

5-2015

Licensing Health Care Professionals, State Action and Antitrust Policy

Roger D. Blair

University of Florida, roger.blair@warrington.ufl.edu

Christine Piette Durrance

Follow this and additional works at: <http://scholarship.law.ufl.edu/facultypub>



Part of the [Antitrust and Trade Regulation Commons](#), and the [Health Law Commons](#)

Recommended Citation

Roger D. Blair & Christine Piette Durrance, *Licensing Health Care Professionals, State Action and Antitrust Policy*, 100 Iowa L. Rev. 1943 (2015), available at <http://scholarship.law.ufl.edu/facultypub/712>

This Article is brought to you for free and open access by the Faculty Scholarship at UF Law Scholarship Repository. It has been accepted for inclusion in UF Law Faculty Publications by an authorized administrator of UF Law Scholarship Repository. For more information, please contact outler@law.ufl.edu.

Licensing Health Care Professionals, State Action and Antitrust Policy

*Roger D. Blair & Christine Piette Durrance**

I. INTRODUCTION.....	1944
II. POLITICAL ECONOMY OF OCCUPATIONAL LICENSING	1945
III. BOYCOTTS: THEORY.....	1949
A. <i>ECONOMIC THEORY OF BOYCOTTS</i>	1949
B. <i>SUMMARY</i>	1951
IV. EMPIRICAL EVIDENCE ON THE EFFECTS OF OCCUPATIONAL LICENSING IN HEALTH PROFESSIONS	1952
A. <i>GENERAL FINDINGS IN OCCUPATIONAL LICENSING</i>	1952
B. <i>PHYSICIANS, NURSES, AND NURSE PRACTITIONERS</i>	1954
C. <i>DENTISTS</i>	1956
D. <i>MIDWIVES</i>	1958
E. <i>RADIOLOGIC TECHNICIANS</i>	1959
F. <i>MASSAGE THERAPY</i>	1959
G. <i>SUMMARY</i>	1960
V. THE STATE ACTION DOCTRINE.....	1960
A. <i>CLEAR STATE PURPOSE</i>	1963
B. <i>ACTIVE STATE SUPERVISION</i>	1964
VI. CONCLUSION	1967

* Department of Economics, University of Florida and Department of Public Policy, University of North Carolina at Chapel Hill, respectively. Without implicating them in what follows, we thank Keith Hylton, Rebecca Haw Allensworth, James Fishkin, and Andrew Gavil for their comments on our paper, which was presented at the University of Iowa, *Iowa Law Review* Centennial Symposium Honoring Herbert Hovenkamp. We also thank our respective institutions for financial support.

I. INTRODUCTION

In *Capitalism and Freedom*, Milton Friedman pointed out that one rationale for restricting the number of physicians involved the preservation of quality.¹ He explained that restricting supply will prop up physician incomes and thereby reduce the incentives to engage in unethical behavior.² This may sound absurd, but a similar argument has been made more recently. In both *Goldfarb v. Virginia State Bar* and *National Society of Professional Engineers v. United States*, the rationale for restricting competition was the need to bribe members of the profession to prevent their performing shoddy work.³ While this excuse is both insulting to the members of the profession and self-serving, it has a fatal flaw: the argument that competition is undesirable—even if true—is inconsistent with the fundamental premise of the Sherman Act.⁴

In *Professional Engineers*, Justice Stevens explained that exemptions from the Sherman Act's prohibitions must come from the legislature rather than from the Court.⁵ When state legislatures attempt to insulate an occupational group from competition and the dictates of the Sherman Act, they must satisfy the state action doctrine.⁶ In order to do so, the state must clearly articulate its intention to displace competition in the market for those professional services. The state must also actively supervise the regulation that replaced market forces to ensure that the purported rationale to displace competition is satisfied.⁷

1. MILTON FRIEDMAN, *CAPITALISM AND FREEDOM* 152–53 (1962).

2. *Id.*

3. *Goldfarb v. Va. State Bar*, 421 U.S. 773, 789–91 (1975); *Nat'l Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679, 693–94 (1978). In *Professional Engineers*,

the Society averred that the standard set out in the Code of Ethics was reasonable because competition among professional engineers was contrary to the public interest. It was averred that it would be cheaper and easier for an engineer “to design and specify inefficient and unnecessarily expensive structures and methods of construction.” Accordingly, competitive pressure to offer engineering services at the lowest possible price would adversely affect the quality of engineering. Moreover, the practice of awarding engineering contracts to the lowest bidder, regardless of quality, would be dangerous to the public health, safety, and welfare.

Id. at 684–85 (internal citation omitted).

4. In *Professional Engineers*, Justice Stevens pointed out that “the Rule of Reason does not support a defense based on the assumption that competition itself is unreasonable.” *Prof'l Eng'rs*, 435 U.S. at 696.

5. *Id.* at 689–90.

6. In contrast to our focus on health care professions, Edlin and Haw have analyzed the economic effects of licensing professions more broadly. They have concluded that the state action doctrine should not immunize a licensed profession from antitrust scrutiny. Licensing should remove per se treatment, but not insulate a licensing board from antitrust scrutiny under the rule of reason. See generally Aaron Edlin & Rebecca Haw, *Cartels by Another Name: Should Licensed Occupations Face Antitrust Scrutiny?*, 162 U. PA. L. REV. 1093 (2014).

7. The state action doctrine can be traced to *Parker v. Brown*, 317 U.S. 341 (1943). At issue in *Parker* was a state program that was designed to raise the price of raisins for the benefit of

In this Essay, we raise some economic concerns about the wisdom of conferring antitrust immunity on professional licensing boards, which are often comprised of members of the profession and therefore apt to be motivated by self-interest rather than the public interest. In Part II, we examine the political economy of special interest legislation, which suggests that little public good results from replacing competitive market forces with self-regulation. In Part III, we employ a basic economic model to generate predictions of the economic effects of professional licensing. Part IV provides a survey of the empirical research in this area, which confirms the theoretical predictions. In Part V, we turn our attention to the requirements of the state action doctrine and, in Part VI, close with some concluding remarks and suggestions. In all of what follows, we focus on occupational licensing within health care professions.

II. POLITICAL ECONOMY OF OCCUPATIONAL LICENSING

The antitrust laws presume that consumers and society in general are best served when markets are competitive. Such markets would be free of all restraints. As we will show, social welfare is maximized by unfettered competition. This general presumption, however, may be misguided in the presence of externalities,⁸ public goods,⁹ and asymmetric information.¹⁰ Any one of these may lead to market failure, which means that the usual forces of supply and demand lead to sub-optimal results. When markets fail, there may be a case for government intervention. In the case of professional services, market failure—if it exists—can usually be traced to asymmetric information; that is, the service provider knows something about his or her qualifications and competence that the patient or client does not know. Professional services are *credence* goods, which means that their quality cannot be judged accurately even after they have been consumed.¹¹ An undesirable outcome may be the best that could be achieved given the circumstance. A desirable outcome may

growers. *Id.* at 346–48. In effect, the price was manipulated rather than determined by supply and demand.

8. An externality is a positive or negative byproduct of economic activity. A neat lawn pleases its owner, but also pleases the neighbors, which is a positive externality. A coal burning power plant produces electricity, which is appreciated, and air pollution, which is not. This is an example of a negative externality. See HAL R. VARIAN, INTERMEDIATE MICROECONOMICS WITH CALCULUS 667–87 (2014).

9. A public good can be consumed by more than one person simultaneously. While a slice of pizza is a private good because Anne and Barbara cannot both eat the same slice, the background music at the restaurant is public because Anne's consumption of the music is not diminished by Barbara's consumption of that same music. See *id.* at 717–39.

10. For a good treatment of asymmetric information, see *id.* at 741–61.

11. Some goods are *inspection* goods, which means that their relevant characteristics can be determined before the purchase, simply by looking at the product. Some services are *experience* goods, for example, a barber's performance can be evaluated by looking in the mirror. The same cannot be said for medical, dental, and legal services.

still fall short of the full potential. In either event, the client (patient) is usually unable to evaluate accurately the quality of the services provided.

