

The Effects of Occupational Licensing on Complaints Against Real Estate Agents

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Abstract. Does licensing increase the quality of services? This is a major unresolved question in the economic analysis of occupational licensing. This paper provides the first empirical evidence on the simultaneous relationship between anticompetitive effects and minimal quality standards. Using data on real estate agents, we find that restrictions on entry improve the quality of services (by lowering complaints), but, at the same time, there appear to be significant anticompetitive side-effects.

Introduction

Licensing is widely used to restrict entry into occupations like real estate. A series of studies has linked occupational licensing to reduced competition and welfare loss in the form of restricted output (see for example Benham [1972], Friedman and Kuznets [1945], Holen [1979], Maurizi [1974], and Rose [1979]). Much of the evidence for this view, however, does not take account of qualitative effects resulting from licensing restrictions. By contrast, licensing proponents contend that, by eliminating practitioners who would otherwise provide low quality or inferior services, licensure leads to a increase in average quality.¹

Central to this debate is exactly how licensure affects quality. Will quality increase, remain constant, or decrease? An additional empirical problem is how to measure quality. This paper addresses these issues by examining data on real estate agents. Laws enacted by all states require real estate agents to pass an examination designed to test their real estate knowledge and competency.² These laws attempt to upgrade the professionalism of real estate practitioners by providing a higher standard of qualifications. Our empirical results demonstrate that occupational licensing may improve the quality of services provided to the public, in that more restrictive licensing provisions result in fewer complaints against real estate agents.³ At the same time, the results also document the potential anticompetitive side-effects of licensing.

Model

In this section, we investigate the relationship between restrictions on entry and quality of real estate services. The analysis is divided into two parts: the first part examines the

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relationship between pass rates and excess demand for real estate services, and the second the effects of occupational licensing on complaints against real estate agents.

Restrictions on Entry

Real estate licensing laws require that persons who offer their services as real estate agents be licensed.⁴ A great deal of variation is found among state licensure requirements (see Harwood [1983]).

Maurizi [1974] notes that the ability of licensing boards to manipulate pass rates imposes significant costs on applicants. Licensing initially raises entry costs by fixing passing scores, establishing certain educational requirements and requiring payment of fees. In some cases, regulation includes not only licensure, but also standards that govern the conduct and performance of all applicants. The prevailing economic view of these restrictions is that they preserve the market for existing practitioners. Such anticompetitive effects have been demonstrated to depend on, among other things, the extent of excess demand or supply.

Based on the literature dealing with the effects of licensing on restrictions to entry, an empirically testable model can be written as follows:

$$PASS_i = f(\text{COMPLNT}_i, \text{SCORE}_i, \text{TIME}_i, \text{STD}_i, \text{COST}_i, \text{PRELIC}_i, \text{PARTIAL}_i, \text{EXCESS}_i, \text{EARN}_i) \quad (1)$$

where $PASS_i$ is the percentage pass rate on the real estate salesperson licensing examination for state i , $COMPLNT_i$ is the number of complaints against real estate agents, $SCORE_i$ is the passing score on the licensing exam, $TIME_i$ is the writing time of licensing exam, STD_i is a dummy variable equal to 1 if licensing exam is administered by a national testing service and zero otherwise, $COST_i$ is the cost (in terms of dollars) of taking the exam, $PRELIC_i$ is the number of hours of prelicensing education required, $PARTIAL_i$ is a dummy variable equal to 1 if partial credit is given on the licensing exam and zero otherwise, $EXCESS_i$ ⁵ represents the excess demand for real estate agents (defined as the ratio of applicants in the state to the total number of licensed real estate agents in the state), and $EARN_i$ ⁶ is the income of real estate agents.⁷

The most commonly advanced rationale for the inclusion of the number of complaints against real estate agents in the above equation is that of consumer protection.⁸ In contrast, given that anticompetitive effects of occupational licensing are more likely to exist where there is a high return, restrictions on entry would be more pronounced in higher-income states. There is also considerable question regarding the need to develop standardized procedures for administering licensing exams and for evaluating the results.⁹

The anticompetitive effects of occupational licensing can be tested by the hypothesis:

$$H_N : \gamma < 0, \text{ and } H_A : \gamma \geq 0, \quad (2)$$

where γ is the coefficient on $EXCESS_i$ in the pass rate equation. If the result of occupational licensing is the promotion of the interests of the producer group rather than those of the public, we would expect γ to be significantly less than zero.

