

Real Estate Brokers' Duties to Their Clients: Why Some States Mandate Minimum Service Requirements

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Abstract

This study attempts to determine why certain states have adopted real estate broker minimum service laws in the United States. The federal government and academic literature assume that such laws were the result of anticompetitive industry collusion and, therefore, serve no consumer protection justification. Using hazard models and state data over 8 years, however, we find that factors reflecting state brokerage influence—strong industry associations and broker membership on licensing boards—do not result in the enactment of minimum service laws. Factors suggesting consumer protection motivations—greater number of complaints against brokers, stricter precensing requirements, and a Democratic state legislature—increase the likelihood of law adoption.

Introduction

Ten states have recently enacted laws requiring a real estate broker¹ to provide a real estate consumer (buyer, seller, landlord, or tenant) with a minimum level of services, including requirements to help negotiate, to present and receive offers, and to answer questions. The U.S. Department of Justice (DOJ) Antitrust Division and the U.S. Federal Trade Commission (FTC) both oppose these

¹ In most states, a “broker” enters into an agency agreement with a client, and a “salesperson” works for a broker. Both brokers and salespersons who represent a client are “agents” of the client. Both also need to be licensed by their state to engage in the real estate business and, if licensed, are also referred to as “licensees.” Throughout this article, we use the term broker.

types of requirements on the grounds that they are anticompetitive, and both agencies lobbied heavily against state enactment. These types of laws are deemed anticompetitive, primarily because they prevent a limited-service real estate broker from contracting with a seller to provide only access to the brokerage multiple listing services (MLSs) for a flat fee.

The purpose of this article is to determine what factors might have compelled states to enact minimum service laws despite significant federal government opposition. The analytical structure employs hazard models, which use a unique and rich set of economic and institutional data for the housing market in a yearly panel of the 50 states and the District of Columbia from 2000 through 2007. According to this analysis, the strength of state industry associations and the presence of brokers on state licensing boards both have a *negative* influence on the likelihood that state minimum service laws will be adopted. State-level complaints against licensed brokers, Democratic control of the legislature, stricter preclicensing requirements, and greater population growth have a positive influence on the likelihood that state minimum service laws will be adopted.

Following this introduction, this article is divided into seven sections. The first section discusses previous literature on minimum service laws for real estate brokers. The second section reviews the various categories of minimum service laws and considers the legislative backgrounds of states that have passed laws that require brokers to provide consumers with a minimum level of services. The theoretical hypotheses about the probability that a state will pass minimum service laws are discussed in the third section. The institutional and economic variables that influence the enactment of minimum service laws are introduced in the fourth section. The fourth section also contains hypotheses concerning the relationships between minimum service law adoption and selected independent variables. The fifth section presents the empirical method used in this study. The sixth section analyzes, compares, and contrasts the results obtained from different model specifications. The final section is a summary of findings from this study, which offer potential state legislative policy trends.

Previous Literature

A report, *Competition in the Real Estate Brokerage Industry*, compiled and published by the FTC and DOJ in April 2007 (FTC and DOJ, 2007), addresses the effect of minimum service requirements on brokerage competition and defines minimum service requirements as “laws and regulations that enumerate specific tasks that a broker must perform for a client.”² Missouri brokerage law is used as an example. In Missouri, all brokers entering into an exclusive brokerage agreement must (1) accept delivery of and present offers and counteroffers to clients and customers; (2) help clients and customers develop, communicate, negotiate, and present offers, counteroffers, and disclosure notices; and (3) answer clients’ and customers’ questions relating to offers, counteroffers, disclosure notices, and contingencies.

² It is important to distinguish between minimum service laws that increase the brokerage services a consumer must purchase as opposed to laws that define the special agency relationship between a broker and client. Many states have provisions codifying common law agency fiduciary duties of obedience, loyalty, disclosure, confidentiality, accounting, and reasonable care; these types of laws are not considered minimum service laws.

The DOJ and FTC strongly assert that such minimum service requirements are anticompetitive because they reduce a consumer's choice of real estate brokerage services, force real estate consumers to buy services they may not want, and block limited-service brokers from offering less than a full package of real estate brokerage services. Although the report considers the claims of supporters who assert that such laws protect both consumers and brokers, the DOJ and FTC conclude that no evidence exists to support these claims.

Very little academic literature exists on real estate broker minimum service laws. A handful of authors have examined the issue tangentially when analyzing whether the real estate brokerage service industry is competitive. Hahn, Litan, and Gurman (2006) identified state legislation establishing minimum service requirements as one impediment to competition. Based on a review of the academic literature and on interviews with real estate industry participants, the U.S. Government Accountability Office (GAO) concluded that widespread use of the Internet in real estate transactions should encourage more brokerage price variation, but may be hindered by obstacles such as minimum service laws (GAO, 2006). Miceli, Pancak, and Sirmans (2007) determined that minimum service laws might be an attempt to prop up a brokerage compensation scheme that while possibly in the best interests of brokers, is not in the consumer's interest. Magura (2007) proposed that state minimum service laws have a chilling effect on broker price-cutting by accommodating broker-steering behavior. White (2006) observed that mandatory minimum service requirements for sellers' brokers eliminated competition from discount brokers whose only service would be to provide access to an MLS.

Levitt and Syverson (2008) analyzed whether any consumer protection justifications for broker minimum service laws exist. They compared variables for houses listed with limited-service brokers with those listed with full-service brokers. They found that houses listed with limited-service brokers take longer to sell but eventually sell at similar prices to those listed with full-service brokers. They weighed the tradeoff between the lower fees charged by a limited-service broker and the longer time on the market, and reasoned that consumers using limited-service, flat-fee brokers were not worse off than those using full-service, full-commission brokers. Based on this analysis, their conclusion stated that broker minimum service laws are not needed to protect consumers.

