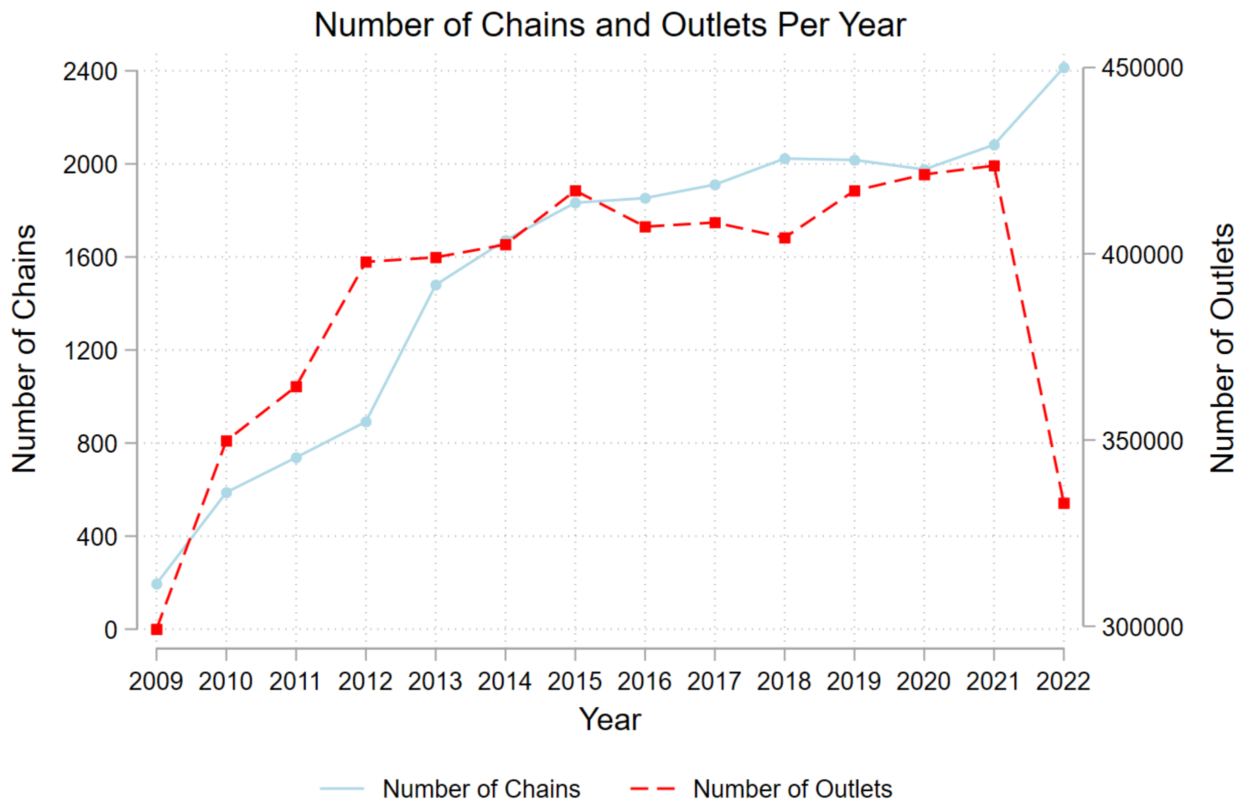
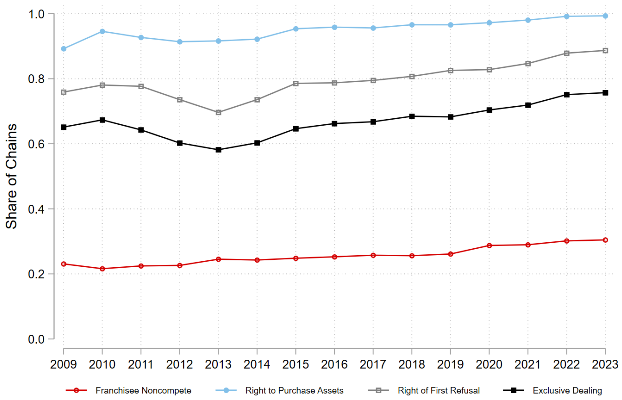


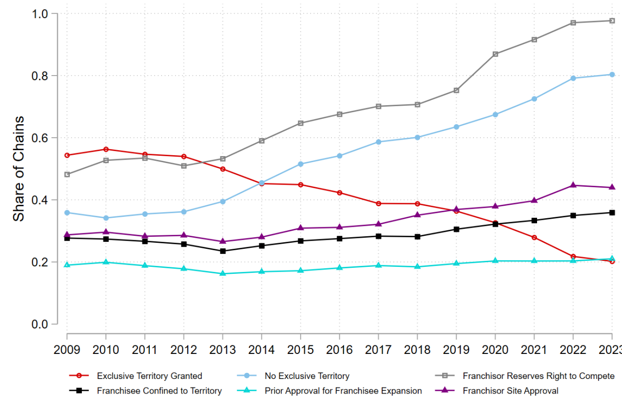
Table 1. Summary Statistics for the Franchise Chain Panel. Outlet counts are reported on a retrospective basis. Since the most recent documents in the FDD corpus were filed in 2023, the most recent year for which we have outlet counts is 2022.

Year	Number of Chains	Total Number of Outlets	Average Outlets per Chain	Median Initial Fee	Median Royalty Rate (%)	Median Ad Royalty Rate (%)	Share of Chain Observations Derived from an FDD
2009	195	299,227	520	$34,745	5.75	2	100%
2010	588	349,804	511	$32,833	6	2	81%
2011	738	364,396	400	$35,112	5.5	2.25	65%
2012	892	397,840	313	$36,472	5.5	2	70%
2013	1,480	399,058	289	$37,240	6	2	88%
2014	1,672	402,496	267	$39,629	6	2	77%
2015	1,833	416,967	264	$39,377	6	2	76%
2016	1,853	407,297	257	$39,778	6	2	73%
2017	1,911	408,408	249	$41,281	6	2	69%
2018	2,023	404,342	241	$43,123	6	2	68%
2019	2,017	416,947	233	$43,559	6	2	63%
2020	1,976	421,310	232	$42,573	6	2	63%
2021	2,082	423,681	237	$43,315	6	2	65%
2022	2,414	333,084	273	$40,000	6	2	85%
2023	2,236			$40,000	6	2	63%

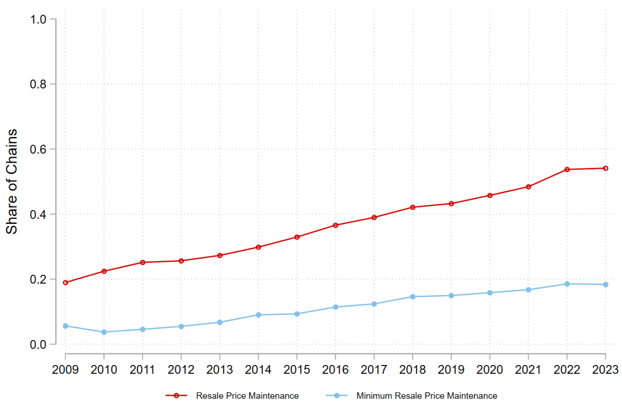
Figure 2. Time Series of the Prevalence of Each Franchise Restraint in the Panel Dataset. These figures report the prevalence of each of the eight sets of franchise restraints and contractual provisions described in section 2 in the unbalanced franchise chain panel dataset, 2009-2023.



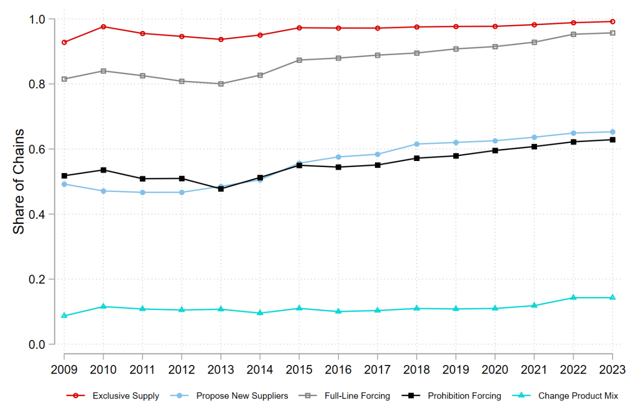
(A) Non-competition



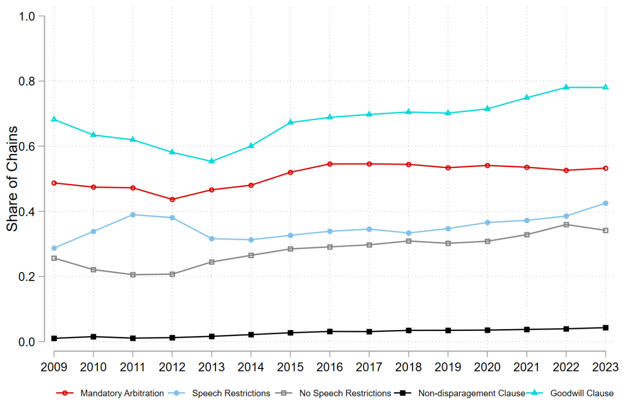
(B) Exclusive Territory



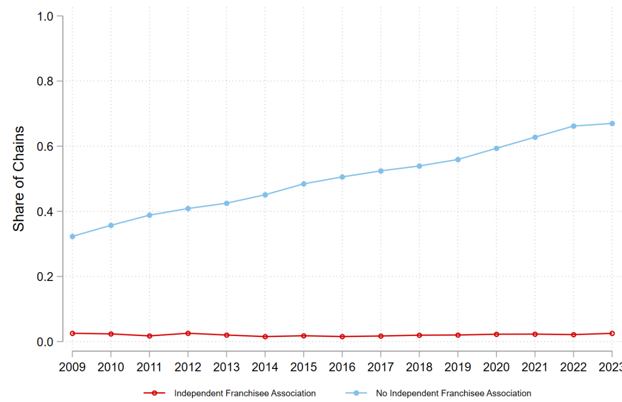
(C) Retail Price



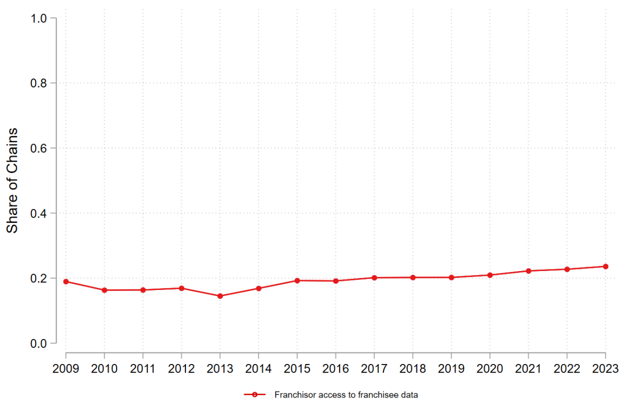
(D) Exclusive Supply



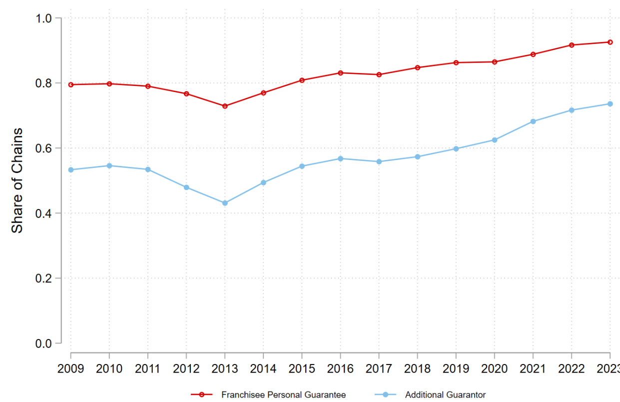
(E) Dispute Resolution & Speech



(F) Franchisee Organization



(G) Data Access



(H) Breaches of Limited Liability

Figure 3. Comparison Between Franchisee Survey Responses and Chain-level Data from FDDs. These figures compare the responses to the survey reported in section 4.4 to the franchise-chain-level data gathered from FDDs. For each survey response, the share of chains with a given restraint among the franchisees who gave that response is reported on the vertical axis. The relevant comparison is within restraint, across survey responses, i.e. comparing bars with the same color in each figure.

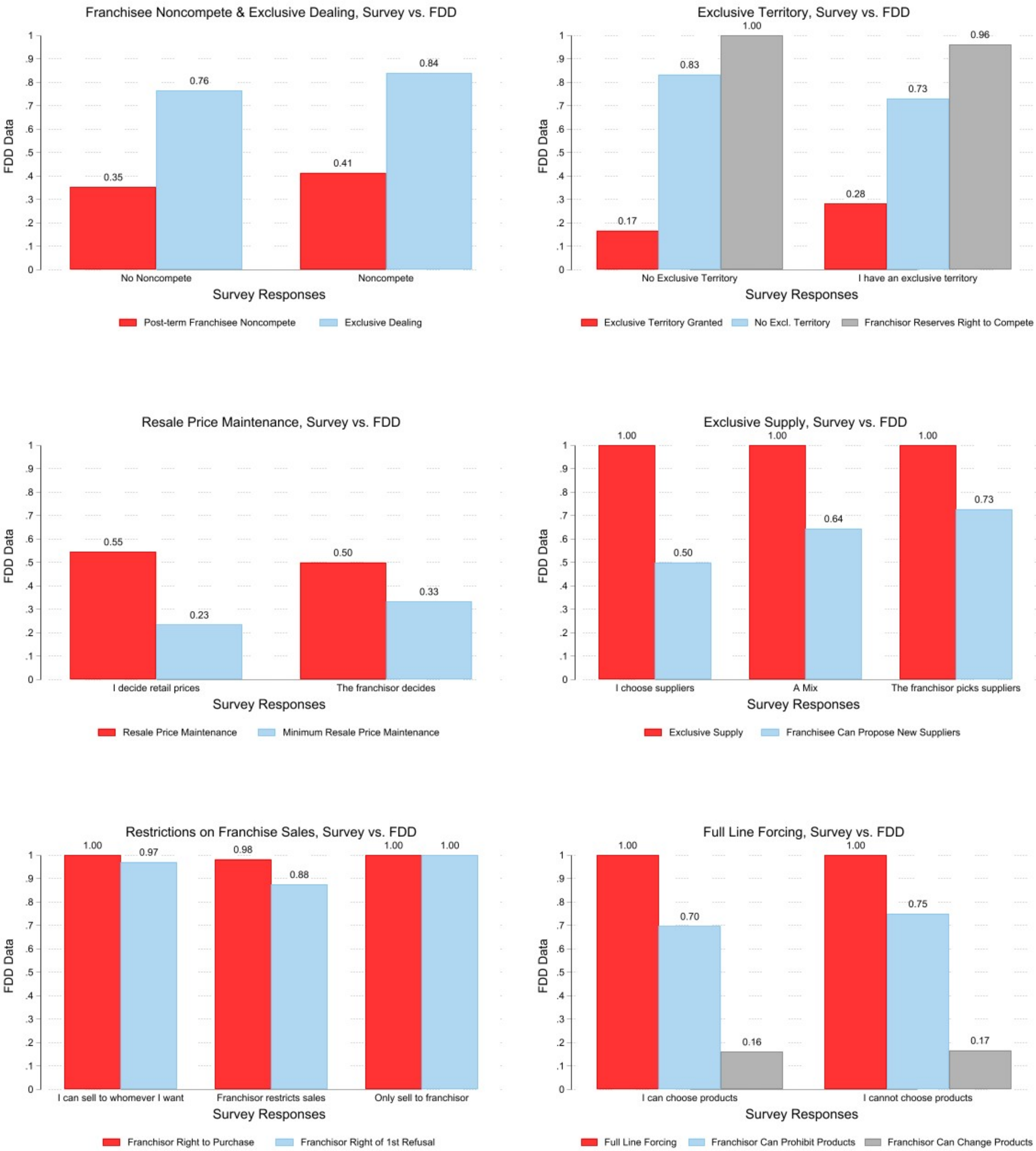
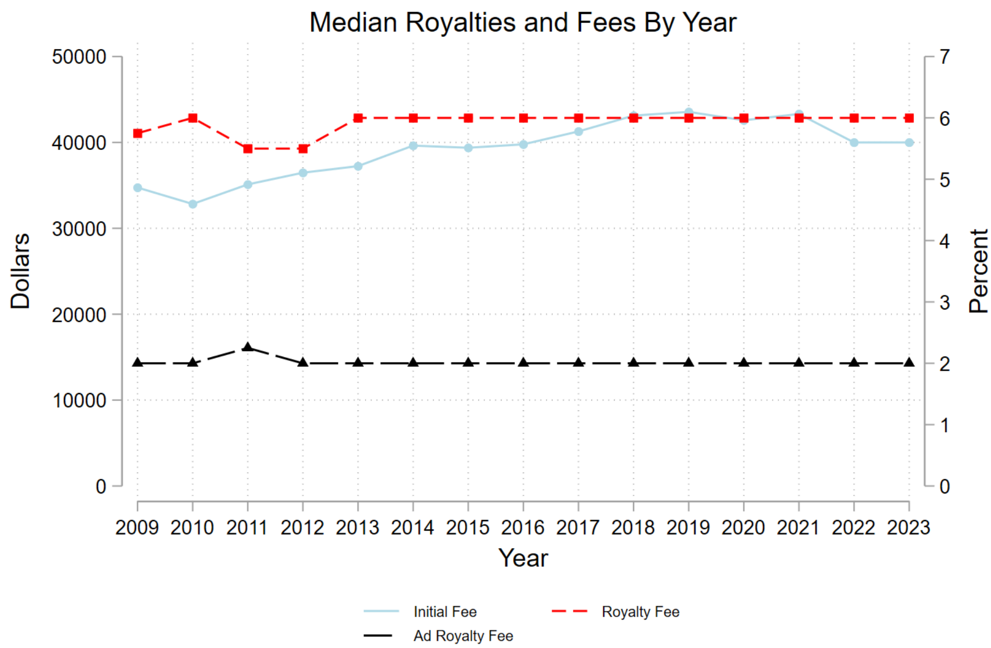


Figure 4. Initial Fees and Royalties. These figures report chain-level upfront fees (left axis) and royalty rates (right axis), aggregated alternatively as annual medians and weighted averages in which the weight is the chain's outlet count in that year. The initial fee is a flat dollar amount paid to the franchisor to license the brand. Royalties are specified as a percentage of gross revenue. Ad royalty fees are additional royalties payable to the franchisor for chain-wide advertising. Initial fee data is sourced from FDDs. Royalty data is sourced from *Entrepreneur* magazine's annual Franchise 500 ranking and comparison data.