Licensing and Quality of Services

Limitations on entry, or controls on supply, restrict output so to raise price and possibly raise the quality of services received by consumers as well.¹⁰ Although such constraints generally are not first-best solutions, Leland [1979] shows that occupational licensing may

increase welfare in a number of cases. However, these results are not unchallenged.¹¹ Some have suggested that occupational licensing may unduly interfere with the natural self-selection process of the market (see, for example, Schwartz and Wilde [1979]). Others have suggested that, if professional groups are allowed to set the minimum quality standards, these standards will tend to be more restrictive than those set by the public [see Leland 1979].

To test the argument linking occupational licensing to quality of services, an equation relating complaints and pass rates can be expressed as

$$\text{COMPLNT}_i = g(\text{PASS}_i, \text{BOARD}_i, \text{POSTLIC}_i, \text{EXEMPT}_i, \text{PAYOFF}_i, \text{TRUST}_i, \text{MINORITY}_i, \text{REALT}_i) \quad (3)$$

where BOARD_i represents the composition of the licensing board (defined as the ratio of industry board members to total members), POSTLIC_i is the number of hours of post-licensing education required, EXEMPT_i is a dummy variable equal to 1 if existing licensees are exempt from post-licensing educational requirements and zero otherwise, PAYOFF_i represents the expected payoff of levying a complaint against a real estate agent (defined as the total amount ever paid out by the licensing agency from the recovery fund on otherwise uncollectable judgments against real estate agents), TRUST_i is a dummy variable equal to 1 if money offered by prospective buyers as an indication of good faith in entering into a contract to purchase must be placed in a trust account and zero otherwise, MINORITY_i is the ratio of nonwhite population in the state to total population in the state, and REALT_i is the ratio of the number of members of the National Association of Realtors (NAR) to total licensed real estate agents in the state.¹²

A number of testable implications directly follows. Continuing education advocates contend that mandatory post-licensing education requirements maintain high standards of efficacy by exposing licensees to new developments in the real estate industry. Opponents argue that continuing education requirements are not challenging and, although most real estate commissions subsequently require new applicants to pass rigorous exams and meet high standards, it is often the case that those already practicing at the time licensing is introduced are exempt (see Tosh and Garvey [1984]). Thus, the effect of these restrictions is seen as protecting existing real estate agents against competition from newcomers.¹³

Most states have established a real estate recovery fund for the payment of otherwise uncollectable judgments. With a recovery fund, a portion of the money that each licensee pays to obtain a license is set aside for the express purpose of indemnifying buyers of real estate who have suffered losses.¹⁴ We expect claimants to be higher with a higher expected payoff from the recovery fund. As previously noted, we proxy the expected payoff of filing a complaint by the total amount ever paid out by the licensing agency. The measure has the advantage of being observable and, in all likelihood, correlated with expected benefits.¹⁵

Each real estate commission has the responsibilities of prescribing the various standards and qualifications for licensing, and regulation of the business. This includes investigating complaints against license holders and persons without licenses. Violation of the license law provisions is usually cause for refusal, revocation, or suspension of a real estate license. The two major areas of conflict that result in complaints against real estate agents involve the mishandling of deposits from prospective purchasers of real estate and possible violations of Fair Housing Laws.¹⁶ We include the trust and minority variable in the complaints equation to test these effects.

Many professional groups support voluntary certification schemes by providing members with the opportunity to obtain a professional designation. The National Association of Realtors

(NAR), for example, authorizes the state associations to issue the GRI designation to all those members who successfully complete the institute's education requirements as modified by the different state laws.¹⁷ In addition, all members of NAR pledge to abide by the group's code of ethics and to arbitrate disputes internally. These kinds of private regulation suggest that in states where the ratio of members in NAR to total real estate agents is large, there should be fewer complaints against real estate agents.¹⁸

A direct test of the effect of occupational licensing on the quality of services can be expressed as:

$$H_N : \beta > 0, \text{ and } H_A : \beta \leq 0. \quad (4)$$

where β is the coefficient on $PASS_i$ in the complaints equation. The null hypothesis in this case suggests that more rigorous licensing requirements (lower pass rates) reduce the number of complaints against real estate agents.

