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The State of Occupational Licensure in Nevada

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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 Nevada'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 that 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, ultimately leading to higher prices for consumers.

Occupational licensing has expanded dramatically over the past 50 years. In 1950, 5 percent of the US workforce was licensed through state laws,[1] 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.[2] This growth in licensure arises primarily from the growth in the number of occupations for which the state requires a license, not from people switching from jobs that do not require occupational licenses to jobs that do.[3] 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. Nevada is no exception.

A SNAPSHOT OF NEVADA'S OCCUPATIONAL LICENSURE REGIME

The government of Nevada has developed extensive licensing requirements. In 2013, the latest year for which data are available, the state licensed 30.7 percent of the workforce and certified another 5.4 percent.[4] According to Nevada's Legislative Council Bureau, the state licenses "more than 50 professions, occupations, and businesses."[5] This would appear to undercount the number of regulated professions, however. A 2017 study by the Institute for Justice (IJ) examined occupational licensure laws for 102 lower-income occupations and found that Nevada requires a license for 75 of them.[6] Only three other states—Louisiana, Washington, and California—license more low-income professions. The state also licenses such rarely licensed professions as interior designer, sign language interpreter, and animal trainer.[7]

Obtaining a license poses many substantial hurdles. In assessing the burdens the state imposes—including fees, exams, age requirements, grade requirements, and training and experience requirements—IJ's report ranked Nevada's licensing regime as the second most burdensome in the nation. And in accounting for the number of low-income occupations licensed as well as the burden imposed on those occupations, IJ found Nevada to be the second most broadly and onerously regulated state in the nation. On average, the Silver State requires 861 days of experience and training, $704 in fees, and roughly two exams for each of those 75 occupations.[8] Among them, travel guides, shampooers, and gaming supervisors face steep fines for operating without a license.

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. For example, Nevada's emergency medical technicians (EMTs) must complete 26 days of training and pass two exams before being licensed to work on an ambulance team.[9] By contrast, Nevada's drywall installation contractors must complete 1,460 days of education and experience—56 *times* the amount of training required of EMTs.[10] Additional regulatory mismatches are shown in table 1.

Table 1. Occupational Training Mismatches in Nevada

OCCUPATION	EDUCATION/ EXPERIENCE (DAYS)	EXAMS
Emergency medical technician	26	2
Cosmetologist	373	2
Optician	1,118	3
Door repair contractor	1,460	2
Sign language interpreter	1,469	2
Interior designer	2,190	1

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), 100–101.*

The evidence suggests two things: first, licensing requirements do not improve the quality of the goods and services provided by licensed occupations (see the next section), 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: 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. 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 luxurious shops.

There is significant variation in licensing requirements for the same jobs across states. Licensing boards can require a minimum level of education or experience, a steep processing fee, or a passing score on examinations. In Nevada, 53 of the 75 licenses identified by IJ require all three.[11] All but one require

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

the applicant to pay a fee, the highest of which is $2,250 for a travel guide license.[12]

Figure 1 compares the state's fee and experience requirements in these surveyed occupations to the national average. Nevada's licensing requirements are significantly above the national average in three areas: number of occupations licensed, fees, and days lost to education and experience requirements.

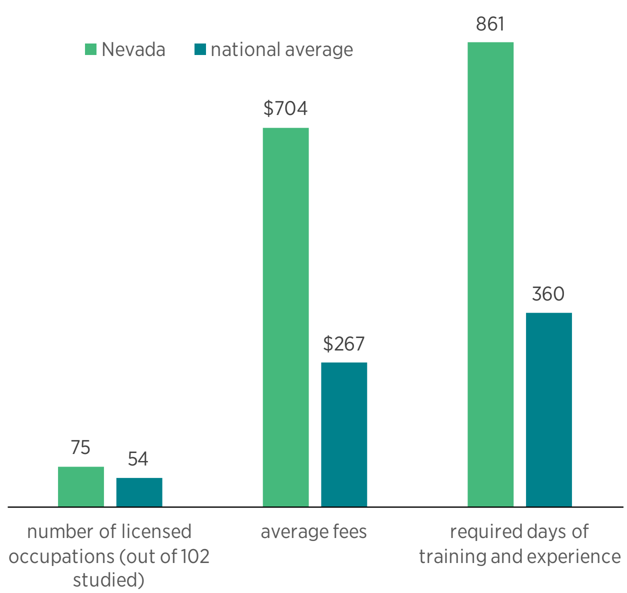
Though for a few professions Nevada boasts less restrictive laws than the national average, in most instances, the reverse is true. For example, Nevada's licensing requirements for barbers are the highest in the country.[13] Barbers in Nevada lose nearly 2.5 years to experience and training and take four exams.[14] Meanwhile, barbers in neighboring Arizona, California, Idaho, Oregon, and Utah face a much lighter regulatory burden. Barbers in California and Arizona are required to obtain 350 days of experience—less than half of the experience required of Nevada's barbers. Barbers in Oregon, Utah, and Idaho face even shorter training requirements and are required to obtain 315, 233, and 210 days of training, respectively.[15]

