When a state imposes licensing rules on an occupation, workers cannot legally practice that trade without fulfilling a set of requirements. When a state imposes certification rules on an occupation, noncertified workers can still legally practice their trade, but certification proves that those workers have met certain state-defined professional benchmarks. About a third of North Carolina’s workforce is licensed or certified. Occupational licensing is ostensibly intended to protect the public from unsafe and low-quality service, but there is little evidence this intention is realized. Rather, there is a growing consensus among economists that these rules serve to protect incumbent providers from competition by creating barriers for new entrants that lead to higher prices for consumers.

Occupational licensing has expanded dramatically over the past 50 years. In 1950, 5 percent of the workforce was licensed through state laws, and in 2000 that number approached 20 percent. When federal licenses are also accounted for, by one estimate, 29 percent of the workforce was licensed in 2006. This growth in licensure has arisen primarily from the growth in the number of occupations for which a license is required by the state, not from people switching from jobs that do not require occupational licenses to jobs that do. While states vary greatly in the number of occupations for which a license is required as well as in the requirements to obtain a license, every state has seen an increase in both. North Carolina is no exception.

A SNAPSHOT OF NORTH CAROLINA’S OCCUPATIONAL LICENSURE REGIME

The government of North Carolina has developed extensive licensing requirements, with 22 percent of the workforce licensed and another 8.4 percent certified. North Carolina licenses 188 occupations, including such rarely licensed professions as floor sander, sign language interpreter, and locksmith.
A 2017 study by the Institute for Justice (IJ) examined occupational licensure laws for 102 lower-income occupations and found that North Carolina requires a license for 67 of them. Obtaining any given license poses many substantial hurdles. In assessing the burdens the state imposes—including fees, exams, age requirements, grade requirements, and training and experience requirements—the report ranked North Carolina’s licensing regime as more broad and onerous than those of 34 other states. On average, the Tar Heel State requires 234 days of experience and training, $199 in fees, and one exam for each of those 67 occupations. Makeup artists, auctioneers, and security alarm installers face steep fines for operating without a license.

Patterns in occupational licensing requirements contradict the idea that licensure is primarily intended to protect public safety. Occupations that are less likely to involve risk to the public are often more tightly controlled than riskier occupations. For example, North Carolina’s emergency medical technicians (EMTs) must complete 43 days of training and pass two exams before being licensed to work on an ambulance team. By contrast, North Carolina’s fire alarm installers must complete 1,095 days of education and experience—25 times the amount of training required of EMTs. Pest control applicators, too, are subject to a full 22 months more training than EMTs—731 days in total. Additional regulatory mismatches are shown in table 1.

Licensing requirements do not improve the quality of the goods and services provided by licensed occupations, and they exclude potential service providers who find the hurdles too costly to overcome. These hurdles limit competition for the incumbents in these protected trades, producing a doubly negative effect: First, occupational licensing requirements keep able people from entering trades they could otherwise learn quickly and perform sufficiently well, limiting employment opportunities for people without advanced skills or degrees. Second, protected industries can charge their customers higher prices than competitive industries, requiring everyone to pay higher bills for basic services. In the absence of licensure, a barber, for example, might offer discounted haircuts with fewer frills to those who would otherwise not be able to afford luxurious shops.

<table>
<thead>
<tr>
<th>Table 1. Occupational Mismatches in North Carolina</th>
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<tbody>
<tr>
<td><strong>OCCUPATION</strong></td>
</tr>
<tr>
<td>Emergency medical technician</td>
</tr>
<tr>
<td>School bus driver</td>
</tr>
<tr>
<td>Earth driller</td>
</tr>
<tr>
<td>Veterinary technician</td>
</tr>
<tr>
<td>Optician</td>
</tr>
<tr>
<td>Sign language interpreter</td>
</tr>
<tr>
<td>Preschool teacher, public school</td>
</tr>
</tbody>
</table>

There is significant variation in licensing requirements for the same jobs across states. Boards can require a minimum level of education or experience, a steep processing fee, or a passing score on examinations. In North Carolina, 20 of the 67 licenses identified by IJ require all three.¹² All but two require the applicant to pay a fee, the highest of which is $1,050 for an independent bill collection agent license.¹³

Figure 1 compares the state’s fee and experience requirements in these surveyed occupations to the national average. North Carolina’s licensing requirements are below the national average in two areas: fees and days lost to education and training requirements.

