OCCUPATIONAL LICENSING AND HEALTH SERVICES: Who Gains and Who Loses?

June 10, 2003

Quality and Consumer Protection: Market Entry
Hearings conducted by the Federal Trade Commission and the Department of Justice

by

Morris M. Kleiner
University of Minnesota and the National Bureau of Economic Research

* I want to thank Hwikwon Ham and Claire Matese for their excellent research assistance with this paper.

Introduction

During the past 60 years there has been a significant increase in the number of occupations that are licensed and in the percentage of the workforce that requires a license. Now in the U.S. there are more than 800 occupations that are licensed in at least one state and more than 18 percent of the workforce requires a license in order to legally do certain types of work. To illustrate the importance of the issue, a higher percentage of workers are licensed than belong to a union or are directly impacted by the federal minimum wage (Kleiner, 2000). In Figure 1 I show the growth of the percentage of employed workers who are required to have a license to work in Minnesota. Occupational licensing is defined as a process where entry into an occupation requires the permission of the government, and the state requires some demonstration of a minimum degree of competency (Kleiner, 2000). Generally, members of the occupation dominate the licensing boards. The agency usually is self-supporting through the collection of fees and registration charges from persons in the licensed occupations. In many states, provisions are established that require that a licensed practitioner be present when a service is provided or when a product is dispensed. For example, in some states' opticians must be present when contact lenses are dispensed (Atkinson and Wilhelm, 2001). Other states prohibit electronic prescription transmission (Atkinson and Wilhelm, 2001).

In contrast, certification permits any person to perform the relevant tasks, but the government agency administers an examination and certifies those who have passed and the level of skill or knowledge (Rottenberg, 1980). Consumers of the product or service can then choose whether to hire a certified worker. For example, travel agents and mechanics are generally certified, but not licensed. In the case of occupational licensing, it is illegal for anyone without a license to perform the task.

Conceptual Issues in Licensing for Health Services

In Figure 2 I show a figure developed by Arlene Holen showing the potential benefits of occupational licensing if licensing serves to preclude less competent individuals from entering the occupation. In this figure as more individuals are eliminated from entering the occupation, the average quality of those in the occupation goes up. This assumes a static number of persons in the occupation and that quality of persons in the occupation follow a statistically normal distribution. The implications for the health care are that if the numbers of individuals can be limited to the most able then the average quality of persons in the occupation can be increased.

Figure 3 takes this argument further by showing the impact of regulation on the quality of service provided to consumers. The schematic diagram shown in Figure 3 presents a way of examining the impact on the demand for and quality of services. This figure traces through licensure's impact on the demand for regulated services as well as how more intense regulation may have either a positive or negative impact on final services (Kleiner and Kudrle, 2000). In the first box at the left of the figure, licensing, through state statutes, set initial entry requirements and standards for individuals to move from

one state to another. These include residency requirements, letters from current practitioners regarding good moral character, citizenship, and general and specific levels of education. Beyond statutory requirements, states and local governments can also change pass rates to mirror relative supply and demand conditions for the service. For example, when there is perceived to be an oversupply in the occupation, the regulatory board can raise the test scores required to pass the exam (Kleiner, 2000).

The second box shows that one of the consequences of regulatory practices is a reduction in the flow of new persons into the occupation, which can have two potential effects. First, in the upper box prices rise as a result of the decline in the number of practitioners. Second, in the lower box the quality of service provided increases as fewer less competent providers of the service are not allowed to enter the market, which raises the average level of service in the occupation. Therefore, the level of service quality as a consequence of regulation is uncertain, as shown in the last box to the right where the negative effects of price rise, and the positive impacts of service quality each may have either a positive or negative effect on the measured quality of services provided. As with any production relationship, other factors such as capital or technology may also contribute to the overall quality of service outputs.

