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TESTIMONY

TEXAS OCCUPATIONAL LICENSING: BARRIERS TO OPPORTUNITY IN THE LONE STAR STATE

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Senate Business and Commerce Committee

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Chairman Hancock, Vice Chairman Creighton, and distinguished members of the Senate Business and Commerce Committee:

My name is Matthew Mitchell. I am an economist and a senior research fellow at the Mercatus Center at George Mason University, where I direct the Equity Initiative. In recent years, my colleagues and I have been studying occupational licensing laws, and I am grateful for the opportunity to discuss our findings with you.

Attached is a report that my colleagues and I recently submitted to the Federal Trade Commission, "The Effects of Occupational Licensure on Competition, Consumers, and the Workforce." The report details the now-voluminous economic literature on the deleterious effects of occupational licensure and suggests a blueprint for reform.

In my testimony, I wish to focus on three points:

1. Licensing is a substantial barrier to employment, particularly for many lower-income Americans.
2. Licensing does little to enhance either consumer safety or the quality of services; it does, however, increase prices for consumers.
3. Successful reform is difficult, but not impossible. Policymakers must be able to cast conspicuous votes in the general interest, while special interest power must be limited.

LICENSURE IS A SUBSTANTIAL BARRIER TO EMPLOYMENT

Licensing represents a significant and growing barrier to work. Nationally, the share of the workforce that is required to have an occupational license has increased more than fourfold in the past 50 years. As of 2015, nearly one in four working Texans—24.1 percent of the state's workforce—was required to be licensed.[1]

[1] Morris M. Kleiner, *Reforming Occupational Licensing Policies* (Washington, DC: The Hamilton Project at the Brookings Institution, March 2015), 9.

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Aspiring entrants to a large number of professions—ranging from locksmith to animal control officer to cosmetologist—are now required by the state of Texas to obtain a government-issued license to work. It can take months and hundreds—even thousands—of dollars to obtain these licenses. Among 37 low- to moderate-income occupations licensed by Texas, the average aspiring worker is required to spend 341 days in training and pay $253 in fees before he or she may obtain a license.[2] This does not count either the cost of the education or the income that people forgo when they spend months in often-unnecessary training. According to the Institute for Justice, Texas's licensing laws are the 21st most burdensome in the country.

Licensure is often arbitrary. As shown in table 1, licensing requirements often don't match the risk posed to the public by certain professions. Compared with emergency medical technicians, aspiring barbers in Texas must undergo *10 times* as many months of training; would-be security alarm installers (who are unlicensed in 36 states) must complete more than *20 times* as much training; and athletic trainers must complete more than *40 times* as much training.

TABLE 1. OCCUPATIONAL TRAINING MISMATCHES IN TEXAS

Occupation	Days of Education/Experience	Exams
Emergency medical technician	35	2
Shampooer	70	2
Cosmetologist or barber	350	2
Security alarm installer	730	1
Athletic trainer	1,460	2
Preschool teacher, public school	1,460	2

Source: Dick M. Carpenter II et al., *License to Work: A National Study of Burdens from Occupational Licensing*, 2nd ed. (Arlington, VA: Institute for Justice, November 14, 2017), 130.

Licensing boards are dominated by members of the professions they oversee. About three-quarters (73 percent) of Texas occupational licensure boards are required by law to have a majority of their members work in the professions they oversee.[3] See table 2 for board composition data in a sample of Texas boards. Owing to vacancies, many boards are composed entirely of industry insiders. This presents a legal concern in light of the US Supreme Court's decision in *North Carolina State Board of Dental Examiners v. FTC*, which held that states may be liable for antitrust violations when boards are dominated by members of the professions they oversee and when elected officials fail to actively supervise these boards.[4] It also creates a practical concern that boards will tend to act as industry cartels, controlling entry of new members rather than ensuring public safety.

[2] Dick M. Carpenter II et al., *License to Work: A National Study of Burdens from Occupational Licensing*, 2nd ed. (Arlington, VA: Institute for Justice, November 14, 2017), 130.
[3] Rebecca Haw Allensworth, "Foxes at the Henhouse: Occupational Licensing Boards Up Close," *California Law Review* 105, no. 6 (December 2017): 1609.
[4] North Carolina State Board of Dental Examiners v. FTC, 135 S. Ct. 1101 (2015).

