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Introduction and Overview [to Stages of Occupational Regulation]

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Introduction and Overview

A dominant perspective on the development of policies for the regulation of occupational labor markets is that these workers should be regulated to ensure quality providers and high levels of service. In only some narrow areas should competitive labor markets alone be dominant. Others argue that occupational labor markets should be free of government regulation because they have little need for licensing through government rules, except in those cases where the health and safety of society are seriously threatened. Since World War II, the market for occupational oversight by government has grown to such an extent that by 2008 almost 40 percent of the U.S. labor market had, or was required to eventually obtain, either a license or certification from some form of local, state, or federal government (Kleiner and Krueger 2013). Since governmental occupational regulation varies greatly depending on the occupation that is licensed, the purpose of this book is to examine a variety of occupations that are at different stages of regulation and determine to what extent regulation has influenced the individuals in the occupation, consumers, or other closely related occupational practitioners. Since governments at the local, state, and national levels are confronted with the interests of the members of the occupations—and in rare cases with the interests of consumers of the services seeking more regulation—the goal of this book is to provide new analysis and evidence on how these labor markets work in the face of new and continuing government regulations.

The book adds further background and new analysis to the issue in the law-versus-economics debate, which asks whether litigation or regulation is better for society (Kessler 2011). If regulation is efficient, then ubiquitous regulation, which is found in most advanced nations, adds greater impetus for economic development (Shleifer 2011). On the other hand, the general theme of law-and-economics research suggests that contracts and the courts are a substitute for regulation (Coase 1960). They argue that if potential externalities can be contracted
around, no regulation is necessary. However, the growth of regulation through occupational licensing suggests that some manner of efficient regulation may be gaining as the dominant form of public policy. An additional issue that emerges with more regulation is that as occupational licensing becomes more prevalent, there is more room for litigation. This is because licensing develops more rules, which require legal interpretation. That results in further complaints adjudicated through the courts. The implications for economic growth are therefore unclear.

The common threads throughout the book include showing the growth of regulation and its variations over time. Each subsequent chapter shows an occupation that has a higher level of regulation. In this way, the successive chapters demonstrate the influence of increased regulation on the wages of the occupations and, where data were available, its effects on employment. A unique aspect of the book is that it portrays outcomes both for consumers in the case of regulation of mortgage brokers and for young children’s educational attainment in the case of licensing of preschool teachers and their assistants. Another unique aspect of the analysis is the examination of occupations such as those of dentists and hygienists, who battle with regulators over who is permitted to do what type of work in dental offices. A further innovation is the examination of how regulations may influence the number of workplace injuries and deaths suffered by plumbers and electricians in the construction industry, which is the most hazardous industry, based on total numbers of workplace accidents in the United States. Overall, there are common aspects of the volume, yet each chapter delves into the unique historical or institutional aspects of a particular occupation and how it is regulated by government using data and analysis.

The evolution of occupational regulation has a long and distinguished intellectual history. Adam Smith, in his 1776 work *The Wealth of Nations*, notes that trades conspired to reduce the availability of “skilled craftsmen” in order to raise wages. Smith goes on to say that “to hinder him from employing this strength and dexterity in what manner he thinks proper without injury to his neighbor, is a plain violation of this most sacred property. It is a manifest encroachment upon the just liberty both of the workman, and of those who might be imposed to employ him” (Smith 1937).

In the United States, a structural shift in the economy has developed. The country has moved from a manufacturing-based economy, where
unions and collective bargaining contracts previously were prominent, toward a service-oriented economy; the transformation has created a demand for a “web of rules” governing the workplace that has made licensing part of this evolution (Dunlop 1958). Although the number of union members has declined, occupational licensing has grown over the past 50 years (Kleiner 2006).