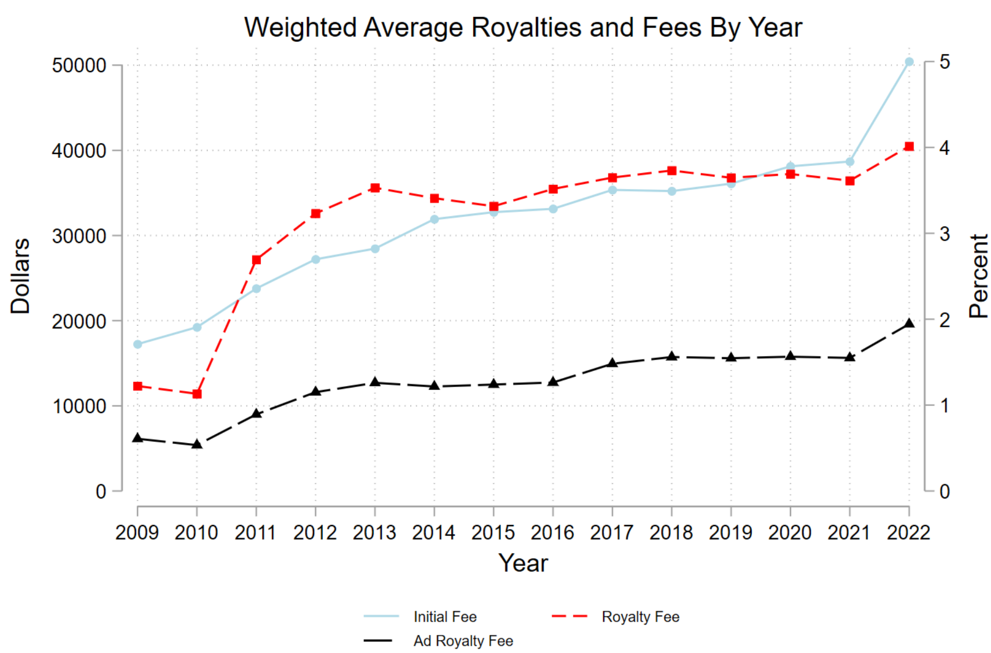
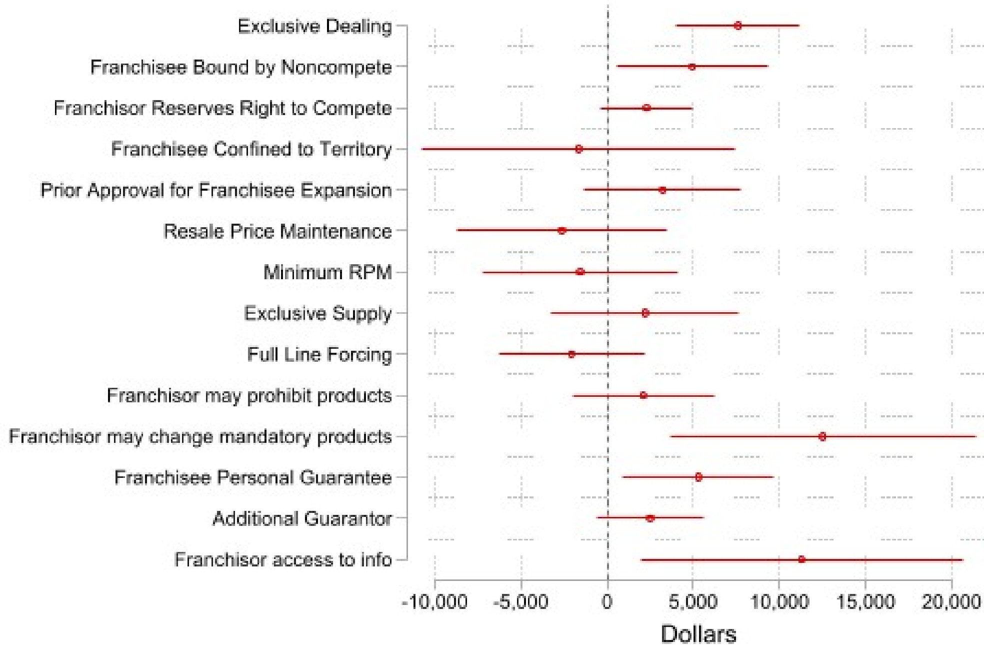
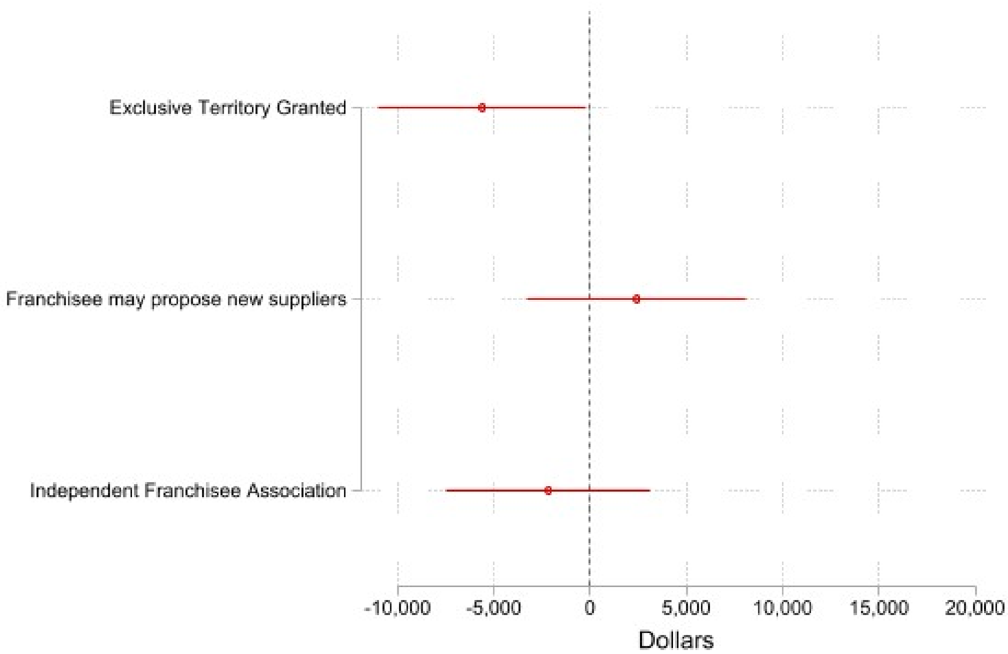


Figure 5. Initial Fees and Restraints Regression Results. These figures report the estimated coefficient $\hat{\beta}$ from equation 5.1 separately for restraints that reduce franchisee autonomy and those that increase it. Standard errors are clustered at the chain level.

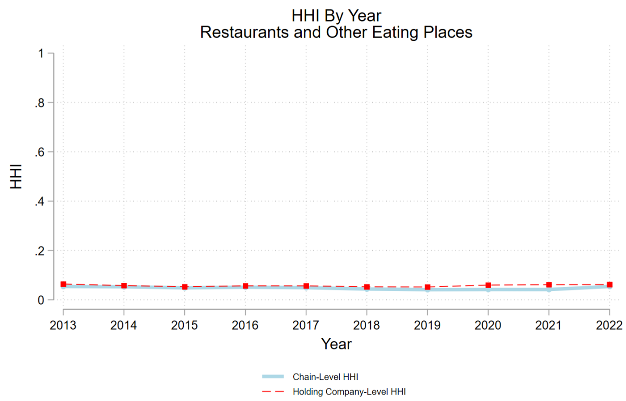


(A) Franchisee Autonomy-reducing Restraints

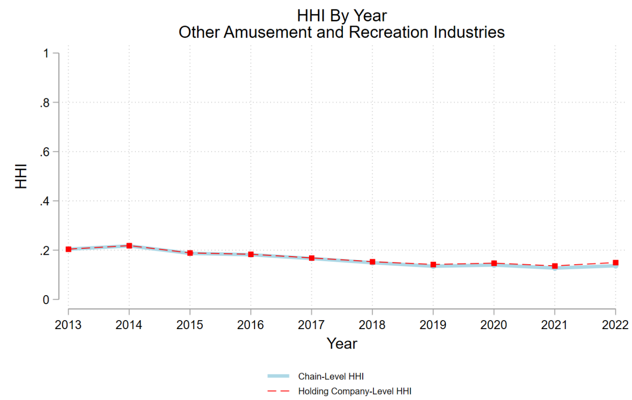


(B) Franchisee Autonomy-increasing Restraints

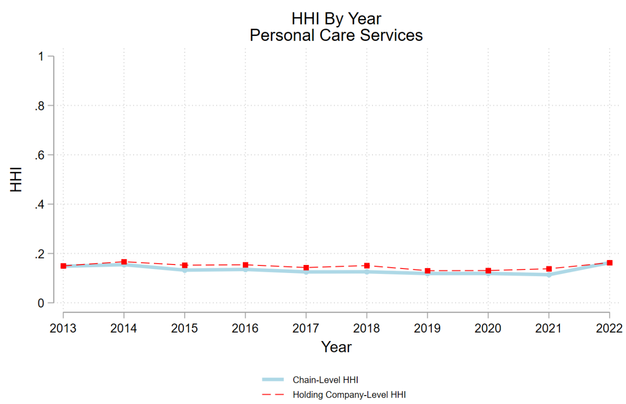
Figure 6. Industry-level Concentration for the top 10 NAICS 4-digit industries in the panel dataset. We compute the Herfindahl-Hirschman Index at the industry-by-year level for each of the top 10 most frequently-appearing industries in the franchise chain panel dataset. We compute HHI separately at the individual chain level and at the holding company level, i.e. attributing all the chains owned by a given holding company to that locus of control (and treating the non-holding-company-owned chains as independent). Market shares are computed from chain-level outlet counts, reported in Item 20, Table 1 of the FDD.



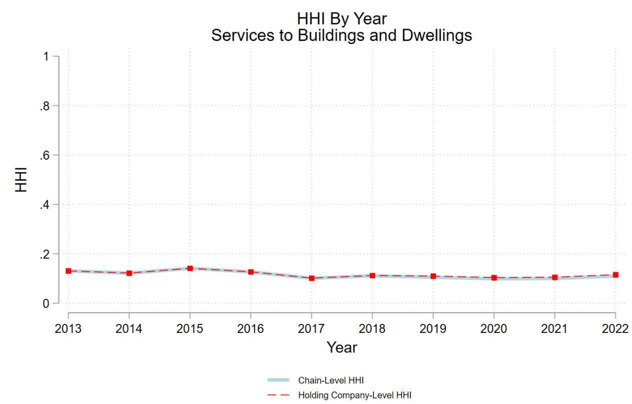
(A) Restaurants & Other Eating Places



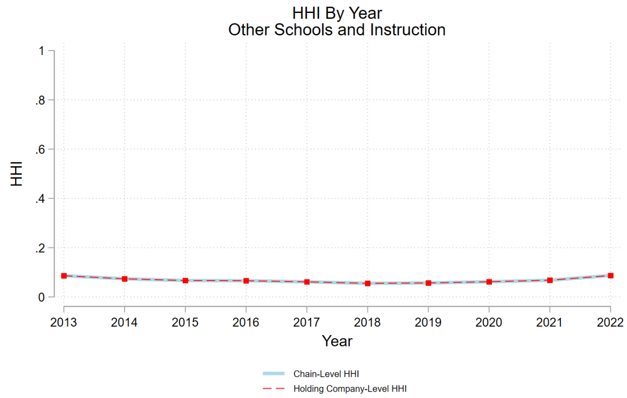
(B) Other Amusement & Recreation



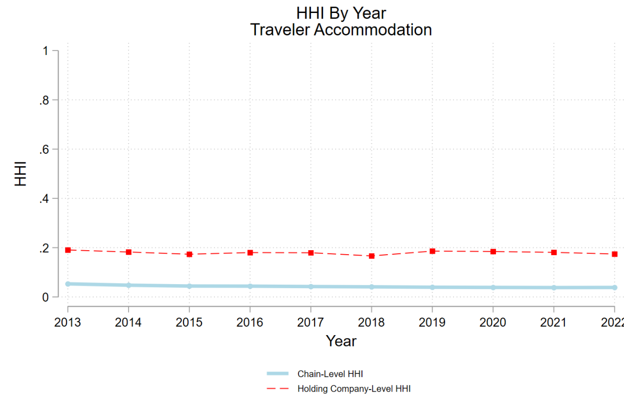
(C) Personal Care Services



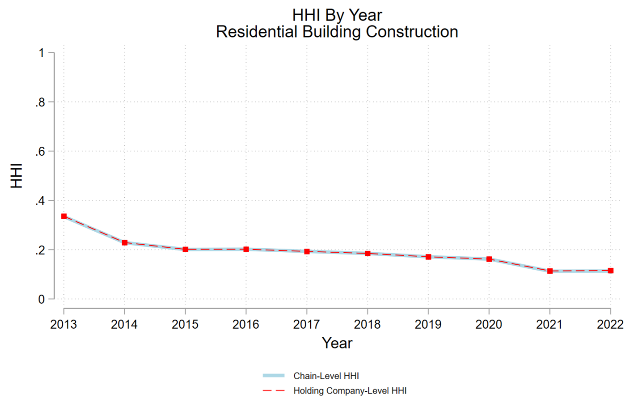
(D) Services to Buildings & Dwellings



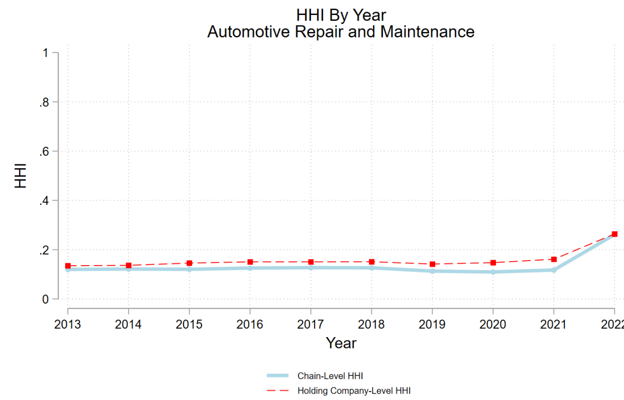
(E) Other Schools & Instruction



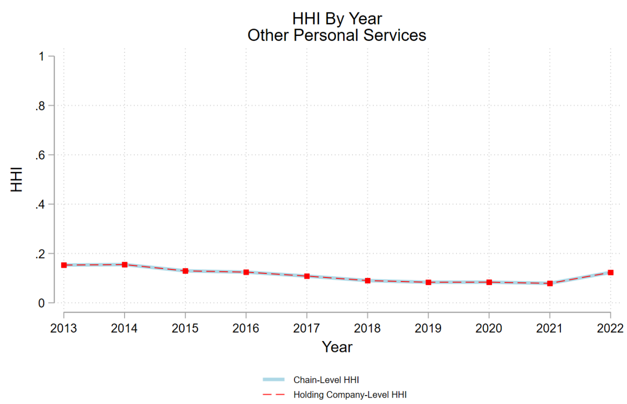
(F) Traveler Accommodation



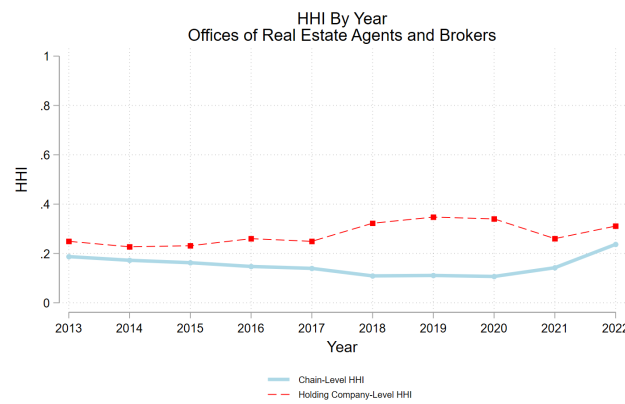
(G) Residential Building Construction



(H) Automotive Repair & Maintenance



(I) Other Personal Services



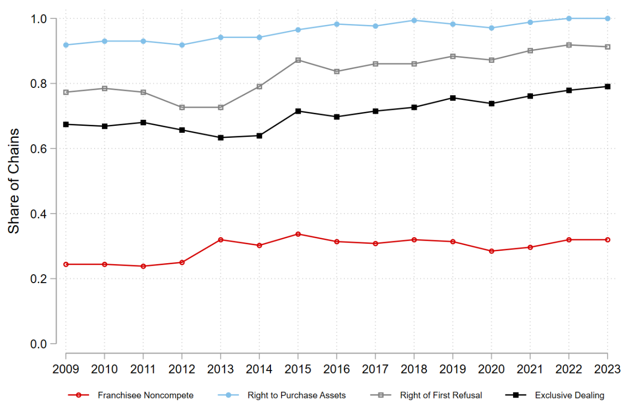
(J) Real Estate Agents

Appendices

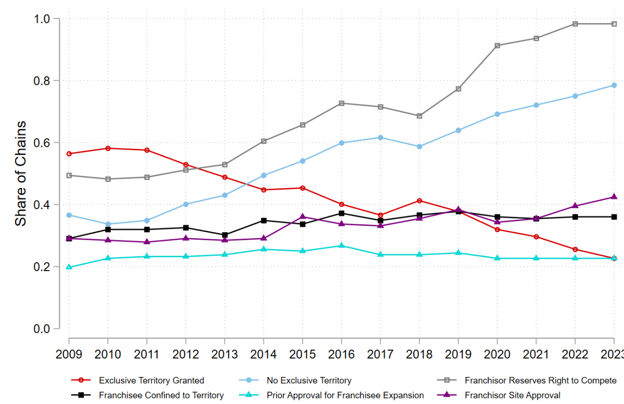
A Restraint Prevalence in the Balanced Panels