TABLE 2. COMPOSITION OF SELECT TEXAS BOARDS

Board or Council	Industry Members	Total Members	Percent Industry
Licensed Breeder Advisory Committee[a]	7	9	78%
Advisory Board on Barbering[b]	5	5	100%
Massage Therapy Advisory Board[c]	6	9	67%
Electrical Safety and Licensing Advisory Board[d]	7	9	78%
Advisory Board of Athletic Trainers[e]	3	5	60%

[a] Texas Department of Licensing and Regulation, "Licensed Breeder Advisory Committee," accessed August 15, 2018, https://www.tdlr.texas.gov/bre/breCommittee.htm.
[b] Texas Department of Licensing and Regulation, "Advisory Board on Barbering," accessed August 15, 2018, https://www.tdlr.texas.gov/barbers/barberboard.htm.
[c] Texas Department of Licensing and Regulation, "Massage Therapy Advisory Board," accessed August 15, 2018, https://www.tdlr.texas.gov/mas/masboard.htm.
[d] Texas Department of Licensing and Regulation, "Electrical Safety and Licensing Advisory Board," accessed August 15, 2018, https://www.tdlr.texas.gov/electricians/elecboard.htm.
[e] Texas Department of Licensing and Regulation, "Advisory Board of Athletic Trainers," accessed August 15, 2018, https://www.tdlr.texas.gov/at/atcmte.htm.

Licensing reduces employment opportunities, especially among certain communities. High barriers to employment pose particular difficulties to lower-skilled, lower-educated populations, to immigrants, to those with criminal records, and to those who move frequently, such as military spouses. Eighty percent of the studies Mercatus scholars reviewed found that licensure has a disparate impact on minorities.[5] Recent research suggests that barriers to entry are associated with greater income inequality and that licensure is negatively associated with absolute income mobility.[6]

LICENSURE DOES NOT SEEM TO INCREASE QUALITY OR SAFETY, BUT IT DOES RAISE PRICES

There is little evidence that licensure increases either the quality of services or the public's safety. Theoretically, licensure might increase quality if it acts as a well-designed screening system. On the other hand, it might decrease quality by limiting competition. Reviews of the academic literature by scholars at the Mercatus Center and by officials in the Obama administration suggest that the two effects roughly cancel each other out (though more studies find that licensure reduces quality than find that it enhances quality).[7]

There is abundant evidence that licensure raises prices. Economic theory is unambiguous: supply restrictions such as licensure tend to raise prices. And the evidence supports this theory. In a Mercatus assessment of 19 peer-reviewed studies, we found that licensure was associated with higher prices in all 19.[8] Reviewing many of the same studies, Obama administration officials similarly concluded that the association between licensing and higher prices is "unequivocal."[9]

[5] Patrick A. McLaughlin, Matthew D. Mitchell, and Anne Philpot, "The Effects of Occupational Licensure on Competition, Consumers, and the Workforce" (Mercatus on Policy, Mercatus Center at George Mason University, Arlington, VA, November 2017), 7.
[6] On income inequality, see Patrick A. McLaughlin and Laura Stanley, "Regulation and Income Inequality: The Regressive Effects of Entry Regulations" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, January 2016). On absolute income mobility, see Brian Meehan, Edward Timmons, and Andrew Meehan, *Barriers to Mobility: Understanding the Relationship between Growth in Occupational Licensing and Economic Mobility* (Washington, DC: Archbridge Institute, November 2, 2017).
[7] US Department of the Treasury, Council of Economic Advisers, and US Department of Labor, *Occupational Licensing: A Framework for Policymakers*, July 2015, 13; McLaughlin, Mitchell, and Philpot, "The Effects of Occupational Licensure," 4.
[8] McLaughlin, Mitchell, and Philpot, 5.
[9] Department of the Treasury et al., *Occupational Licensing: A Framework*, 14.

SUCCESSFUL REFORM IS DIFFICULT BUT NOT IMPOSSIBLE

Licensing reform efforts are difficult to implement successfully. The consumers and the aspiring professionals who suffer from anticompetitive licensing regimes are numerous and typically politically unorganized. On the other hand, the industry insiders who benefit from these regimes are comparatively few in number and typically well organized. Economists and political scientists have long blamed this pattern of diffused costs and concentrated benefits for the persistence of inefficient and inequitable policy.[10] And this pattern has made licensing reform an uphill battle, even though experts on the left, right, and middle tend to agree that current licensing laws are inefficient and anticompetitive.