Occupational regulation in the United States generally takes three forms. The least restrictive form is registration, in which individuals file their names, addresses, and qualifications with a government agency before practicing their occupation. The registration process may include posting the equivalent of a surety bond or filing a fee. In contrast, certification permits any person to perform the relevant tasks, but the government—or sometimes a private, nonprofit agency—administers an examination and certifies those who have achieved the level of skill and knowledge for certification. For example, chartered financial analysts and car mechanics are generally certified but not licensed. The toughest form of regulation is licensure; this form of regulation is often referred to as “the right to practice.” Under licensure laws, working in an occupation for compensation without first meeting government standards is illegal. In 2003, the Council of State Governments estimated that more than 800 occupations were licensed in at least one state, and more than 1,100 occupations were licensed, certified, or registered (Council on Licensure, Enforcement, and Regulation [CLEAR] 2004).

A simple view, or the perspective of a bureaucratic functionary, on occupational licensing by government suggests that administrative procedures regulate the supply of labor in the market. The regulators screen entrants to the profession and bar those whose skills or character traits suggest a tendency toward low-quality output. The regulators further monitor incumbents and discipline those whose performance is below the standards, with punishments that may include revocation of the license needed to practice. Assuming that entry and ongoing performance are controlled in these ways, one would expect the quality of service in the profession to be raised by occupational licensing but the supply to diminish.

In contrast, Milton Friedman questioned the assumption of unbiased gatekeepers and enforcers. Instead, he viewed licensing’s entry restrictions as creating undesirable monopoly rents or incomes. Members of the occupation worked in their own self-interest to restrict sup-
ply, increase demand, and maximize “profits” for the members of the occupation. Friedman (1962) gives an example of doctors who expect to make a certain income or they will diagnose bogus ailments for which they will prescribe unnecessary treatments in order to achieve their expected income.

An expanded and segmented way of thinking about the issue of who gains from regulation was suggested by Carl Shapiro, who stated that both the average quality and the average prices or earnings from the services within the regulated occupation will rise as licensing requirements are implemented or tightened. The consequences are benefits for those who want higher quality, but at a cost to those who are in lower-quality service markets. Demand for the services of licensed workers could increase because of higher perceived quality and lower risk, but demand might also decrease for some segments of the occupation if some consumers demand lower-quality services that are precluded by the licensing procedures. An outward shift in demand could accentuate the increase in the price of services resulting from diminished supply and further boost provider incomes. Models of licensing assume that consumers can choose among three markets: 1) a market for mature producers known to sell high-quality services, 2) a market for mature producers known to produce low-quality services, and 3) a market for young producers whose quality of service (low or high) is not known by the consumer at the time of purchase (Shapiro 1986). The result is that seekers of high-quality services gain by regulation, and those who seek low-quality services are worse off because prices are higher and choices more limited. There is somewhat of a reverse Robin Hood effect, with the lower-income individuals losing and those with higher incomes gaining from occupational regulation.

Consumers and citizens often value the reduction in downside risk more than they value the benefits of a positive outcome. This preference by consumers for the status quo or for reducing the risk of a highly negative outcome has been called “loss aversion” by Kahneman and Tversky (1979). If the perception of licensing is that it leads to a reduction in the most serious losses, such as the spread of disease or the lack of structural integrity of a building, then this form of regulation can have public backing and support. These are the potential benefits against which the costs—which are most often the subject of analysis—are measured.
Unlike unions, which can engage in concerted activities such as strikes or work slowdowns, licensed workers neither sign collective agreements with their employers nor engage in strikes against employers to raise wages. Nonunion workers, who are covered by collective bargaining agreements but are not dues-paying members, usually receive most of the benefits of workers who are in the union. Occupational licensing can affect pay and employment through three main channels. First, licensing may increase perceived quality by imposing initial education, testing, continuing training requirements, internship requirements, or fees. These requirements are likely to diminish the number of less qualified or unmotivated individuals who could enter the occupation, and thereby they serve to drive up the average quality of human capital in workers in an occupation, as typically measured. A consequence is higher-quality outcomes for those who are able to obtain the service, but fewer practitioners and less access to the service.

Second, by using the state to monitor and prevent the potential work effort of unlicensed workers, competition by unlicensed individuals is virtually eliminated through the use of the state’s enforcement powers. For example, the work of hair braiders, which is unlicensed, could be brought under the control of the cosmetology board and limited to only licensed cosmetologists or barbers (Anderson v. Minnesota Board of Barber and Cosmetology Examiners 2005). Furthermore, when demand fluctuates for traditional tasks, the board has the ability to expand the regulated work through establishing administrative rules and limiting the work of unregulated workers.