In this appendix we report figures equivalent to figure 2 for balanced sub-panels of the overall unbalanced panel dataset, spanning 2009-2023 (172 chains) and 2013-2023 (743 chains). This demonstrates that the overall reduction in franchisee autonomy is due at least in part to changes on the intensive margin, i.e. individual chains observed consistently reduce franchisee autonomy over time, rather than new, less-autonomous chains entering.

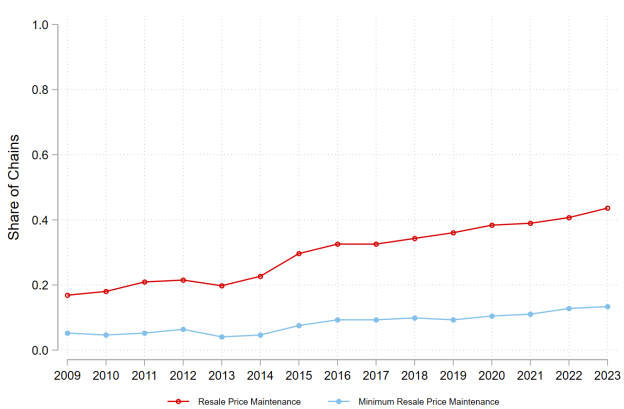
Figure A.1. Time Series of the Prevalence of Each Franchise Restraint in the Panel Dataset. These figures report the prevalence of each of the eight sets of franchise restraints and contractual provisions described in section 2 in the balanced franchise chain panel dataset, 2009-2023. There are 172 chains represented in this balanced panel.



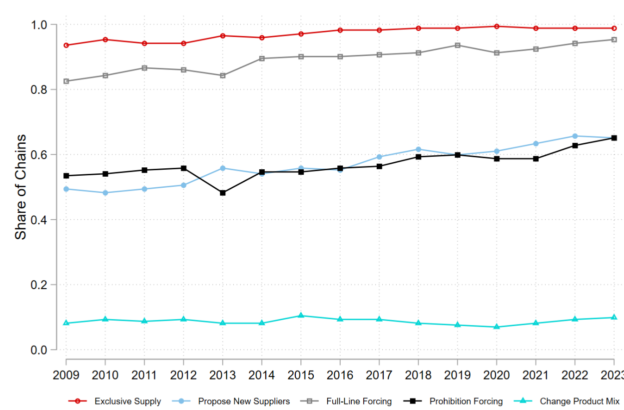
(A) Non-competition



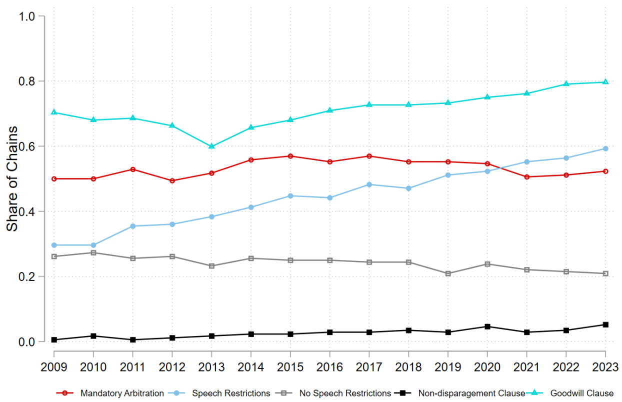
(B) Exclusive Territory



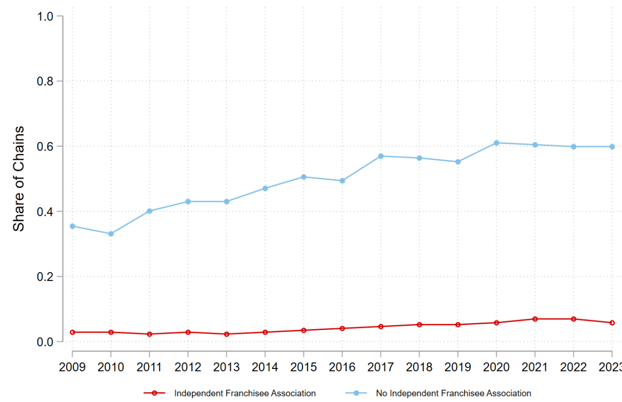
(C) Retail Price



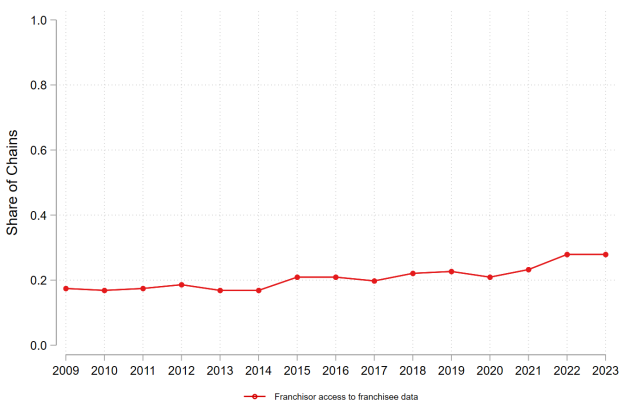
(D) Exclusive Supply



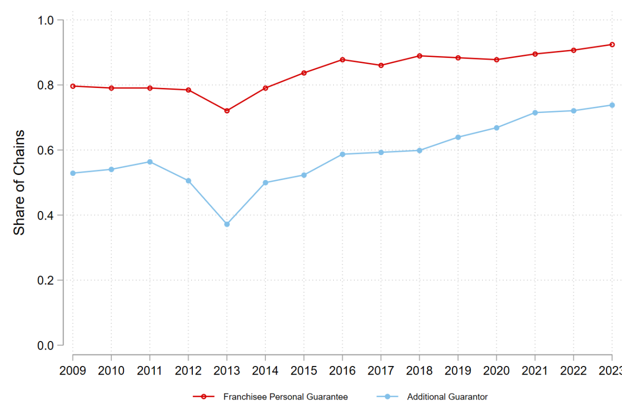
(E) Dispute Resolution & Speech



(F) Franchisee Organization

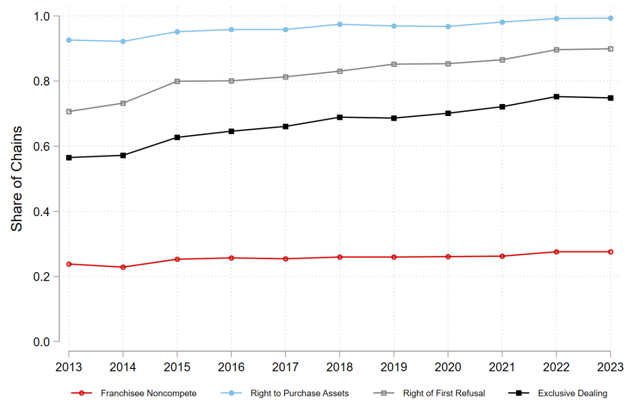


(G) Data Access

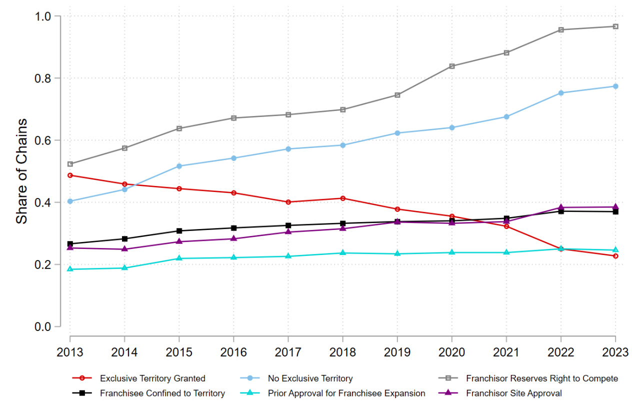


(H) Breaches of Limited Liability

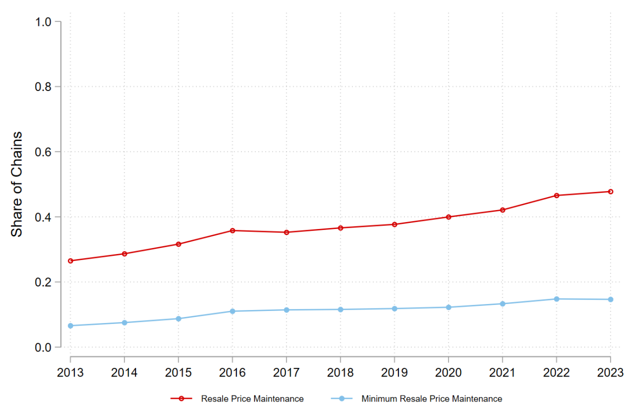
Figure A.2. Time Series of the Prevalence of Each Franchise Restraint in the Panel Dataset. These figures report the prevalence of each of the eight sets of franchise restraints and contractual provisions described in section 2 in the balanced franchise chain panel dataset, 2013-2023. There are 743 chains represented in this balanced panel.



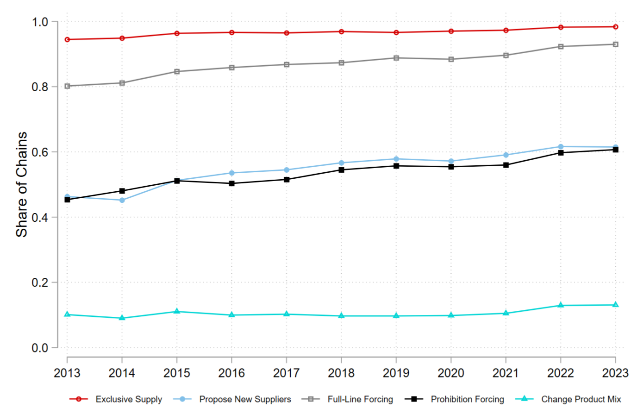
(A) Non-competition



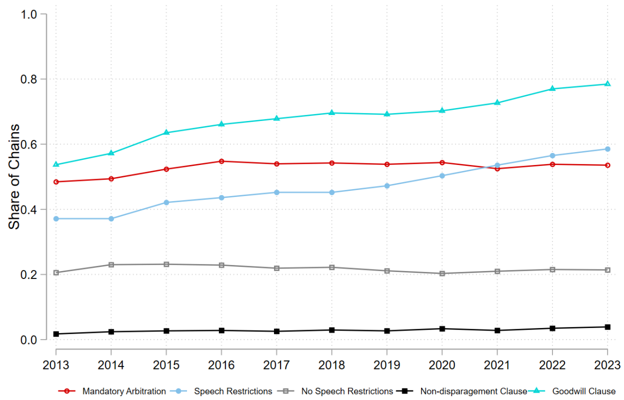
(B) Exclusive Territory



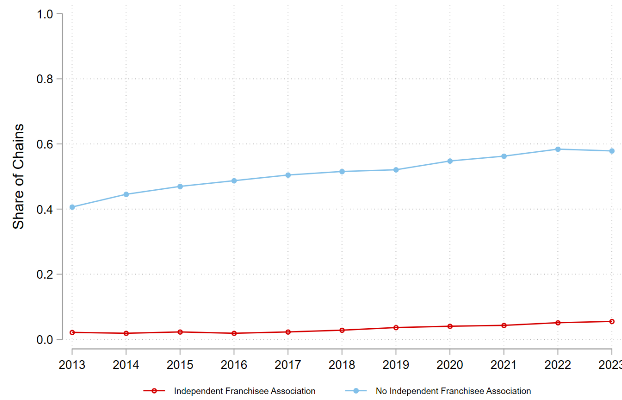
(C) Retail Price



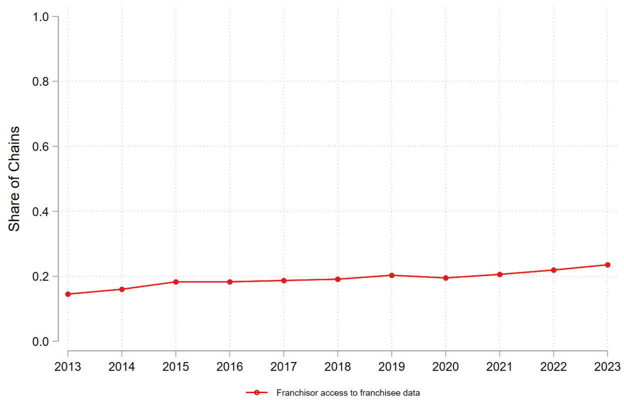
(D) Exclusive Supply



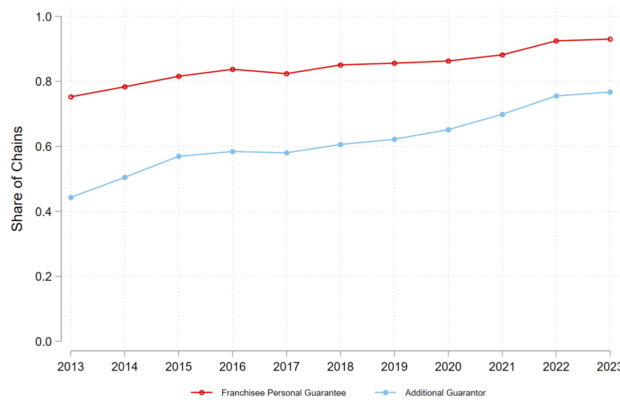
(E) Dispute Resolution & Speech



(F) Franchisee Organization



(G) Data Access



(H) Breaches of Limited Liability

B Survey protocol

Note: This survey protocol was first used in Atz (2024) and is reproduced below. The survey aimed to elicit responses from current or previous franchisees (buyers) to questions about Item 19 (disclosure of franchisee financial data) and vertical restraints. Participants were identified through a self-constructed database of franchise businesses' contact information from publicly available Franchise Disclosure Documents. Contact information, i.e., phone numbers and business addresses, are publicized in the FDD with the expressed purpose of contacting franchise businesses. These documents are made available through various US states' commerce website and elsewhere. Item 20 contains a list of current and former franchise owners with their contact information. The FTC "Franchise Rule" governs the disclosure and use of this information (Federal Register/Vol. 72, No. 61/March 30, 2007/Rules and Regulations). The NYU Institutional Review Board determined the protocol to be exempt from the federal policy following a limited IRB review under reference number IRB-FY2024-9116.

The study contacted franchisees via two modes:

1. For mobile phone numbers, a text (SMS) recruited participants for an online survey via a link. The questionnaire was administered via Qualtrics.
2. For landline phone numbers, the study used interactive voice response (IVR) that allowed the participant to determine whether they want to access the online surveyor answer the questions on the phone via the keypad. The latter uses an abridged version of the survey to avoid survey fatigue.

The survey included a pilot phase from the 2024-09-13 to 2024-09-18, and those responses were included in the final sample. The main data collection happened between 2024-09-24 and 2024-09-30. Subjects were contacted at varying times during local US business hours including one Saturday. Mobile numbers were contacted once, landlines up to three times if they were busy or reached an answering machine.