Drawing lessons from successful reform. Despite the advantages enjoyed by special interests, history affords a number of examples in which the general interest has prevailed.[11] In areas as varied as trade, race relations, and airline policy, special interests have occasionally lost their privileges while general and diffused interests have benefited from a more level and open playing field.

There are a number of important lessons to draw from these cases.[12] But perhaps the most important is that institutional reforms must permit policymakers to cast conspicuous votes in the general interest and limit the power of special interests to dominate the process.

In the case of occupational licensing, three potential reforms follow this pattern:

1. *An independent commission*. One potential reform would be to establish an independent commission. It should be composed of experts familiar with the economic literature on licensure and with no financial stake in the current regime. It should be charged with identifying and eliminating burdensome and anticompetitive licensing laws. And, ideally, lawmakers should be bound to take its advice in full or not at all. This type of structure can ensure that state licensing regimes serve the general interests of the public and not the special interests of protected industries. More details on this approach can be found in the attached report.

2. *Requiring less restrictive means of regulation*. The state of Nebraska recently adopted a reform that highlights a different approach.[13] There, the Occupational Board Reform Act of 2018 requires legislative committees to review 20 percent of licenses under their jurisdiction each year and all licenses under their jurisdiction every five years. The review process requires committees to gather information on the number of licenses the board has "issued, revoked, denied, or assessed penalties against" and the reasons for these actions. It also requires committees to review board composition, assess board activities, and compare these activities with the way other states regulate the occupation.

   Most importantly, the act stipulates that licenses are warranted only when they address "present, significant, and substantiated harms" and if such a harm is found to exist, the legislation requires policymakers to use the "least restrictive" regulation necessary to protect

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[10] See, for example, Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups, Second Printing with New Preface and Appendix*, Revised (Cambridge, MA: Harvard University Press, 1971); Theodore J. Lowi, *The End of Liberalism: The Second Republic of the United States*, 40th anniversary ed. (New York: W. W. Norton & Company, 1969); James Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (Basic Books, 1991).

[11] See Matthew D. Mitchell, "Overcoming the Special Interests That Have Ruined Our Tax Code," in *For Your Own Good: Taxes, Paternalism, and Fiscal Discrimination in the Twenty-First Century*, ed. Adam Hoffer and Todd Nesbit (Arlington, VA: Mercatus Center at George Mason University, 2018), 327–50.

[12] Again, see Mitchell, "Overcoming the Special Interests." But briefly, these lessons are (1) ideas matter, especially in the long run, (2) institutions matter too, (3) go for the "grand bargain," (4) reform requires good leaders, (5) sometimes it takes a special interest to beat a special interest, (6) never let a crisis go to waste, and (7) embrace permissionless innovation.

[13] Legis. B. 299, 105th Leg., 2nd Sess. (Neb. 2018).

consumers from undue risk. Finally, the act establishes the following hierarchy of regulations, from least restrictive to most restrictive:

1. Market competition
2. Third-party or consumer-created ratings and reviews
3. Private certification
4. Specific private civil cause of action to remedy consumer harms
5. Deceptive trade practices under the Uniform Deceptive Trade Practices Act
6. Mandatory disclosure of attributes of the specific goods or services
7. Regulation of the process of providing the specific goods or services to consumers
8. Inspection
9. Bonding or insurance
10. Registration
11. Government certification
12. Occupational licensure

3. *Reversing the burden of proof.* Arizona has taken a third approach.[14] There, the recently passed Right to Earn a Living Act aims to strengthen existing law, which had declared, "The right of individuals to pursue a chosen business or profession, free from arbitrary or excessive government interference, is a fundamental civil right," and had directed courts to "apply heightened judicial scrutiny to cases involving occupational licenses and the right to earn a living."

   The new act stipulates that "any person may file an action in a court of general jurisdiction to challenge an occupational regulation" and creates a presumption *against* a state agency's authority unless the regulation is "demonstrated to be necessary to specifically fulfill a public health, safety, or welfare concern." The law clarifies that "health, safety or welfare . . . does not include the protection of existing businesses . . . against competition." These new provisions provide an avenue of relief to individuals harmed by occupational licensing and create a new accountability mechanism for regulators.

None of these approaches are mutually exclusive. Indeed, they all reinforce one another and aim to correct for a natural imbalance that tends to favor concentrated and organized interests over diffuse and unorganized interests. Policymakers who value consumer protection, lower prices, and greater opportunities for employment—especially among lower-skilled and lower-educated populations—would do well to consider these reforms.