Empirical Results

This section presents the results of estimating equations (1) and (3) using two-stage least squares.¹⁹ The data on real estate licensing activities and complaints against real estate agents were obtained from the National Association of Real Estate License Law Officials [1983].²⁰ The data on per capita earnings of real estate professionals and the ratio of nonwhite population were obtained from the 1980 Census. The regression results are given in Exhibit 1.²¹ The model performs well, and most coefficients have their expected signs and are significant at the 90% confidence level.²²

Impact of Occupational Licensing on Pass Rates

The main finding from the pass rate equation is that we are unable to reject the anticompetitive hypothesis given in equation (2) at the 90% confidence level (one-sided test). The point elasticity equals -0.14 , that is, a 10% increase in excess demand will generate a fall in the pass rate of 1.4%. In general, this result is consistent with Maurizi who finds that "a 10 percent increase in excess demand generates a decrease in the pass rate varying primarily from 1% to 10% depending on the occupation" [1974, p. 412].

Our two-stage least squares estimates also indicate that, in addition to the anticompetitive effects of licensing, an inverse relationship exists between pass rates and the number of complaints (the coefficient estimate is significant at the 90% confidence level). The significance of this finding contradicts the notion that the sole or major intent of occupational licensure is to enhance either the professional prestige or economic status of the occupation.²³

Further, the estimates suggest that pass rates are unaffected by the passing score on the exam, requirements for prelicensing education, and the cost of taking the exam.²⁴ It should be noted, however, that some of the other test provisions have a significant effect on pass rate. For example, the longer the writing time on the exam and hence the more difficult the test, the lower the pass rate. Partial credit on the licensing exam reduces the cost of entry to some applicants.²⁵

Finally, the estimates indicate that income of real estate agents has no explanatory power for the variation in pass rates across states. If adequate time-series data were available on

Exhibit 1
Simultaneous Equation Estimates of Complaints and Occupational Licensing of Real Estate Agents

Complaints Equation		Pass Rate Equation	
Variables	Estimates*	Variables	Estimates*
PASS	25* (14)	COMPLNT	-.0038* (.0026)
BOARD	-1434* (689)	SCORE	-.0417 (.6967)
POSTLIC	6.42 (9.02)	TIME	-.4677* (.2015)
EXEMPT	721* (424)	STD	-4.6589* (3.900)
PAYOFF	1458* (204)	COST	-.0016 (.0987)
TRUST	-509* (390)	PRELIC	.0208 (.0697)
MINORITY	519 (1447)	PARTIAL	-7.9494* (3.9875)
REALT	-1824* (1438)	EXCESS	-56.4585* (19.4055)
CONSTANT	715 (1090)	EARN	.8244 (.8301)
		CONSTANT	113.0110* (52.0064)
<i>n</i>	35	<i>n</i>	35
\bar{R}^2 (OLS)	.76	\bar{R}^2 (OLS)	.47

*Standard errors reported in parentheses; *indicates significant at 10% level.

complaints against real estate agents, we might question the significance of this cross-section parameter.²⁶

Impact of Counteracting Institutions on Complaints

Estimates from the complaints equation imply that we cannot reject the null hypothesis given in equation (4) that occupational licensing significantly enhances the quality of real estate brokerage services (i.e., reduces the number of complaints against real estate agents). The elasticity estimate is 2.7, that is, a 10% decrease in the pass rate reduces the number of complaints by 27%. Most previous studies do not highlight the effect of occupational licensing on quality of services and so we cannot easily compare our results with those from previous studies.²⁷

The essential point here is: Are markets for real estate brokerage services likely to benefit from minimum quality standards? And are our estimates consistent with the theory of markets under asymmetric information?²⁸ The empirical literature on the pricing of brokerage services suggests that demand is very income-inelastic and thus quite unresponsive to income changes.²⁹ It is also generally acknowledged that information provided by real estate agents is important in the homebuying decision and appears to increase housing consumption [see Jud 1983].

Possibly the most significant fact suggested by the remaining coefficients in Exhibit 1, and

one we expect to be generally true, is that real estate commissions composed of members from the real estate industry have tougher licensing requirements.³⁰ For a given 10% increase in the ratio of industry board members to total members there is a 20% reduction in the number of complaints against real estate agents.

The estimates suggest that post-licensing requirements have little effect on the quality of services. In fact, the estimates suggest that the opposite may be true. Most practitioners recognize that after states enact continuing education requirements, those who are covered by a "grandfather clause" will enjoy a comparative advantage. It is interesting to note that the coefficient of the "grandfather clause" variable entered the complaints equation with a positive and significant sign.