Though for several professions North Carolina boasts less restrictive laws than the national average, in some instances the reverse is true. For instance, North Carolina’s requirements for sign language interpreters—who are only licensed in 22 states—are the fifth highest in the country.¹⁴ North Carolina’s prospective sign language interpreters are required to obtain 1,469 days of education and experience, pay $938 in fees, and pass two exams before they can begin work. Meanwhile, sign language interpreters in neighboring Georgia, South Carolina, Tennessee, and Virginia face no licensing requirements at all.¹⁵

Similarly, barbers in North Carolina are subject to the fifth most stringent licensing requirements in the United States.¹⁶ A prospective barber in Raleigh may begin work only after accruing 722 days of experience and passing three exams. By contrast, a barber in Atlanta, Nashville, Richmond, or Charleston could begin work more than one year sooner, and take one fewer exam.¹⁷

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**Figure 1. Number of Licensed Occupations, Fees, Required Training and Experience (North Carolina vs. National Average)**

Industry domination of licensing boards is also a problem. Table 2 shows the statutorily required compositions of select North Carolina boards. In North Carolina 89 percent of boards are required by law to have a majority of members who are license holders.\textsuperscript{18}

When industry members create the standards for their profession, they have an incentive to implement burdensome entry requirements and to protect themselves from competition. In effect, members have incentives to make entry into their profession more difficult without necessarily making the public safer.\textsuperscript{19} In its 2015 opinion in \textit{North Carolina State Board of Dental Examiners v. FTC}, the US Supreme Court addressed precisely this issue.\textsuperscript{20} It established a two-part test to determine whether a board controlled by market participants is immune from antitrust claims. In order to claim immunity from antitrust, (1) the state's board composition requirements must serve a state policy goal, and (2) a given board's activities must be subject to active supervision by the state.\textsuperscript{21} Even if North Carolina can satisfy both requirements, its policymakers would be wise to consider alternatives to the current structure that might minimize the perverse incentives of board members.

Instead of allowing monopolized boards, North Carolina should structure its boards to include a broad array of experience, knowledge, and concern for the interests of the public. For example, they should include consumer representatives and representatives of organizations dedicated to support job placement. Boards should also include experts familiar with the economic literature on licensure.

Recent reform efforts In North Carolina have tried to combat heavy-handed occupational licensing regulations, but to date none have been successful. A proposal by members of the Occupational Licensing Board Oversight subcommittee of the Joint Legislative Administrative Procedure Oversight Committee would have eliminated the licensing boards and requirements for 15 occupations, including acupuncturist, athletic trainer, alarm system installer, and public librarian, among others.\textsuperscript{22} The bill faced opposition from industry members, and as a result, the committee tabled the measure.\textsuperscript{23}

<table>
<thead>
<tr>
<th>BOARD</th>
<th>INDUSTRY MEMBERS</th>
<th>TOTAL MEMBERS</th>
<th>PERCENTAGE INDUSTRY MEMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board of Athletic Trainer Examiners\textsuperscript{a}</td>
<td>4</td>
<td>7</td>
<td>57</td>
</tr>
<tr>
<td>State Board of Opticians\textsuperscript{b}</td>
<td>5</td>
<td>7</td>
<td>71</td>
</tr>
<tr>
<td>Board of Massage and Bodywork Therapy\textsuperscript{c}</td>
<td>5</td>
<td>7</td>
<td>71</td>
</tr>
<tr>
<td>Board of Dental Examiners\textsuperscript{d}</td>
<td>7</td>
<td>8</td>
<td>88</td>
</tr>
</tbody>
</table>

There is more to be done to make lower-income occupations accessible to people who are most likely to be stymied by barriers to entry. Economic evidence clearly points to the need for further reform. In the following section, we discuss the economics of occupational licensure. After that, we outline a path for reform in North Carolina.

**THE ECONOMICS OF OCCUPATIONAL LICENSURE**

Licensure and Quality

Licensure is justified by legislators and advocates as necessary to protect the public from low-quality services or potential health risks. It is theoretically possible that a well-designed quality screening system will ensure that only high-quality professionals join an occupation. However, limiting the supply of professionals undermines competition. Less competition means lower quality and higher prices. As Morris M. Kleiner put it, licensure ensures that “prices and wages will rise as a result of restricting the number of practitioners, which should tend to reduce quality received by consumers.”

High prices may even push consumers out of the market entirely, inducing them to resort to far riskier do-it-yourself behavior. For example, one study found that more restrictive electrician licensing regimes are associated with fewer electricians per capita and that this, in turn, is associated with more accidental electrocutions.

The true effect of licensure on quality is an empirical question, since economic theory suggests that licensure can have opposing effects on quality. Licensing requirements can increase quality by restricting entry only to highly-qualified professionals, or it can decrease quality by causing less competition, higher prices, and more do-it-yourself activities. A number of studies have assessed the effect of licensure on quality and the weight of evidence suggests that the two effects roughly cancel each other out. As Kleiner summarized in his review of the literature,

> There is little to show that occupational licensure has a major effect on the quality of services received by consumers or on the demand for the services other than through potential price effects.