B.1 Sampling

The sampling frame was based on 393,453 phone numbers from the latest FDD of each franchise. The regular expression to extract phone numbers was:

```
\b\(?(?:[0-9]{3})\)?[.\-\s]?(?:[0-9]{3})[.\-\s]?[0-9]{4\}
```

Additionally, phone numbers were validated in terms of length and where they appear in the FDD (i.e., Item 20). Phone numbers starting with 800 or 866 were excluded due to the high likelihood of encountering an answering machine. Cost determined the planned sample size.

Stantcheva (2023) recommends "sampling for range", which in this case meant to stratify the sample based on franchise size. Wave 1 included 96,995 phone numbers from all available franchises, with a maximum number of 60 phone numbers per brand. The type of phone line was split into mobile with 30,178 (31%) phone numbers, landline with 55,060 (57%) numbers, VoIP with 8752 (9%), and other types for the rest. Mobile was used for the SMS distribution and landline for the IVR.

B.2 Potential response biases

The main concern for this survey protocol seems to be a nonresponse error. There is a substantial challenge in reaching the target population, the franchisees, by using business phone numbers, even though the contact information in Item 20 was meant to facilitate reaching current or past outlet owners. At least three reasons make a large share of the phone numbers unsuitable: first, the phone number may not be monitored or may no longer be in use. Second, calling the number may only reach an answering machine or automated system. Third, even in the case of a live answer, depending on the franchise, it may be a frontline employee who receives the call/text instead of the franchisee. The latter is mitigated by a screening question.

Most of the landline phone numbers reached an answering machine (45%) or were otherwise busy, unavailable, or yielded a carrier error (together 39%). Live answers were 16% of all total calls. The response rate was low with 0.2% of live answers. An additional 12 participants chose to enroll in the survey text. For the SMS distribution, it was less clear which messages were delivered to the intended target. The overall response rate was 2%; however, the completion rate was just 12%. Together this implies a response rate below 1%, but it was likely above 1% when we assume that a substantial number of SMS did not reach a "live" phone number (as with landlines). Together the response rate was therefore somewhere between 0.2% and 2%, which is in line with other studies that reach out via an unsolicited email or call (Minnis and Shroff, 2017). After excluding those that said "No" to the screening question Q0, the total number of responses was 118.

There are several additional caveats. First, attrition is a serious concern, and the questionnaire was optimized to be as short as possible in the pre-pilot phase. Second, behavioral biases related to content and formatting ought to be reduced by modern survey design. Third, given the response rate, we should expect some form of selection in addition to the coverage error. For example, it might be that disgruntled franchisees are more likely to participate in a survey about pre-sale earnings information. In general, franchisees that complete the survey could be systematically different from those that did not, which would undermine any generalizations to all franchisees. It seems plausible that small and unsophisticated franchisees are easier to reach with this survey protocol (e.g., they are more likely to put down a "personal" phone number) and more likely to be available (e.g., as the active manager) than sophisticated franchisees – which should work in favor for making inferences from the survey responses.

B.3 Questions regarding vertical restraints

The following list of questions pertain to potential franchisor restrictions and oher contractual provisions.

1. Do you decide the prices you charge customers for your goods or services, or does the corporate headquarters decide that? [I decide / The corporate headquarters decides]

2. Do you decide which supplier(s) you buy from, does the franchisor decide, or is it a mix? [I decide / The corporate headquarters decides / A mix]

3. Are you bound by a noncompete clause that would prevent you from affiliating with a different corporate headquarters after your current franchise agreement expires? [Yes / No]

4. Do you have an exclusive franchise territory? [Yes / No]

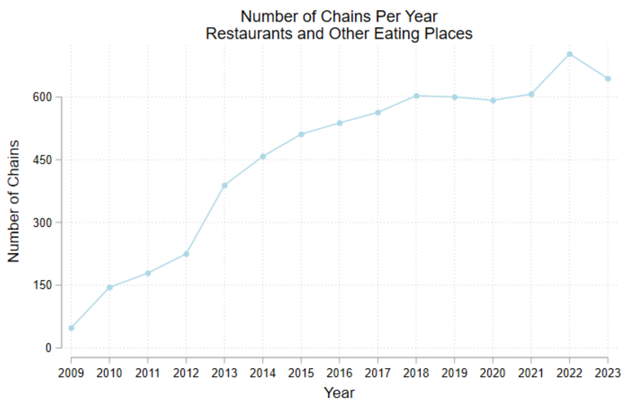
5. Can you pick and choose which products or services to sell, or must you sell all of the products or services mandated by the corporate headquarters? [I can choose / I cannot choose]

6. If you wanted to sell your franchise business, can you sell to whomever you want, does the corporate headquarters restrict whom you can sell to, or are you obligated to sell only to the corporate headquarter? [I can sell to whomever I want / The corporate headquarters restricts whom I can sell to / I can only sell to the franchisor]

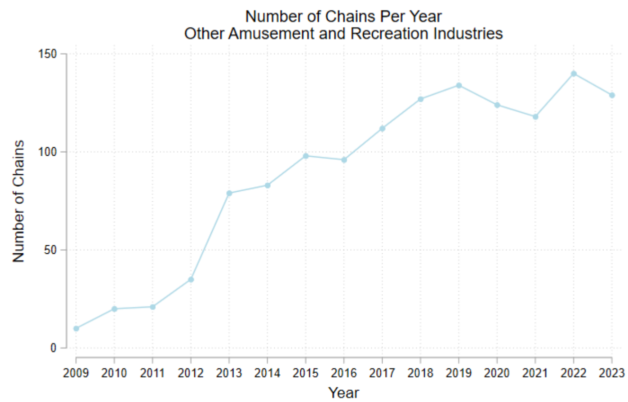
C Restraint Prevalence by Industry

Section 4.3 addresses variation in restraint prevalence by industry, which we report in this appendix, in addition to the count of chains for each of the top 10 industries in the panel over time.

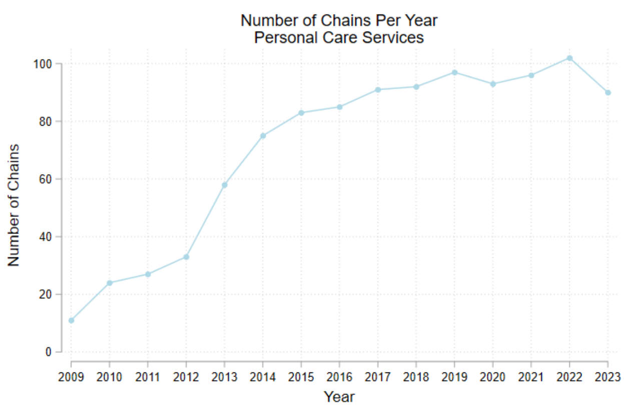
Figure C.1. Count of Chains in Each of the Top 10 Industries in the Franchise Chain Panel Dataset, 2009-2023.



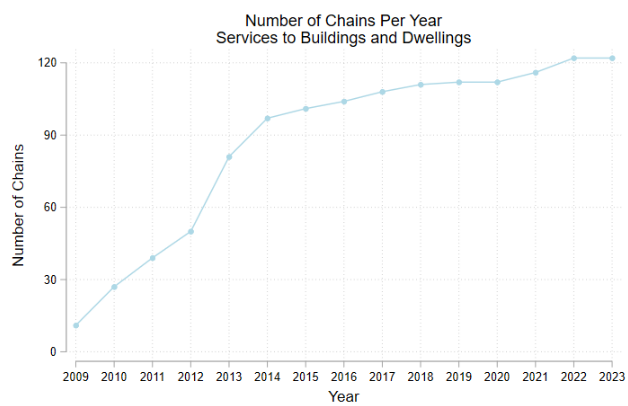
(A) Restaurants & Other Eating Places



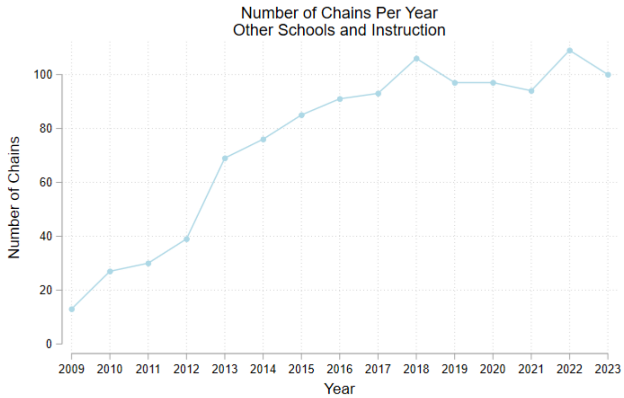
(B) Other Amusement & Recreation



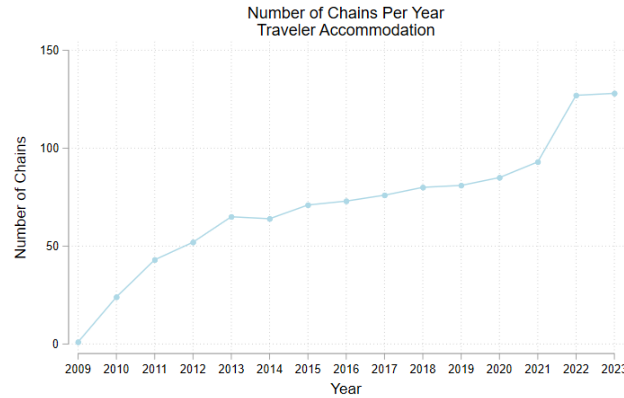
(C) Personal Care Services



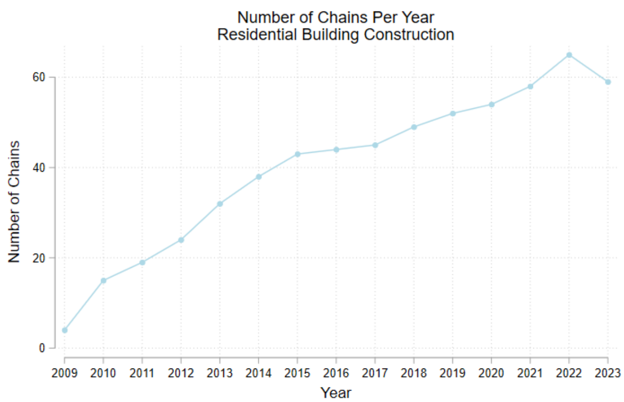
(D) Services to Buildings & Dwellings



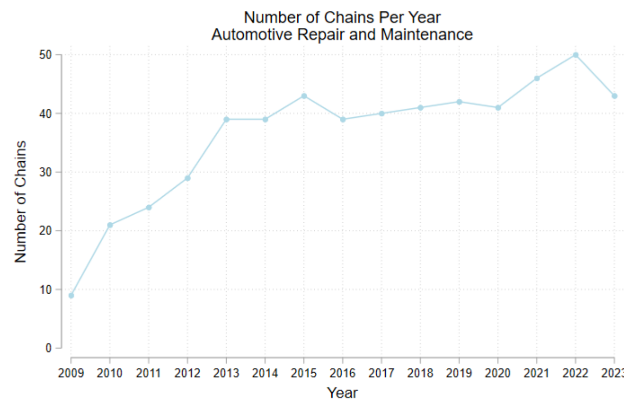
(E) Other Schools & Instruction



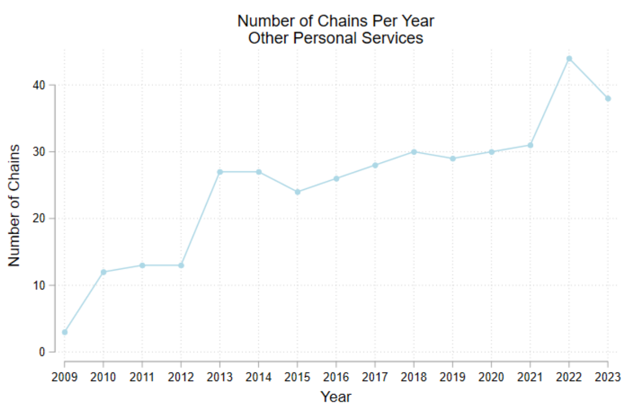
(F) Traveler Accommodation



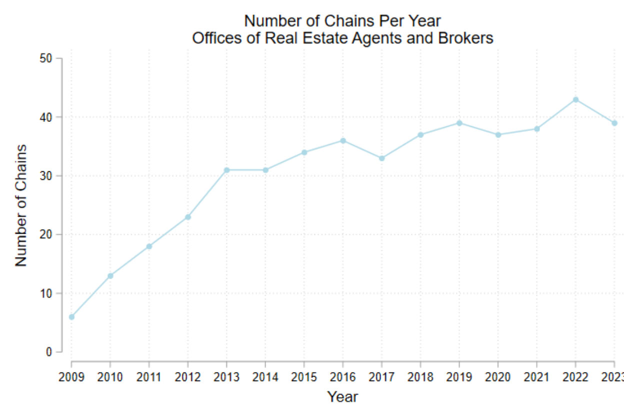
(G) Residential Building Construction



(H) Automotive Repair & Maintenance

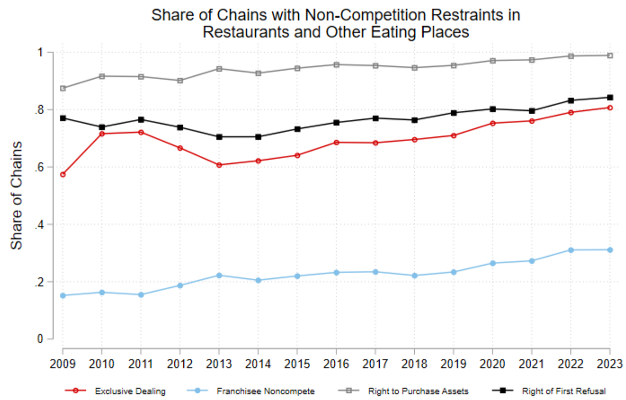


(I) Other Personal Services

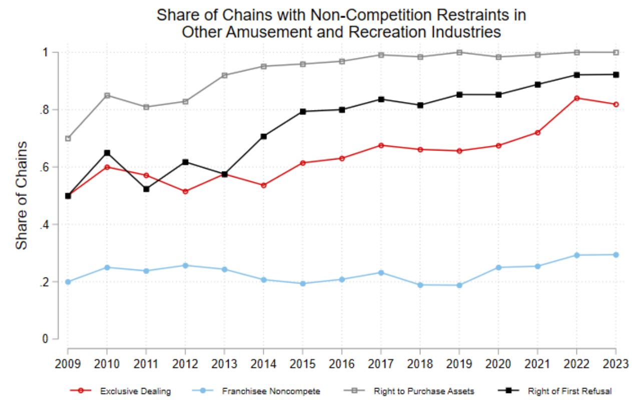


(J) Real Estate Agents

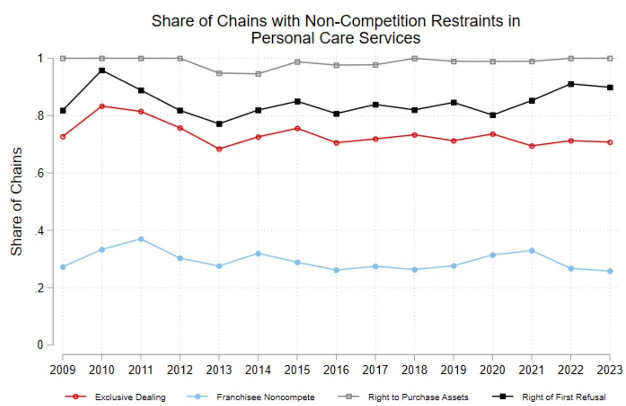
Figure C.2. Non-Competition Restraint Prevalence in Each of the Top 10 Industries in the Franchise Chain Panel Dataset, 2009-2023.