An example in the context of dentistry, an especially highly regulated occupation that has varying state requirements, is useful in interpreting Figure 3. To illustrate, the quality of a dental visit would be negatively related to the pass rate in a state, assuming time and effort spent with each patient remains the same. This would occur because either low quality candidates would be rejected by a state or individuals would incur additional occupation-specific training in order to pass the exam, all other factors remaining equal. In contrast, increases in the pass rate would enhance the access to dental services. Consequently, this outcome would provide greater access as more dentists are available in the state, which would reduce the money price of a dental visit and office waiting time to see a dentist as well as travel time. Therefore, this would be included in the implicit or full price for a dental visit. Overall dental outputs would be a function of the quality of a dental visit and access to dental care. Consequently, given genetic and environmental conditions of an individual, the dental health of a person would be a function of dental demand, which would depend on perceived quality, money price, and time price of services

What Does Licensing Do in Health Services?

The table shows the results of empirical studies of the costs and benefits of occupational licensing for health related occupations. The upper portions of the table show the costs of licensing to consumers and practitioners of various regulatory practices associated with licensing. For example, the average cost of an eye exam and eyeglass prescription is 35 percent higher in cities with restrictive commercial practices for optometrists (Bond, Kwoka, Phelan and Whitten, 1980). Also, 11 of 12 common dental procedures are more expensive in states with more restrictive licensing (Shepard, 1978). The costs of licensing to practitioners generally involve reductions in the ability to move from one political jurisdiction to another. For example, mobility for persons in health-related occupations is significantly reduced in states with tougher standards (Kleiner, Gay, Greene, 1982).

The bottom section of the table shows estimates of the potential benefits of occupational regulation to consumers and practitioners. Unfortunately, there have been many fewer analyses of the effects of the benefits of licensing to patients. However, some early studies have found some positive impacts. One study, completed in the 1960s, on dentistry shows that tougher restrictions improve the quality of care (Holen, 1968). In contrast, other more recent analysis suggests that there are negligible impacts on the quality of outcomes to patients of tougher standards (Kleiner and Kudrle, 2000).

For practitioners there have been many more studies showing that the impact of licensing on the earnings of licensed individuals is positive. The impact of the state regulation of occupations is greater among more educated and higher income occupations. If an occupation, like physicians, is able to limit the number of competitors, like alternative medicine providers, they are able to increase their earnings (Anderson, Halcoussis, Johnston and Lowenberg, 2000). Internationally, there is new evidence that obtaining a license for previously licensed physicians has large earnings effects. The study found that relative to physicians who were granted a license by a practical experience those who had to take a licensing exam with a low pass rate had lower long term earnings (Kugler and Sauer, 2003). In occupations, like respiratory therapists, where there is greater political or economic power by the members of the profession in a state, they were able to obtain licensing provisions for their members by the state, and eventually economic benefits (Wheelen, 1998).

In addition, federal regulations dealing with interstate commerce may conflict with state licensing laws. Provisions in state licensing laws may restrict many of the benefits to commerce provided by the internet. For example, obtaining contact lenses in Connecticut requires the supervision of "a licensed optician and in a registered optical establishment, office, or store."(FTC, March 27, 2002). These state licensing provisions limit the ability of consumers to take advantage of the economic benefits of internet transactions. To the extent that other services such as dentistry, medical devices and pharmacy-related products have similar state occupational licensing-related restrictions, this may limit the ability of consumers to purchase products which have the lowest cost relative to quality.

Questions a Policy Maker Should Ask

The benefits to public health and safety and service quality provided by occupational licensing needs to be weighed against the costs that licensing imposes on consumers relative to certification of competence. For policy makers several key questions may help in deciding which state laws provide greater protections and benefits from regulation relative to their costs. Federal and state policy makers at the FTC, Department of Justice, and state regulators should ask themselves and advocates for the occupations certain questions about the impact that state occupational regulation may have on consumers and practitioners.

These include the following:

Are the state occupational licensing laws increasing prices and what are the quality benefits relative to

other forms of regulation?

Do these restrictions benefit consumers by protecting service quality?

Is the competency of the service enhanced through licensing? Do low income individuals lose relative to higher income ones?

Are there unintended consequences to others such as the spread of disease as a result of the protections offered by licensing?