Pancak (2008) examined specific state brokerage laws that could be interpreted as requiring a minimum level of services. Identifying a wide range of regulatory provisions, she compared state provisions with the DOJ's website that lists states with minimum service laws.³ She found that the DOJ list was incomplete and incorrect. One primary weakness of the DOJ list is that some states with language requiring brokers to "present offers in a timely manner" are included on the anticompetitive list, but others are not. Without clear legislative history to the contrary, she concluded that these types of provisions should be interpreted as requiring timely communication when an offer is transmitted to the broker, not requiring that brokers be available to accept and present offers.

³ The DOJ list is available at http://www.usdoj.gov/atr/public/real_estate/fee_details.htm. As of January 8, 2009, the DOJ listed the District of Columbia and the following states as having limited choice because of minimum service requirements: Alabama, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Missouri, Oregon, South Dakota, Texas, Utah, Washington, and West Virginia.

Pancak determined the actual level of minimum service laws in all states and arranged them into four categories: states with minimum service requirements in all brokerage relationships, states with minimum service requirements in certain brokerage relationships, states requiring timely communication of offers, and states with waivable minimum service requirements and/or that require timely communication of offers. The data presented in the Pancak article are the basis for the dependent variable in this article.

Enactment of State Minimum Service Laws for Real Estate Brokers

Evidence presented below indicates that state REALTOR® associations have been primary supporters of state minimum service laws. The NATIONAL ASSOCIATION OF REALTORS® (NAR) has not formally endorsed state minimum service laws, noting that some state associations are in favor of such laws but others are not (NAR, 2005). NAR has offered legal advice about such legislation, emphasizing that associations have the right to propose and lobby for laws that they support, even if the law is deemed anticompetitive by federal agencies.⁴

Supporters of minimum service laws maintain that real estate consumers need to be able to expect certain services from a broker hired to represent them, and laws are needed to guarantee a minimum level of services (DOJ and FTC, 2007). In addition, if a seller working with a limited-service broker does not receive assistance from that broker, the seller may need to ask for assistance from the buyer's broker. Supporters also claim that the buyer's broker needs to be protected from having the additional work of assisting a seller because the seller does not pay the buyer's broker, and helping the seller may create a dual agency conflict of interest. Finally, some proponents of the law are concerned that a buyer's broker may not be compensated when a seller using a limited-service broker decides to deal directly with a buyer.

The DOJ and FTC have taken an aggressive stance against existing and proposed minimum service laws. The DOJ website lists its efforts to eliminate minimum service laws, including links to numerous press releases and letters to state governors, legislatures, and real estate commissions (USDOJ, 2009). The DOJ and FTC can only urge states not to pass laws or to change current laws because the federal government may not sue state legislatures (and boards acting according to legislative intent) for federal antitrust violations.⁵ The state agencies' efforts have been met with mixed reactions. Alabama, Idaho, Missouri, and Texas passed minimum service laws despite active federal opposition. New Mexico, Tennessee, and Michigan, however, changed proposed legislation to make minimum service laws waivable resulting from lobbying efforts made by the federal agencies.

⁴ Roberts (2005) quoting Laurie Janik, general counsel for NAR, April 22, 2005, letter to state REALTOR association executives.

⁵ This was decided in the U.S. Supreme Court case of *Parker v. Brown*, 317 U.S. 342 (1943). The DOJ, however, has sued NAR for the alleged anticompetitive nature of NAR's Virtual Office Website (VOW) policy; NAR had adopted a policy permitting brokers to selectively withhold or "opt out" of allowing other brokers to advertise MLS listing information on line. The DOJ and the Association settled this lawsuit in 2008.

In 2004, Illinois became the first state to adopt minimum service requirements, requiring all exclusive brokerage arrangements between a broker and client to specify that the broker will provide the following services:

- Accept delivery of and present to the client offers and counteroffers to buy, sell, or lease the client's property or the property the client seeks to purchase or lease.
- Help the client develop, communicate, negotiate, and present offers, counteroffers, and notices that relate to the offers and counteroffers until a lease or purchase agreement is signed and all contingencies are satisfied or waived.
- Answer the client's questions relating to the offers, counteroffers, notices, and contingencies.

No specific discussion occurred regarding the need for this new provision during the state senate consideration.⁶ The Illinois Association of REALTORS® reported that the purpose of the requirement is to “promote greater professionalism and accountability within the industry and to provide greater protections for real estate consumers.”⁷

An article in *Chicago Agent* entitled “The Value of Full Service” provides additional insight into Illinois real estate professionals' opinion that minimum service requirements are needed (Biver, 2005). The article states that the most common complaint from full-service brokers who have done deals with limited-service brokers is that no other professional is representing the other side so the full-service broker “feels the burden of doing both sides, and that doesn't feel fair or right.” The full-service brokers think that this predicament is unfair financially because they have to do more work for the same commission.

Other states that have adopted minimum service requirements echo these types of consumer protection and broker protection rationale. The Texas Association of REALTORS® supported adopting a minimum service law in Texas stating “it would help ease confusion in real estate transactions and provide true consumer protections.” In testimony before the Texas Real Estate Commission, the chairman of the association spoke in favor of the law, noting that he represented 70,000 members. He cited reports of sellers feeling confused and not helped by their limited-service brokers, and reports of buyers' brokers having to step in and help (Evans, 2005).