Third, the regulatory board, through its administrative procedures of establishing large entry barriers and moral suasion, can reduce the number of openings in schools that prepare individuals for licensed positions. In addition, by adjusting the pass rate on the licensing exam, the board can change the number of new entrants from in-state or the number of migrants from other states or nations (Tenn 2001; Pagliero 2010).

Some evidence suggests that licensing does restrict the supply of workers in regulated occupations. One application focuses on the comparison of occupations that are licensed in some states and not in others. The occupations examined were librarians (licensed in 19 states), respiratory therapists (licensed in 35 states), and dietitians and nutritionists (licensed in 36 states) from 1990 to 2000 using census data (Kleiner
Using controls for state characteristics, the multivariate estimates show that in the states where the occupations were unlicensed, the growth rate in employment was 20 percent faster than in states that did license these occupations. Another study finds that the imposition of greater licensing requirements by a state, such as requiring all students studying to become funeral directors to take embalming classes, is associated with fewer women holding jobs as funeral directors relative to men, by a range of between 18 and 24 percent (Cathles, Harrington, and Krynski 2010).

Studies of the effects of licensing on wages have, in many ways, paralleled the research methods used to study the effects of unions on wages (Lewis 1986). These approaches include cross-section estimates, switchers from regulated to unregulated and vice versa over time, and cross-sectional results from within-occupation comparisons (Gittleman and Kleiner 2013). The general estimates of cross-sectional studies using census data of state licensing’s influence on wages with standard labor market controls show a range from 10 to 18 percent for wage increase associated with being covered or attaining an occupational license. However, within-occupation wage variations, both for service occupations and for individuals in jobs that repair things, suggest a wide range of wage changes, from 0 to 40 percent, associated with regulation within an occupation.

Although these results suggest that licensing—the toughest form of regulation—matters for wage determination, the results do not use national estimates, do not examine the levels of government that may matter, and do not consider the influence of the requirements to become licensed, such as education, testing, or internships, which may further enhance wages. When these national estimates are developed, they show that occupational licensing can raise earnings of individuals in the occupations between 15 and 18 percent (Kleiner and Krueger 2010, 2013). I plan to examine in detail several occupations to learn when these national trends apply to specific cases as occupations achieve varying levels of regulation over time.
FURTHER COMPARISONS OF UNIONS AND OCCUPATIONAL LICENSING

As I point out in an earlier volume (Licensing Occupations: Ensuring Quality or Restricting Competition?, Kleiner 2006), unions and licensing membership are moving in different directions (Kleiner and Krueger 2013). To update my earlier results to 2008, Figure 1.1 shows the trends in unionization and licensing over time from 1950 to 2008 (Council of State Governments 1952). Licensing data for earlier periods are available only at the state/occupational level; the data gathered through the Gallup and Westat surveys for 2006 and 2008 are denoted with a dashed line in the figure. Despite possible problems in both data series, occupational licensing clearly is rising and unionization is declining. By 2008, approximately 29 percent of workers polled in the Westat survey said they were required to have a government-issued license to do their job, compared with about 12.4 percent who said they were union members in the Current Population Survey (CPS) for the same year. An overview of the data used in this volume is presented in Appendix E.

An interesting anomaly involves the potential substitution between occupational licensing and unionization. For example, in the United Kingdom about 13.5 percent of the workforce must have a license to work, but about 22 percent of the workforce belongs to a union (Humphris, Kleiner, and Koumenta 2011). In contrast, in the United States about 29 percent of the workforce must have a license to work, but only 12.4 percent belongs to a union. In the United States, 41 percent of the workforce either is in a union or is licensed, and in the United Kingdom about 35.5 percent of the workforce is in a union or is licensed. Other nations, such as China, have found the general wage gaps for licensing relative to unregulated workers to be about 13 percent (Chi, Kleiner, and Qian 2013).