Thank you for the opportunity to share my research with you today. I look forward to answering any questions you may have.

Sincerely,

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ATTACHMENT

"The Effects of Occupational Licensure on Competition, Consumers, and the Workforce" (Mercatus on Policy)

[14] S. B. 1437, 53rd Leg., 1st Sess. (Ariz. 2017).

MERCATUS ON POLICY

The Effects of Occupational Licensure on Competition, Consumers, and the Workforce

Patrick A. McLaughlin, Matthew D. Mitchell, and Anne Philpot

November 2017

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THE MERCATUS CENTER AT GEORGE MASON University is dedicated to advancing knowledge about the impact of regulation on society. As part of its mission, the Mercatus Center conducts careful and independent analyses employing contemporary economic scholarship to assess rulemaking proposals from the perspective of the public interest. Thus, this Mercatus on Policy piece in response to questions from the Federal Trade Commission (FTC)[1] does not represent the views of any particular affected party or special interest group. Rather, it is designed to assist the commission as it weighs the costs and benefits of occupational licensing regulations. Our comments to the commission are derived from our recent state-specific occupational licensing studies.[2]

OCCUPATIONAL LICENSING REQUIREMENTS ACROSS TIME AND ACROSS STATES

The commission asks, "What is the state of empirical knowledge about the extent, growth, and stringency of state licensing requirements? To what extent are such requirements uniform or varied across the states? To what extent do they vary by occupation?"

Occupational licensing has expanded significantly over the last 50 years. In 1950, 5 percent of the workforce was licensed through state laws,[3] and in 2000 that number approached 20 percent. When federal licenses are also accounted for, one estimate for 2006 is that 29 percent of the workforce was licensed.[4] This growth in licensure arises 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.[5] While there is a great deal of variation across states 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.

Patterns in occupational licensing requirements contradict the idea that licensure is primarily used to protect public safety. Occupations that are less likely to involve risk to the public are often more highly controlled than riskier occupations. Moreover, inconsistencies across state lines undermine the argument that certain occupations pose inherent safety risks.

On average, emergency medical technicians (EMTs) in the United States must complete 33 days of training and pass two exams before being licensed to work on an ambulance team.[6] By contrast, the average interior designer must complete 2,190 days of education and experience—66 *times* the amount of training required of EMTs. Cosmetologists, too, are subject to a full 11 months more training than EMTs—averaging 372 days in total.[7] Additional regulatory mismatches for particular states are listed in table 1.

Beyond the variation across occupations, there is also significant variation in licensing requirements for the same jobs across states. For example, the average HVAC contractor must complete 891 days of education and training.[8] In Michigan, however, these contractors face even higher barriers

Table 1. Occupational Training Mismatches, Select States

OCCUPATION	EDUCATION/ EXPERIENCE (DAYS)	EXAMS
ARKANSAS		
Emergency medical technician	28	2
Message therapist	117	2
Makeup artist	140	2
Psychiatric technician	210	1
Cosmetologist	350	2
Teacher assistant	730	0
Fire alarm installer	1,095	1
Painting contractor	1,825	1
Preschool teacher	1,825	3

Table 1 *(continued)*

OCCUPATION	EDUCATION/ EXPERIENCE (DAYS)	EXAMS
MICHIGAN		
Emergency medical technician	26	2
Cosmetologist	350	2
Barber	467	2
Veterinary technologist	730	2
Security guard	1,095	0
Athletic trainer	1,460	1
Security alarm installer	1,460	1
Preschool teacher	1,825	2
MISSOURI		
Emergency medical technician	23	2
Skin care specialist	175	2
Psychiatric aide	210	0
Barber	350	2
Pest control applicator	730	2
Athletic trainer	1,460	1
Preschool teacher	1,825	1
WISCONSIN		
Emergency medical technician	28	2
Manicurist	70	2
Makeup artist or skincare specialist	105	2
Message therapist	140	2
Cosmetologist or barber	420	2
Earth driller	730	1
Midwife	730	1
Veterinary technologist	730	3
Athletic trainer	1,460	1
Preschool teacher	1,825	2

Source: Dick M. Carpenter II et al., License to Work: A National Study of Burdens from Occupational Licensing *(Arlington, VA: Institute for Justice, April 24, 2012).*