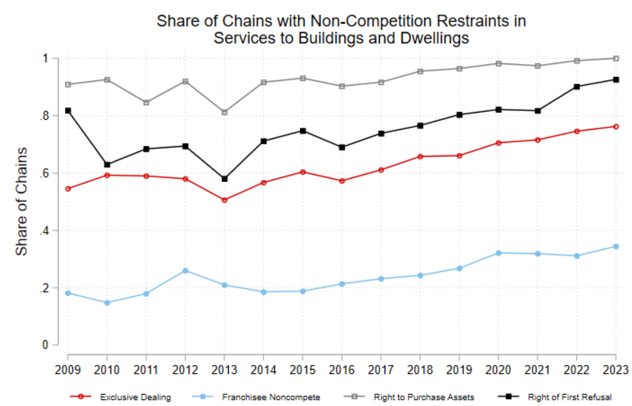
(A) Restaurants & Other Eating Places



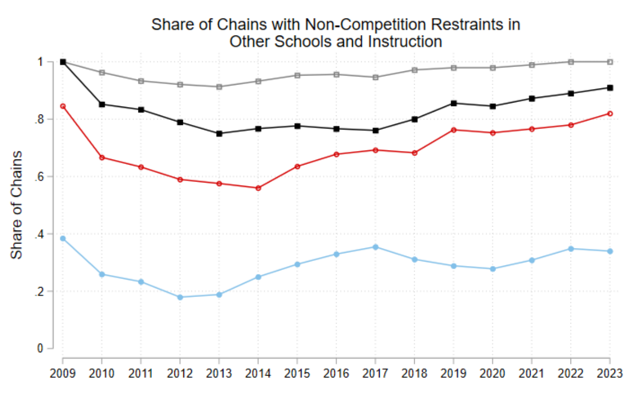
(B) Other Amusement & Recreation Industries



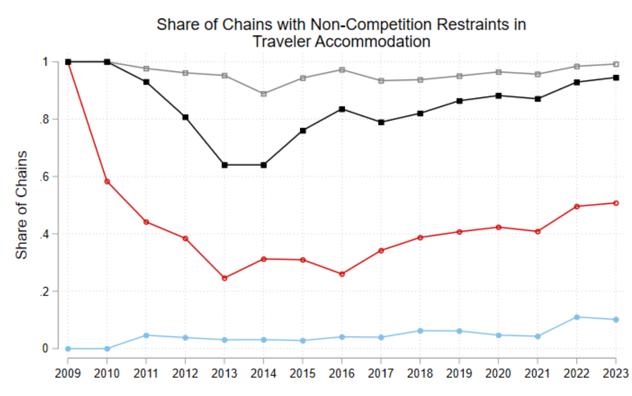
(C) Personal Care Services



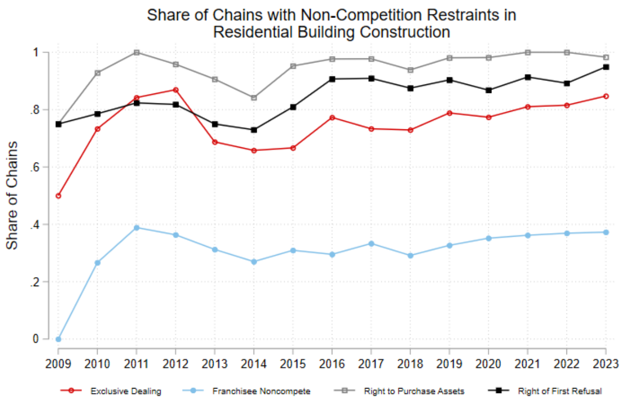
(D) Services to Buildings and Dwellings



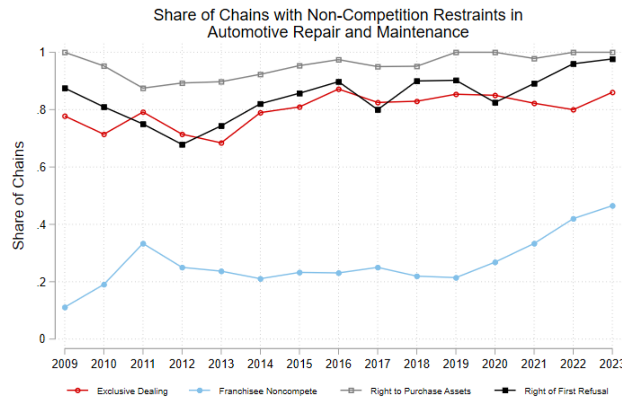
(E) Other Schools and Instruction



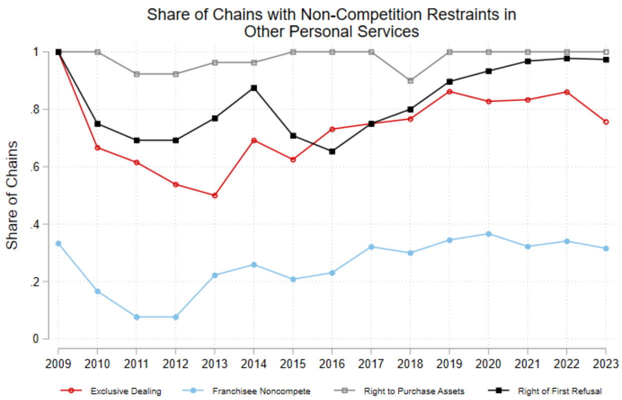
(F) Traveler Accommodation



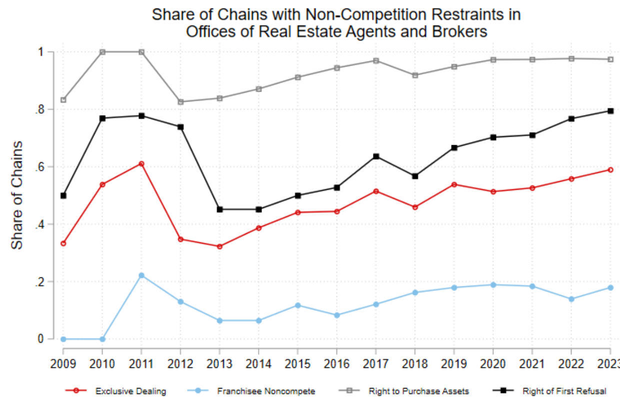
(G) Residential Building Construction



(H) Automotive Repair and Maintenance

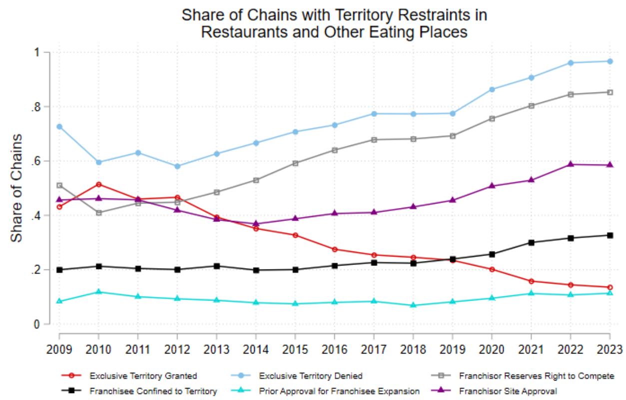


(I) Other Personal Services

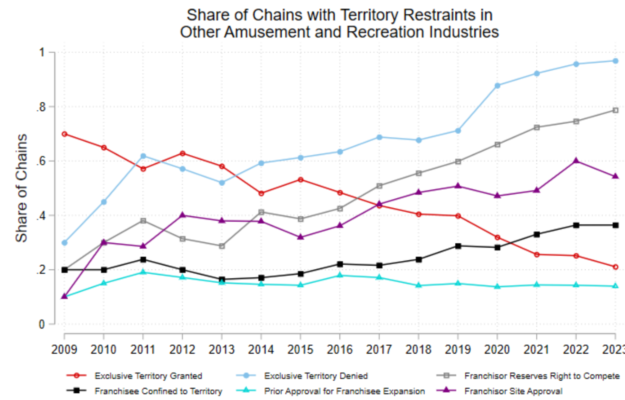


(J) Offices of Real Estate Agents and Brokers

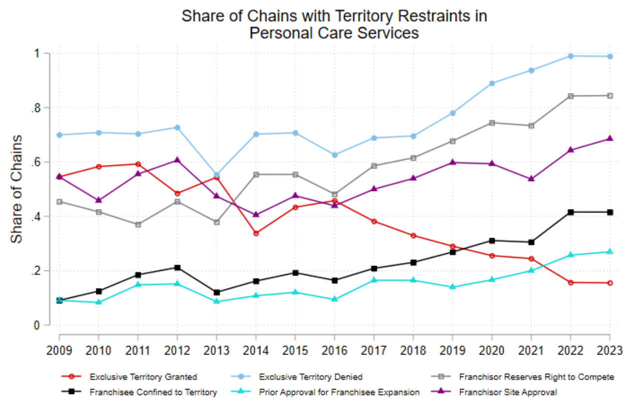
Figure C.3. Exclusive Territory Restraint Prevalence in Each of the Top 10 Industries in the Franchise Chain Panel Dataset, 2009-2023.



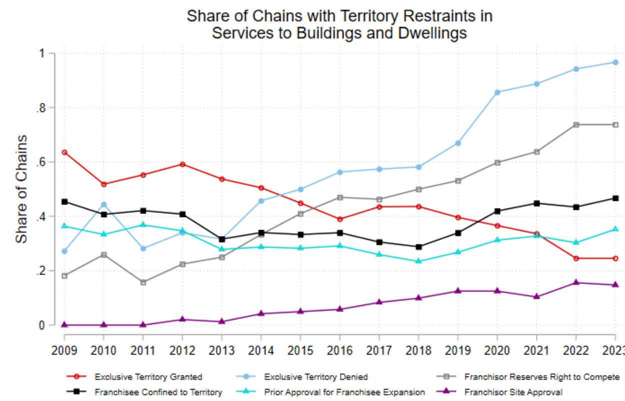
(A) Restaurants & Other Eating Places



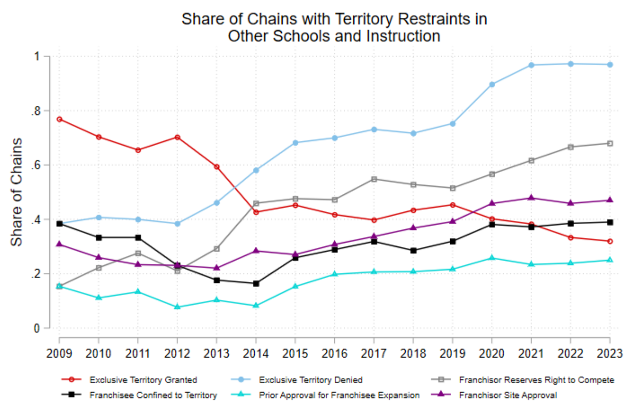
(B) Other Amusement & Recreation Industries



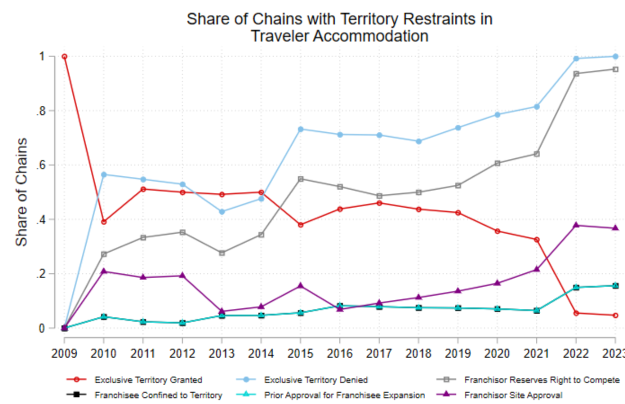
(C) Personal Care Services



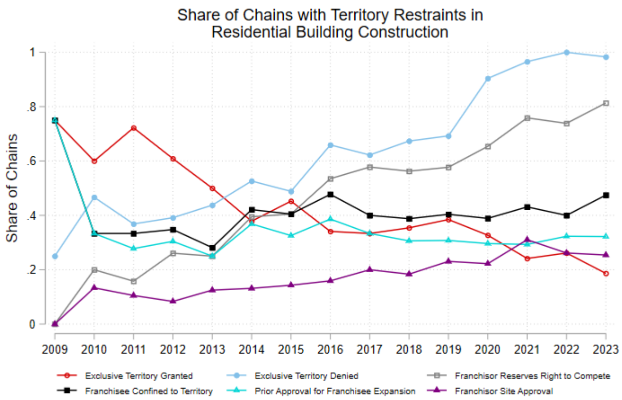
(D) Services to Buildings and Dwellings



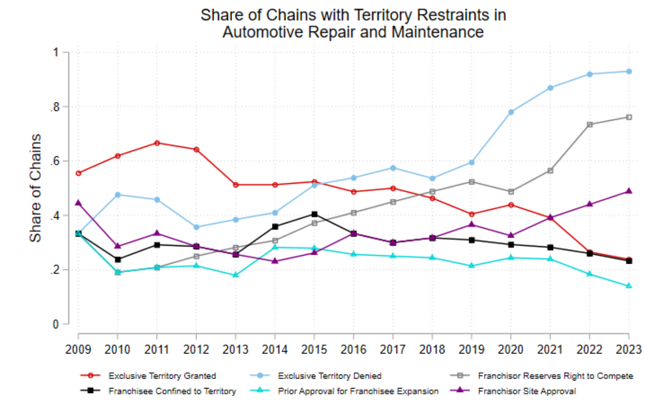
(E) Other Schools and Instruction



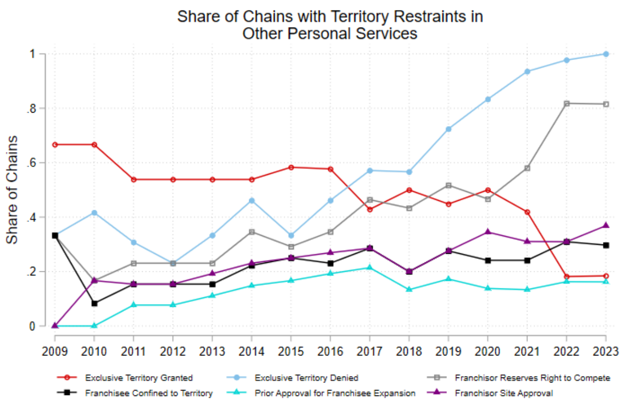
(F) Traveler Accommodation



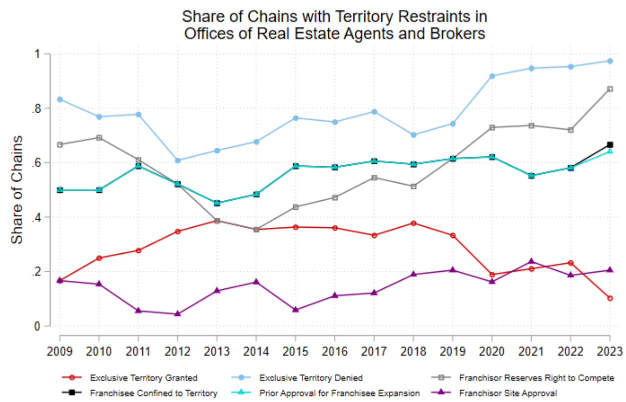
(G) Residential Building Construction



(H) Automotive Repair and Maintenance

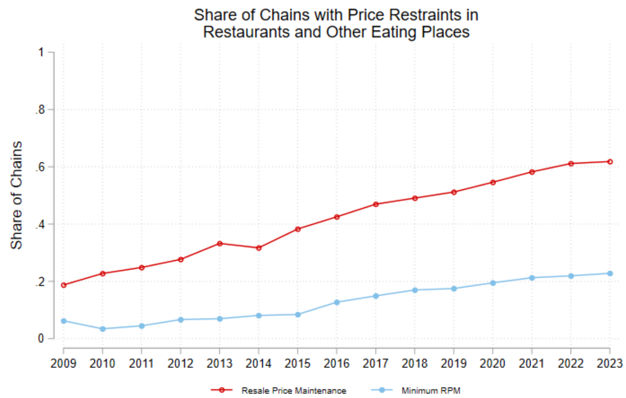


(I) Other Personal Services

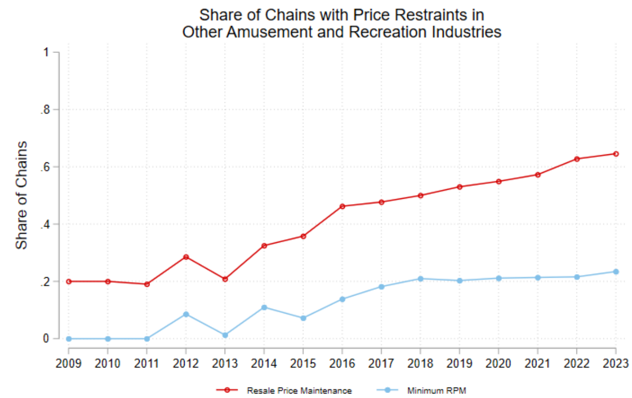


(J) Offices of Real Estate Agents and Brokers

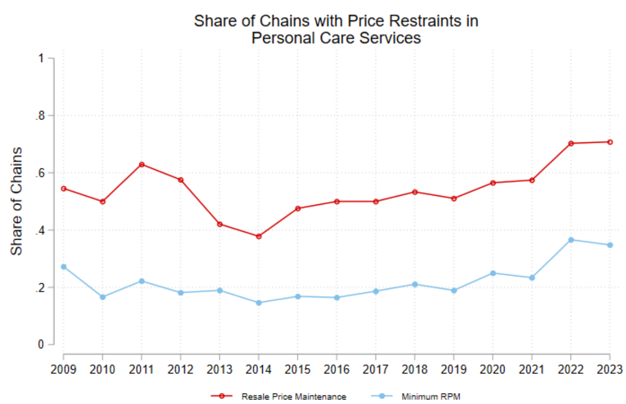
Figure C.4. Retail Price Restraint Prevalence in Each of the Top 10 Industries in the Franchise Chain Panel Dataset, 2009-2023.