During the Obama Administration, the Department of the Treasury, together with the Council of Economic Advisors and the Department of Labor, issued a report (henceforth referred to as the Treasury Department Report) including a review of the literature that concluded,

> With the caveats that the literature focuses on specific examples and that quality is difficult to measure, most research does not find that licensing improves quality or public health and safety.

Patrick McLaughlin, Jerry Ellig, and Dima Yazji Shamoun recently surveyed 19 studies assessing
the effect of occupational licensure on quality. Figure 2 presents the results of their survey. Consistent in the survey by Kleiner and the Treasury Department Report, they found that the most common finding was neutral, mixed, or unclear. Three studies found that occupational licensure positively affects quality while four found that it negatively affects quality.

If occupational licensing were governed solely by the logic of promoting public safety, the same types of activities would be regulated in similar ways across states. In reality, states vary widely in terms of occupations regulated and the stringency of those regulations. For example, four states heavily regulate interior designers, requiring them to have on average nearly 2,200 days of education and experience to practice their trade. Interior designers are able to offer their services in other states free from regulation with no apparent risk to the public.

Figure 2. Studies Assessing the Effect of Occupational Licensure on Quality

Licensure is not the only or the most effective way to ensure quality. Tort law and civil and criminal laws against deceptive trade practices protect consumers from fraud and negligence. Firms already scrupulously guard their reputations and brands and seek the approval of third-party evaluators such as the Better Business Bureau and Angie’s List. The internet and smartphone applications have made shopping comparisons easy for consumers and have balanced, to some extent, information asymmetries typical of specialized services. If policymakers think private measures are insufficient to protect consumers, there are a number of public regulatory options that are more effective and less likely to be as counterproductive as licensing. For example, the government can require that firms post bonds or simply register their businesses with the state so that consumers can be assured service providers are not fly-by-night operations.

Licensure and Prices

Economic theory predicts that a restriction in supply will result in higher prices. And indeed, the empirical research consistently finds this to be the case. According to the Treasury Department Report,

The evidence on licensing’s effects on prices is unequivocal: many studies find that more restrictive licensing laws lead to higher prices for consumers. In 9 of the 11 studies we reviewed . . . significantly higher prices accompanied stricter licensing.

Similarly, McLaughlin, Ellig, and Shamoun found licensure increased prices in all 19 of the studies they surveyed, ranging from optometry and law to dentistry and cosmetology.

The effects of these increased prices are not trivial. For example, state nurse practitioner licensing is estimated to increase the price of a well-child checkup by 3 to 16 percent, dental hygienist and dental assistant licensing is estimated to increase the price of a dental visit by 7 to 11 percent, and optometry licensing is estimated to increase the price of eye care by 5 to 13 percent. What’s more, none of these studies found that licensing increased quality.

Licensure and Regulatory Privilege

Writing in the Harvard Journal of Law & Public Policy, Paul Larkin Jr. notes a “curious and stubborn fact: Private individuals rarely urge governments to adopt licensing regimes, but private firms often do.” This fact conforms to the economic theory of regulation, which suggests that incumbent providers may use licensure to limit competition. By limiting supply and raising prices, these rules allow incumbent providers to earn artificially high profits. Indeed, the latest research suggests that licensure raises the wages of licensees by about 14 percent. Occupational licensing is a privilege granted by a regulatory agency to incumbent providers.
The social costs of this privilege are shouldered, in part, by consumers who have to pay higher prices than they would pay in more competitive markets. But the social costs also include the wages not earned by potential providers who are effectively excluded from the market by these regulations. With both the high prices for consumers and the forgone wages of would-be competitors, society is likely to experience a net loss from occupational licensing—what economists call deadweight loss. What's more, incumbent professionals are willing to expend scarce resources convincing policy makers to contrive and maintain these privileges, a socially wasteful endeavor known as rent-seeking. Being few in number and established in their fields, these license holders generally find it easier to get politically organized than the large number of consumers and would-be competitors who are harmed by licensure.

The Disparate Impact of Licensure

Those who fail to obtain licenses pay a price in the form of lost income. Research suggests that these burdens often fall on particular communities. For example, military spouses are more likely to be in licensed professions and more likely to relocate from one licensing regime to another. Licensure also presents a higher barrier to immigrants since many states require domestic work experience. For ex-offenders, occupational licensing is particularly burdensome as most states make it impossible for those with a past conviction to obtain an occupational license.