The Alabama Real Estate Commission stated that the intent of its minimum service law, which was passed in 2005, was to limit MLS-listing-only brokerage activity so that sellers would not be left on their own in transactions without anyone to answer their questions (Alabama Real Estate Commission, 2005). In 2005, the Iowa Legislature passed Iowa's law specifying content of brokerage agreements.⁸ Almost no legislative comments about why the bill passed exist; Iowa Real Estate Commission minutes only mention that it was modeled after the Illinois minimum service law (Iowa Real Estate Commission, 2005).

⁶ Illinois Senate Transcript, March 24, 2004, available at <http://12.43.67.2/senate/transcripts/strans93/09300090.pdf>.

⁷ Illinois Association of REALTORS®, Provisions of Senate Bill 2887 (Public Act 93-957), revised 10-04, available at <http://www.illinoisrealtor.org/Member/government/issues/sb2887.asp>.

⁸ Iowa House File 375, an act relating to the duties imposed on a real estate broker by a brokerage agreement (unanimously passed both the Iowa House and Senate).

In addition to a previous administrative regulation that required a broker to use reasonable care in conveying information to a client, Arizona, in 2005, added additional language to the regulation that imposed an affirmative obligation on the broker to take reasonable steps to help a client confirm the accuracy of the information. Although they did not explain why they made this change, the Arizona Department of Real Estate (ADRE) stated that brokers must now actively advise clients, and not just tell clients, “I don’t know, you figure it out” (ADRE, 2005)

An article reporting on Missouri’s minimum service law, which was passed in 2005, credits the law’s passage to heavy lobbying efforts by the Missouri Association of REALTORS® (Wagar, 2005). The Association purportedly hired a lobbyist for \$50,000 to persuade the Missouri governor to sign the bill, which passed both the Missouri House and Senate unanimously, despite requests from the DOJ and FTC to veto it.

In 2005, Kentucky passed an administrative regulation that requires a broker representing a client to perform specific services, including helping the client develop, communicate, negotiate, and present offers and answering questions relating to offers. A broker’s failure to comply with the minimum requirements is considered gross negligence. That this regulation is still on the books in Kentucky is interesting because the Kentucky Legislature contemplated enacting a state statute requiring similar services in 2006. After the state legislature received a letter from the DOJ, the minimum service language was taken out of the proposed statute.⁹ Even though the legislature did not pass a minimum service law, the administrative regulation still stipulates a provision by which brokers have to abide, and which precludes a consumer from buying an MLS-listing-only service.

In 2007, Idaho enacted a law that requires any broker entering into a written contract to “be available” to the client to receive and present offers in a timely manner. This language alone, however, does not necessarily appear to require minimum services. In many states, this type of language is generally understood to mandate prompt communication rather than require a specific service be performed. For example, the Oklahoma attorney general found that language requiring a broker to “be available” to receive all offers does preclude a broker and client from agreeing that the client receive offers directly (Pancak, 2008). The Idaho Real Estate Commission, however, interprets the Idaho law as mandating that brokers receive and review all offers, although a broker does not have to provide advice to clients or negotiate on their behalf.¹⁰ The bill’s purpose is to clarify that receiving and presenting offers is a duty that brokers owe clients. While the Idaho Real Estate Commission was considering drafting its own legislation, the Idaho Association of REALTORS® sponsored a proposal that passed; the contact on that bill is the association’s director of government affairs.¹¹

Theoretical Model

Industry and government commentators have identified two predominant reasons why state legislatures enact minimum service laws: consumer protection and broker pressure.

⁹ Kentucky Senate Bill 43. 2006. www.lrc.ky.gov/record/06RS/SB43.htm.

¹⁰ Idaho Real Estate Commission Guideline #23, effective July 1, 2007, adopted January 17, 2008; <http://www.idahorealestatecommission.com/guidelines/guideline23.pdf>.

¹¹ Idaho House Bill 135 (2007).

The purpose of real estate licensing laws is to protect real estate consumers, which indicates that consumer protection justifications for minimum service laws may exist. In particular, a state experiencing a high level of real estate consumer complaints may enact laws to better protect consumers from perceived broker misconduct or representational shortcomings. Therefore, the first hypothesis we tested is as follows.

Hypothesis 1. A higher volume of complaints filed with a state real estate licensing board increases the likelihood that a state enacts minimum service laws.

The DOJ and FTC allege that brokers have a vested interest in protecting their traditional brokerage fee structure and therefore would pressure legislatures for minimum service laws.¹² Brokers exert lobbying influence through state brokerage associations, and they serve on administrative agencies regulating the brokerage industry that have significant influence on the endorsement of new laws and regulations.¹³ This leads us to two more hypotheses.

Hypothesis 2. The probability of enacting state minimum service laws increases when state broker associations have greater political strength.

Hypothesis 3. The probability of enacting state minimum service laws increases when brokers have a stronger influence on state real estate licensing boards.

Other factors may have also affected a state's decision to enact minimum service laws. In the next section, we provide details on other possible independent variables and the reasons they were included in our empirical model.

Description of Variables

Since 2004, 10 states have enacted laws that require brokers to offer some minimum level of service in either all broker relationships or only in exclusive broker relationships. Enactment dates and relevant statutory or administrative regulatory provisions for each of these states are listed in exhibit 1. This study analyzed both institutional and economic variables that may have affected the likelihood of law adoption for all 50 states and the District of Columbia from 2000 through 2007 (408 observations). Using this time period allowed for sufficient observation in most of the states before and after adoption of minimum service requirements. Exhibit 2 presents the variables used in the analysis, and exhibit 3 reports the summary statistics of variables used in this study.