The evidence on the dual role of real estate commissions as licensing boards and enforcement agencies suggests three main points. First, the expected payoff of levying a complaint against a real estate agent proved to be a powerful explanatory variable of the number of complaints. The estimated coefficient demonstrates that as the expected payoff increases so does the number of complaints.³¹ Second, in states where money offered by prospective purchasers as a deposit may be commingled with other funds there is a higher number of complaints. Third, various specifications were attempted to test for racial discrimination, including the ratio of nonwhite population to total population, but the estimates were always insignificant.³²

The final evidence from Exhibit 1 concerns the joint hypothesis that members of NAR are better qualified real estate agents since they must abide by the group's code of ethics, and the fact that the number of complaints against real estate agents should otherwise be lower since NAR acts as a private mechanism to arbitrate disputes among its members. The estimates suggest that the ratio of members of NAR to total licensees in the state affects the number of complaints against real estate agents in the predicted way.

Conclusions

The licensing of various professional groups has grown significantly in recent years. Some have attributed occupational licensing to producer controls (the desire to maintain prices at an artificially high level by restricting supply). Little empirical evidence exists on the effects of occupational licensing on quality standards. We contend that while licensing boards decrease pass rates in order to protect relatively high incomes from being eroded by new entrants, occupational licensing may also be attributed to higher standards. The analysis suggests that the direct effect of occupational licensing is to reduce the number of complaints against real estate agents.

The findings indicate that an increase in excess demand generates a decrease in the pass rate on real estate licensing examinations. The results of our inquiry into the relationship between complaints against real estate agents and pass rates suggest that a decrease in the pass rate decreases the total number of complaints. The regressions also suggest that the level of complaints against real estate agents is smaller if the licensing board is comprised of a greater number of industry members.

Notes

¹The necessity for occupational licensing has traditionally been justified on the basis of asymmetric information. The asymmetry arises when buyers are unable to differentiate the various services offered for sale in the market on the basis of quality [Akerlof 1970].

²Most state license laws require that all applicants must pass a written examination on general real estate principles and practices and a state test on the laws and regulations unique to each state. Exempt from license laws are trustees, executors, receivers and others operating under court orders, owners dealing with their own property, and in some cases attorneys-at-law.

³There is a wide variance in the number of complaints against real estate agents across states. However, we know of no literature that examines this issue.

⁴Once licensed, the continued privilege to engage in the real estate business is conditional upon the licensee abiding by certain standards. In addition, as long as a person remains active and meets any post-license education requirements, the licensee can renew the license by paying a required renewal fee.

⁵While excess is defined following Maurizi's work, it could be argued that it measures potential competition, rather than excess demand. In order to have true excess demand, quantity demanded at the market price must exceed quantity supplied at that price.

⁶While arguments can be made that income is an endogenous variable, it is being treated as exogenous in this study.

⁷Equation (1) can be interpreted as describing the probability that an applicant will pass the licensing exam, given information about "fees and training requirements," excess demand, and income of practitioners. Its deficiency is that the predicted probability of passing the exam may be outside the range 0 to 1. It should be noted that while the predictions obtained from the estimation are biased, the estimates may be unbiased. Following Maurizi [1974], we have chosen to estimate the equation in linear form. Another potential problem concerns the negative spurious correlation between the dependent variable and the excess demand variable. The size of the bias, however, is not likely to cause the sign of the coefficient to change [see, Maurizi 1974]. Other versions of equation (1) were estimated, including the case where the number of complaints was standardized.

⁸The argument goes something like this: since the purpose of the agency is to protect the consumer, an increase in the number of complaints against real estate agents should result in tighter restrictions on entry. Opponents are quick to point out, however, that it is hard to regard altruistic concern for consumers as the primary motivation for restrictions on entry. It is also asserted that occupational licensing has caused a proliferation of regulatory agencies and that the people who staff these agencies have a natural incentive to further their own interests [see, Friedman 1962].

⁹In related literature, Gellhorn [1974] notes that members of ethnic minorities are often systematically discouraged from becoming licensees by irrelevant test procedures and requirements.

¹⁰By imposing a lower limit on quality, occupational licensing acts as, what is commonly referred to in the literature, a "counteracting institution" (see Akerlof 1970).

¹¹Bond [1982, 1984] finds that counteracting institutions play an important role in assuring product quality for the used truck market. On the other hand, Pratt and Hoffer [1984] suggest that significant quality erosion has occurred.

¹²An alternative specification in which the number of licensees per capita was included to control for different demand and supply conditions was also estimated. This specification yielded slightly inferior results.

¹³An important question concerning the effect of these licensing restrictions is, of course, whether the number of complaints against real estate agents is greater in states where "grandfather" clauses exist than in other states.