Patterns in occupational licensing requirements contradict the idea that licensure is primarily used to protect public safety.

to entry. Prospective HVAC contractors in Detroit must undergo nearly *seven months more training* than the national average—a total of 1,095 days—before beginning work. By comparison, their counterparts in Indianapolis can get to work much sooner, since Indiana does not require a license for HVAC contractors at all.[9] The same is true of fire alarm installers in Arkansas: while they must accumulate 1,095 days of education and experience prior to being licensed, the rest of the country averages just 486 days, and 18 states have no experience or education minimums at all.[10] In other words, aspiring fire alarm contractors in Tulsa can get to work three years sooner than their counterparts in Little Rock.

Regarding the differences in licensing across state lines, the commission asks, "Can the theoretical models help explain why some occupations are licensed in nearly every state while others are rarely licensed?"

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, there is wide variation across states in terms of occupations regulated and the stringency of those regulations. Regulatory privilege accounts for some of these differences.

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."[11] This fact conforms with the economic theory of regulation, which suggests that incumbent providers may use licensure to limit competition.[12] By limiting supply and raising prices, these rules allow incumbent providers to earn artificially high profits—what economists refer to as *rent*. Indeed, the latest research suggests that licensure raises the wages of licensees by about 14 percent.[13] Occupational licensing is a privilege granted by a regulatory agency to incumbent providers.[14]

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 policymakers to contrive and maintain these privileges, a socially wasteful endeavor known as *rent-seeking*.[15] 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.[16]

EMPIRICAL EVIDENCE ON OCCUPATIONAL LICENSING

The commission asks, "What is the best available evidence upon which policymakers might rely in deciding whether to adopt a new licensing regime? What is the best available evidence upon which policymakers might rely in deciding whether to reform or eliminate an existing licensing regime?"

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. We discuss this literature in the following sections.

The commission asks, “What is known about the effect of licensing restrictions on price, quality, access, and innovation for services and goods associated with licensed occupations?”

The evidence suggests two things: First, licensing requirements do not improve the quality of the goods and services provided by licensed occupations, and second, 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: 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. In addition, protected industries can charge their customers higher prices than competitive industries, requiring low-income families to pay higher bills for basic services. Low-income consumers lose in particular. 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 a higher-end haircut.

Licensure and Quality

Licensure is justified by legislators and advocates as necessary to protect the public from low-quality services or potential health risks.[17] 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.”[18] High prices may even push consumers out of the market entirely, inducing them to resort to far more risky 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.[19]

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,

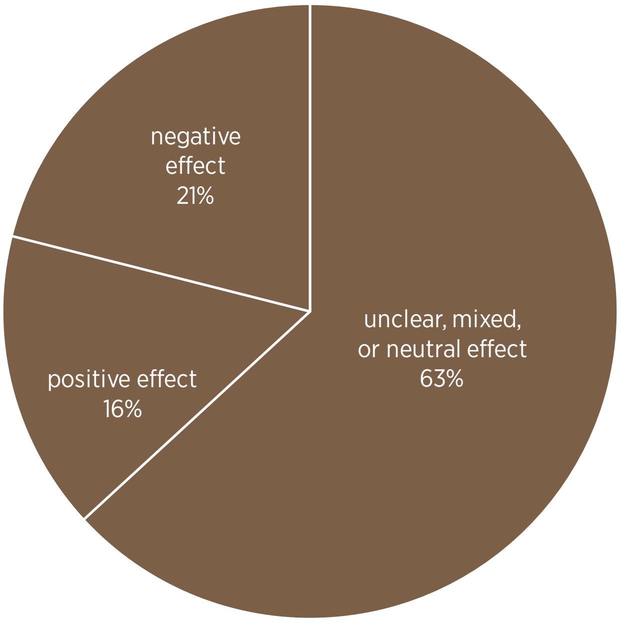
> There is little to show that occupational licensure has a major effect on the quality of services received by consumers or on the demand for the services other than through potential price effects.[20]

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.[21]

Patrick McLaughlin, Jerry Ellig, and Dima Yazji Shamoun recently surveyed 19 studies assessing the effect of occupational licensure on quality.[22] Figure 1 presents the results of their survey. As in the surveys by Kleiner and the Treasury Department Report, McLaughlin, Ellig, and Shamoun found that the