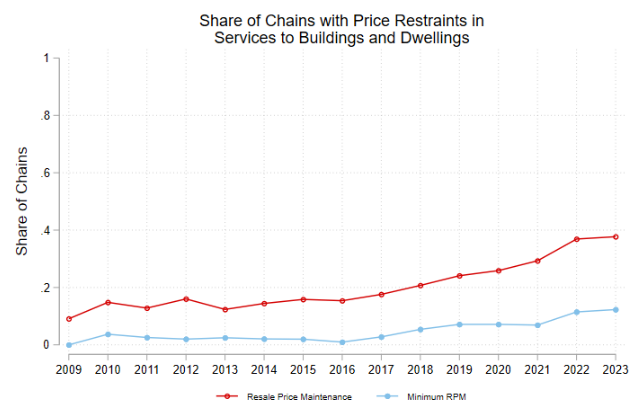
(A) Restaurants & Other Eating Places



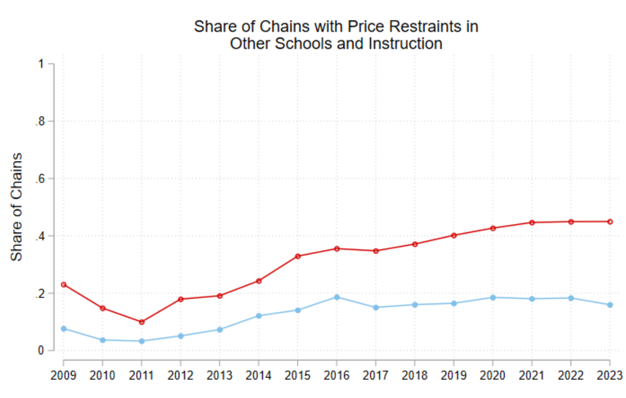
(B) Other Amusement & Recreation Industries



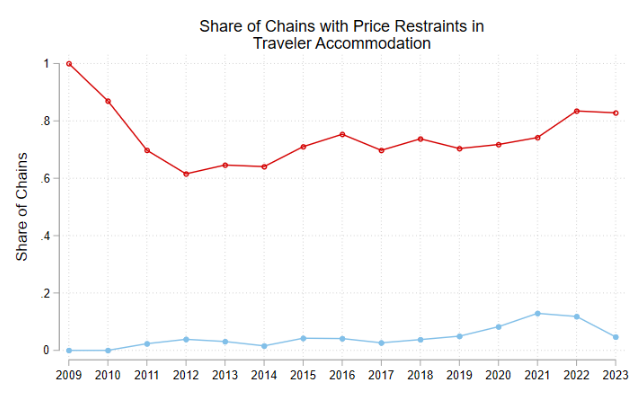
(C) Personal Care Services



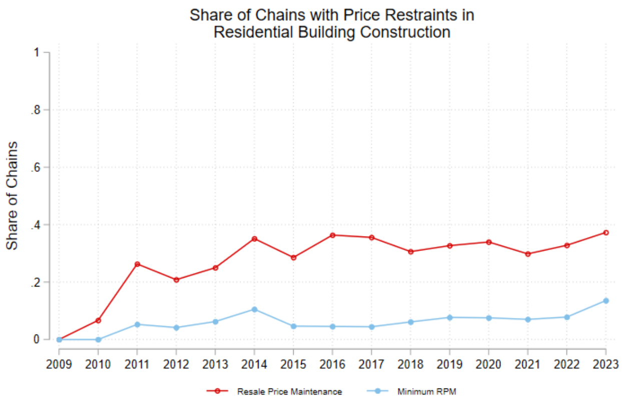
(D) Services to Buildings and Dwellings



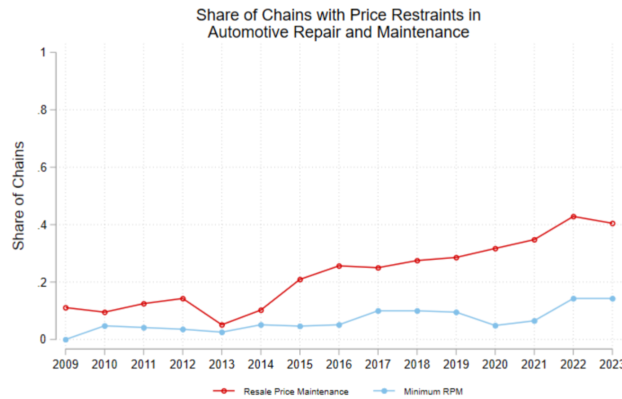
(E) Other Schools and Instruction



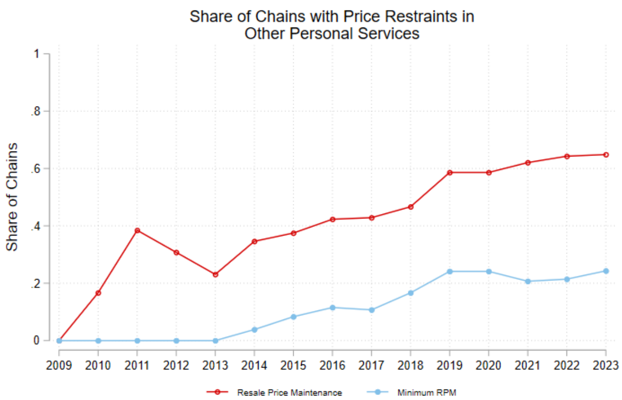
(F) Traveler Accommodation



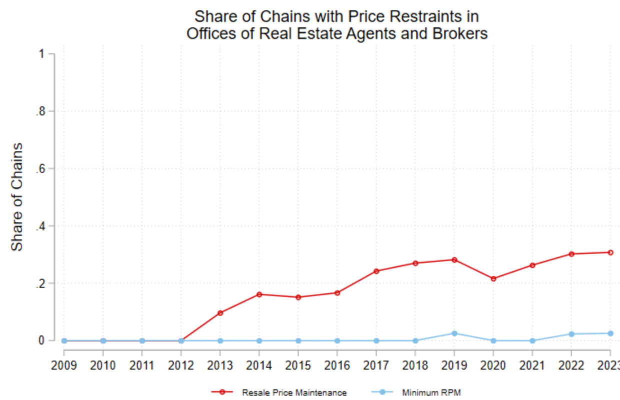
(G) Residential Building Construction



(H) Automotive Repair and Maintenance

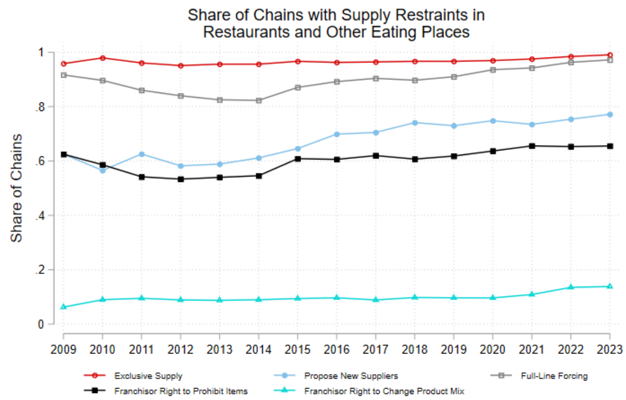


(I) Other Personal Services

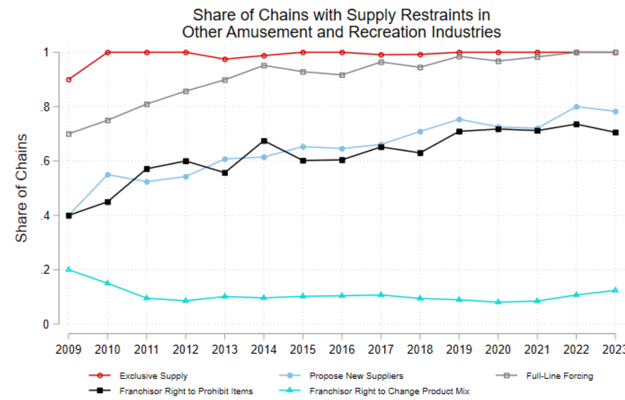


(J) Offices of Real Estate Agents and Brokers

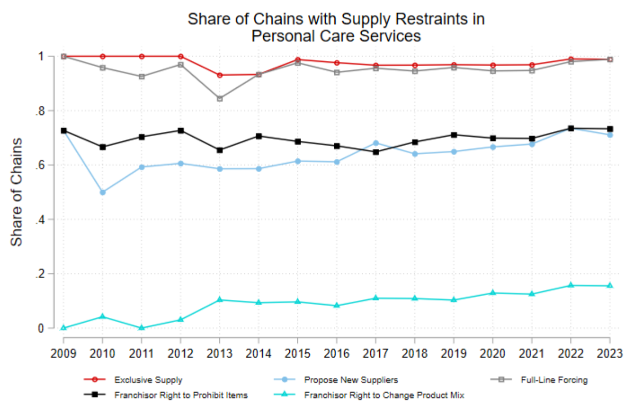
Figure C.5. Exclusive Supply Restraint Prevalence in Each of the Top 10 Industries in the Franchise Chain Panel Dataset, 2009-2023.



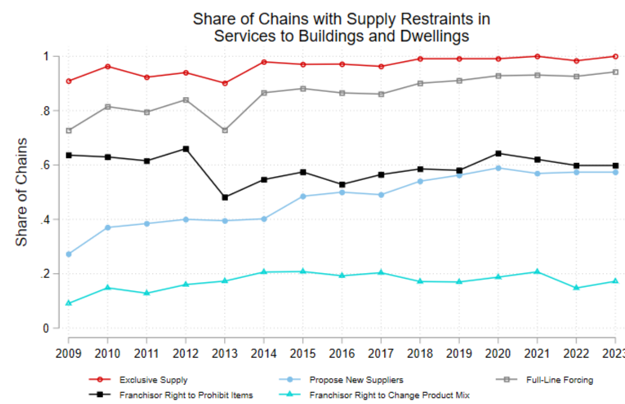
(A) Restaurants & Other Eating Places



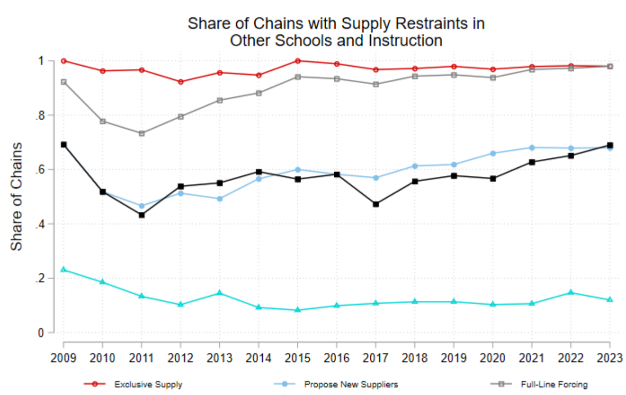
(B) Other Amusement & Recreation Industries



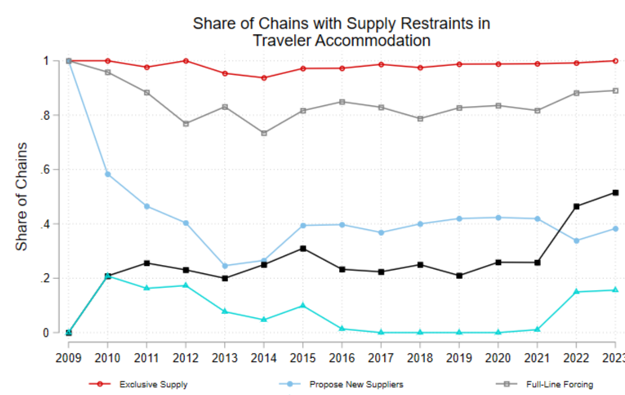
(C) Personal Care Services



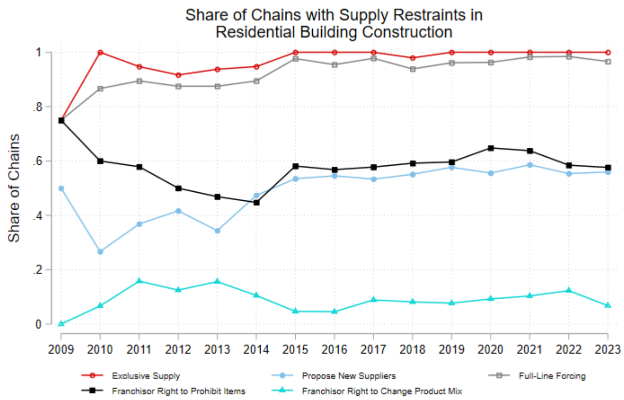
(D) Services to Buildings and Dwellings



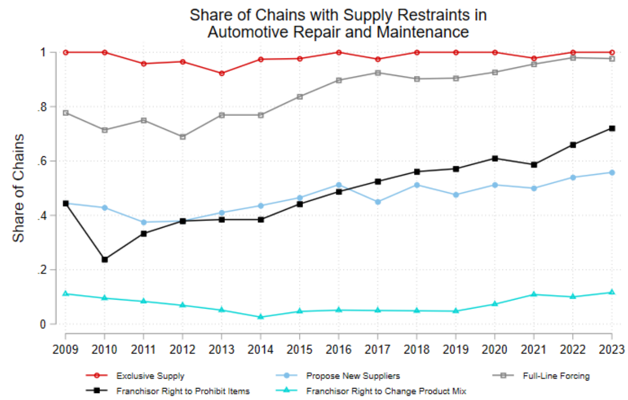
(E) Other Schools and Instruction



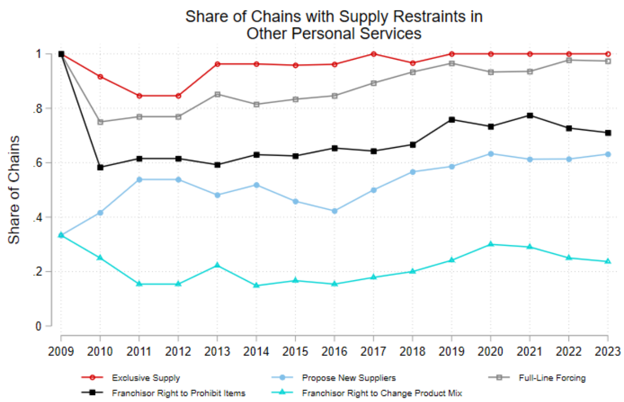
(F) Traveler Accommodation



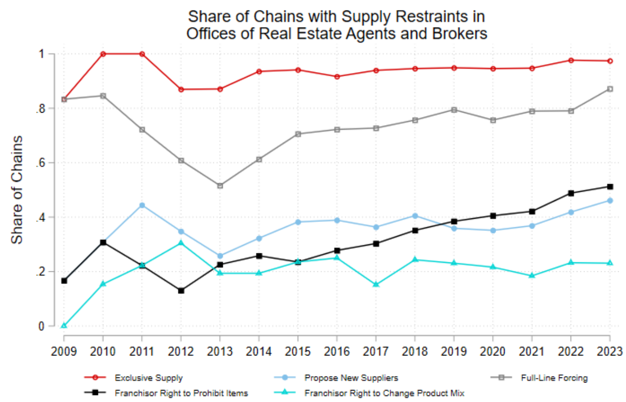
(G) Residential Building Construction



(H) Automotive Repair and Maintenance

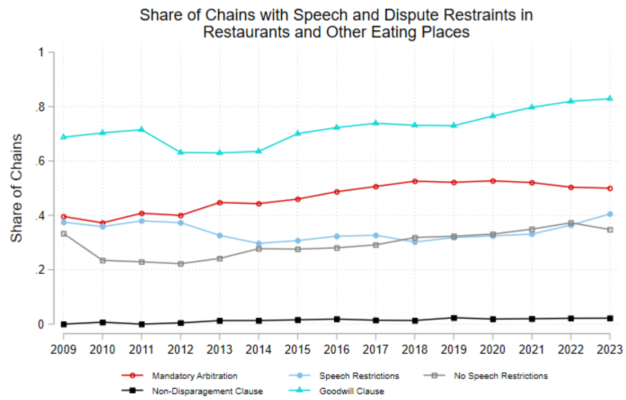


(I) Other Personal Services

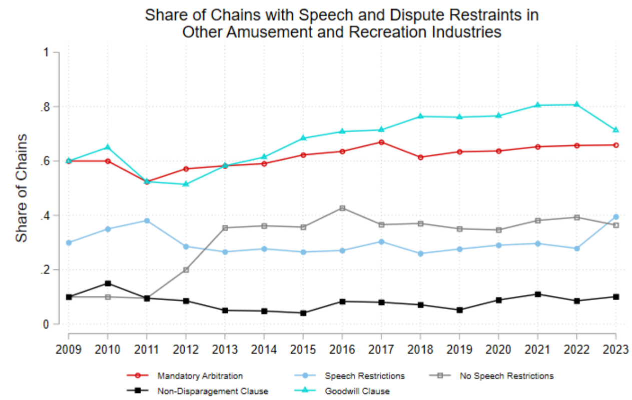


(J) Offices of Real Estate Agents and Brokers

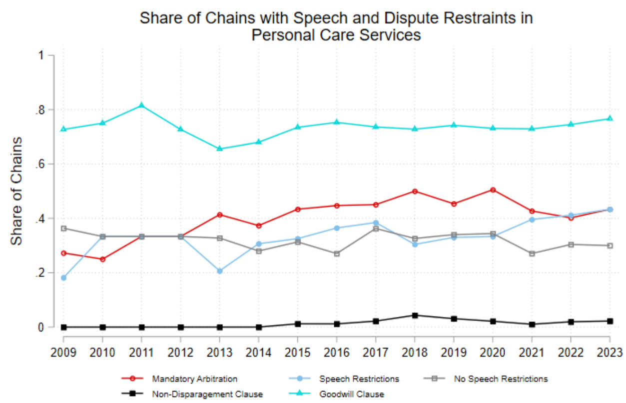
Figure C.6. Dispute Resolution and Speech Restraint Prevalence in Each of the Top 10 Industries in the Franchise Chain Panel Dataset, 2009-2023.