For these two countries, the United States and the United Kingdom, there may be substitution of some form of a “web of rules” at the workplace through the institution of either unionization or governmental licensure. However, there may also be complements, since in the United States, as Table 1.1 shows, 45 percent of union members are also licensed, but only about 26 percent of nonunion members are licensed.
Figure 1.1  Percentage of Union and Licensed Workers, 1950–2008, Trends in Two Labor Market Institutions

NOTE: Dashed line shows the value of estimates from state-level data of licensing from the Gallup and Westat survey results, including licensing by local, state, or federal governments. More than 800 occupations are licensed on at least one level, according to the Council of State Governments.

SOURCE: Licensing data are estimated from the author’s surveys, Department of Labor estimates, a Gallup survey, and a Westat survey; union data are from the Current Population Survey (CPS).

Table 1.1  Percentage of Union and Nonunion Workers Who Are Licensed and Certified

<table>
<thead>
<tr>
<th>Union status</th>
<th>Licensed</th>
<th>Certified</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Union</td>
<td>55.4</td>
<td>44.6</td>
</tr>
<tr>
<td>Nonunion</td>
<td>74.3</td>
<td>25.7</td>
</tr>
<tr>
<td>Total</td>
<td>71.4</td>
<td>28.6</td>
</tr>
</tbody>
</table>

DEVELOPING STAGES OF OCCUPATIONAL REGULATION

Business enterprises are rarely formed as unionized firms. Similarly, even though occupations develop similar tasks and common procedures for doing a job, they are not begun as licensed occupations. Occupations evolve, organize, and often select licensing as a method to obtain professionalism, quality, and status, as well as to limit the supply of practitioners. They tax their members through dues and engage in political activities that lead to registration, certification, and eventually licensing. The process of regulation across political jurisdictions often takes years or decades to achieve full licensure. Consequently, new occupations are often in varying stages of the regulatory process as they seek to become regulated by units of government. Since regulation mainly influences new entrants, it would take some time before the full effect of licensing would influence either the wages and employment of the individuals in the occupation or the consumers of their services. It usually takes some time for individuals who are grandfathered into the occupation, and have less measured human capital than newly regulated practitioners, to retire or leave the job. Occupations at a more mature stage of regulation would be more likely to have the benefits or advantages of the various stages of licensing than those that have recently sought or obtained regulation at different levels of government.4

The occupations that I plan to examine have been selected because they are at varying stages of regulation across states. In addition, they were chosen because they have unique characteristics, such as a potential conflict with another occupation, an example being dentists and hygienists. In other cases, I used an outcome factor, such as health and safety, to evaluate the influence of licensing within the construction industry.

Consequently, the overarching framework used to examine each of the occupations is adapted from the models of economic growth in Walter Rostow’s The Stages of Economic Growth: A Non-Communist Manifesto (1960). Rostow’s model illustrates five stages of growth, from traditional to highly developed, and places nations within these groups. Usually there are events or institutional changes in nations that trigger movement to higher stages of economic growth and development. The stages of occupational regulation are an arbitrary and in
In this book, I modify the Rostow model to show that the various stages of occupational regulation can be represented by several occupations that are at various levels of regulation by different jurisdictions of government. I also examine the tension that exists between the occupations over the “span of control” of job tasks that are regulated by the state. Each stage of the influence of occupational regulation has its own set of outcome criteria such as wages, housing foreclosures, or health and safety levels. Policies may differ based on the stage of occupational regulation and the tasks that the occupation performs. Furthermore, the length of time an occupation has been licensed matters for labor market outcomes. Generally, the longer an occupation is licensed, the larger the economic gain for being a member of the licensed occupation. I will analyze these occupations to establish whether there is a consistent model of stages of growth or whether there are local occupation-specific conditions for each occupation—in which case the model would not apply to those circumstances or for that time period. The model development, the gathering of new data on regulatory institutions, and the empirical testing all have a common goal: to inform the public and policymakers of the costs and benefits of being at each stage of occupational regulation.