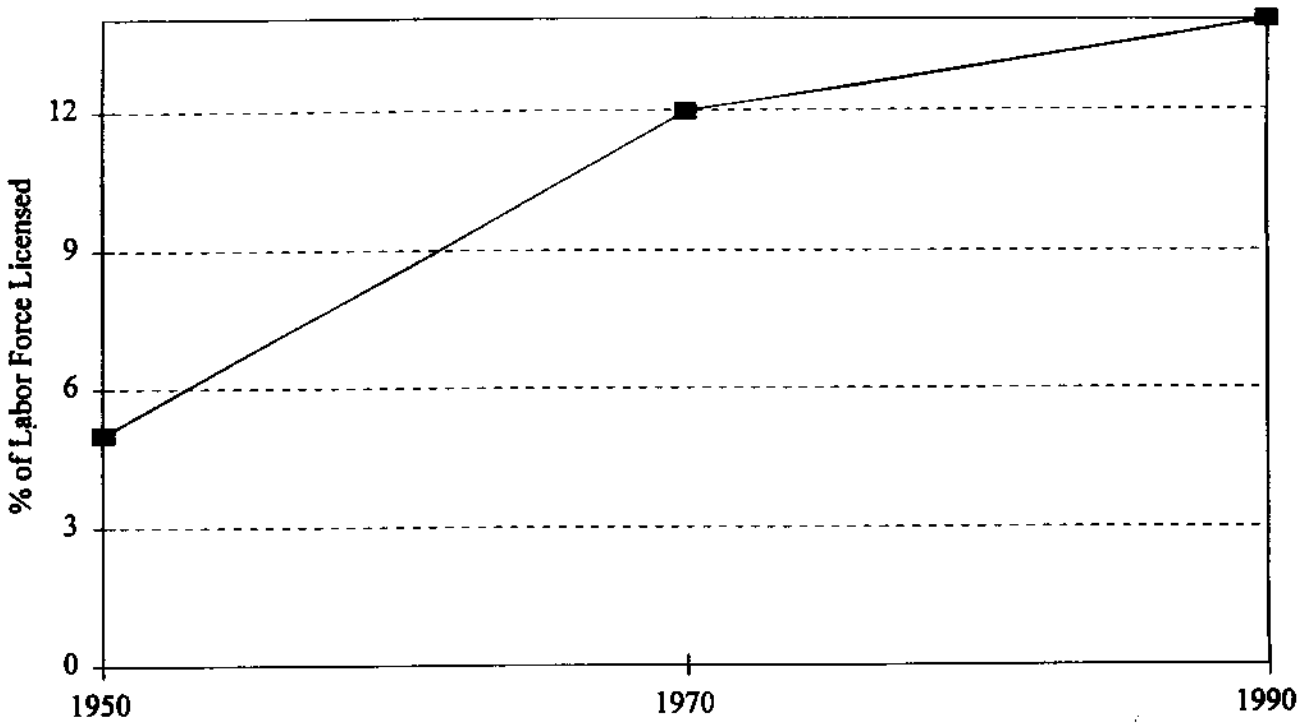
Are the Federal requirements usurping what states view as the optimal amount of regulation in their jurisdictions?

How should different or competing state statutes that impact licensed practitioners be treated?

What is the enforcement mechanism to monitor and to impose the appropriate costs to individuals who choose to potentially violate the state statutes governing occupational licensing requirements?

In summary, although these questions do not deal with all the legal or economic questions posed by the growth of occupational licensing in the U.S. and other nations, but they should help frame the issue for federal and state policy makers who must deal with these regulatory issues.