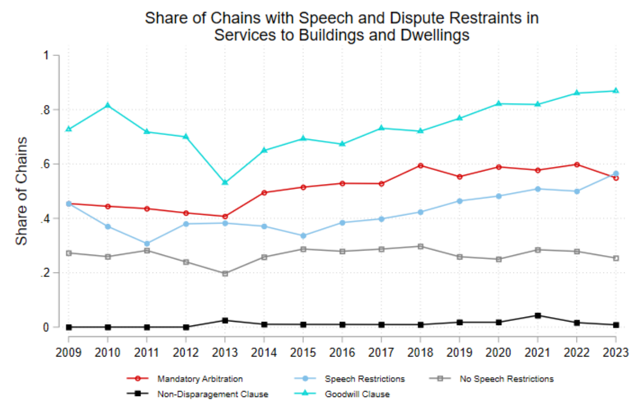
(A) Restaurants & Other Eating Places



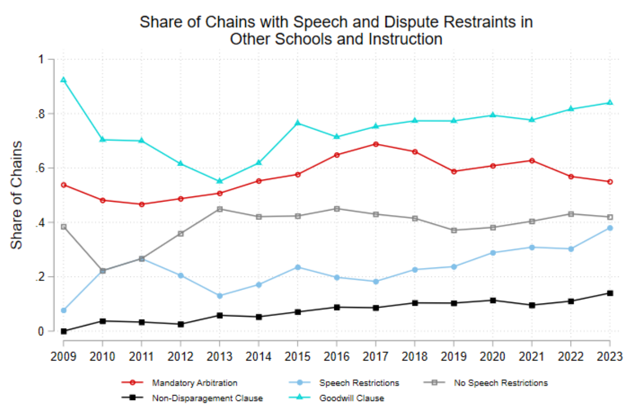
(B) Other Amusement & Recreation Industries



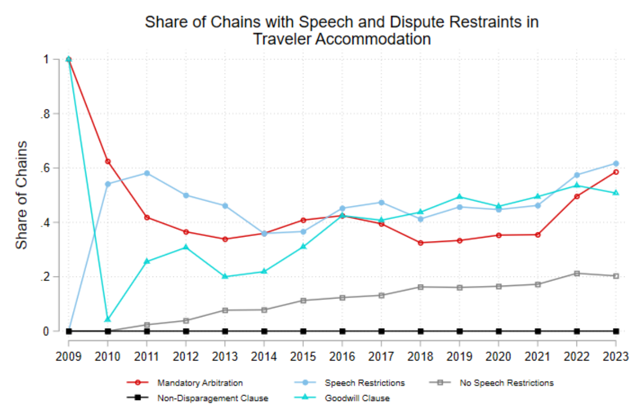
(C) Personal Care Services



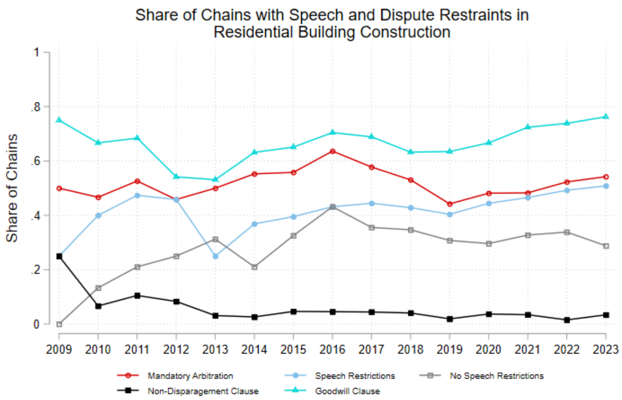
(D) Services to Buildings and Dwellings



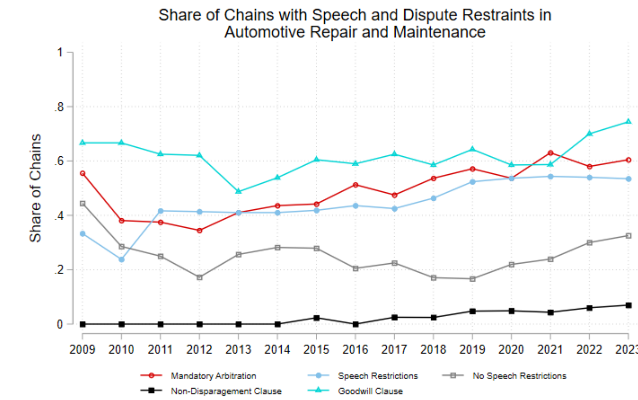
(E) Other Schools and Instruction



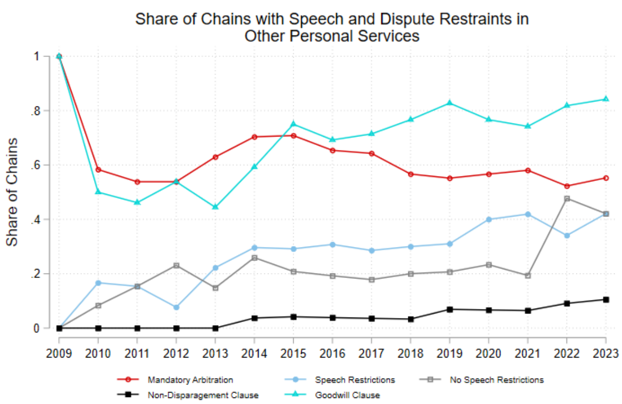
(F) Traveler Accommodation



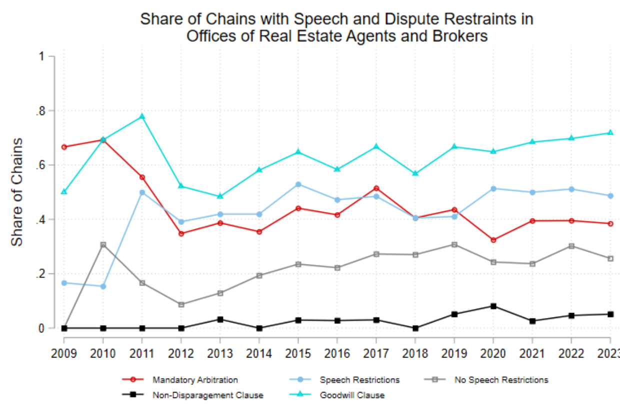
(G) Residential Building Construction



(H) Automotive Repair and Maintenance

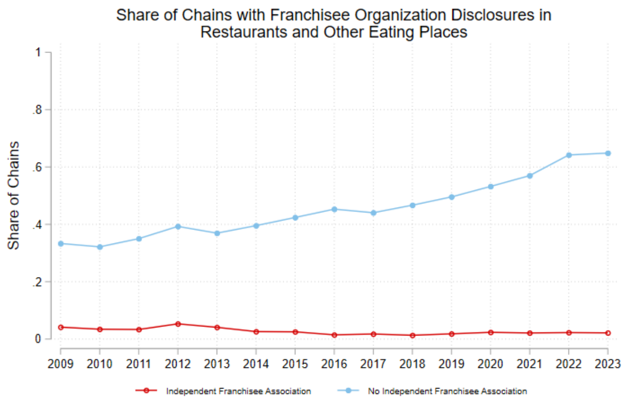


(I) Other Personal Services

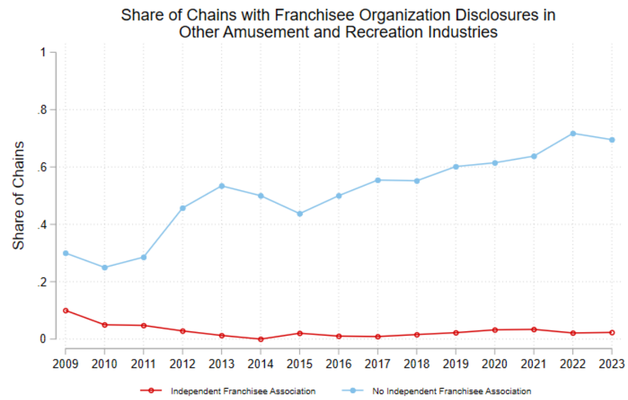


(J) Offices of Real Estate Agents and Brokers

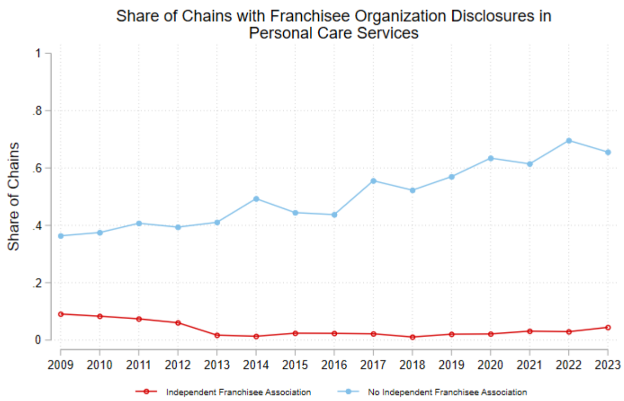
Figure C.7. Franchisee Organization Prevalence in Each of the Top 10 Industries in the Franchise Chain Panel Dataset, 2009-2023.



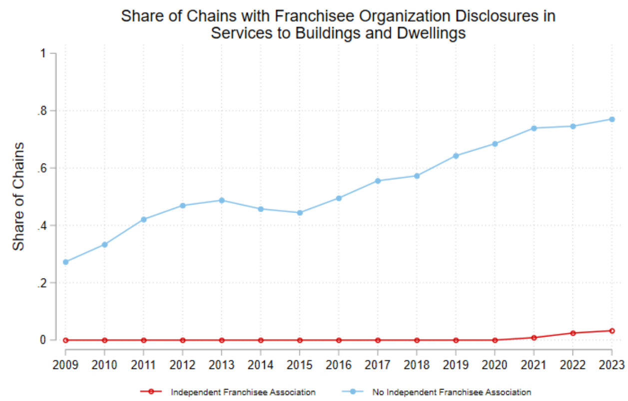
(A) Restaurants & Other Eating Places



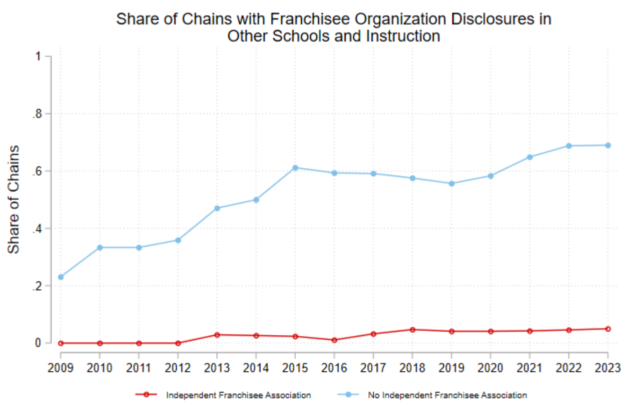
(B) Other Amusement & Recreation Industries



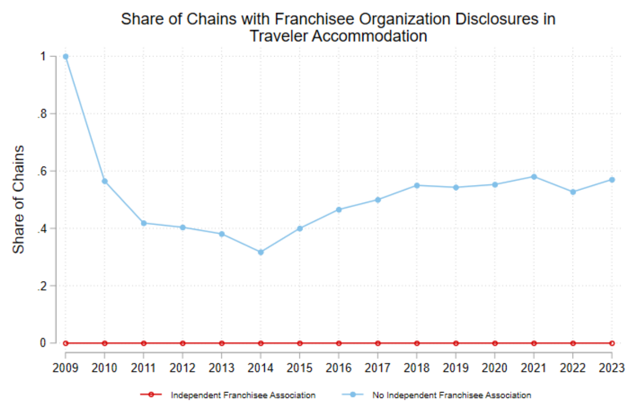
(C) Personal Care Services



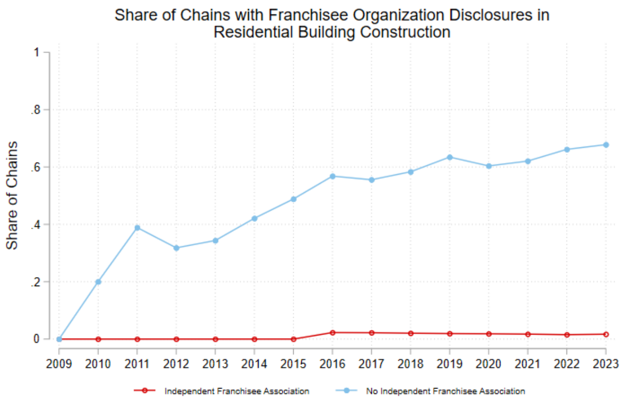
(D) Services to Buildings and Dwellings



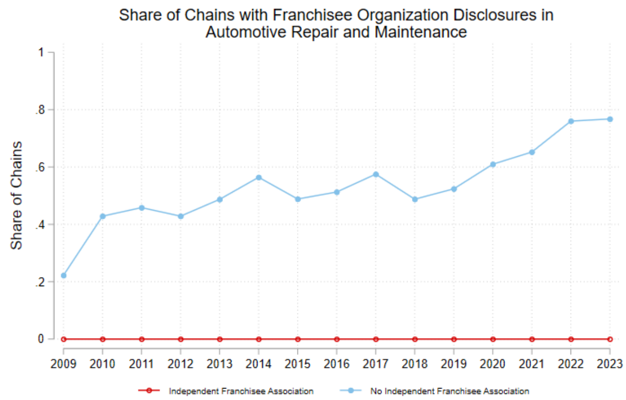
(E) Other Schools and Instruction



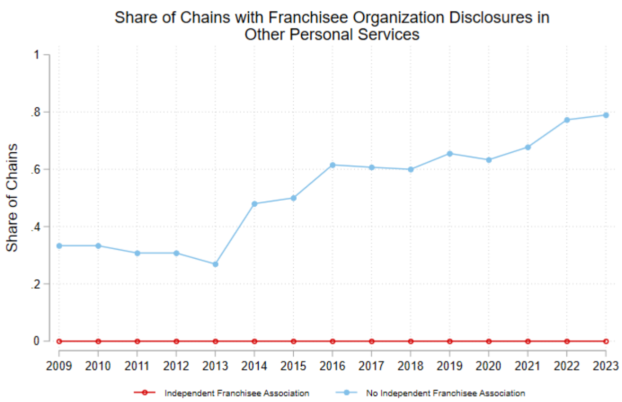
(F) Traveler Accommodation



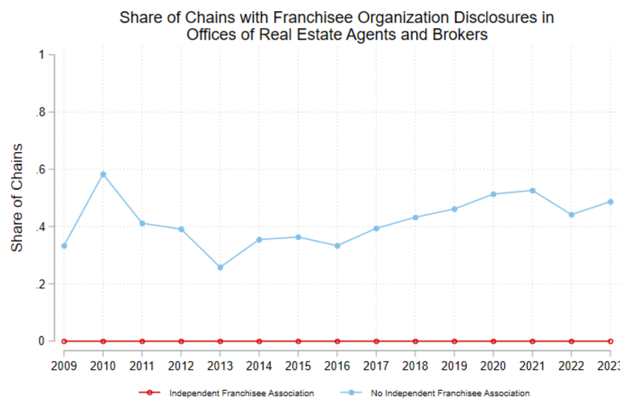
(G) Residential Building Construction



(H) Automotive Repair and Maintenance

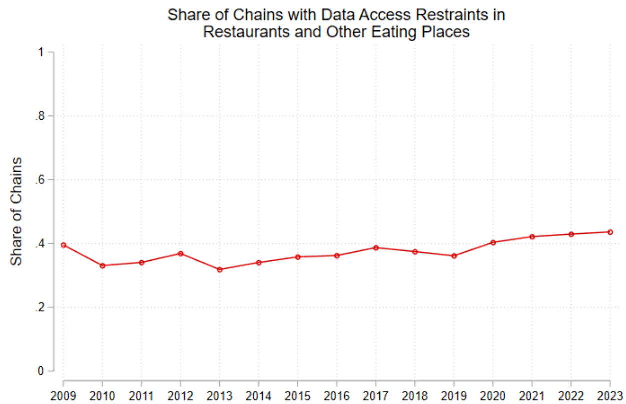


(I) Other Personal Services

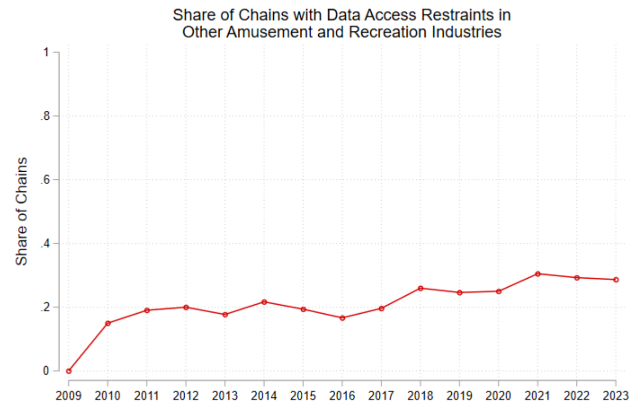


(J) Offices of Real Estate Agents and Brokers

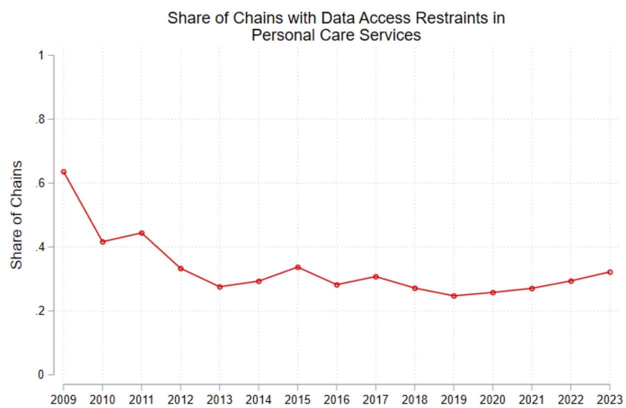
Figure C.8. Data Access Restraint Prevalence in Each of the Top 10 Industries in the Franchise Chain Panel Dataset, 2009-2023.