Over half a century ago, Milton Friedman examined the political economy of occupational licensing.¹² He recognized that regulating the professions was not really intended to promote the public interest. Instead, it was demanded by the members of a profession to promote their economic interests.¹³ In essence, members of an occupation recognize that fees, prices, wages, and income cannot rise above the competitive level without attracting entry, which expands supply and thereby causes fees and income to decline.¹⁴ Licensing controls entry, which readily appeals to the public interest, especially with professions. After all, licensing of physicians should protect us from quackery.¹⁵ But licensing physicians also curtails supply, which increases fees and reduces the quantity of physician services consumed. As a result, those who continue to consume those services are made worse off by higher prices, but perhaps more importantly, some consumers will go without professional services. There can be long-term consequences from not visiting the doctor or the dentist.

Licensing boards are also apt to be dominated by members of the profession. After all, who else could evaluate the competence of a would-be physician than someone who is already a physician? Thus, the regulatory board is composed of people with a vested economic interest in the board's decisions regarding competitive restraints. In other words, there is a problem when the self-regulatory board of interested parties can use its position to behave in the interest of its members while professing to be acting in the public interest.

12. FRIEDMAN, *supra* note 1, at 137–60.

13. Friedman's insights are consistent with the general theories of regulation offered by Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J.L. & ECON. 211 (1976) and George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971). Friedman also pointed out that a predictable effect of blocking entry to a profession is the emergence of related professions (e.g., chiropractic and osteopathy in response to limitations on entry into the medical profession). FRIEDMAN, *supra* note 1, at 155–56. Other examples include the emergence of advanced practice registered nurses, nurse anesthetists, dental hygienists, and physician assistants.

14. The benefits of controlling supply can be seen clearly *infra* Part III.A. A recent example shows the effects of regulation. Kawaguchi, Murao, and Kambayashi analyzed the employment effects of a revision to the Building Standards Act in Japan, which required a stricter review process for large buildings. The authors found that wages of certified architects increased (30%) while hours worked were unchanged (because of inelastic labor supply). Daiji Kawaguchi et al., *Incidence of Strict Quality Standards: Protection of Consumers or Windfall for Professionals?*, 57 J.L. & ECON. 195, 211 (2014).

15. For example, in 1963, the American Medical Association (“AMA”) formed a “Committee on Quackery,” which was concerned about the rise of new practitioners, specifically chiropractors. A court found the AMA to have boycotted chiropractors by informing AMA members that chiropractors were unsuccessful practitioners and that it was unethical for a medical physician to associate with them. *Wilk v. Am. Med. Ass'n*, 895 F.2d 352, 357–58 (7th Cir. 1990). This conduct constituted a violation of section 1 of the Sherman Act. *Id.* at 362.

The so-called *public interest theory of regulation* holds that regulation emerges in response to the public's demand for correction of a serious market failure stemming from undesirable externalities or asymmetric information. In essence, regulation should eliminate incompetence of inequitable practice.¹⁶ Thus, according to the public interest theory of regulation, regulation should improve social welfare. In practice, however, there may be other competing explanations for regulation. For example, the *capture theory of regulation* holds that industries want to be regulated and that the regulatory agency eventually becomes controlled (or "captured") by the industry. In industries that are potentially competitive, regulation tends to increase price, where the regulated price exceeds cost, and prevents entry that would dissipate profits.

George Stigler and Sam Peltzman offered a theory referred to as the *economic theory of regulation*.¹⁷ The essential elements of their theory are as follows. First, the purpose and effect of regulation is to redistribute wealth from consumers to those subject to the regulatory process. Second, state legislators behave so as to get reelected, which means that they will promote the public interest when doing so is more likely than not to keep them in office. Third, those who are regulated capture the regulatory process by providing political support to legislators.

This theory leads to several interesting predictions. First, regulation is biased towards interest groups that are more organized.¹⁸ The size of the interest group can also play a role because free-riding can be problematic. In a larger group, individuals may free-ride (i.e., rely on the contributions of others without themselves contributing). Occupations have organizations that represent the interests of all members and require payment of dues, for example, the American Medical Association ("AMA"), American Bar Association ("ABA"), and American Dental Association ("ADA"). The smaller the group, the less important the free-rider problem, and each participant stands to benefit a lot from the regulation. Second, pressure for regulation when market failures are significant due to the size of potential benefits from correcting the market failure. Third, theory predicts that highly competitive industries are suitable to be regulated because without regulation, price will be near cost.

In summary, the economic theory of regulation provides predictions about which industries will be regulated and what that regulation will look

16. This has also been called "normative analysis as a positive theory." See W. KIP VISCUSI ET AL., *ECONOMICS OF REGULATION AND ANTITRUST* 375-79 (4th ed. 2005).

17. See generally Peltzman, *supra* note 13; Stigler, *supra* note 13. Gary Becker offered a theory similar to that of Stigler and Peltzman, but the foundation for his theory was competition among interest groups and the *relative* influence of the interest groups. See *supra* note 15 (describing the AMA's response to the rise of chiropractors).

18. See *supra* note 14 (providing an example of an organized interest group that benefitted from favorable regulation).

like. First, small groups with strong preferences benefit over larger groups with relatively weaker preferences. Second, regulation is likely in competitive industries, as those market participants stand to gain much from regulatory legislation. Third, market failure provides some incentive for regulation.¹⁹

Several studies have empirically investigated the origins of state-level occupational licensing. One such study, by Marc Law and Sukkoo Kim, analyzed the emergence of state licensing laws between 1880 and 1930 in 11 occupations to examine the main predictors of the adoption of licensing laws.²⁰ These occupations include some health occupations (dentists, nurses, physicians, and veterinarians) and some others (architects, attorneys, barbers, beauticians, engineers, plumbers, and teachers).²¹ Specifically, the authors investigated the factors that influenced the initial adoption of licensing legislation.²² Licensing data were drawn from the Council of State Governments.²³ Using a logistic discrete time hazard model, the authors estimated the probability that occupational licensing occurred by a given year for a given occupation.²⁴ In the pooled regression model (all occupations combined with occupation fixed effects),²⁵ the results suggested that workers per capita (or representation of the workforce) and urbanization both were statistically significant (positive) factors.²⁶ Additionally, adoption of licensing for physicians, dentists, and veterinarians occurred earlier than the other professions studied.²⁷

19. VISCUSI ET AL., *supra* note 16, at 2–3.

20. Marc T. Law & Sukkoo Kim, *Specialization and Regulation: The Rise of Professionals and the Emergence of Occupational Licensing Regulation*, 65 J. ECON. HIST. 723, 726 (2005).

21. *Id.*

22. *Id.*

23. *Id.* at 732.

24. *Id.* at 726. A hazard model is a form of survival model, where the duration of interest is the survival time of a subject. The unit of observation begins in a specific state and then may be observed to exit that state. In this case, the model considers the amount of time that passes before the observation leaves the initial state (e.g., passes licensing legislation). A hazard model approximates the probability of exiting the initial state conditional on having survived in the initial state up to that point. See JEFFREY M. WOOLDRIDGE, *ECONOMETRIC ANALYSIS OF CROSS SECTION AND PANEL DATA* 685–93 (2002), available at https://jrvargas.files.wordpress.com/2011/01/wooldridge_jr_2002_econometric_analysis_of_cross_section_and_panel_data.pdf.

25. Law & Kim, *supra* note 20, at 726. A fixed-effects model uses binary indicators for the level of repeated observation in the panel (in this case, binary indicators for each occupation and time (year)). Occupational fixed-effects control for unobserved, time-invariant effects of that occupation on the dependent variable. Year fixed-effects control for temporal effects on the dependent variable that are common across all occupations. See JEFFREY M. WOOLDRIDGE, *INTRODUCTORY ECONOMETRICS: A MODERN APPROACH* 460, 849 (5th ed. 2013).

26. A statistically significant coefficient means that the estimate generated by the econometric model is statistically different from zero, with some degree of certainty, usually 95% certainty. See WOOLDRIDGE, *supra* note 25, at 123–24, 858.