As reported by Pancak (2008), four other states also have laws requiring brokers to provide clients with some type of minimum services, but these laws were enacted before 2000.¹⁴ These states are also listed in exhibit 1. Given that the anticompetitive concern about precluding limited-service

¹² The agencies also discussed other motivations for the laws.

¹³ The Consumer Federation of America has speculated that a connection exists between minimum service laws and the number of brokers serving on state real estate boards. See Woodall and Brobeck (2006).

¹⁴ In addition, seven states enacted laws since 2004 providing for minimum services: Florida, Michigan, Nevada, New Mexico, Ohio, Tennessee, and Wisconsin (Pancak, 2008). The laws in those states, however, are not mandatory because they allow a consumer to waive the services. For purposes of our analysis, we will include only states that enacted nonwaivable minimum service laws after 2000.

Exhibit 1**States With Nonwaivable Minimum Service Requirements (1 of 3)**

State	Year Section Enacted	Code or Regulation Section	Summary of Applicable Provision(s)
Enacted After 2000			
Alabama	2005	Alabama Code §§ 34-27-84 (c)	At a minimum, all listing brokers must do the following: <ul style="list-style-type: none"> • Accept delivery of and present all offers to help the consumer negotiate offers. • Answer the consumer's questions relating to the transaction.
Arizona	2005 <i>Year language was added about taking reasonable steps to help a client confirm information.</i>	Arizona Administrative Code R4-28-1101	Brokers must do the following for a client: <ul style="list-style-type: none"> • Use reasonable care to obtain information material to a client's interests and relevant to the contemplated transaction, and communicate the information to the client. • Take reasonable steps to assist a client. • Take reasonable steps to help a client confirm the accuracy of information relevant to the transaction. Brokers must perform acts expeditiously, and cannot intentionally or negligently delay performance.
Idaho	2007	Idaho Statute § 54-2087(3)	If a broker enters into a written contract to represent a client, the broker must— <ul style="list-style-type: none"> • Be available to the client to receive and present offers in a timely manner. This duty is mandatory and cannot be waived. Although the state allows nonagency, this requirement applies to all types of representation or customer service agreements.
Illinois	2004	225 Illinois Compiled Statutes 454, Article 15, Section 75	In an exclusive brokerage agreement, the broker must provide the following services: <ul style="list-style-type: none"> • Accept delivery of and present offers. • Help the client develop, communicate, negotiate, and present offers. • Answer client questions.
Indiana	2006	Indiana Code 25-34.1-10-9.5	If a broker does not have an agency relationship with a consumer, at a minimum the broker must perform the following: <ul style="list-style-type: none"> • Be available to receive and present offers. • Help negotiate, complete real estate forms, and communicate. • Respond to questions. If a second broker performs those duties for the consumer because the first broker failed to perform them, an agency relationship between the second broker and the consumer would not exist. If a broker does have an agency relationship with a client, the broker must fulfill the terms of the agency relationship, and present all offers immediately upon receipt. Only applies to nonagency situations. Does not apply when a broker represents a client in a transaction, but only when a broker enters into a written agreement that does not involve agency.

Exhibit 1

States With Nonwaivable Minimum Service Requirements (2 of 3)

State	Year Section Enacted	Code or Regulation Section	Summary of Applicable Provision(s)
Iowa	2005	Iowa Code § 543B.56A	<p>At a minimum, all brokerage agreements must state that the broker will do the following:</p> <ul style="list-style-type: none"> • Accept delivery of and present offers. • Help the client develop, communicate, negotiate, and present offers. • Answer the client's questions relating to the brokerage agreements and negotiations. • Provide prospective buyers access to listed properties.
Kentucky	2005	201 Kentucky Admini- strative Regulations 11:045	<p>At a minimum, all brokers representing a client must do the following:</p> <ul style="list-style-type: none"> • Accept delivery of and present all offers. • Accept all earnest money deposits that are presented to the broker. • Help clients develop, communicate, negotiate, and present offers. • Answer questions relating to offers. <p>Failure to comply with these minimum requirements is considered gross negligence.</p> <p>Regulations limits choice; it is interesting that a bill proposing minimum services was defeated in 2006.</p> <p>Allows nonagency transaction broker.</p>
Missouri	2005	Missouri Revised Statute § 339.780 (7)	<p>In an exclusive brokerage agreement, the broker must provide the following services:</p> <ul style="list-style-type: none"> • Accept delivery of and present offers. • Help the client develop, communicate, negotiate, and present offers. • Answer client questions.
Texas	2005	Texas Occupations Code Title 7 § 1101.557	<p>In an exclusive brokerage agreement, the broker must provide the following services:</p> <ul style="list-style-type: none"> • Present offers to and from client. • Answer client questions.
Utah	2005	61-2-27 Utah Code Annotated	<p>In an exclusive brokerage agreement, the broker must provide the following services:</p> <ul style="list-style-type: none"> • Accept delivery of and present offers. • Help the client develop, communicate, negotiate, and present offers. • Answer client questions.