Figure 1. Studies Assessing the Effect of Occupational Licensure on Quality



Sources: **Positive:** Arlene Holen, The Economics of Dental Licensing (Washington, DC: Public Research Institute, Center for Naval Analysis, 1978); Samuel Claude Martin, "An Examination of the Economic Side Effects of the State Licensing of Pharmacists" (doctoral dissertation, University of Tennessee, 1982); Roger Feldman and James W. Begun, "The Effects of Advertising: Lessons from Optometry," Journal of Human Resources 13 supplement (1978): 247–62. **Unclear, mixed, or neutral:** Kathryn Healey, "The Effect of Licensure on Clinical Laboratory Effectiveness" (doctoral dissertation, University of California, Los Angeles, 1973); John J. Phelan, Regulation of the Television Repair Industry in Louisiana and California: A Case Study, Federal Trade Commission, 1974; John F. Cady, Restricted Advertising and Competition: The Case of Retail Drugs (Washington, DC: American Enterprise Institute, 1976); Robert J. Thornton and Andrew R. Weintraub, "Licensing in the Barbering Profession," Industrial and Labor Relations Review 32, no. 2 (1979): 242–49; Ronald Bond et al., Effects of Restrictions of Advertising and Commercial Practice in the Professions: The Case of Optometry, Federal Trade Commission, 1980; Chris Paul, "Physician Licensure Legislation and the Quality of Medical Care," Atlantic Economic Journal 12, no. 4 (1984): 18–30; David S. Young, The Rule of Experts: Occupational Licensing in America (Washington, DC: Cato Institute, 1987); Morris M. Kleiner and Daniel L. Petree, "Unionizing and Licensing of Public School Teachers: Impact on Wages and Educational Output," in When Public Sector Workers Unionize, ed. R. B. Freeman and C. Ichniowski (Chicago: University of Chicago Press, 1988), 305–19; D. D. Goldhaber and D. J. Brewer, "Does Teacher Certification Matter? High School Teacher Certification Status and Student Achievement," Educational Evaluation and Policy Analysis 22, no. 2 (2000): 129–45; Morris M. Kleiner and Robert T. Kudrle, "Does Regulation Affect Economic Outcomes? The Case of Dentistry," Journal of Law and Economics 43, no. 2 (2000): 547–82; David Blau, "Unintended Consequences of Child Care Regulations," Labour Economics 14, no. 3 (2007): 513–38; Joshua Angrist and Jonathan Guryan, "Does Teacher Testing Raise Teacher Quality? Evidence from State Certification Requirements," Economics of Education Review 27, no. 5 (2008): 483–503. **Negative:** Timothy Muris and Fred McChesney, "Advertising, Consumer Welfare, and the Quality of Legal Services: The Case of Legal Clinics" (Working Paper 78-5, Law and Economics Center, University of Miami, Miami, FL, 1978); Sidney Carroll and Robert Gaston, "Occupational Restrictions and the Quality of Service Received: Some Evidence," Southern Economic Journal 47, no. 4 (1981): 959–76; John E. Kwoka, "Advertising and the Price and Quality of Optometric Services," American Economic Review 74, no. 1 (1984): 211–16; Mark C. Berger and Eugenia F. Toma, "Variation in State Education Policies and Effects on Student Performance," Journal of Policy Analysis and Management 13, no. 3 (1994): 477.

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.

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.[23]

Similarly, McLaughlin, Ellig, and Shamoun found that licensure increased prices in all 19 of the studies they surveyed, ranging from optometry and law to dentistry and cosmetology.[24]

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,[25] dental hygienist and dental assistant licensing is estimated to increase the price of a dental visit by 7 to 11 percent,[26] and optometry licensing is estimated to increase the price of eye care by 5 to 13 percent.[27] What's more, none of these studies found that licensing increased quality.

Licensing and Access to Employment

The commission asks, "What is known about the connection between labor market research and competition research?"

Industry domination of licensing boards creates high barriers to employment. Tables 2 and 3 provide a snapshot of Michigan and Wisconsin board composition. Boards in both states are required by statute to have a majority of members who are license holders.[28] When industry members create the standards for entry into their professions, they have an incentive to implement burdensome entry requirements to protect themselves from competition. In effect, licensing makes entry into a profession more difficult without necessarily making the public safer.[29]

On some boards, membership shrinks to the lowest statutorily-mandated number of professionals, leaving public seats vacant. Wisconsin's boards in particular demonstrate this problem.