Figure 1. The Growth of the Minnesota Labor Force that Requires State Licensing



Rationale for Occupational Licensing*

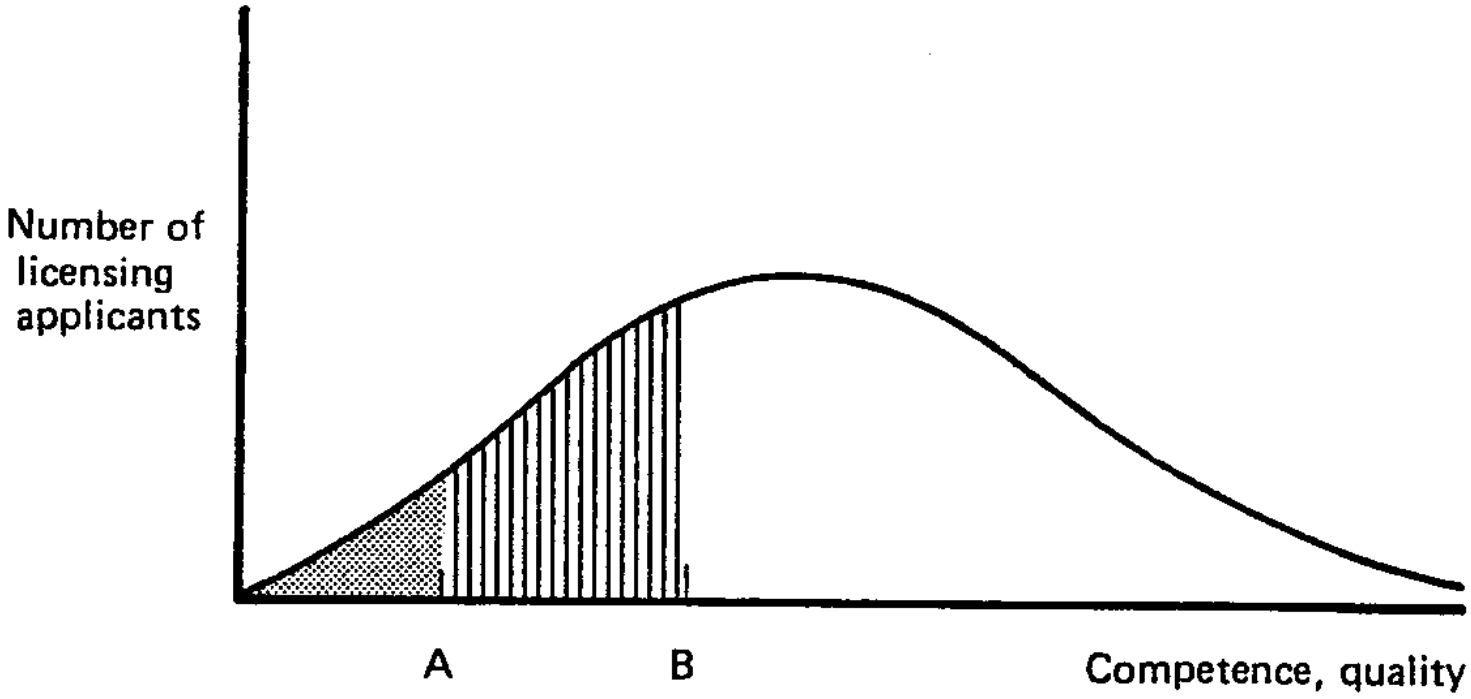
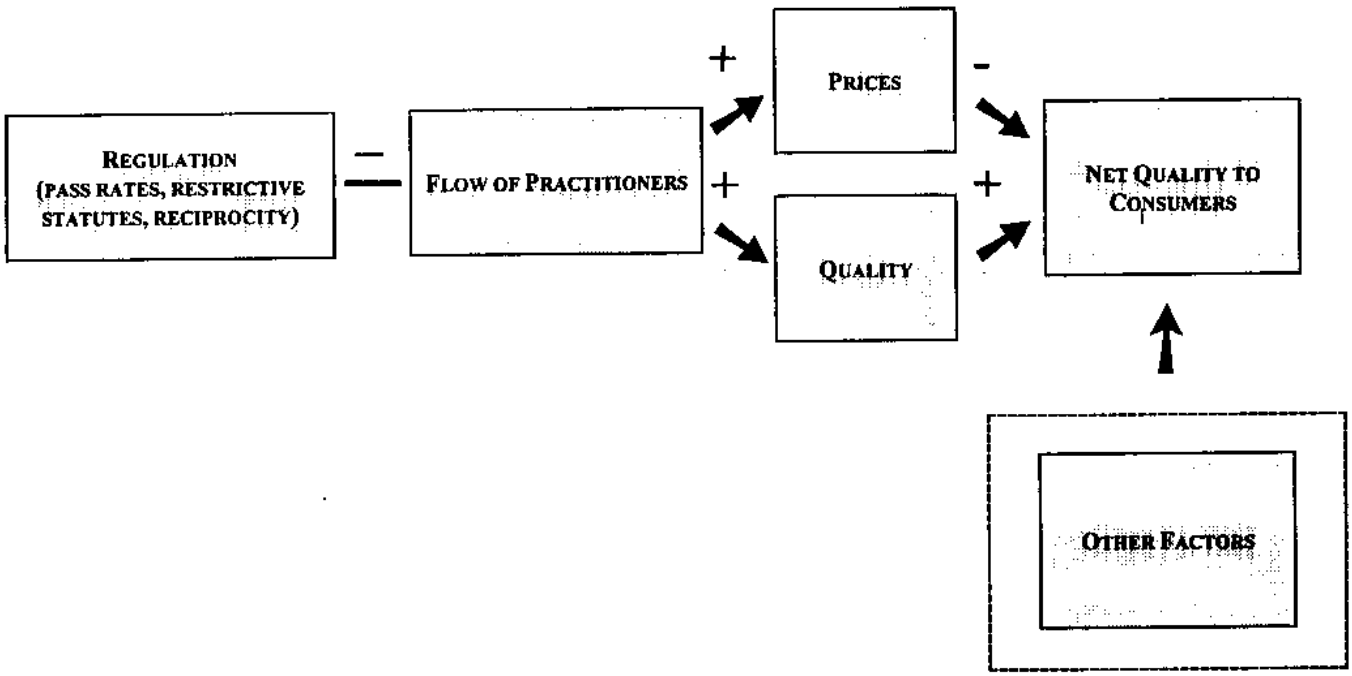