27. Law & Kim, *supra* note 20, at 736.

Xueguang Zhou also studied the emergence of occupational licensing in 30 health and non-health professions.²⁸ Using data from 1890 to 1950, the author found that occupational power (measured using occupational prestige, which is a function of the income and social status of the occupation's members and is measured using an occupational prestige score) and the age of the national association were positively associated with the adoption rate of licensing legislation, while state capacity (measured as per capita state revenues and inter-party competition) did not have a statistically significant effect.²⁹ Additionally, the cumulative number of states licensing an occupation had a positive effect on the adoption of licensing, while the cumulative number of occupations licensed in a state did not predict adoption of licensing.³⁰ When focusing specifically on occupations in the person sector (as opposed to the business sector), the results were fairly comparable.³¹

Taken together, these empirical findings indicate that the characteristics of the professional group (i.e., the occupational prestige, size of the group), the degree of urbanization, and the existence of occupational licensing in that profession elsewhere are strong predictors of the adoption of occupational licensing.

III. BOYCOTTS: THEORY

The fundamental premise of the Sherman Act is that competition promotes consumer welfare and social welfare. If the state wishes to limit competition in the market, it is reasonable to demand that the state be able to put forth a sound rationale for doing so. Many—if not all—economists take a dim view of limits on competition. In this Part, we explain why. First, economic theory illustrates the gains to the group that benefits directly from the limitation and the costs imposed on consumers and society as a whole. Second, the empirical evidence demonstrates and quantifies those costs.

A. ECONOMIC THEORY OF BOYCOTTS

In most of the cases involving practice restrictions, the markets appear to be competitively structured. Most local markets, for example, have enough doctors, dentists, and lawyers for competition to flourish. The Yellow Pages indicate that there are over 1000 listings for physicians or physicians' offices, over 200 listings for dentists or dental offices, and over 300 listings for lawyers or law firms practicing in Iowa City, which has a population of only 70,000 people. As we shall see, however, the exclusion of a source of supply confers

28. See generally Xueguang Zhou, *Occupational Power, State Capacities, and the Diffusion of Licensing in the American States: 1890 to 1950*, 58 AM. SOC. REV. 536 (1993).

29. *Id.* at 546.

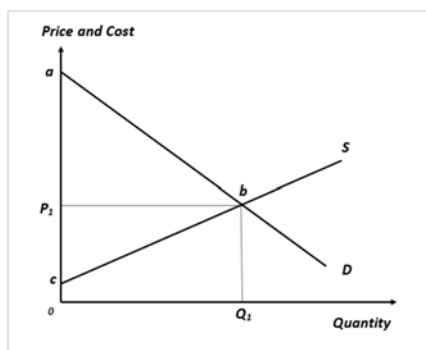
30. *Id.*

31. *Id.* at 546–47.

economic benefits to those who remain in practice. Their benefits come at the expense of those who are excluded and, of course, consumers. A simple supply and demand model will illustrate the theoretical consequences of exclusion.

In Figure 1, D represents the demand for some well-specified professional service and S represents the supply from all sources. The market for these services will be in equilibrium when supply and demand are equal. In the example, the quantity demanded and supplied will be Q_1 , while the price paid and received will be P_1 . Consumer surplus, which is a measure of consumer welfare, is equal to the area under the demand curve and above the price, or area abP_1 in Figure 1. Producer surplus, which is profit to the suppliers, is the area above the supply curve and below the price, or area P_1bc in Figure 1. Social welfare (or total welfare) is the sum of consumer and producer surplus, which is represented by the triangular area abc in Figure 1. Competition in this market maximizes social welfare. No other price and output will generate as much total surplus as the competitive price and output generates, which demonstrates the economic case for competition.

Figure 1: Competitive Market with No Exclusion



The consequences of excluding a source of supply can be illustrated with the supply and demand model. Figure 2 reproduces the supply and demand depicted in Figure 1. It includes a disaggregation of supply into two sources of supply: S_A , which is the supply of the authorized group, and S_B , which is the supply of the group that will be banned. The horizontal sum of S_A and S_B is S .

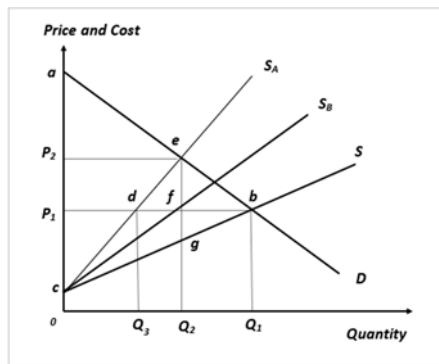
If the banned Group B suppliers are excluded from the market, then the supply becomes S_A . The price rises from P_1 to P_2 and the quantity falls from Q_1 to Q_2 . The authorized suppliers actually sell more than they previously sold and do so at a higher price. Before the exclusion of S_B , the price was equal to P_1 and the A firms supplied Q_1 . After the exclusion of S_B , the price rises, and the quantity supplied by the A firms expands to Q_2 . Overall, however, market output falls from Q_1 , when both Groups A and B supply, to Q_2 , when Group B is excluded. As a consequence, the authorized suppliers earn higher profits.

Those higher profits are equal to area ceP_2 , an increase of area P_1P_2de in Figure 2. Thus, it is clear that the authorized suppliers have a profound economic incentive to exclude rival sources of supply. There are, however, costs for others.

First, the banned suppliers had enjoyed producer surplus of P_1cf and now earn no profits. They are, therefore, worse off as a result of their exclusion.

Consumers are also worse off. With competition, consumer surplus had been equal to area abP_1 , but it falls to aeP_2 . The reduction in social welfare is captured by area cbe . Thus, the gains to the authorized suppliers are outweighed by losses to others. On Kaldor–Hicks grounds, therefore, the exclusion unambiguously reduces social welfare.³² Without more, the state legislature should not displace competition.

Figure 2: Competitive Market with Exclusion of Group B Firms



B. SUMMARY

In summary, the effects of removing a source of supply from a market are higher market prices, lower market output, higher profits for the non-excluded firms, and reduced consumer welfare. In the market for health care, fewer health care services received may be even less desirable than it appears in the economic model. If the prices of preventive health services increase, some patients will be priced out of the market, which may delay medical care. This may make the consumer worse off if they delay necessary medical care, which could worsen health care outcomes and lead to more expensive health care expenditures later. If the excluded firms were never excluded, the cost

32. A good discussion of the Kaldor–Hicks compensation principle can be found in RICHARD E. JUST ET AL., *THE WELFARE ECONOMICS OF PUBLIC POLICY: A PRACTICAL APPROACH TO PROJECT AND POLICY EVALUATION* 32–38 (2004). For the seminal articles, see generally J.R. Hicks, *The Foundations of Welfare Economics*, 49 *ECON. J.* 696 (1939); and Nicholas Kaldor, *Welfare Propositions of Economics and Interpersonal Comparisons of Utility*, 49 *ECON. J.* 549 (1939).

of those services may have been lower and more of those services may have been consumed, but perhaps at lower quality.

IV. EMPIRICAL EVIDENCE ON THE EFFECTS OF OCCUPATIONAL LICENSING IN HEALTH PROFESSIONS

There has been a good deal of empirical work on occupational licensing within the health care market. Our review of the evidence is consistent with the predictions of the economic theory. The studies in this literature provide fairly consistent evidence that licensing results in higher market prices for health care services, higher wages for professionals serving the market, and restrictions on the number of professionals serving the market. Additionally, the literature demonstrates mixed results on the effect of licensing on quality measured by various health care outcomes. In what follows, we describe some of this literature for health care licensing and regulation generally, and then by specific health care providers, including physicians, nurse practitioners, nurses, dentists, midwives, radiologic technicians, and massage therapists.

