Textbooks for first-year courses in economics, which for the most part are copies of one another and have progressed in content only imperceptibly over the past several decades, trot out the benchmark model of perfectly competitive markets without warning students sufficiently on how stringent the conditions are for markets to qualify for the label “perfectly competitive.” Most important among these conditions are:

1. Both buyers and sellers must be technically and intellectually competent to judge the merits and shortcomings of the goods and services being offered for exchange, which means that they must fully understand the various quality attributes of these goods and services and what benefits potential buyers personally might derive from them.

2. Aside from being technically and intellectually competent to judge the merits of what is being offered to them, buyers and sellers must be fully and accurately informed on the quality dimensions of what is being offered for trade.

3. Before making a decision to trade, the potential buyers must know the full price they have to pay per unit of the good and service and sellers must know the full price they will receive.

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4. Buyers should bear the full price charged by the producer of the good or service being sold to the buyers, and producers should bear the full cost of producing them.

5. No seller or buyer should have the slightest degree of monopoly power in the market for traded goods or services. There should be many buyers and sellers trading in the market.

6. Neither the buy-side nor the sell-side of the market should be able collude to fix prices or other terms of trade.

7. There must be completely free entry for buyers and sellers to interact in the marketplace.

8. Exit from the market should be easy and relatively low-cost for both buyers and sellers.

Many exchanges of goods and services do not take place in markets that meet these criteria; indeed, such perfectly competitive markets are rare. In many instances, entry into a market or exit from it, or both, are difficult, which tends to bestow monopolistic power on incumbent sellers. Sellers in some markets enjoy full natural monopolies or artificial monopolies—e.g., producers with patent protection for their products, or unions which, as sellers of labor, represent pure monopolies, albeit ones with diffuse objectives. Finally, and most importantly, many markets are characterized by an asymmetry of information, be it on the quality dimensions of the good or service being traded or on the full prices ultimately charged for them. Usually buyers possess less accurate information than do sellers. Such asymmetries of information could be present even in markets for relatively simple commodities, such as foodstuffs, in which buyers may not know the ingredients of the food or whether or not the food (e.g., fish or vegetables) has been exposed to and may incorporate dangerous substances. Asymmetry of information is particularly prevalent also in markets for technically complex products, such as electronic products and, notably, health care.

It is well known that in the presence of asymmetry of information, the side with relatively less accurate information (usually the buyer) can be exploited by the side with relatively more information (usually the seller). That problem is amplified in the presence of third-party payment, as under private or public health insurance, which can diminish the buyer’s incentive to exert themselves in efforts to acquire accurate information on the quality of the product being traded.

Public policy could mitigate market imperfections in a number of ways. Antitrust policy, for example, might be used to force competition on markets that would otherwise be monopolized on one side or the other. The inefficiency and welfare loss begotten by asymmetric information can be mitigated by basically two methods.
First, public policy, abetted by modern information technology, can encourage or legislate the provision of more accurate information on the product being traded to all sides. Forcing the revealing of ingredients in foodstuffs or medicines, for example, is one such measure. Government can also help finance, or provide directly, websites with accurate information on the products offered in the market, especially in health care. The government-sponsored website “Hospital Compare” (link) is an illustration of such an attempt. Economists generally favor this approach for reducing asymmetry in information.

A second, more difficult method for overcoming the problem of asymmetric information is direct regulation of the behavior of participants in the afflicted markets. It can be done by prescribing in detail how participants in the markets must behave. Prescribing minimum nurse-to-bed ratios, for example, is an attempt to safeguard the quality of health care delivered by hospitals. Requiring non-physician health workers to be (a) licensed and (b) supervised directly by a physician is another.

Licensing occupations is a very forceful intervention in markets. Such regulations forbid anyone without a license to perform the tasks permitted in the licensed occupation. The prospect of losing that license then provides a powerful incentive to follow prescribed behaviors, e.g., to provide customers with accurate information on the quality of what is being offered for sale.

Unfortunately, like any powerful medicine, such regulatory measures can have a number of untoward side effects. They limit managerial discretion and thus hinder the efficient management of enterprises. They can also stifle innovation. Also, by raising the cost of entering the occupation, occupational licensing shifts up the supply curve of the services provided by the licensed occupation, with the result that employment in the occupation falls and the price of its services rises.