Figure 2 **MINIMUM STANDARDS OF APPLICANT QUALITY**

* Source: Holen, Arlene S. 1978. *The Economics of Dental Licensing*. Public Research Institute of the Center for Naval Analysis, Arlington, VA.

Figure 3

Regulation's Impact on Net Quality



Adapted from M. Kleiner and R. Kudrle "Does Regulation Improve Outputs and Increase Prices? The Case of Dentistry," NBER Working Paper 5869, 1997.

TABLE
Studies on Costs and Benefits of Licensing

	Study	*Profession*	*Finding*
	COSTS		
Consumers	Shepard (1978)	Dentists	11 of 12 common procedures are more expensive in states with more restrictive licensing.
	Bond, Kwoka, Phelan, and Whitten (1980)	Optometrists	Average eye exam and eyeglass prescription is 35 percent more expensive in cities with restrictive commercial practices for optometrists.
	Boulier (1980)	Dentists	Lack of national reciprocity restricts migration, resulting in a net loss in consumer welfare.
	Carroll and Gaston (1981)	7 Licensed Occupations, including Dentists and Optometrists	Although licensing increases the quality of individual practitioners, it lowers the quality of services received by lowering the total stock of practitioners.
	FTC Declaratory Ruling Concerning the Sale of Contact Lenses (2002)	Opticians	The average price of a six-lens multipack purchased via mail order was 19 percent less than the average price for lenses purchased from ophthalmologists, optometrists, and optical chains.
Practitioners	Boulier (1980)	Dentists	Restrictive licensing limits the mobility and affects the geographical distribution of dentists.
	Pashigian (1980)	Licensed Occupations	The most pronounced effect of licensing is the reduced interstate mobility of members in licensed occupations. Restrictions on the use of reciprocity reduce interstate mobility still more.
	Kleiner, Gay and Greene (1982)	14 Licensed Occupations, including six health professions	Licensing acts as a barrier to mobility, causing a misallocation of labor resources across states. A system of universal endorsement would increase gross inmigration of the identified practitioners by over 60 percent.
	BENEFITS		
	Study	***Profession***	***Finding***
Consumers	Holen (1978)	Dentists	Licensing reduces the likelihood of adverse outcomes, and increases the quality of care.
	White (1980)	Registered Nurses	Licensing has no impact on pay or employment levels.
	Shapiro (1986)	Licensed Occupations	Licensing benefits the segment of consumers that values quality highly.
	Kleiner and Kudrle (2000)	Dentists	Tougher licensing has no effect on quality of outputs.
Practitioners	Wheelan (1998)	35 Licensed Occupations in Illinois including respiratory therapists	Professional organizations with political influence and financial resources are more likely to become licensed.