Similarly, interior designers in Nevada face disproportionate licensing requirements compared to their peers in the vast majority of other states. In fact, Nevada is one of only four states that licenses interior designers. Prospective interior designers in Nevada may begin work only after accruing 2,190 days of experience, paying $1,215 in fees, and passing one exam.[16] By contrast, interior designers in neighboring California, Idaho, Oregon, Utah, and Arizona face no licensing requirements at all. An interior designer in any of these states could get to work more than *six years* sooner.[17]

Industry domination of licensing boards is also a problem. Table 2 shows the statutorily required compositions of select Nevada boards. In Nevada, 83 percent of boards are required by law to have a majority of members who are license holders.[18]

When industry members create the standards for entry into their profession, they have an incentive to implement burdensome entry requirements and protect themselves from competition. In effect, members have incentives to make entry into their profession more difficult without necessarily making the public safer.[19] In its 2015 opinion in *North Carolina State Board of Dental Examiners v. FTC*, the US Supreme Court addressed precisely this issue.[20] It established a two-part test to determine whether a board controlled by market participants is immune

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



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 14th, 2017).*

Table 2. Statutory Composition of Select Nevada Boards

BOARD	INDUSTRY MEMBERS	TOTAL MEMBERS	PERCENT INDUSTRY
State Barbers' Health and Sanitation Board[a]	3	4	75%
State Contractors Board[b]	6	7	86%
Board of Dispensing Opticians[c]	4	5	80%
Board of Massage Therapists[d]	6	7	86%

[a] *Nev. Rev. Stat. § 643.020 (1967).*
[b] *Nev. Rev. Stat. § 624.050 (1985).*
[c] *Nev. Rev. Stat. § 637.030 (1977).*
[d] *Nev. Rev. Stat. § 640C.150 (2005).*

from antitrust claims. In order to claim immunity from antitrust, (1) the state's board composition requirement must serve a state policy goal, and (2) a given board's activities must be subject to active supervision by the state.[21] Even if Nevada 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, Nevada 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.

Several policymakers in Nevada have introduced legislation to lower occupational barriers. In 2015, 12 lawmakers put forward Assembly Bill 269, which aimed to limit occupational licensing to only those activities which pose a "present and recognizable harm to the public health or safety" and to only those instances in which "occupational regulation is the least restrictive means of furthering that important interest."[22] The bill would also have granted workers the ability to "assert the right to engage in a lawful occupation as a defense in any action brought to enforce an occupational regulation."[23] The bill never advanced out of committee. Then, in 2017, State Senator Michael Roberson introduced the Right to Earn a Living Act. This act would have restricted occupational barriers to only those which "are demonstrably necessary and carefully tailored to legitimate public health, safety or welfare objectives."[24] The Right to Earn a Living Act also would have allowed individuals to petition the government to repeal or modify particular regulations. This, too, never got out of committee.

There is much more to be done in Nevada to make low- and middle-income occupations accessible to people who are most likely to be stymied by barriers to entry. Substantial 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 Nevada.

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.[25] 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."[26] 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.[27]

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.[28]

During the Obama administration, the Department of the Treasury, together with the Council of Economic Advisers 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.[29]

Patrick McLaughlin, Jerry Ellig, and Dima Yazji Shamoun recently surveyed 19 studies assessing the effect of occupational licensure on quality.[30] Figure 2 presents the results of their survey. As in the surveys by Kleiner and the Treasury Department Report, McLaughlin, Ellig, and Shamoun 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.