¹⁴In order to seek money from the recovery fund, a buyer of real estate must first obtain a court judgment. With a court-ordered settlement in his or her favor, the buyer may then attempt to collect the money by executing upon the licensee's assets, or, if the licensee is judgment proof or has insufficient assets, file a claim against the recovery fund.

¹⁵There is reason to believe that the present estimates overstate the benefits of filing a complaint since we do not possess any information on the cost of complaining. To that extent, estimates below may be biased.

¹⁶The Fair Housing Laws make discrimination based on race, color, sex, religion, or national origin illegal in the sale or leasing of real estate. A principal concern of these laws is the regulation of the real estate business.

¹⁷Some professional groups, such as those in medicine, law, and accountancy, require continuing education as a prerequisite for license renewal.

¹⁸Theory suggests that occupational certification is likely to create a price differential between certified

and non-certified practitioners such that, if large enough, will induce consumers to use non-certified, presumably inferior, non-certified practitioners [see, Friedman 1962]. The effect of voluntary certification depends on the elasticity of demand for certified practitioners. Independent of this, since members of NAR agree to abide by the group's code of ethics and to arbitrate disputes internally, the larger the fraction of disputes arbitrated by NAR the fewer the number of complaints filed with the real estate commission.

¹⁹We assume linear relationships. It can be shown that the system is overidentified and can be estimated using two-stage least squares (see, for example, Judge et al. [1980]).

²⁰For a detailed description of the data, see NARELLO [1983].

²¹The final sample consists of thirty-five states due to missing data. Excluded were Colorado, Connecticut, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Maine, Michigan, Montana, Pennsylvania, Texas, West Virginia, and Wisconsin.

²²The reported R^2 s are based on ordinary least squares, and 76% and 47% of the variance in complaints and pass rates are explained, respectively.

²³Critics often claim that the intent of occupational licensing is to benefit certain producers and restrict buyers from purchasing goods or services from potential competitors [Friedman 1962]. Using the same database as this study, Johnson and Loucks [1984] find minimal evidence on the hypothesis that increasing licensing restrictions will result in limiting the supply of real estate licensees.

²⁴Most states require only minimal achievable standards in order to be licensed. The data indicate that only 70% to 75% is required in order to pass most licensing exams.

²⁵How good are real estate licensing tests? Perhaps the single, most important criticism of licensing examinations is the failure to ensure that tests used for licensing are of high professional quality. Approximately three-fourths of the real estate licensing examinations are administered by either the Educational Testing Service (ETS) or the American Testing Program (ACT). A Chow test for equality of the scores across these two groups suggested that the difference, however, is not significant. Shimberg et al. (1973) identify a number of inadequacies relating to written portions of licensing examinations, including lack of planning, poor-quality multiple-choice questions, and lack of standardized practices and adequate criteria for evaluating performance. Our estimates indicate that licensing tests administered by national testing services are, on average, more difficult than exams administered by states who write and grade their own tests.

²⁶Maurizi [1974] notes that, while the tendency to restrict pass rates for most occupations is greater in a state where the capitalized gain from entry is greater, the evidence for real estate brokers and agents produced insignificant results. He attributes this to the implicit assumption that high-income states and rising-income states are coincident.

²⁷An exception is Carroll and Gaston [1979]. Using average amount of time a house for sale is vacant and unsold as a measure of net quality of real estate agent service, they find an adverse effect of licensing on quality of services.

²⁸Leland [1979] points out that licensing may help to improve the quality of service in markets with low elasticity of demand, low marginal cost of providing quality, low value placed on low-quality service, and high sensitivity to quality variations.

²⁹A recent growing theoretical literature has investigated the pricing of real estate brokerage services. See, for example, Yinger [1981], Bartlett [1981], and Colwell and Wu [1985]. The empirical research on brokerage market includes Carney [1982], Jud [1983], and Colwell and Marshall [1985].

³⁰While there is no prior literature that we know of that empirically examines this issue, the sign of the coefficient follows from Leland [1979].

³¹The establishment of a recovery fund has many limitations. It is possible that the maximum amount available per transaction or license will not fully compensate for the losses suffered. However, even given this defect, one would expect a positive correlation between number of complaints and total amount ever paid from the recovery fund.

³²It should be noted that a complaint to enforce compliance with the Fair Housing Laws is typically filed with the Department of Housing and Urban Development (HUD). Either with a mutually agreed upon settlement or a court judgment, the complaint may end up at the state level.

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