As shown in figure 3, McLaughlin, Ellig, and Shamoun’s survey of the literature shows that licensing was found to disparately affect ethnic minorities in four of five studies. Licensure may also be associated with greater income inequality. In a recent study of 175 countries, McLaughlin and Laura Stanley find that nations with more legal barriers to starting a business experience greater levels of income inequality. Furthermore, a new report by Brian Meehan, Edward Timmons, and Andrew Meehan finds that there may be a negative relationship between growth in licensure and economic mobility. The authors looked at growth in low-to-moderate income occupational licensure across states and found that it negatively correlates with absolute economic mobility.
While occupational licensure is intended to protect consumers from harm, there are many other less burdensome mechanisms to promote public safety. For instance, liability law and civil and criminal laws against fraud protect consumers. In addition, a host of private mechanisms ensure that market providers are accountable. These include private certifications, insurance, bonding, brand reputation, customer review platforms like Yelp and Google reviews, and the third-party validation of organizations like Angie’s List, Consumer Reports, and Underwriters Laboratories. Competition itself may be the best alternative to licensure. As the economist Alfred Kahn put it after decades of extensive work as a regulator and researcher, “Whenever competition is feasible, it is, for all its imperfections, superior to regulation as a means of serving the public interest.”

Policymakers wishing to reduce the social costs of their state’s occupational licensing could take the following steps:

1. Pass legislation that sets an ambitious goal for the elimination of licenses and the reduction in licensing burdens.
2. Establish an independent commission charged with examining the state’s licensing laws. Its first task should be to identify each license the state requires as well as the burdens associated with each license (fees, exams, required training, education, experience, and other limitations). The commission should be charged with evaluating all licenses, should
not be dominated by members of the licensed professions, should include consumer repre-
sentatives and representatives from organizations devoted to assist job seekers, and should
include third-party experts such as academics who have no financial stake in licensure.
Furthermore, the commission should be guided by a set of criteria for evaluating regula-
tions as listed in table 3.

3. The commission should be charged with performing a comprehensive review of all occu-
pations, with the goal of identifying licensure requirements that can be eliminated or
reformed. The authorizing legislation should commit elected officials to accepting the
commission’s recommendations in their entirety or not at all.

The last provision is designed to overcome the public choice problems that plague licensure
reform. In particular, whenever any individual license is evaluated, concentrated members of
the industry are typically able to organize in defense of the license, while diffuse consumers and
would-be competitors are unable to organize in opposition. The institutional structure that we
recommend borrows elements from other reforms that have succeeded in eliminating favoritism. In
particular, it allows elected officials to cast conspicuous votes in the public interest while giv-
ing them some degree of “cover” from the special interests that will inevitably be harmed by the
elimination of their regulatory privilege.

<table>
<thead>
<tr>
<th>Table 3. Guiding Principles for Occupational Licensing Reform</th>
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<tbody>
<tr>
<td><strong>BEGIN WITH A BLANK SLATE</strong></td>
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<tr>
<td><strong>DEFINE THE NATURE OF THE PROBLEM</strong></td>
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<tr>
<td><strong>IDENTIFY ALTERNATIVE SOLUTIONS TO OCCUPATIONAL REGULATION</strong></td>
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<tr>
<td><strong>IDENTIFY THE POTENTIAL COSTS OF REGULATION</strong></td>
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<tr>
<td><strong>IDENTIFY THE POTENTIAL BENEFITS OF REGULATION</strong></td>
</tr>
<tr>
<td><strong>MEASURE COSTS AND BENEFITS</strong></td>
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</table>
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NOTES

7. Carpenter et al., License to Work, 110.
8. Carpenter et al.
9. Carpenter et al.
10. Carpenter et al.
11. Carpenter et al.
12. Carpenter et al.
13. Carpenter et al.
21. Id. at 1112.
26. Carroll and Gaston, “Occupational Restrictions and the Quality of Service Received.”
30. Carpenter II et al., License to Work, 12.
32. For more on reputation feedback mechanisms, see Adam Thierer, Christopher Koopman, Anne Hobson, and Chris Kuiper, “How the Internet, the Sharing Economy, and Reputational Feedback Mechanisms Solve the ‘Lemons Problem’” (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, June 2015).
34. Department of Treasury et al., Occupational Licensing: A Framework, 14.
42. Matthew Mitchell, The Pathology of Privilege: The Economic Consequences of Government Favoritism (Arlington, VA:


44. The fifth study, which only found a disparate effect of licensure in one profession—barbering—has been criticized. See Daniel Klein, Benjamin Powell, and Evgeny Vorotnikov, “Was Occupational Licensing Good for Minorities? A Critique of Marc Law and Mindy Marks,” *Econ Journal Watch* 9, no. 3 (September 2012): 210–233.


47. For the benefits of ex post sanctions as opposed to ex ante sanctions, see Adam Thierer, *Permissionless Innovation: The Continuing Case for Comprehensive Technological Freedom*, 2nd ed. (Arlington, VA: Mercatus Center at George Mason University, 2016).

48. Thierer et al., “How the Internet, the Sharing Economy, and Reputational Feedback Mechanisms Solve the ‘Lemons Problem.’”