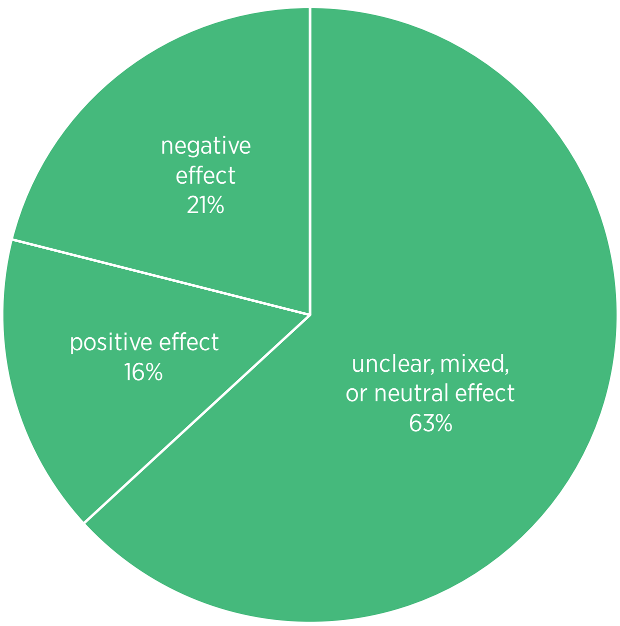
If occupational licensing were governed solely by the logic of promoting public safety, the same types of activities would be regulated in similar ways across states. In reality, states vary widely in terms of the occupations regulated and the stringency of those regulations. For example, four states 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.[31]

Licensure is not the only or the most effective way to ensure quality.[32] 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.[33] If policymakers think private measures are insufficient to protect consumers, a number of public regulatory options are more effective and less likely to be counterproductive than 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.[34]

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,

Figure 2. 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" (PhD diss., 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" (PhD diss., 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.*

> 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.[35]

Similarly, McLaughlin, Ellig, and Shamoun found that licensure increased prices in all 19 of the studies they surveyed, in occupations ranging from optometry and law to dentistry and cosmetology.[36]

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,[37] dental hygienist and dental assistant licensing is estimated to increase the price of a dental visit by 7 to 11 percent,[38] and optometry licensing is estimated to increase the price of eye care by 5 to 13 percent.[39] 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."[40] This fact conforms with the economic theory of regulation, which suggests that incumbent providers may use licensure to limit competition.[41] 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.[42] Occupational licensing is a privilege granted by a regulatory agency to incumbent providers.[43]

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*. 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

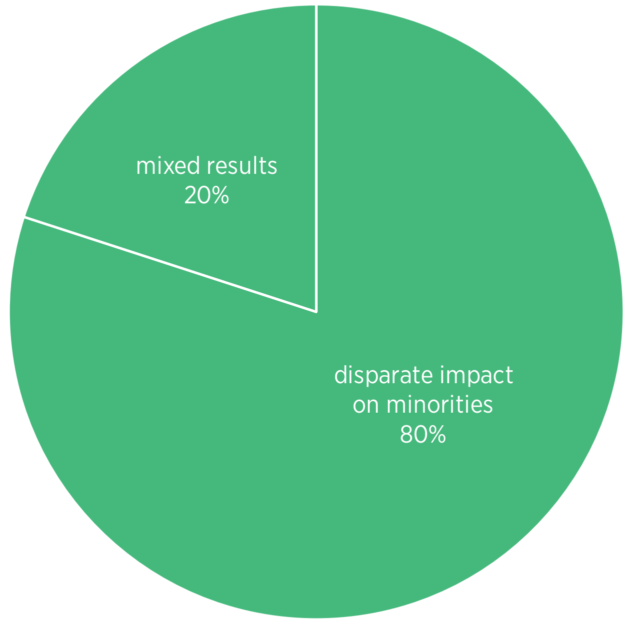
Those who fail to obtain licenses pay a price in the form of lost income. Research suggests that these burdens often fall on particular communities. For example, military spouses are more likely to be in licensed professions and more likely to relocate from one licensing regime to another.[44]

Licensure also presents a higher barrier to immigrants since many states require domestic work experience. For ex-offenders, occupational licensing is particularly burdensome because 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.[45]

Licensure may also be associated with greater income inequality. In a recent study of 175 countries, McLaughlin and Stanley find that nations with more legal barriers to starting a business experience greater levels of income inequality.[46] 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.[47]

Figure 3. 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.*

REFORM

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.[48] In addition, a host of private mechanisms ensure that market providers are accountable.[49] 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."[50]

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

- Pass legislation that sets an ambitious goal for the elimination of licenses and the reduction in licensing burdens.
- 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 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 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, 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.[51] In particular, it allows elected officials to cast conspicuous votes in the public interest while giving them some degree of "cover" from the special

Table 3. 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 judgments are subjective.

interests that will inevitably be harmed by the elimination of their regulatory privilege.