Occupational licensing usually is defended with appeal to this asymmetric-information rationale. One should think, therefore, that the demand for occupational licensing would typically originate with buyers of the goods or services provided by the occupation to be licensed, or by the legislative champions of these buyers.

In fact, however, more often than not occupational licensing has originated from those practicing the occupations to be licensed. To be sure, the legislative initiatives typically are also advanced with appeal to consumer protection, perhaps even sincerely so. But given the likely impacts of occupational licensing—reduction in the number of competitors in the occupation and increases in the prices of the occupation’s services—economists naturally suspect the motives for occupational licensing when it is requested by the occupation to be licensed. In some regards, occupational licensing functions as a substitute for other attempts to monopolize the market, e.g., the monopolization of labor markets through unionization.
Because occupational licensing is pervasive and growing in modern economies—certainly in the United States (Kleiner and Krueger 2013)—one would expect textbooks in introductory economics to cover it thoroughly. Remarkably, it is not so. The widely popular *Principles of Economics* by Greg Mankiw (2012), for example, does not cover the topic at all. Other textbooks may cover it in passing, in a paragraph or two (e.g., Hall and Lieberman 2013). And as Frank Stephenson and Erin Wendt (2009) have shown in this journal, even more advanced texts in labor economics tend to give scant attention to occupational licensing. Very recently, however, at least two labor texts in new editions have expanded their coverage of the topic (Stephenson 2013).

Highly welcome, therefore, has been the extensive and intensive work on this subject by Morris Kleiner, as evidenced once again in his latest book titled *Stages of Occupational Regulation: Analysis of Case Studies* (2013). That volume is a veritable theoretical and econometric tour de force through this lightly trodden terrain. In the introduction, Kleiner presents it as a follow-on to his earlier *Licensing Occupations: Ensuring Quality or Restricting Competition?*, published in 2006. Furthermore, it draws on a long list of his scholarly papers on occupational licensing, spanning more than two decades. Former U.S. Secretary of the Treasury and once again now Harvard professor of economics Lawrence Summers calls Kleiner “our foremost expert” on this important topic (Kleiner 2013, front matter).

In *Stages of Occupational Regulation*, Kleiner explores the progression of occupational regulation, from mere registration to certification to outright licensing—three distinct stages. Of these, the least restrictive is registration, under which individuals practicing an occupation merely register their name, address, and qualifications with a public agency but otherwise are free to practice their art. More restrictive is certification through what is called titular acts. Under certification individuals are free to practice an occupation as they see fit, but they can use a specific title—e.g., M.D. or R.N.—only if they have been certified to possess a certain set of skills, usually requiring examination. Finally, the most restrictive regulation, occupational licensing, imposed through what is called practice acts, allows only licensed individuals to practice the occupation.

As Kleiner and Alan Krueger (2013) have noted in their joint work, since World War II occupational regulation of some form has grown enormously, as unionization gradually declined, so that by 2008 almost 40 percent of the U.S. labor market were subject either to certification or licensing by some level of government. To examine how occupational regulation progresses from relatively mild registration to stringent occupational licensing, Kleiner (2013) carefully selects for his analysis a series of occupations representing the stages of regulation, devoting a chapter to each occupation. After an illuminating introduction and overview, the analysis begins with interior designers, who are only lightly regulated...
and in only a few states, to mortgage brokers, providers of preschool child-care services, electricians, plumbers, and, at the more stringent end, dental hygienists and dentists, who now are licensed in every state.

For each of the several occupations analyzed, Kleiner describes first the work of the occupation and the history of its regulation. Next he explores the impact of that regulation on the relevant labor market, focusing on three main facets of the market: (1) levels of employment in the occupation, (2) wages earned in the occupation, and (3) outcome for the occupation’s customers—quality of services, errors, customer satisfaction—as best as can be defined and measured for each particular occupation. For electricians and plumbers, he includes in “outcomes” also the hazard to the practitioners themselves. Finally, Kleiner also offers analyses on economic factors in a state that might encourage occupational regulation.