A. GENERAL FINDINGS IN OCCUPATIONAL LICENSING

Morris Kleiner and Alan Krueger studied the influence of occupational licensing on the labor market.³³ Specifically, the authors used a telephone survey developed as part of the Princeton Data Improvement Initiative, which includes questions about occupational regulation and labor market information. The survey was conducted from June 5 to July 20, 2008, among individuals aged 18 and older, although the authors limited the sample to those who were employed at the time of the survey. Some examples of questions include: (1) “Do you have a license or certification that is required by a federal, state or local government agency to do your job?”; (2) “Would someone who does not have a license or certificate be legally allowed to do your job?”; and (3) “Is everyone who does your job eventually required to have a license or certification by a federal, state or local government agency?”³⁴ The results showed that licensing rises with education (44% with post-college education versus 15% for those with less than high school education) and that government workers were more likely to have a license.³⁵ Similar licensing patterns exist by gender, race, and ethnicity.³⁶ Descriptive regression analysis indicated that licensing “is associated with approximately 18% higher hourly wages.”³⁷

33. See generally Morris M. Kleiner & Alan B. Krueger, *Analyzing the Extent and Influence of Occupational Licensing on the Labor Market*, 31 J. LAB. ECON. S173 (2013).

34. *Id.* at S181.

35. *Id.* at S183.

36. *Id.* at S183 tbl.1.

37. *Id.* at S185.

In an earlier study, Kleiner and Krueger used a nationally representative Gallup survey, which was conducted between May and August 2006.³⁸ The authors found that 29% of the workforce holds a license, and that licensing is positively associated with education, union workers, and government employment.³⁹ The authors also found that licensing is associated with 15% higher wages (similar to the effect of union status).⁴⁰

Marc Law and Sukkoo Kim tested the effect of licensing on entry into licensed professions using a fixed effects model and a 2SLS model (where the instrument is “the number of *other* occupations licensed by a given state in a given year”).⁴¹ The results indicated that licensing does not restrict entry, although when the authors considered a more dynamic specification where they estimated the effect on the growth rate into the profession, they found a negative effect on the growth rate of physicians and dentists.⁴² The authors then specifically studied licensing in the medical profession. They examine the effect of seven different aspects of medical licensing legislation.⁴³ Generally, they found that stricter licensing leads to a reduction in physicians per capita.⁴⁴ Surprisingly, they found that stricter licensing does not increase average physician incomes.⁴⁵ Stricter licensing is also related to lower rates of infant mortality, maternal morbidity, and appendicitis mortality, although not associated with overall mortality reductions.⁴⁶

38. Morris M. Kleiner & Alan B. Krueger, *The Prevalence and Effects of Occupational Licensing*, 48 BRIT. J. INDUS. REL. 676 (2010).

39. *Id.* at 677.

40. *Id.* at 685.

41. Law & Kim, *supra* note 20, at 738. A two-stage least squares model (2SLS) is a regression model that uses an instrumental variable for an independent variable that is endogenous. WOOLDRIDGE, *supra* note 25, at 528–29. An endogenous variable is one that is correlated with the error term. *See id.* at 848. An instrumental variable is used to deal with this endogeneity. *Id.* at 850. The instrument must be highly correlated with the endogenous regressor, but uncorrelated with the error term (i.e., not endogenous in the same way as the endogenous regressor). The researchers estimate the model in two stages: first, run a regression of where the endogenous variable is a function of the instrument and the other covariates and obtain the fitted values of the endogenous variable. *Id.* at 529. Second, estimate the OLS regression using the fitted values of the endogenous variable—instead of the endogenous variable itself. *Id.*

42. Law & Kim, *supra* note 20, at 726.

43. These seven include: (1) the year in which the licensing law was enacted; (2) the year in which a state licensing board was introduced; (3) the year in which a state licensing exam was required for new medical license applicants; (4) the year in which a two-year pre-medical college requirement was introduced; (5) the year in which the length of the medical degree was required to be at least four years long; (6) the year in which an internship requirement was imposed; and (7) the year in which a basic science requirement was introduced. *Id.* at 744 tbl.6.

44. *Id.* at 744.

45. *Id.* at 746.

46. *Id.* at 748–49.

B. *PHYSICIANS, NURSES, AND NURSE PRACTITIONERS*

Morris Kleiner, Allison Marier, Kyoung Won Park, and Coady Wing analyzed the effect of occupational regulation of nurse practitioners (“NPs”)—defined as “registered nurses . . . who have acquired more advanced education and clinical training” either through a Master’s or PhD program—on wages, employment, and outcomes.⁴⁷ Specifically, the authors tested whether physicians and NPs are complements or substitutes.⁴⁸ The NP regulations addressed in this study include light regulation (where NPs can practice independently from physicians and prescribe controlled substances), moderate regulation (where NPs can prescribe controlled substances if they are supervised by a physician), and heavy regulation (where NPs may not prescribe controlled substances).⁴⁹ Data on occupational regulations were drawn from the *Nurse Practitioner* annual legislative updates, labor market data were collected from the American Community Survey from the 2002–2009 period, and data on prices of medical services were drawn from a large private insurer.⁵⁰ The results indicated that moderate regulation leads to reduced NP wages (14%) and increased physician wages (7%).⁵¹ Additionally, these restrictions lead to reduced NP hours worked by 6–14%.⁵² The results also indicated that these NP restrictions lead to an increase in physician hours worked of 6–9%.⁵³ With respect to prices, these same regulations lead to an increase in the price of health care services (as measured by the price of a well-child visit) by 3–16%.⁵⁴ The authors, however, found no effect on quality or outcomes as measured by infant mortality rates or medical malpractice premiums.⁵⁵

Using data from a national survey of nurse practitioners completed in 1992, Shihua Pan, LaVonne Straub, and Jack Geller examined the NP’s level of autonomy (based on a weighted total score of prescriptive authority with

47. Morris M. Kleiner et al., *Relaxing Occupational Licensing Requirements: Analyzing Wages and Prices for a Medical Service* 4 (Nat’l Bureau of Econ. Research, Working Paper No. 19,906, 2014), available at <http://www.nber.org/papers/w19906.pdf>.

48. *Id.* at 3–4. Suppose we are considering two goods, X and Y. If the demand for X goes up in response to a price increase for Y, then we say X is a substitute for Y, i.e., the consumer substitutes X for the more expensive Y.

If the demand for X goes down in response to a price increase for Y, we say X is a complement for Y, i.e., X and Y are consumed together, so when one becomes more expensive, the consumer reduces his or her consumption of both goods. See VARIAN, *supra* note 8, at Chapter 6.

49. Kleiner et al., *supra* note 47, at 12.

50. *Id.* at 13, 15, 17.

51. *Id.* at 4.

52. *Id.* at 4–5.

53. *Id.* at 5.

54. *Id.*

55. *Id.*

respect to 17 categories of medications).⁵⁶ The levels of authority included “writing prescription independently,” “writing prescription independently with physician/psychologist consultation,” “writing prescription by protocol,” “writing prescription by formulary,” “writing prescription only with physician’s/psychiatrist’s signature after consultation,” and “verbally calling in prescription order to pharmacy.”⁵⁷ The results indicated that state regulation of NPs negatively impact their prescribing authority and limit their ability to practice.⁵⁸

Perry analyzed changes in NP and physician’s assistant (“PA”) authority on practitioner incomes.⁵⁹ These changes involved prescription authority and reimbursement authority (i.e., NP and PA services recognized as independently billable services).⁶⁰ Data on prescribing and reimbursement changes in state regulations were drawn from legislative updates publications of *Nurse Practitioner* and *Physician Assistants: State Laws and Regulations*.⁶¹ The author used three distinct sources for data on practitioners earnings: the National Sample Survey of Registered Nurses for NPs, the American Academy of Physician Assistants Annual Census for PAs, and the Current Population Survey (“CPS”) for physicians.⁶² The study estimated a log-wage equation as a function of the regulatory variables and other controls.⁶³ Greater practice authority for NPs reduced physicians’ income and improved NP income, but had mixed effects for PAs.⁶⁴ Greater PA authority reduced NP earnings, increased physicians’ incomes, but had little effect on PA incomes.⁶⁵

Kevin Stange “exploit[ed] variation in NP and PA concentration and regulatory environment” using county-level data on NPs and PAs over time on an array of outcomes.⁶⁶ Specifically, he used a fixed effect approach where the key explanatory variable is the number of NPs and PAs per 100,000 population.⁶⁷ Because this measure may be endogenous, Stange used the number of bachelor’s RN programs in the county in 1963 and the number of

56. Shihua Pan et al., *Restrictive Practice Environment and Nurse Practitioners’ Prescriptive Authority*, 9 J. AM. ACAD. NURSE PRACT. 9, 10–11 (1997).