Exhibit 1

States With Nonwaivable Minimum Service Requirements (3 of 3)

State	Year Section Enacted	Code or Regulation Section	Summary of Applicable Provision(s)
Enacted Before 2000			
California	1987	California Civil Code Section 2079	Listings brokers must conduct a reasonably competent and diligent visual inspection of listed property, and disclose all facts materially affecting the value or desirability of the property that the inspection revealed.
Montana	1995	Montana Code Annotated § 37-51-313 (12)	Brokers must “endeavor to ascertain all pertinent facts concerning each property in any transaction in which the licensee acts” so the licensee can fulfill his or her obligation to avoid error, exaggeration, misrepresentation, or concealment of pertinent facts.
South Carolina	Before 2000	South Carolina Code of Laws Section 40-57-135 (D) (1)	Brokers must do the following: <ul style="list-style-type: none"> • Upon receipt, prepare and present offers. • Deliver written acceptances of offers to all parties. • Ensure that all of the terms and conditions of the transaction are included in the offer. • Ensure that changes or modifications made during negotiation are in writing and initialed and dated by both parties before proceeding with the transaction.
Wyoming	Before 2000	Wyoming Code § 33-28-111 (xxix)	Brokers must do the following: <ul style="list-style-type: none"> • Advise buyer and seller of all terms of a proposed sale at the time an offer is presented including estimated discounts and closing costs. • Submit all offers to a seller.

brokers has only developed in the past decade, we assume that laws enacted before 2000 were driven by factors different than those driving the laws enacted since 2004.¹⁵ To check the robustness of this assumption, we also ran the analysis with those four states removed from the sample. As suspected, the change in magnitude, sign, and standard errors is negligible.

Institutional Variables

Most of the state institutional variable statistics that we used are derived from the *Digest of Real Estate Licensing Laws and Current Issues* (reports from 1999 to through 2007), compiled by the Association of Real Estate Licensing Law Officials® (ARELLO). These surveys consist of information collected during the preceding year (generally in the second half of that year) for publication in the current year. So, it implies a built-in lag in the ARELLO dynamic data items (that is, number of licensees and complaints) that we use in the article. Statistics from other sources are noted in exhibit 2.

¹⁵ For example, California’s law requiring that listing brokers conduct a reasonable, competent, and diligent inspection of listed property was in response to a California court case concerning property condition disclosure.

Exhibit 2

Independent Variables

Variable	Definition
Institutional Variable	
Complaints	Number of complaints per 100 real estate brokers
Association strength	State NATIONAL ASSOCIATION OF REALTORS® membership ^a as a percentage of active state brokers ^b
Board strength	Percentage of real estate industry members on the state licensing board ^c
Prelicensing education hours	Prelicensing hours required for salespersons ^d
Continuing education hours	Continuing education hours requirement
Consumer protection fund	Maximum consumer protection fund liability payout against a broker (in thousands of dollars) ^e
Political climate	Binary variable indicating whether a state legislature is controlled by Democrats or others (including Republicans) ^f
Economic Variable	
House price growth	Average of percent year-over-year change in quarterly FHFA purchase-only state-level house price index
Transaction growth	Percent change in number of transactions
Gross state product growth	Percent change in real gross state product
Population growth	Percent change in population
Income growth	Percent change in per capita income

FHFA = Federal Housing Finance Agency.

^a Data on NAR membership from NATIONAL ASSOCIATION OF REALTORS® monthly membership report for years ending December 31, 1999–2007.

^b Association of Real Estate Licensing Law Officials (ARELLO) (1999–2007), “SALESPERSONS: Active Salespersons” and “BROKERS: Active Brokers” plus “BROKERS: Active Associate Brokers.”

^c ARELLO (1999–2007), “# members” heading and “# Industry Members” heading. For California: The Governor appoints the Real Estate Commissioner, who then appoints the Real Estate Advisory Commission 10 in total, 6 real estate brokers (industry members) and 4 public members. http://www.dre.ca.gov/pdf_docs/ref01.pdf.

For Minnesota: We do not find any type of board or commission. The Governor appoints the Commissioner of the Department of Consumer Protection, who oversees all real estate licensing activities. We assume zero percent industry representation in the board.

^d ARELLO (1999–2007), “HOURS PRE-” heading.

^e ARELLO (1999–2007), “MAX. FUND Liability: Broker” heading.

^f Data compiled from the National Conference of State Legislatures.

Exhibit 3**Summary Statistics**

Variable	State-Level Characteristics: 2000–07: 408 Observations		
	N	Mean	Std. Dev.
Complaints	395	1.856	12.187
Association strength	393	50.688	15.435
Board strength	408	69.243	18.696
Prelicensing education hours	408	58.921	33.004
Continuing education hours	400	6.440	6.188
Consumer protection fund (\$)	408	13,509.80	16,988.36
Political climate	408	0.367	0.483
House price growth	408	7.031	5.150
Transaction growth	402	2.656	10.630
Gross state product growth	408	2.464	2.087
Population growth	408	0.908	0.866
Income growth	408	4.380	2.805

Note: Because information is missing, some variables have fewer than 408 observations.

We use three independent variables to test our three hypotheses. Ideally, we want to test for volume of complaints against real estate brokers offering minimum services filed with a state real estate licensing board. The available data, however, do not make a distinction between complaints against brokers offering minimum services and those offering full services. Therefore, we evaluated the state's overall volume of complaints filed against all types of real estate brokers. We expect the volume of complaints filed with a state real estate licensing board to positively influence the likelihood that a state enacts minimum service laws. We control for state size by looking at the number of complaints per 100 real estate brokers and salesperson licensees in our analysis.

We measure the political strength of a state's broker association by looking at NAR membership as a percentage of total state brokers. If federal agencies were correct, we would expect an increase in the percentage of state NAR membership to positively influence the likelihood that a state enacts minimum service laws. We measure state broker influence on licensing boards as the percentage of licensed brokers or salespersons serving on a state board, expecting higher levels of membership would also positively influence the likelihood that a board will enact minimum service regulations or encourage state legislatures to pass minimum service laws.