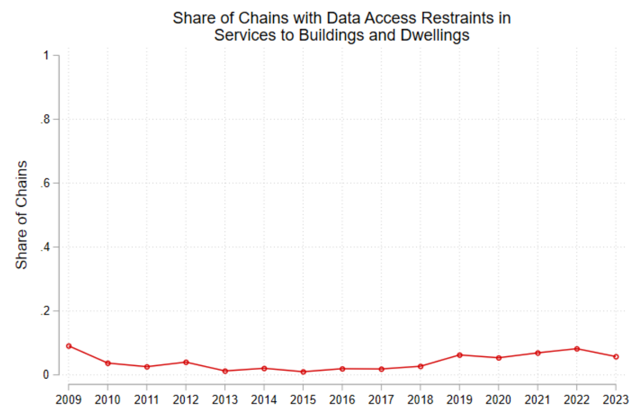
(A) Restaurants & Other Eating Places



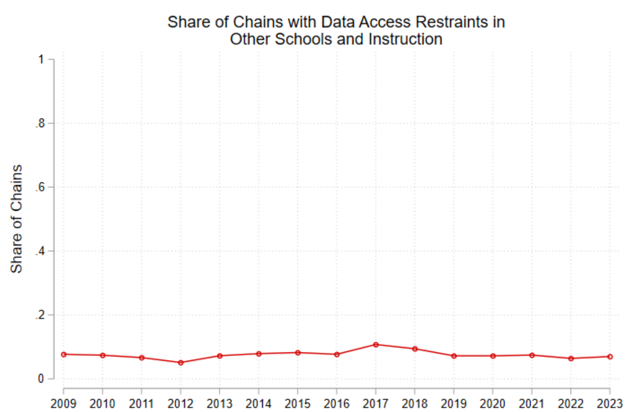
(B) Other Amusement & Recreation Industries



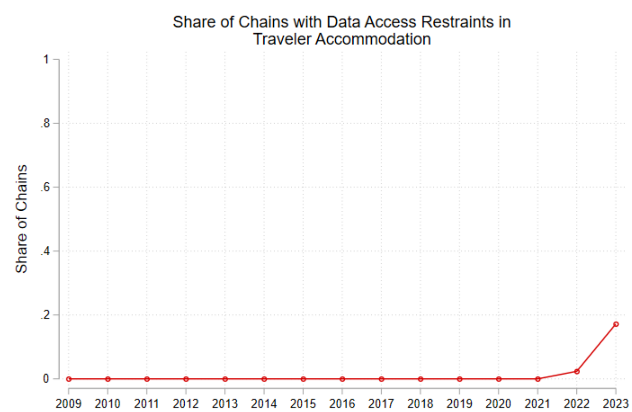
(C) Personal Care Services



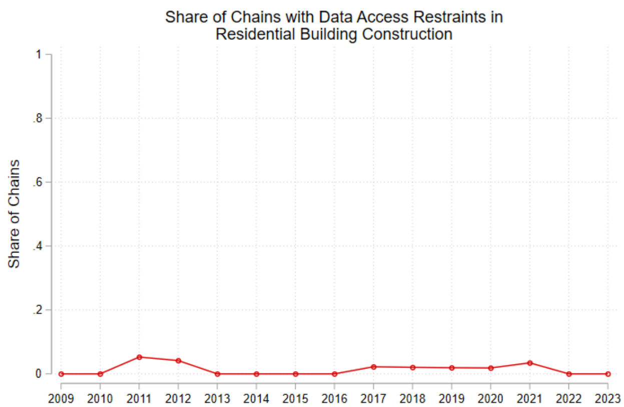
(D) Services to Buildings and Dwellings



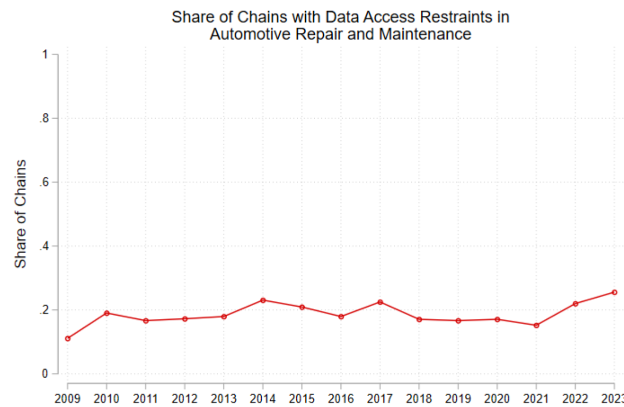
(E) Other Schools and Instruction



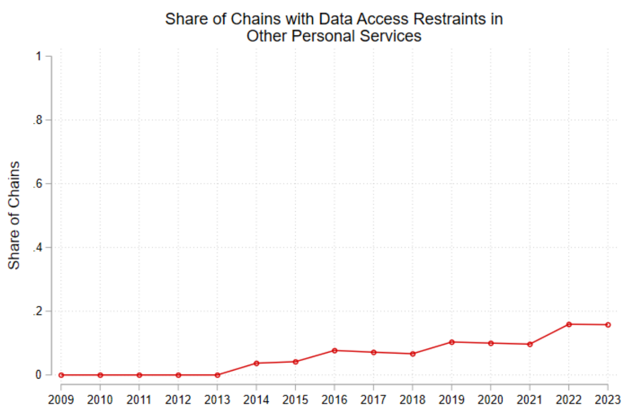
(F) Traveler Accommodation



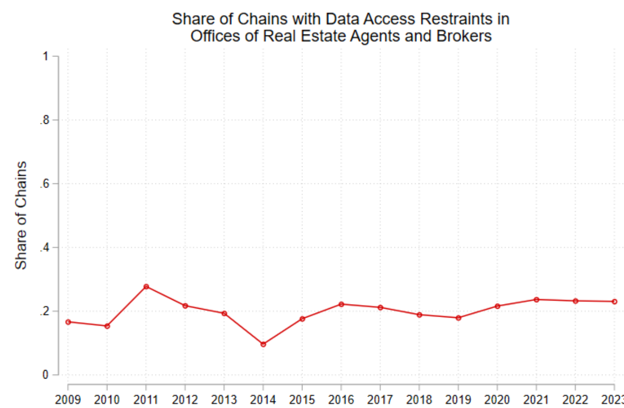
(G) Residential Building Construction



(H) Automotive Repair and Maintenance

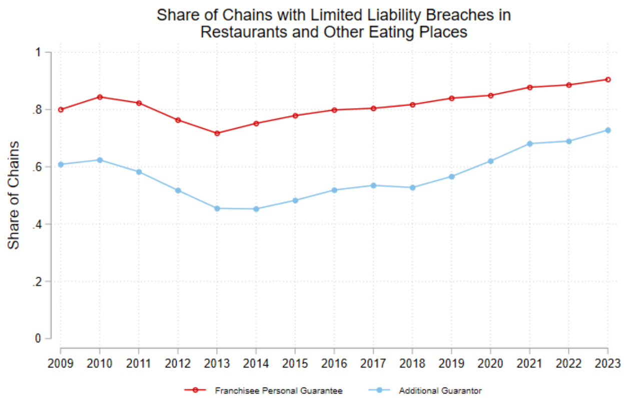


(I) Other Personal Services

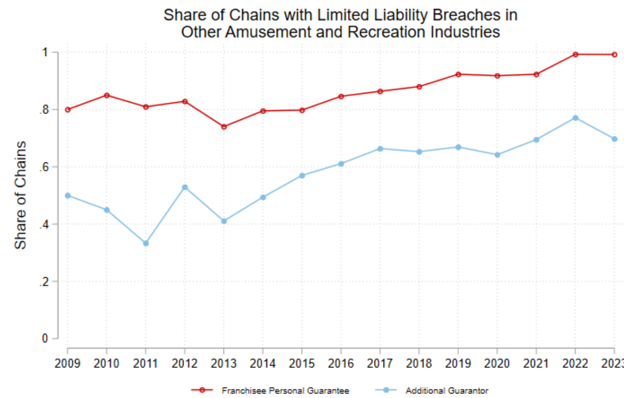


(J) Offices of Real Estate Agents and Brokers

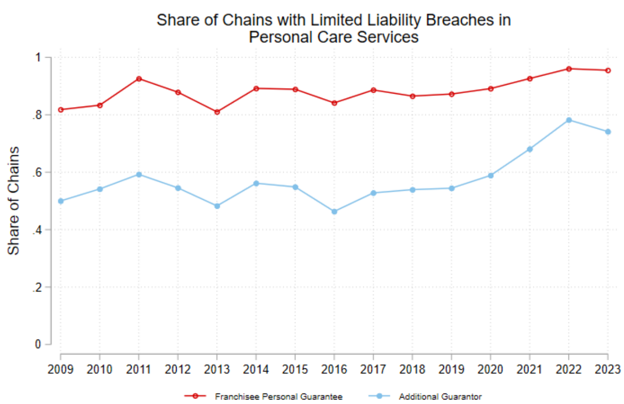
Figure C.9. Prevalence of Limited Liability Breaches in Each of the Top 10 Industries in the Franchise Chain Panel Dataset, 2009-2023.



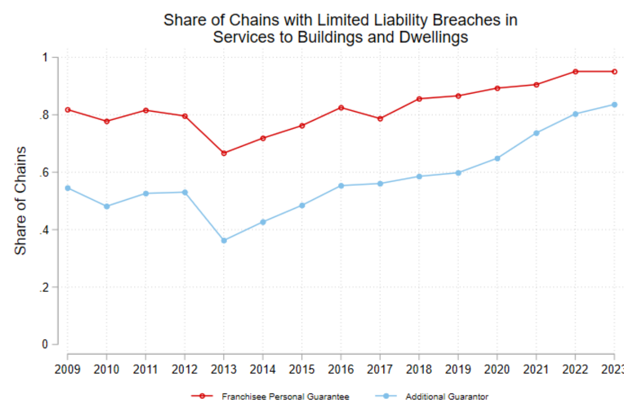
(A) Restaurants & Other Eating Places



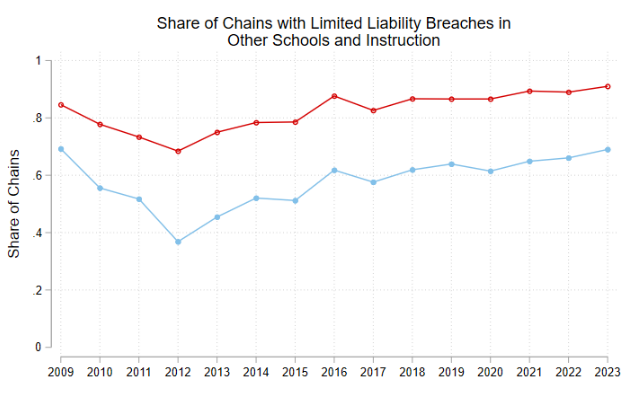
(B) Other Amusement & Recreation Industries



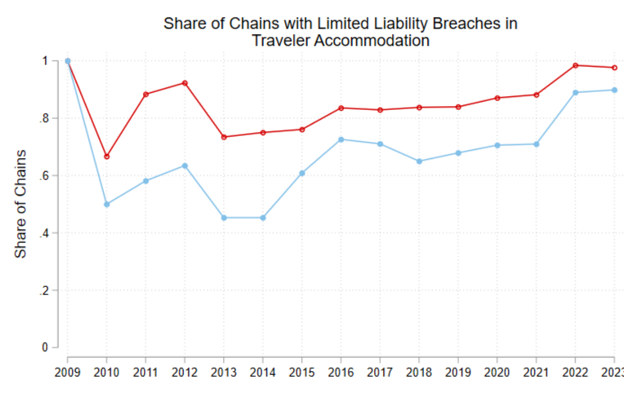
(C) Personal Care Services



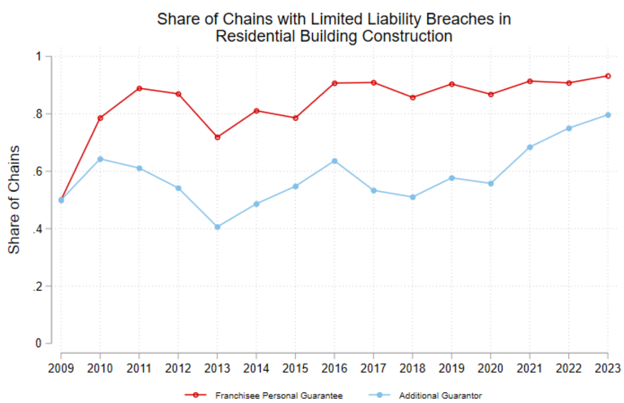
(D) Services to Buildings and Dwellings



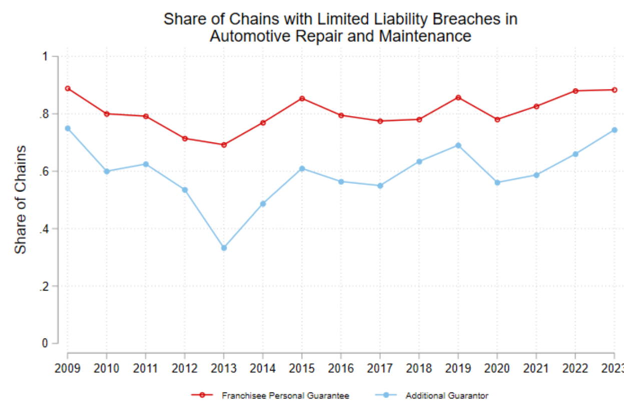
(E) Other Schools and Instruction



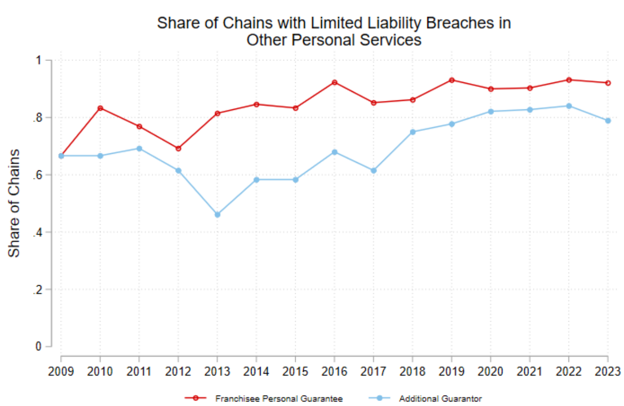
(F) Traveler Accommodation



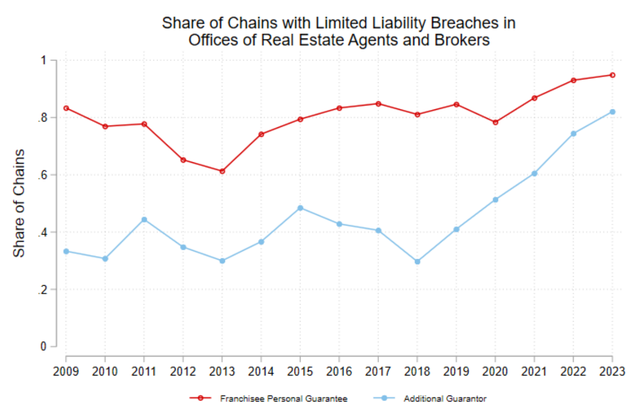
(G) Residential Building Construction



(H) Automotive Repair and Maintenance



(I) Other Personal Services



(J) Offices of Real Estate Agents and Brokers