57. *Id.* at 11.

58. *Id.* at 14.

59. See generally John J. Perry, *The Rise and Impact of Nurse Practitioners and Physician Assistants on Their Own and Cross-Occupation Incomes*, 27 CONTEMP. ECON. POL’Y 491 (2009).

60. *Id.* at 493–94.

61. *Id.*

62. *Id.* at 495.

63. A log-wage equation transforms the dependent variable (the wage) into the natural logarithm of the wage. This is a common specification in applied work because coefficients have a percentage interpretation. WOOLDRIDGE, *supra* note 25, at 42.

64. Perry, *supra* note 59, at 500.

65. *Id.* at 501.

66. Kevin Stange, *How Does Provider Supply and Regulation Influence Health Care Markets?: Evidence from Nurse Practitioners and Physician Assistants*, 33 J. HEALTH ECON. 1, 2 (2014).

67. *Id.* at 7.

PA programs in the county in 1975 as instruments in a 2SLS model.⁶⁸ The results indicated that provider concentration had minimal impact on health care utilization and on prices of health care services.⁶⁹ The results suggested, however, that prescriptive authority regulations impact utilization (positively for NPs and negatively for PAs).⁷⁰ NP prescriptive authority was positively related to visit charges, but the same is not true for PAs.⁷¹

David Kalist and Stephen Spurr investigated if the recent scope of practice changes to advanced practice nursing led to entry into the field and an increase in the supply of advanced practice nurses (“APNs”).⁷² APNs include “nurse practitioner[s], certified nurse-midwi[ves], certified registered nurse anesthetist[s], and clinical nurse specialist[s].”⁷³ Using state regulation data from the *Nurse Practitioner* publication, the authors compiled regulations based on prescriptive authority and professional independence (i.e., “the Board of Nursing is the sole authority” over the practice of APNs).⁷⁴ The authors used this main independent variable to explain the number enrolled each year in the master’s degree nursing programs by state (the dependent variable), obtained from publications of the National League for Nursing.⁷⁵ The results indicated that enrollments in APN programs are 13% higher in states with “greater prescription authority” and 30% higher in states with greater professional independence.⁷⁶

C. DENTISTS

Kleiner and Robert Kudrle examined the effect of “restrictiveness” in dentistry using geographic variation in the pass rates of dental exams on outcomes.⁷⁷ States were categorized as “heavily restricted” if the pass rate was less than 80% and if it had no reciprocity; “medium” if the pass rate was between 80–90% and had reciprocity; and “light” if pass rate was above 90% and had reciprocity.⁷⁸ Outcomes were collected using military recruits to the U.S. Air Force.⁷⁹ Individuals were asked a host of questions, including the history of where they lived and dental history information.⁸⁰ Little evidence

68. *Id.* at 9.

69. *Id.* at 11, 13.

70. *Id.* at 15.

71. *Id.*

72. See generally David E. Kalist & Stephen J. Spurr, *The Effect of State Laws on the Supply of Advanced Practice Nurses*, 4 INT’L J. HEALTH CARE FIN. & ECON. 271 (2004).

73. *Id.* at 271.

74. *Id.* at 274.

75. *Id.*

76. *Id.* at 277.

77. See generally Morris M. Kleiner & Robert T. Kudrle, *Does Regulation Affect Economic Outcomes? The Case of Dentistry*, 43 J.L. & ECON. 547 (2000).

78. *Id.* at 562–63.

79. *Id.* at 559.

80. *Id.* at 559–60.

was found that restrictiveness is associated with untreated dental deterioration (i.e., quality).⁸¹ The authors found similar results for other quality measures, including the ratio of the complaints filed against dentists in state licensing boards to the number of dentists in the state and “average malpractice insurance rates in a state for a dentist with 10 years experience.”⁸² The authors, however, found an association between greater regulation and lower provider supply.⁸³ They also found some evidence that more restrictive states have higher dental prices (approximately 11%).⁸⁴ Finally, they found that dentists practicing in more restrictive states have higher wages.⁸⁵

Coady Wing and Allison Marier examined the effect of regulations on the scope of practice of dental hygienists and on the prices of various dental services, including “prophylaxis, fluoride treatment, local anesthesia, nitrous oxide, sealant application, amalgam restoration, and X-rays.”⁸⁶ There are three occupational groups involved in dentistry: dentists (doctoral degree), dental hygienists (associates or bachelor’s degrees), and dental assistants (no degree).⁸⁷ The authors used a difference-in-difference (“DD”) framework as well as a difference-in-difference-in-difference (“DDD”) framework.⁸⁸ Specifically, they tested the effect of a “dentist-only” policy for specific services.⁸⁹ The authors used insurance claims data for the 2005–2007 period and regulatory data for the same years.⁹⁰ The results suggested that state regulations lead to prices that are approximately 12% higher.⁹¹

Paul Wing, Margaret H. Langelier, Tracey A. Continelli, and Ann Battrell analyzed and found significant differences in legal practice environments across states for dental hygienists.⁹² The authors created a Dental Hygiene Professional Practice Index (“DHPPI”), which contained information on how dental hygienists can practice including regulation, supervision, tasks

81. *Id.* at 570.

82. *Id.* at 569.

83. *Id.*

84. *Id.* at 572–73.

85. *Id.* at 574–75.

86. Coady Wing & Allison Marier, *Effects of Occupational Regulations on the Cost of Dental Services: Evidence from Dental Insurance Claims*, 34 J. HEALTH ECON. 131, 132 (2014).

87. *Id.* at 134 tbl.1.

88. A. COLIN CAMERON & PRAVIN K. TRIVEDI, MICROECONOMETRICS: METHODS AND APPLICATIONS 55–57, 768–70 (2005); Wing & Marier, *supra* note 86, at 132. A difference-in-difference model tries to imitate an experimental study with quasi-experimental data. The model calculates a treatment effect by comparing the outcomes in one group before and after a policy intervention. A difference-in-difference-in-difference model adds a third difference into the model as an additional comparison group.

89. *See* Wing & Marier, *supra* note 86, at 136.

90. *Id.* at 138.

91. *Id.* at 132.

92. *See generally* Paul Wing et al., *A Dental Hygiene Professional Practice Index (DHPPI) and Access to Oral Health Status and Service Use in the United States*, 79 J. DENTAL HYGIENE 1 (2005).

performed, and reimbursement.⁹³ Based on these factors, states were assigned “ratings of ‘Excellent,’ ‘Favorable,’ ‘Acceptable,’ ‘Limiting,’ [or] ‘Restrictive.’”⁹⁴ The authors tested a series of relationships between DHPPI and a number of factors including dentists per capita, dental hygienists per capita, dental hygienist median hourly salary, and access to care.⁹⁵ The results showed that DHPPI was not correlated with dental hygienists per capita or not dentists per capita.⁹⁶ DHPPI was positively correlated with dental hygienists’ salaries and utilization of oral health services and oral health outcomes.⁹⁷

Tanya Wanchek analyzed the effect of licensure regulations and practice restrictions on the dental hygienist labor market and access to dental care.⁹⁸ Using a three-stage least squares (“3SLS”) model,⁹⁹ the author employed licensure requirement variables (e.g., number of dental hygienist graduates, practice years and exams accepted for credentials) and a DHPPI index similar to Wing et al.’s article from 2005,¹⁰⁰ which measured the liberalness of practice restrictions.¹⁰¹ The author found that entry requirements were negatively correlated with dental hygienist employment and practice restrictions were negatively correlated with dental hygienist wages.¹⁰²

D. MIDWIVES

Adams, Ekelund, and Jackson considered the regulation of certified nurse midwives (“CNMs”) on the quantity of births delivered by CNMs.¹⁰³ The specific regulations that the authors considered included medical board authority over CNMs, continuing medical education, insurance reimbursement mandated or any willing provider laws, clinical practice privileges guaranteed, prescriptive authority for CNMs, supervision by MDs, lay midwives permitted in the state, and medical reimbursement 80% or lower than the MD rate.¹⁰⁴ The authors did not test the effect of such regulations on

93. *Id.* at 3.