To explore the impact of occupational regulation on the three facets of the relevant labor market, Kleiner uses a variety of statistical approaches to tease out, from numerous databases, what the impact of mild to heavy regulation on labor markets appears to be. Given the plurality of economic and other factors that can, in theory, drive such impacts, the limits of the available non-experimental databases and the statistical methods at hand naturally do not allow the authors to capture and properly control for all of those potential drivers. As do all econometric studies, Kleiner’s end up as essays in persuasion.

That said, the empirical findings in the volume overall do conform more or less with the theorized impact of occupational regulation on labor markets, especially as occupational regulation gets heavier, as the author reports in his summary chapter. Specifically, he shows that the relatively mild occupational regulation of interior designers, mortgage brokers and preschool teachers appears to have only small (and often not statistically significant) impact on the relevant labor markets. The evidence shows that occupational licensing does serve to increase the wages of electricians, ceteris paribus, but the evidence on plumbers was mixed and inconclusive. There was no discernible impact on the occupational safety of these two professions.

This reviewer would have liked to have seen in Kleiner (2013) also a chapter on the still hotly contested economic turf between medical doctors and sundry physician substitutes, notably nurse practitioners. It is a topic that has engaged economists ever since it was confronted boldly by Milton Friedman in his classic Capitalism and Freedom (1962, ch. 9). Friedman advocated permissive licensing (i.e., certification) of physicians in place of the more restrictive occupational licensing, which would have allowed nurse practitioners to hang up their own shingles in the delivery of primary health care, in independent practice from physicians. Perhaps an oeuvre focused just on physicians is yet to come from Kleiner. It would be timely as the nation is said to be beset once again by an overall physician shortage,
especially at the level of primary care, and yet in some states, notably California, organized medicine still objects to the idea of independently practicing clinical professions, such as nurse practitioners (Reinhardt 2013).

On the other hand, Kleiner could respond that his chapter on dentists and dental hygienists is a very good proxy for a chapter on physicians and non-physician substitutes. In that chapter, Kleiner develops a model of dentistry that embodies features of a monopsonistic market in which a licensed, high-skilled profession, namely dentists, can harvest the rents from the occupational licensing of a lower-skilled profession, namely dental hygienists, through a requirement that the lower-skilled occupation may not practice independently of dentists, but must be employed and supervised by licensed dentists. Although Kleiner’s thesis does not represent a pure monopsonist model, it is an intriguing one, rendered graphically in his Figure 6.2. Kleiner’s empirical analysis of this market then shows that, as his theory predicts, occupational regulations requiring dentists to supervise dental hygienists yield dentists higher earnings and dental hygienists lower earnings and leads to lower overall employment of dental hygienists than do markets in which dental hygienists can practice independently as self-employed professionals. That finding has a direct bearing on the current, heated fight before California’s legislature over task allocation and professional independence in primary care between California’s Medical Association and nurse practitioners (Reinhardt 2013).

Overall, Kleiner’s work leads him to call for a pervasive review of occupational regulation in the United States, with a view towards replacing occupational licensure, which introduces the most inefficiency and welfare loss, with mere certification of occupations. That recommendation gains plausibility in an age where cheap computation and data mining makes it possible to protect consumers from low-quality and possibly dangerous services by providing robust, user-friendly information on the quality of services provided by competing occupations, e.g., nurse practitioners and physicians.

Economists can hammer away on this point, as they should; but under our system of governance, at all levels of government, special interest groups such as occupations seeking to be licensed to guard their economic turf can purchase the affection of legislators by helping to finance their political campaigns. Shifting the nation away from occupational licensure to certification, although not impossible, will be a hard slog.

It is remarkable, as Kleiner emphasizes, how rarely calls for occupational licensing come from clients who ostensibly are to be protected by occupational licensing. Both the occupations seeking licensure and the legislators who serve them will argue that practice acts are intended solely to protect the clients of the licensees. Many of them may even believe it. But it merely shows the capacity of adults to fool others to the point of fooling themselves.
Kleiner’s splendid volume is recommended reading for the many graduate students in economics specializing in industrial organization, labor economics, or health economics. Moreover, it calls out to doctoral students searching for research topics for their dissertations. Kleiner’s own extensive research and the literature he surveys in the concluding chapter can serve as a springboard for further research in this area.

References


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