We include a few other institutional variables to control for in our analysis. Interestingly, these variables also fit under the categories of either consumer protection or political pressure. Ease of entry into the real estate brokerage profession in a state may concern traditional brokers who fear competition from new limited-service brokers. A state's prelicensing education hours are an indication of licensing ease or difficulty. Also, a state's continuing education hours can indicate cost of maintaining a license. We expect a state's prelicensing hour requirement and continuing education hour requirement to be inversely related to the likelihood that a state enacts minimum service laws: the easier it is to enter or stay in the profession, the more likely full-service brokers may see limited-service brokers as a threat.

Many states have a consumer protection fund that compensates a consumer who is unable to collect a monetary judgment against a broker. The dollar amount limit varies by state. We expect a higher

dollar limit to encourage states to enact minimum service laws because boards and legislatures may fear depleting their funds without these perceived additional consumer protection measures.

The political climate of a state often influences new legislation. We therefore include a variable for partisan control in the state legislation. Based on common political perceptions, a state that is controlled by a Democratic legislature may be more likely to pass a greater amount of consumer protection legislation.

Economic Variables

We also control for the effect of housing market changes in our analysis by including fundamental measures of state housing market activity and other state economic activity: house price trends, percent change in housing transactions, population growth, percent change in per capita income, and percentage change in real gross state product (GSP). To assess housing price changes, we use the repeat sales purchase-only quarterly Housing Price Index (HPI), reported by the Federal Housing Finance Agency (FHFA). We took the average year-over-year rate of change for a year. The data used for the other variables is obtained from the NAR, the U.S. Census Bureau, the U.S. Bureau of Labor Statistics, and the U.S. Bureau of Economic Analysis.

Weak state-broker productivity, as measured by the number of state residential transactions per year per real estate broker, may cause traditional full-service real estate brokers to feel the need to protect their business activity from encroachment by limited-service brokers. If this is the case, then we expect variables causing lower broker productivity to increase the likelihood of state enactment of minimum service laws, and variables resulting in higher broker productivity to decrease that likelihood.

Likewise, a decrease in any one of the other economic variables may threaten real estate broker activity, encouraging a protectionist position that supports reducing brokerage competition by restricting limited-service brokers. Therefore, we expect to see an inverse relationship between the change in any one of these variables and the likelihood that a state adopts minimum service laws.

Methodology

Taking into account both the institutional and economic variables set forth in the previous section, and following the works of Kiefer (1988), de Figueiredo and Vanden Bergh (2004), and Nanda (2008), we employed a discrete-time proportional hazard model to determine which factors may have led states to enact minimum service laws for real estate brokers. The hazard model allows us to look at the pre-enactment time-period observations (that is, time to event data) to understand the process that may lead to enactment. We model the law adoption process by specifying a probability distribution for the survival spell until death, which is law enactment in the current context.¹⁶

The probability distribution is given by

$$F(t) = \Pr(T < t) \tag{1}$$

¹⁶ The baseline specification draws on Kiefer (1988) and chapter 20 in Wooldridge (2002).

which specifies the probability that the random variable T is less than some value t ; $f(t)$ is the corresponding density function. The hazard function can be represented as

$$\lambda_0(t) = \frac{f(t)}{S(t)} = - \frac{d \ln S(t)}{dt} \tag{2}$$

$\lambda_0(t)$ is the rate at which spells will be completed at duration t , given that they survive until t .

A proportional hazard framework using time-invariant regressors can be written as

$$\lambda[t; x] = k[x]\lambda_0(t) \tag{3}$$

where $k(x) > 0$ is a nonnegative function of x , and $\lambda_0(t) > 0$ is the baseline hazard.

Time is separated from the explanatory variables so that the hazard is obtained by shifting the baseline hazard (which is common to all units) as the individual hazard function changes based on a function $k(x)$ of observed covariates (that is, for all the cross-section units, the hazard is proportional to the baseline hazard function). $k(x) > 0$ is parameterized as

$$\lambda[t; x] = \exp[x\beta]\lambda_0(t) \tag{4}$$

We can specify baseline hazard by including a function of time. Because no state has ever repealed a minimum service requirement law, we censor the data to the preadoption levels. We can estimate the hazard model in equation (4) using a standard logit specification. We can also incorporate time-varying covariates into the framework to obtain a conditional hazard function as

$$\lambda[t; x_m, \theta] = k[x_m, \beta]\lambda_m, \quad m = 1, \dots, M \tag{5}$$

where θ is a vector of unknown parameters.

Equation (5) demonstrates that time-varying covariates have a multiplicative effect in each time interval (for M intervals) and it allows for a flexible baseline hazard, which is common to all units. Incorporating time-varying covariates may be justified because the law has been adopted at different times by different states (Nanda, 2008). Because different states are likely to have different distributions of the duration dependence and some relevant factors may not be observed (that is, a potential omitted variable bias may exist), we control for the state-level heterogeneity. Following Wooldridge (2002), we can incorporate heterogeneity into the framework as

$$\lambda[t; v, x_m, \theta] = v k[x_m, \beta]\lambda_m, \quad a_{m-1} \leq t \leq a_m \tag{6}$$

where $v > 0$ is a continuously distributed heterogeneity term.

We try the most common distribution for specifying heterogeneity (or frailty), which is the gamma distribution.