94. *Id.*

95. *Id.* at 4–7.

96. *Id.* at 7.

97. *Id.*

98. Tanya Wanchek, *Dental Hygiene Regulation and Access to Oral Healthcare: Assessing the Variation Across the US States*, 48 BRIT. J. INDUS. REL. 706, 723–24 (2010).

99. *Id.* at 715–16. A three-stage least squares (3SLS) model is an extension of the two-stage least squares regression. In this case, both wages and employment are endogenous to each other, and both affect access to care. The model simultaneously estimates supply and demand equations, and the 3SLS model accounts for the correlation in errors across equations.

100. *See generally* Wing et al., *supra* note 92.

101. Wanchek, *supra* note 98, at 714.

102. *Id.* at 718–19. Correlation indicates that two variables move in the same direction, but does not necessarily imply that one variable causes the other. This is the distinction between correlation and causation.

103. A. Frank Adams III et al., *Occupational Licensing of a Credence Good: The Regulation of Midwifery*, 69 S. ECON. J. 659, 661–62 (2003).

104. *Id.* at 663 tbl.1.

prices (they instead assumed that prices increase), but found that more regulation of the practice of midwifery reduces the quantity of CNM births.¹⁰⁵

E. RADIOLOGIC TECHNICIANS

Timmons and Thornton focused on the effects of occupational licensing on radiologic technologists (“RTs”), who take X-rays, administer nuclear medicine for diagnostic purposes, and operate devices that take diagnostic images (e.g., mammograms and MRIs).¹⁰⁶ Using data from a 2001 survey conducted by the American Society of Radiologic Technologists, the authors estimated a wage equation as a function of several types of regulation and other individual-level characteristics.¹⁰⁷ Thirty-five states now have a licensing requirement for RTs to practice.¹⁰⁸ The wage equation included several measures for the strictness of the state’s regulation of RTs, including an indicator for whether the state requires licensing, “the percentage of licensing board members who are RTs,” and the number of hours of continuing education required for RTs.¹⁰⁹ Using ordinary least squares (“OLS”), the authors found that stricter regulation of RTs lead to 3.3% higher wages in the profession.¹¹⁰ To account for the possible endogeneity of RT regulation, the authors used the licensing board size as an instrument, and found higher effects on wages—approximately 6.9%—in the 2SLS model.¹¹¹

F. MASSAGE THERAPY

Massage therapy (“MT”) requires regulation or certification in most states. Using ten years of data from the American Community Survey (“ACS”) from 2000 to 2009, Timmons & Thornton used state policy changes to identify the economic effects of regulation on MTs, specifically earnings and supply.¹¹² The authors estimated a wage equation, where they controlled for individual-level factors as well as the state regulatory factors that capture the strictness of the regulation.¹¹³ The results imply that MT licensing can

105. *Id.* at 668–73.

106. Edward J. Timmons & Robert J. Thornton, *The Effects of Licensing on the Wages of Radiologic Technologists*, 29 J. LAB. RES. 333, 333 (2008).

107. *Id.* at 334. A wage equation is a mathematical equation where the wage (i.e., the dependent variable) is described as a function of the factors thought to influence the wage.

108. *Id.* at 335–36.

109. *Id.* at 338–39.

110. *Id.* at 341. OLS regression is a regression method that relates the independent variables and dependent variable in a linear way, and minimizes the sum of the squared vertical distances between the observed data and the predicted observations. WOOLDRIDGE, *supra* note 25, at 30–32.

111. Timmons & Thornton, *supra* note 106, at 341–44.

112. See generally Robert J. Thornton & Edward J. Timmons, *Licensing One of the World’s Oldest Professions: Massage*, 56 J.L. & ECON. 371 (2013).

113. *Id.* at 379–80.

increase wages as much as 16%, but the authors found mixed evidence that regulations on MTs affect the number of practicing MTs.¹¹⁴

G. SUMMARY

The empirical research on the effects of occupational licensing requirements spans many professions, employs different data sources, covers different time periods, and employs econometric techniques of varying sophistication. The magnitudes of the estimated effects necessarily vary across these studies, but there is a central tendency. The effects on price and quantity are both ubiquitous and consistent with economic theory—prices rise and quantities shrink. Those results are inconsistent with antitrust's goal of promoting consumer welfare. Unfortunately, this is not the end of the story. Occupational licensing arguably serves the public interest by protecting consumers from charlatans and incompetents. Thus, we should expect licensing to improve quality. The empirical evidence on this issue is fairly limited, but the evidence that does exist fails to support much of a claim to improved quality. Thus, occupational licensing appears to impose costs without conferring many benefits.¹¹⁵

V. THE STATE ACTION DOCTRINE

When state legislatures decide to regulate the professions through licensing, they insulate the group from competition and Sherman Act scrutiny. But to do so, they must satisfy the requirements of the state action doctrine. In this section, we describe the judicial history that led to the development of the state action doctrine. First, the state must clearly articulate its intention to displace the discipline of competitive markets with regulation. This provides some assurance that they realize the consequences of what they are doing. Second, there must be active state supervision rather than benign neglect. This requirement is intended to protect consumers from monopoly.

In *Goldfarb*, the Supreme Court recognized that members of a profession must be given some leeway in how market transactions are conducted.¹¹⁶ Specifically the Court explained:

The fact that a restraint operates upon a profession as distinguished from a business is, of course, relevant in determining whether that particular restraint violates the Sherman Act. It would be unrealistic to view the practice of professions as interchangeable with other

114. *Id.* at 386.

115. Andrew Gavil, on behalf of the FTC, also reported that while licensing can protect consumers from harm when used appropriately, it often fails to do so, making consumers worse off without offering quality improvements. FED. TRADE COMM'N, PREPARED STATEMENT OF THE FEDERAL TRADE COMMISSION ON COMPETITION AND THE POTENTIAL COSTS AND BENEFITS OF PROFESSIONAL LICENSING 1 (2014).

116. *Goldfarb v. Va. State Bar*, 421 U.S. 773 (1975).

business activities, and automatically to apply to the professions antitrust concepts which originated in other areas. The public service aspect, and other features of the professions, may require that a particular practice, which could properly be viewed as a violation of the Sherman Act in another context, be treated differently.¹¹⁷

The dimensions of the leeway that the Court recognized are not completely clear. In *Goldfarb*, a house buyer solicited quotes from law firms for handling the closing on his house.¹¹⁸ He found that everyone who responded to his inquiry quoted the same fee.¹¹⁹ This uniformity flowed not from market forces, but from a minimum fee schedule designed to limit price competition among attorneys.¹²⁰ The Supreme Court found this practice to be unlawful and struck down the use of minimum fee schedules by lawyers in Virginia.¹²¹ Subsequent cases have not afforded much deviation from the usual requirements that rivals compete on the merits.

In *Arizona v. Maricopa County Medical Society*, the issue involved an agreement to adhere to a maximum—rather than minimum—fee schedule.¹²² The agreement was an essential component of an effort to engage in managed care.¹²³ Nonetheless, the Supreme Court found an agreement to charge no more than a predetermined fee to violate section 1 of the Sherman Act.¹²⁴ The Court recognized that the maximum fee was a binding constraint with the result that physicians who provided superior health care were not rewarded for doing so.¹²⁵ That is, the incentive for being a better physician was blunted by the maximum fee schedule.¹²⁶

In another case, the AMA's restriction on truthful advertising by physicians was successfully challenged by the Federal Trade Commission ("FTC").¹²⁷ In *FTC v. Indiana Federation of Dentists*, the issue involved a concerted refusal to provide dental X-rays for review by dental insurers.¹²⁸

117. *Id.* at 788 n.17.

118. *Id.* at 776.

119. *Id.*

120. *Id.* at 781.

121. *Id.* at 791–93.