Research suggests that these barriers built by occupational licensing boards impact 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.[30]

Table 2. Composition of Select Michigan Boards

BOARD	INDUSTRY MEMBERS	TOTAL	PERCENTAGE INDUSTRY
Michigan Board of Veterinary Medicine[a]	6	9	67%
Michigan Board of Cosmetology[b]	6	9	67%
Michigan Board of Barber Examiners[c]	6	9	67%
Michigan Board of Social Work[d]	6	9	67%
Michigan Board of Massage Therapy[e]	7	11	64%
Michigan Board of Athletic Trainers[f]	6	11	54%

Note: The Board of Cosmetology currently has only two public members, meaning 75 percent of its positions are filled by industry members. The Board of Barber Examiners currently has one vacant professional member position, meaning that 56 percent of the board is filled by industry members.

Sources: [a] Michigan Department of Licensing and Regulatory Affairs, "LARA—Michigan Board of Veterinary Medicine," accessed October 6, 2017, http://www.michigan.gov/lara/0,4601,7-154-72600_72603_27529_27555-59195--,00.html.

[b] Michigan.gov, "Board of Cosmetology," accessed October 6, 2017, http://www.michigan.gov/snyder/0,4668,7-277-57738_57679_57726-250079--,00.html.

[c] Michigan.gov, "Board of Barber Examiners," accessed October 6, 2017, http://www.michigan.gov/snyder/0,4668,7-277-57738_57679_57726-249981--,00.html.

[d] Michigan Department of Licensing and Regulatory Affairs, "LARA—Michigan Board of Social Work," accessed October 6, 2017, http://www.michigan.gov/lara/0,4601,7-154-72600_72603_27529_27554-70397--,00.html.

[e] Michigan.gov, "Michigan Board of Massage Therapy," accessed October 6, 2017, http://www.michigan.gov/snyder/0,4668,7-277-57738_57679_57726-250624--,00.html.

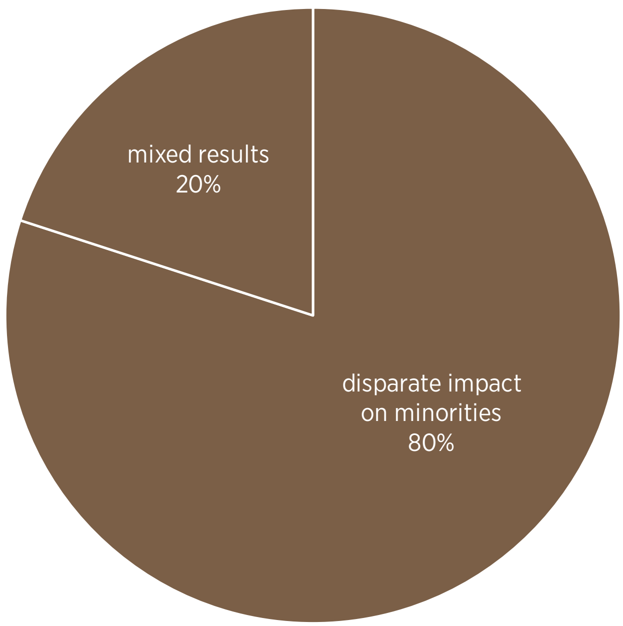
[f] Michigan Department of Licensing and Regulatory Affairs, "LARA—Michigan Board of Athletic Trainers," accessed October 6, 2017, http://www.michigan.gov/lara/0,4601,7-154-72600_72603_27529_45355-170067--,00.html.

Table 3. Composition of Select Wisconsin Boards

BOARD OR COUNCIL	STATUTORY BOARD COMPOSITION			ACTUAL BOARD COMPOSITION		
	INDUSTRY MEMBERS	TOTAL MEMBERS	PERCENTAGE INDUSTRY	INDUSTRY MEMBERS	TOTAL MEMBERS	PERCENTAGE INDUSTRY
Respiratory Care Practitioners Examining Council	3	5	60%	3	3	100%
Athletic Trainers Affiliated Credentialing Board	4	6	67%	4	4	100%
Occupational Therapists Affiliated Credentialing Board	5	7	71%	4	4	100%
Hearing and Speech Examining Board	8	10	80%	7	7	100%
Dentistry Examining Board	9	11	82%	9	9	100%

Source: Wisconsin Department of Safety and Professional Services, "License/Permit/Registrations," accessed October 30, 2017, http://dsps.wi.gov/Licenses-Permits/Credentialing.