Results

We examined the enactment of minimum service laws along with time-varying covariates. Because minimum service requirements were enacted in different states at different times (that is, a disparate treatment exists because of state-level heterogeneity), we tried to bring in more information to the estimation system by incorporating time-varying covariates. Varied level of state real estate associations' strength may have a different effect on the probability of a minimum service law's enactment. When the industry association is well organized, the representatives may be reluctant to support

legislation, but a weak association might, however, try to push for laws that protect its members. Therefore, we introduce a spline function for the NAR association strength variable. We put the 'break' or 'knot' at the 50-percent-strength level (that is, we estimate the model using two variables that represent greater than and less than 50-percent-strength levels).

Standard Discrete Choice Models

We present a hazard analysis framework in which we model the law enactment process conditioned on the adoption having not yet occurred. We start with standard discrete choice models. Exhibit 4 shows results from two different model specifications—logit and probit models. This analysis is done with state-level data.

Exhibit 4

Standard Discrete Choice Models (Dependent Variable: Law Adoption Dummy)

Regressor	(1)	(2)
Complaints	- 0.0631 (0.0728)	- 0.0435 (0.0387)
Association strength (<=50%)	0.0731 (0.0462)	0.0409 (0.0258)
Association strength (>50%)	- 0.0726*** (0.0392)	- 0.0381*** (0.0198)
Board strength	- 0.0239 (0.0154)	- 0.0117 (0.0078)
Prelicensing education hours	0.0396* (0.0119)	0.021** (0.0058)
Continuing education hours	- 0.0887 (0.1031)	- 0.0371 (0.0491)
Consumer protection fund	0.0001 (0.0001)	0.0001 (0.0001)
Political climate	2.2334** (0.8915)	1.1987** (0.4724)
House price growth	0.0849 (0.0689)	0.0471 (0.0382)
Transaction growth	- 0.0653** (0.0291)	- 0.0361** (0.0146)
Gross state product growth	- 0.0331 (0.1511)	- 0.0187 (0.0778)
Population growth	1.7167* (0.5483)	0.9862* (0.2847)
Income growth	0.2259 (0.1416)	0.1255*** (0.0731)
Fixed effect?	Census division	Census division
Model description	Logit regression	Probit regression
Pseudo R ²	0.361	0.366
Log likelihood	- 53.139	- 52.744
N	248	248

* Denotes 1-percent significance level.

** Denotes 5-percent significance level.

*** Denotes 10-percent significance levels.

Notes: Robust standard errors are reported within parentheses. This analysis includes data for all 50 states and the District of Columbia, from 2000 to 2007.

In general, we find that stricter prelicensing educational requirements and weaker association (less than 50 percent representation) may favor law enactment; a greater number of complaints, stronger association (more than 50 percent representation), and stronger industry influence on the licensing board may not support enactment of minimum service requirements. Interestingly, Democratic legislature control increases the likelihood of minimum service law enactment.

Proportional Hazard Models

Models in exhibit 5 present more empirical results that further address the measurement error problem and state-level heterogeneity. Exhibit 5 takes the specification, used in exhibit 4, and reports alternative econometric specifications.

We assume that duration dependence (as represented by the hazard function) will follow the standard Weibull distribution model. Model (1) in exhibit 5 presents the baseline estimates from the hazard model with time-varying covariates with no lagged values. In general, we find statistically significant estimates that are consistent to a reasonable extent with our postulates. As assumed, association strength—especially more than 50-percent representation—and industry influence put significant negative feedbacks on the likelihood of enactment of the minimum service law. A more active housing market seems to present positive feedback.

As suggested by Nanda (2008) legislators may not have observed current year values, however, when deciding to pass a mandate. Furthermore, the law or the discussion around a possible enactment might have affected the current year observations (that is, some endogenous feedbacks may persist). To address this concern, we incorporate previous year's values of the institutional variables in model (2). Moreover, most institutional variables tend to be measured with error. Legislators may want to consider historical averages over a longer period to evaluate the need for a mandate. We take the average of 1-period and 2-period lagged values for the institutional variables in model (3) to control for measurement error. The estimates show remarkable improvement, validating the concerns of endogeneity and measurement error. We find statistically significant estimates that are consistent with our assumptions. In model (3), association strength (especially more than 50-percent representation) and industry influence put significant negative feedbacks on the likelihood of enactment of the minimum service law. We also find that a stricter prelicensing educational requirements and a greater number of complaints tend to favor a minimum service requirement law's enactment.

The process of enacting laws with minimum service requirements varies across states. Different states in our sample may have different distributions for the duration dependence. In model (4), we try to address this concern. We assume that the heterogeneity term v in equation (6) is gamma distributed. We do not, however, find any significant improvement over model (3).¹⁷ Four states—California, Montana, South Carolina, and Wyoming—adopted minimum service requirements before 2000. To test the robustness of our results, we exclude those states and perform key model analyses. The results do not show any significant differences from those shown in exhibits 4 and 5.

¹⁷ Because of many small, omitted influences on law adoption, normal distribution may represent data better than the gamma distribution.