122. *Arizona v. Maricopa Cnty. Med. Soc'y*, 457 U.S. 332, 335–36 (1982). For an economic analysis, see generally Jeffrey L. Harrison, *Price Fixing, the Professions, and Ancillary Restraints: Coping with Maricopa County*, 1982 U. ILL. L. REV. 925.

123. *Maricopa Cnty.*, 457 U.S. at 339–40.

124. *Id.* at 326.

125. *Id.* at 348.

126. The Court may have been influenced by *Albrecht v. Herald Co.*, 390 U.S. 145 (1968), which forbade vertically imposed maximum resale price, and had not yet been overturned by *State Oil Co. v. Khan*, 522 U.S. 3 (1997).

127. *In re Am. Med. Ass'n*, 94 F.T.C. 701 (1979), *aff'd and modified sub nom.* Am. Med. Ass'n v. Fed. Trade Comm'n, 638 F.2d 443 (2d Cir. 1980), *aff'd*, 455 U.S. 676 (1982) (per curiam).

128. Fed. Trade Comm'n v. Ind. Fed'n of Dentists, 476 U.S. 447, 449–50 (1986).

Although the dentists claimed that the refusal was motivated by concerns for their patients' welfare, the Court struck down a concerted refusal to deal by independent dentists.¹²⁹ In *Professional Engineers*, the members of the association of architects and engineers agreed not to engage in competitive bidding.¹³⁰ The conspirators argued that the ban was necessary to protect public safety and welfare.¹³¹ The Court was unimpressed by this argument and found the ban on competitive bidding to be unlawful.¹³²

In *FTC v. Superior Court Trial Lawyers Ass'n*, the issue involved a collaborative effort to force the District of Columbia to raise the fees paid to attorneys who provided public defense legal services.¹³³ When the lawyer's demands for more realistic fees were rebuffed or ignored, the members of the Association agreed among themselves to refuse to take cases.¹³⁴ The Supreme Court held that this was an unlawful group boycott.¹³⁵

Although transparent efforts to restrict competition among members of a profession may not fare well under section 1 of the Sherman Act, there is more than one way to skin a cat. The professions have found that occupational licensing can be used as a way of reducing competition without running afoul of the antitrust laws. This, of course, requires the help of state legislatures. With its decision in *Parker v. Brown*, the Supreme Court began the development of the state action doctrine.¹³⁶ Ordinarily, price, quantity, quality, credit terms, warranty coverage, and other relevant product characteristics should be determined by free and open competition in the market. There are times, however, when policymakers conclude, rightly or wrongly, that competition will not yield the socially optimal results. In these cases, regulation or some other deviation from unfettered competition seems warranted. This creates the need for an exemption from the proscriptions of the Sherman Act. If certain requirements are met, the state action doctrine permits the state legislature to enact policies that would not otherwise pass antitrust muster. The *Parker* requirements were restated in *California Retail Liquor Dealers Association v. Midcal Aluminum, Inc.*, where the Supreme Court adopted a two-pronged standard for satisfying the state action doctrine: (1) "the challenged restraint must be 'clearly articulated and affirmatively expressed

129. *Id.* at 453, 458-59.

130. *Nat'l Soc'y of Prof'l Eng'rs v. United States*, 435 U.S. 679, 681 (1978).

131. *Id.*

132. *Id.* at 699.

133. *Fed. Trade Comm'n v. Superior Court Trial Lawyers Ass'n*, 493 U.S. 411, 414 (1990).

134. *Id.* at 416.

135. *Id.* at 435-36.

136. *Parker v. Brown*, 317 U.S. 341 (1943). The best survey of the state action doctrine can be found in 1A PHILIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶ 221-31 (4th ed. 2013 & Supp. 2014).

as state policy”); and (2) “the policy must be ‘actively supervised’ by the State.”¹³⁷

A. CLEAR STATE PURPOSE

The first requirement for state action immunity is the presence of a “clear state purpose” to displace the antitrust laws.¹³⁸ In other words, the enabling legislation must clearly articulate the state’s intention to exempt the members of a profession from the Sherman Act’s mandate to engage in free and open competition.

In the absence of market failures stemming from externalities and/or asymmetric information, competition will maximize social welfare. This is the fundamental rationale for the Sherman Act. As Areeda and Hovenkamp have pointed out, “[t]he basic premise of the antitrust laws is the market should both direct and constrain private behavior. To that end, competition must be robust and free of anticompetitive restraints.”¹³⁹ If the price, quantity, and quality that results from unfettered competition in the market are less than optimal due to some form of market failure, an economic rationale for government intervention may exist.

In this regard, one must be careful to compare the results of an imperfect market with those that can reasonably be expected to flow from a state agency. Nobel Laureate Gary Becker warned us of the flaw in comparing the results of an imperfect market with those of an ideal state agency.¹⁴⁰ An imperfect state agency is not necessarily better than an imperfect market. There is a general presumption that competitively structured markets serve the state’s interest unless the state has clearly expressed its view to the contrary.

When a state does express a contrary viewpoint, the court in *Cantor v. Detroit Edison Co.* noted that any assumptions will be made in favor of federal law.¹⁴¹ The Court’s holding in *Cantor* requires clear articulation. Areeda and Hovenkamp explain that

[t]he Court insisted that no conflict between state and federal law be inferred unless it is clear that an exemption is necessary to make the state’s program work. This means that unless the state is explicit about which activities are part of its regulatory plan, the Court will assume that activities that conflict with the antitrust laws are not part of the plan for purposes of antitrust immunity.¹⁴²

137. *Cal. Retail Liquor Dealers Ass’n v. Midcal Aluminum, Inc.*, 445 U.S. 97, 105 (1980); see also 1A AREEDA & HOVANKAMP, *supra* note 136, ¶ 221f.

138. 1A AREEDA & HOVANKAMP, *supra* note 136.

139. *Id.*

140. Gary S. Becker, *Competition and Democracy*, 1 J.L. & ECON 105, 105–10 (1958).

141. See *Cantor v. Detroit Edison Co.*, 428 U.S. 579, 594–95 (1976).

142. 1A AREEDA & HOVANKAMP, *supra* note 136, ¶ 221d2.

The Federal Trade Commission (“FTC”) encourages policy makers to consider carefully the restrictions imposed by licensure requirements and their likely effect on competition and consumers, including whether less restrictive options could achieve the same goal.¹⁴³ While the FTC has not specifically challenged the establishment of general licensing requirements (e.g., entry qualifications to a profession), they are more concerned with additional restrictions on licensing of particular professionals (e.g., supervisory relationships between advanced practice registered nurses (“APRN”) and physicians).¹⁴⁴

B. ACTIVE STATE SUPERVISION

It is not enough for a state to authorize otherwise unlawful restraints of trade. For antitrust immunity under the state action doctrine, the state must supervise the conduct to ensure that abuses are minimal. The state supervision is not adequate if the members of the profession make decisions for themselves.¹⁴⁵ Adequate supervision requires public officials to make decisions. Absent sufficient public control, antitrust immunity will not be granted. If the supervising government body is made up of the interested producers themselves, there is inadequate state supervision. This is often the case for medical, legal, and other professional associations.

The FTC has challenged the actions of regulatory boards that are made up of members of the profession that the board is intended to regulate. Specifically, the FTC challenges behavior when the actions of the board appear to go beyond the scope of the stated purpose of the regulatory agency, in a way that furthers the interests of the members, who also make up the board.¹⁴⁶ In a case against the South Carolina Board of Dentistry, the FTC challenged the conduct of the Board, alleging that the Board had illegally restricted the provision of dental services to low-income children.¹⁴⁷ The state legislature had removed a statute that required a dentist to perform an examination “before a [dental] hygienist [could] perform cleanings or apply sealants [to children] in school.”¹⁴⁸ In response, the Board reauthorized the requirement, which allegedly illegally restrained competition in the market for preventive dental services, specifically for low-income children.¹⁴⁹

143. FED. TRADE COMM’N, *supra* note 115, at 8–9.

144. *Id.* at 10–11.

145. 1A AREEDA & HOVANKAMP, *supra* note 136, ¶ 221e2.

146. *See* FED. TRADE COMM’N, *supra* note 115, at 6–7.