Figure 1.2 shows the seven occupations that I plan to examine in the book, ordered by the number of states requiring practitioners to have a license in 2007. Practitioners of these seven occupations include, on one end of the spectrum, interior designers, who are fully licensed in
only three states, and, on the other end, dental hygienists and dentists, for whom licensing is mandatory in all states. To the extent that there is much variation in the number of states that require full licensing, the examination of these occupations is likely to show how different stages of regulation may influence workers in these fields and consumers of their services.

**FOCUS OF THE BOOK**

A goal of this book is to examine a broad variety of occupations that includes blue- and white-collar occupations at different stages of occupational regulation by government. In subsequent chapters, I examine occupations that include ones that are regulated in only a few states
(e.g., interior designers), moderately regulated ones where from one-third to one-half of the states license the members of the occupation but entry is relatively easy (mortgage brokers and preschool teachers, for example, are at this stage of regulation), highly regulated workers (e.g., plumbers and electricians in the construction trades), and universally regulated occupations (e.g., dentists and dental hygienists). One unifying theme of the book is an exploration of the evolution of licensing for each occupation at the state level. For this, I utilize a box-and-whisker plot that shows the average level of regulation for certain key factors in the regulatory process, as well as the variation across states and over time, to give the reader a broad picture of the evolution and anatomy of regulation. I also present estimates of the influence of licensing or other forms of regulation on wages for each occupation.

Since occupations differ widely in what they do, I will examine a variety of criteria in order to evaluate whether regulation is achieving its publicly stated goals. For example, for the newly emerging occupation of mortgage brokers, does more intense regulation result in fewer home foreclosures or lower-priced home loans? Does requiring preschool teachers to have a baccalaureate degree raise their wages, and does it assist in the educational attainment of their students? Has more stringent licensing of plumbers and electricians reduced the number of severe injuries and deaths for workers in the construction industry, where such casualties have a higher occurrence than in other industries? When two universally licensed occupations such as dentists and hygienists perform several similar tasks for the patient, how do the regulations determine who gets to do the work, and what are the labor market outcomes for practitioners in both occupations? Should national standards be used in order to reduce any barriers to employment that may be imposed at the local or state level? These are some of the questions the rest of this book addresses. In the final chapter, I summarize the major findings on occupational mobility and examine the role that different stages of occupational regulation over time play in the lives of licensed workers and other constituents. I also examine the implications of occupational regulation for federal, state, and local government in making policies that regulate occupational tasks and entry barriers. Overall, the volume’s chapters have commonalities, yet each chapter delves into the unique aspects of a particular occupation and how it is regulated, then looks at the economic consequences.
Notes

1. Unfortunately, no more recent national data are available than the data from 2008, since the federal government does not keep regular data on the number or percentage of workers that are licensed. In contrast, annual data from the Bureau of Labor Statistics tabulate the number and the percentage of union workers and union coverage. Unions form a much smaller percentage of the workforce than licensed occupations (Kleiner 2006).

2. In March 2013, the U.S. Court of Appeals for the Eastern District of Louisiana, in *St. Joseph Abbey et al. v. Paul Wess Castille et al.*, Case No. 11-30756, ruled that the occupational licensing laws issued by the Louisiana Board of Funeral Directors granting funeral homes an exclusive right to sell caskets was unconstitutional because it stifled competition.

3. The method used to calculate the percentage of workers licensed prior to 2006 first involved gathering the listing of licensed occupations in each state by Labor Market Information Units under a grant from the U.S. Department of Labor—see America’s Career InfoNet, http://www.acinet.org/acinet/licensedoccupations/lois_occ.aspx?sttips=27&by=occ&keyword=&searchType=&. This was matched with occupations in the 2000 census. If no match was obtained, the occupation was dropped. From the census, the number of people working in the licensed occupation in each state was estimated and used to calculate a weighted average of the percentage of the workforce in the United States that works in a licensed occupation. For 2008 we deleted individuals who were certified from our tally of licensed individuals who were either licensed or certified in our survey conducted by Westat.

4. Modern econometric techniques such as regression discontinuity, field experiments, or difference-in-difference approaches may have difficulty detecting the full influence of licensing on wage determination unless they have long time-series databases.
Stages of Occupational Regulation
Analysis of Case Studies

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