Anderson, Halcoussis, Johnston, and Lowenberg (2000)	Physicians and alternative medicine practitioners	Physicians in states with stricter regulations on alternative medicine earn significantly higher incomes.
Kleiner (2000)	4 Licensed Occupations, including Dentists	Earnings are higher for licensed occupations that require more education and training relative to comparable unlicensed occupations.
Kleiner and Kudrle (2000)	Dentists	Practitioners in the most regulated states earn 12% more than those in the least regulated states.
Kugler and Sauer (2003)	Doctors	For new immigrant doctors in Israel there are large returns to obtaining a medical license

References

Anderson, Gary M., Dennis Halcoussis, Linda Johnston, M.D., and Anton D. Lowenberg. 2000. "Regulatory Barriers to Entry in the Healthcare Industry: The Case of Alternative Medicine." The Quarterly Review of Economics and Finance. 40, pp. 485-502.

Atkinson, Robert D., and Thomas G. Wilhelm. 2002. The Best States for E-Commerce. Technology and New Economy Project, Progressive Policy Institute, Washington, D.C.

Bond, Ronald S., John E. Kwoka Jr., John J. Phelan, and Ira Taylor Whitten. 1980. *Effects of Restrictions on Advertising and Commercial Practice in the Professions: The Case of Optometry*. Staff Report, Bureau of Economics, Federal Trade Commission, Washington, D.C.

Boulier, Bryan L. 1980. "An Empirical Examination of the Influence of Licensure and Licensure Reform on the Geographical Distribution of Dentists." In *Occupational Licensure and Regulation*, edited by Simon Rottenberg. Washington D.C.: American Enterprise Institute for Public Policy Research.

Carroll, Sidney L., and Robert J. Gaston. 1981. "Occupational Restrictions and the Quality of Service Received: Some Evidence." *Southern Economic Journal*. 47:4, pp. 959-76.

Federal Trade Commission. 2002. "In Re: Declaratory Ruling Proceeding on the Interpretation and Applicability of Various Statutes and Regulations Concerning the Sale of Contact Lenses." *Comments of the Staff of the Federal Trade Commission, Intervenor.*

Gordon, Robert J. 2000. "Does the 'New Economy' Measure Up to the Great Inventions of the Past?" *Journal of Economic Perspectives*. 14:4, pp. 49-74.

Holen, Arlene S. 1978. *The Economics of Dental Licensing*. Public Research Institute of the Center for Naval Analysis, Arlington, VA.

Kleiner, Morris M. 2000. "Occupational Licensing." *Journal of Economic Perspectives*. 14:4, pp. 189-202.

Kleiner, Morris M., and Robert T. Kudrle. 2000. "Does Regulation Affect Economic Outcomes?: The Case of Dentistry." *The Journal of Law and Economics.* 43:2, pp. 547-82.

Kleiner, Morris M., Robert S. Gay and Karen Greene. 1982. "Barriers to Labor Migration: The Case of Occupational Licensing." *Industrial Relations.* 21:3, pp. 383-91.

Kugler, Adrianna D. and Robert Sauer, "Doctors Without Borders? The Returns to an Occupational License for Soviet Immigrant Physicians in Israel," unpublished manuscript, March 2003.

Pashigian, B. Peter. 1979. "Occupational Licensing and the Interstate Mobility of Professionals," *Journal of Law and Economics*. 22:1, pp. 1-25.

Rottenberg, Simon, 1980. "Introduction," in ed. S. Rottenberg, *Occupational Licensure and Regulation,* Washington, American Enterprise Institute, pp. 1-10.

Shapiro, Carl. 1986. "Investment, Moral Hazard and Occupational Licensing." *Review of Economic Studies*. 53, pp. 843-62.

Shepard, Lawrence. 1978. "Licensing Restrictions and the Cost of Dental Care." *Journal of Law and Economics*. 21:1, pp. 187-201.

Shimberg, Benjamin. 1982. *Occupational Licensing: A Public Perspective*. Center for Occupational and Professional Assessment, Educational Testing Service, Princeton.

Wheelan, Charles J. 1998. *An Empirical Examination of the Political Economy of Occupational Licensure*. Unpublished Dissertation. The University of Chicago.

White, William D. 1980. "Mandatory Licensure of Registered Nurses: Introduction and Impact." In *Occupational Licensure and Regulation*, edited by Simon Rottenberg. Washington D.C.: American Enterprise Institute for Public Policy Research.