147. Complaint at *1, *In re* S.C. State Bd. of Dentistry, No. 9311, 2003 WL 22168993 (F.T.C. Sept. 12, 2003).

148. *Id.*

149. *Id.* at *1, *4.

A similar issue is under review by the Supreme Court in *North Carolina State Board of Dental Examiners v. FTC*.¹⁵⁰ In the 1990s, dentists began to offer teeth-whitening services; in 2003, non-dentists began to “offer[] teeth-whitening services” at lower prices.¹⁵¹ In response, the North Carolina Dental Board, which is composed of dentists who compete with non-dentist teeth whiteners, sent “cease-and-desist letters to . . . non-dentist teeth whiten[ers],” indicating that the non-dentists were practicing illegally and should stop offering these services.¹⁵² Most providers complied.¹⁵³ The FTC challenged the Board’s conduct, alleging that their actions led to higher prices, reduced consumer choice, and suppressed competition.¹⁵⁴ The Board argued that the state action doctrine applies in this case because the Board acts like a regulatory body and, therefore, its actions are immune from antitrust liability.¹⁵⁵ In contrast, the FTC argued that the Board could not have antitrust immunity because it is composed of dentists who stand to benefit from the exclusion of non-dentist providers, and because it is without state supervision.¹⁵⁶ The Board in turn argued that it does not require state supervision because it is a state entity.¹⁵⁷ The Court of Appeals sided with the FTC, finding that a Board run by market participants was a private actor.¹⁵⁸ The Supreme Court will now review this decision.

As Stigler warned, regulatory bodies can be captured by those that they should be regulating.¹⁵⁹ Consequently, the profession might immunize significant deviations from competition through its control of the regulatory agency. Unfortunately, there is not much the courts can do about this if the state action doctrine is satisfied. In fact, the courts must accept state supervision as being effective. If there is a supervisory body in place, the courts cannot second-guess the wisdom of its decisions. If the agency weighs pros and cons and renders a decision, it is a political decision that should be addressed by the legislature rather than the judiciary. The implication of this is that allegations that the agency has been “captured” are “insufficient to undermine immunity.”¹⁶⁰

150. *N.C. State Bd. of Dental Exam’rs v. Fed. Trade Comm’n*, 717 F.3d 359 (4th Cir. 2013), *aff’d*, 135 S. Ct. 1101 (2015).

151. *Id.* at 365.

152. *Id.*

153. *Id.*

154. *Id.* Even more recently, the FTC has challenged actions by the National Association of Teachers of Singing. See Complaint at *1, *In re Nat’l Ass’n of Teachers of Singing, Inc.*, No. C-4491, 2014 WL 5298209 (F.T.C. Oct. 1, 2014). The Association’s Code of Ethics restricted members from soliciting other members’ students. *Id.* at *1–2.

155. *N.C. State Bd. of Dental Exam’rs*, 717 F.3d at 366.

156. *Id.* at 367–68, 370–71, 373.

157. *Id.* at 368.

158. *Id.* at 375.

159. See Stigler, *supra* note 13, at 4.

160. 1A AREEDA & HOVENKAMP, *supra* note 136, ¶ 221e3, at 377–78.

Friedman observed that members of an occupation often seek licensure in order to promote their economic interests at the expense of the public.¹⁶¹ The judiciary cannot step in and do much about this either. The immunity provided in *Parker* is unaffected by the fact that private parties initiated the legislation. Usually, the legislation is prompted by one or more of those who became regulated. *Eastern Railroad Presidents Conference v. Noerr Motor Freight, Inc.* protects the right to petition the government.¹⁶²

The case of *Bates v. State Bar of Arizona* is an interesting example of a state-sanctioned restraint on competition.¹⁶³ At issue in *Bates* was a ban on advertising by lawyers.¹⁶⁴ The specific prohibition was pretty clear:

A lawyer shall not publicize himself, or his partner, or associate, or any other lawyer affiliated with him or his firm, as a lawyer through newspaper or magazine advertisements, radio or television announcements, display advertisements in the city or telephone directories or other means of commercial publicity, nor shall he authorize or permit others to do so on his behalf.¹⁶⁵

This sweeping ban severely limited an important means of competition. For example, newly minted lawyers could announce their availability most efficiently through advertising. This, of course, would have an adverse impact on the established members of the bar. Consequently, it comes as no surprise that the bar would prefer not to be plagued with competition. The Court held that the advertising ban was an example of an antitrust exemption by satisfying the two requirements of the state action doctrine.¹⁶⁶ The Court reasoned that the ban on advertising and the associated disciplinary rules were a clear articulation of State policy since they were forbidden by the State of Arizona, and that there was active supervision, as shown by the disciplinary actions taken against the infringing attorneys.¹⁶⁷

Bans on advertising often prevent competition on an important dimension. In many cases, advertising leads to lower prices for consumers. The empirical evidence on this began with Lee Benham's study of the price

161. See FRIEDMAN, *supra* note 1, at 137-38. This observation was echoed by Stigler, *supra* note 13, at 13.

162. *E. R.R. Presidents Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127, 135-38 (1961); see also 1A AREEDA & HOVENKAMP, *supra* note 136, ¶ 221e5, at 379.

163. *Bates v. State Bar*, 433 U.S. 350 (1977).

164. *Id.* at 353. *California Dental Association v. FTC*, also involved a ban on advertising but was not a state action case. See generally *Cal. Dental Ass'n v. Fed. Trade Comm'n*, 526 U.S. 756 (1999). The California Dental Association ("CDA"), a nonprofit association, restricted price and quality advertising of its members on the basis that such advertising is deceptive. *Id.* at 759-62.

165. Arizona Disciplinary Rule 2-101B, incorporated in Arizona Supreme Court Rule 29(a). See 17A ARIZ. REV. STAT. 26 (Supp. 1966).

166. *Bates*, 433 U.S. at 359-63.

167. *Id.* at 362. The Court also held that the ban was a violation of the First Amendment and its protection of free speech. *Id.* at 384.

of eyeglasses.¹⁶⁸ He found that the prices of eyeglasses were highest in states that had total advertising bans.¹⁶⁹ States that forbade price advertising while permitting advertising that simply provided information on availability had lower prices.¹⁷⁰ The lowest prices were found in those states that permitted price advertising.¹⁷¹ If this experience serves as a guide, one would expect Arizona's ban on lawyer advertising to result in higher fees for Arizona's lawyers at the expense of Arizona's consumers and business community. There are no apparent benefits to anyone other than the lawyers. Thus, one would predict that the ban on lawyer advertising would redistribute wealth in favor of lawyers. The wisdom of this political choice is not a factor in whether the state action requirements have been met.

VI. CONCLUSION

The fundamental premise of the Sherman Act is that competition will yield socially optimal results. This suggests that deviations from competition result in suboptimal outcomes. But the competitive model presumes that all market participants have full information, which is not the case when it comes to professional services. The presence of asymmetric information provides a rationale for systematically deviating from unfettered competition. Such deviations are permitted under the state action doctrine, provided that the state clearly articulates its intention to replace competition with some form of regulation and actively supervises that regulatory process to assure that the benefits of abandoning competition are realized.

Professional licensing falls under the state action doctrine. In this Essay, we have presented the economic analysis of licensing restrictions. Based on simple supply and demand analysis, we predict that professional licensing will lead to higher prices and reduced utilization. A review of the empirical evidence confirms those predictions.

Since professional licensing should weed out quacks, charlatans, and incompetents, one might expect licensing to result in higher quality professional services. There is not much empirical evidence on the issue of quality, but the evidence that does exist is not comforting (i.e., quality does not appear to be improved unambiguously).

As an economic matter, the exemption for professional licensing appears to be weak at best. The Supreme Court, however, is not likely to repair political misjudgments of state legislatures. This, of course, means that consumers will lose the benefits of competition while members of the professions will enjoy the fruits of reduced competition.

168. Lee Benham, *The Effect of Advertising on the Price of Eyeglasses*, 15 J.L. & ECON. 337 (1972). Benham's study apparently triggered the FTC's interest as it began studying the issue.

169. *Id.* at 340-45.

170. *Id.* at 349-50.

171. *Id.*