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



Sources: ***Disparate impact:*** *Stuart Dorsey, "The Occupational Licensing Queue,"* Journal of Human Resources *15, no. 3 (1980): 424–34; Maya Federman, David Harrington, and Kathy Krynski, "The Impact of State Licensing Regulations on Low-Skilled Immigrants: The Case of Vietnamese Manicurists,"* American Economic Review *96, no. 2 (2006): 237–41; Joshua Angrist and Jonathan Guryan, "Does Teacher Testing Raise Teacher Quality? Evidence from State Certification Requirements,"* Economics of Education Review *27, no. 5 (2008): 483–503; David E. Harrington and Jaret Treber,* Designed to Exclude *(Arlington, VA: Institute for Justice, February 2009).* ***Mixed results:*** *Marc Law and Mindy Marks, "Effects of Occupational Licensing Laws on Minorities: Evidence from the Progressive Era,"* Journal of Law and Economics *52, no. 2 (2009): 351–66.*

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 2, McLaughlin, Ellig, and Shamoun's survey of the literature shows that licensing was found to disparately affect ethnic minorities in four of five studies.[31]

REFORM

Lastly, the commission asks, "What are the alternatives to occupational licensing? Are there other forms of government regulation—such as certification, registration, or mandatory bonding—that might serve some of the consumer protection goals of licensing? What types of private initiatives or market-based solutions might be adequate substitutes for licensing? What is known about the comparative advantages and disadvantages of such alternatives, either generally, for certain types of occupations, or for individual occupations?"

Licensure is not the only or the most effective way to ensure quality.[32] 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.[33] In addition, a host of private mechanisms ensure that market providers are accountable.[34] These include private certifications, insurance, bond-posting, 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."[35]

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

Table 4. Guiding Principles for Occupational Licensing Reform	
BEGIN WITH A BLANK SLATE	Tastes, technology, and prices change. So analysts should not be beholden to past practices and should approach their task as if they were starting anew.
DEFINE THE NATURE OF THE PROBLEM	Is there a systematic market failure that needs to be addressed? If not, occupational regulation is probably not the answer. Keep in mind that entrepreneurs have an incentive to come up with their own solutions to market failures.
IDENTIFY ALTERNATIVE SOLUTIONS TO OCCUPATIONAL REGULATION	This should include the alternative of deregulation. It should also include reliance on both private governance (competition, bond-posting, reputation feedback mechanisms, third-party evaluation, etc.) and public governance (deceptive trade practice law, registration, certification, etc.).
IDENTIFY THE POTENTIAL COSTS OF REGULATION	These include higher consumer prices; inconveniences such as diminished access to products and services; higher entrance fees, exam costs, education costs, etc.; rent-seeking waste; productive inefficiencies that arise when firms and providers are protected from competition; and dynamic losses that accrue over time as protected firms and providers are less likely to adapt and innovate.
IDENTIFY THE POTENTIAL BENEFITS OF REGULATION	What systematic market failure is the regulation intended to address? Remember that the profits of incumbent firms and their employees are not legitimate benefits of regulation since these gains come at the expense of consumers and would-be competitors.
MEASURE COSTS AND BENEFITS	Whenever possible, an objective measure of costs and benefits should be produced. When that is impossible, analysts should acknowledge that certain judgements are subjective.

commission should be charged with evaluating all licenses, should not be dominated by members of the licensed professions, should include consumer representatives 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 regulations, as listed in table 4.

3) The commission should be charged with performing a comprehensive review of all occupations, 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.[36] In particular, it allows elected officials to cast conspicuous votes in the public interest while giving them some degree of "cover" from the special interests that will inevitably be harmed by the elimination of their regulatory privilege.

NOTES

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6. Dick M. Carpenter II et al., *License to Work: A National Study of Burdens from Occupational Licensing* (Arlington, VA: Institute for Justice, April 24, 2012), 13.

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18. Morris M. Kleiner, "Occupational Licensing," *Journal of Economic Perspectives* 14, no. 4 (2000): 189–202.

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31. 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): 210–33.

32. For a hierarchy of alternatives to occupational licensure, see Thomas A. Hemphill and Dick M. Carpenter II, "Occupations: A Hierarchy of Regulatory Options," *Regulation* 39, no. 3 (Fall 2016): 20–24.

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