Exhibit 5

Proportional Hazard Models (Dependent Variable: Law Adoption Dummy)

Regressor	(1)	(2)	(3)	(4)
Complaints	- 0.1851 (0.6047)	0.0796 (0.0857)	0.2308* (0.0843)	- 0.8812 (0.6068)
Association strength (<=50%)	- 0.0873 (0.1863)	- 0.2737 (0.1826)	- 0.3729 (0.3028)	0.1082 (0.1016)
Association strength (>50%)	- 0.2913** (0.1308)	- 0.3228** (0.1287)	- 0.5826* (0.1644)	- 0.0693 (0.0535)
Board strength	- 0.0813** (0.0333)	- 0.1044 (0.0662)	- 0.1056** (0.0519)	- 0.0113 (0.0203)
Prelicensing education hours	0.0951* (0.0269)	0.1269** (0.0552)	0.1794* (0.0587)	0.0281 (0.0171)
Continuing education hours	- 0.1869 (0.2121)	- 0.4084 (0.3676)	- 0.3326 (0.3324)	- 0.0859 (0.0682)
Consumer protection fund	0.0001 (0.0001)	0.0001 (0.0001)	0.0001 (0.0001)	- 0.0001 (0.0001)
Political climate	6.3097* (1.2832)	8.4689** (3.9749)	9.7585** (3.9486)	0.2772 (0.9046)
House price growth	0.1809 (0.2043)	0.1154 (0.1031)	0.3443 (0.2113)	- 0.1528 (0.1067)
Transaction growth	0.1513*** (0.0848)	0.1531 (0.0961)	0.0882 (0.0669)	- 0.0573*** (0.0346)
Gross state product growth	- 0.2886 (0.3235)	- 0.6364 (0.5653)	- 1.1801 (1.0187)	0.0062 (0.2908)
Population growth	3.9629** (1.8336)	7.8001 (5.0208)	7.7221*** (4.6801)	0.7402 (0.6139)
Income growth	- 0.2741** (0.1174)	- 0.7081 (0.4464)	- 0.6719** (0.3091)	0.1592 (0.2101)
Model description	Current attributes	First lagged attributes	Average of first and second lagged attributes	Average of first and second lagged attributes
Modeling concern	More information	Regulators do not observe current values	Institutional variables measured with error	State-level heterogeneity
Distribution for duration dependence	Weibull	Weibull	Weibull	Weibull
Distribution for heterogeneity term				Gamma
Log likelihood	- 20.401	- 18.692	- 14.151	- 29.858
N	248	223	192	294

* Denotes 1-percent significance level.

** Denotes 5-percent significance level.

*** Denotes 10-percent significance levels.

Notes: Models include logarithm of time as the baseline hazard specification. Robust standard errors are reported within parentheses. This analysis includes data for all 50 states and the District of Columbia, from 2000 through 2007.

To facilitate interpretation of our results, in exhibit 6, we report odds ratios for the logit model in model (1) of exhibit 4 and hazard ratios for model (3) of exhibit 5. Column (1) of exhibit 6 shows that for each additional hour of state prelicensing requirements, the odds of enacting a minimum service requirement increase by a factor of 1.04. A one-percentage-point increase in association strength raises the odds of not enacting a minimum service requirement by a factor of 0.93. In terms of the hazard ratio from column (2) of exhibit 6, for each increase of 1 complaint per 100 brokers and each additional hour of state prelicensing requirements, the hazard rate of enacting minimum service requirements increases by factors of 1.26 and 1.19, respectively. One-percentage-point increases in association strength and industry influence suppress the hazard rate of enacting a minimum service requirement by factors of 0.56 and 0.90, respectively.

Exhibit 6

Odds and Hazard Ratio

Regressor	Model (1) Exhibit (4) Odds Ratio	Model (3) Exhibit (5) Hazard Ratio
Complaints	0.9388	1.2596*
Association strength (<=50%)	1.0758	0.6887
Association strength (>50%)	0.9299***	0.5584*
Board strength	0.9764	0.8998**
Prelicensing education hours	1.0404*	1.1966*
Continuing education hours	0.9151	0.7171
Consumer protection fund (\$)	1.0001	1.0001
Political climate	9.3313**	17,300.52**
House price growth	1.0886	1.4111
Transaction growth	0.9368**	1.0922
Gross state product growth	0.9674	0.3072
Population growth	5.5661*	2,257.606***
Income growth	1.2535	0.5107**

* Denotes 1-percent significance level.

** Denotes 5-percent significance level.

*** Denotes 10-percent significance levels.

Conclusion

This article has examined institutional and economic influences on state real estate broker minimum service laws. The federal government and previous academic literature have assumed that the anticompetitive attitudes of traditional brokers are the driving force behind the enactment of these laws, and that legislative evidence exists proving that state brokerage associations introduced, supported, and lobbied for minimum service laws that passed. Our results, however, show that stronger (more than 50 percent representation) state NAR presence and a greater percentage of real estate industry members on licensing boards decrease the likelihood that minimum service laws would be enacted in a state. Although many traditional real estate brokers may be vocal opponents of limited-service brokerage, many other brokers may embrace the evolving nature of the brokerage industry brought about by changing technology and new representational paradigms. On the other hand, these variables are capturing quantity of influence rather than quality of influence,

and may actually be limited in their ability to approximate broker and association influence on minimum service law enactment.

Consumer protection was the stated purpose of many of the proposed minimum service bills that passed into law. Our results indicate that the rationale may be sincere because the level of complaints against brokers is considered the most significant indicator of enactment. This suggests that states have made changes to broker licensing laws in an attempt to address perceived consumer protection concerns or problems.

This article addresses the question of why minimum service laws were enacted. Legislative history suggests that lobbying efforts by broker associations influenced enactment. Contrary to our hypotheses that were based on this evidence, our empirical results indicate that stronger state NAR presence and greater broker licensing board membership both decrease the likelihood that minimum service laws will be enacted. We also found that a state experiencing high levels of complaints against brokers was more likely to enact minimum service laws. These results demonstrate that it may be overly simplistic for federal government agencies to allege that the brokerage industry as a whole is pushing for enactment of minimum service laws for anticompetitive reasons. State enactment of minimum service laws is more likely the result of the lobbying efforts of a handful of influential state real estate professionals. More research is now needed to determine the actual effect of enacted minimum service laws on both broker competition and on consumer protection.

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