NOTES

1. Morris M. Kleiner and Alan B. Krueger, "The Prevalence and Effects of Occupational Licensing" (NBER Working Paper No. 14308, National Bureau of Economic Research, Cambridge, MA, September 2008), 2.
2. Kleiner and Krueger, "Prevalence and Effects," 3.
3. Kleiner and Krueger, "Prevalence and Effects,"
4. Morris M. Kleiner, *Reforming Occupational Licensing Policies* (Washington, DC: Brookings Institution, March 2015), 9.
5. Nevada Legislative Counsel Bureau, Research Division, *Policy and Program Report: Occupational and Professional Licensing*, April 2016.
6. 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).
7. Carpenter et al., *License to Work*, 100–101.
8. Carpenter et al.
9. Carpenter et al., 101.
10. Carpenter et al.
11. Carpenter et al., 100–101.
12. Carpenter et al., 101.
13. Dick M. Carpenter II et al., "License to Work: A National Study of Burdens from Occupational Licensing—Barber," accessed February 6 2018, http://ij.org/report/license-work-2/ltw-occupation-profiles/ltw2-barber/.
14. Carpenter et al., "License to Work—Barber."
15. Carpenter et al., "License to Work—Barber."
16. Dick M. Carpenter II et al., "License to Work: A National Study of Burdens from Occupational Licensing—Interior Designer," accessed February 6, 2018, http://ij.org/report/license-work-2/ltw-occupation-profiles/ltw2-interior-designer/.
17. Carpenter et al., "License to Work—Interior Designer."
18. Rebecca Haw Allensworth, "Foxes at the Henhouse: Occupational Licensing Boards Up Close," *California Law Review* 105, no. 6 (2017): 1567–1610.
19. Sidney L. Carroll and Robert J. Gaston, "Occupational Restrictions and the Quality of Service Received: Some Evidence," *Southern Economic Journal* 47 (1981): 959–76.
20. North Carolina State Board of Dental Examiners v. Federal Trade Commission, 135 S. Ct. 1101 (2015).
21. *Id*. at 1112.
22. Assemb. B. 269, 2015 Leg., 78th Sess. (Nev. 2015), 3.
23. *Id*. at 2.
24. S. B. 330, 2017 Leg., 79th Sess. (Nev. 2017).
25. Kleiner, *Reforming Occupational Licensing Policies*, 4.
26. Morris M. Kleiner, "Occupational Licensing," *Journal of Economic Perspectives* 14, no. 4 (2000): 189–202.
27. Carroll and Gaston, "Occupational Restrictions and the Quality of Service Received."
28. Morris M. Kleiner, *Licensing Occupations: Ensuring Quality or Restricting Competition?* (Kalamazoo, MI: W.E. Upjohn Institute, 2006), 56.
29. US Department of the Treasury, Council of Economic Advisers, and US Department of Labor, *Occupational Licensing: A Framework*, July 2015, 13.
30. Patrick A. McLaughlin, Jerry Ellig, and Dima Yazji Shamoun, "Regulatory Reform in Florida: An Opportunity for Greater Competitiveness and Economic Efficiency," *Florida State University Business Review* 13, no. 1 (Spring 2014): 95–130.
31. Carpenter et al., *License to Work*, 12.
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.
33. For more on reputation feedback mechanisms, see Adam Thierer et al., "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. Hemphill and Carpenter, "Occupations."
35. Department of the Treasury et al., *Occupational Licensing: A Framework*, 14.
36. McLaughlin, Ellig, and Shamoun, "Regulatory Reform in Florida," 14–15.
37. Morris M. Kleiner et al., "Relaxing Occupational Licensing Requirements: Analyzing Wages and Prices for a Medical Service" (NBER Working Paper No. 19906, National Bureau of Economic Research, Cambridge, MA, February 2014).
38. Federal Trade Commission, *Restrictions on Dental Auxiliaries: An Economic Policy Analysis*, 1987.
39. Deborah Haas-Wilson, "The Effect of Commercial Practice Restrictions: The Case of Optometry," *Journal of Law & Economics* 29, no. 1 (1986): 165–68.
40. Paul J. Larkin Jr., "Public Choice Theory and Occupational Licensing," *Harvard Journal of Law & Public Policy* 39, no. 1 (n.d.): 209–331, 226.
41. George J. Stigler, "The Theory of Economic Regulation," *Bell Journal of Economics and Management Science* 2, no. 1 (1971): 3–21; Sam Peltzman, "Toward a More General Theory of Regulation," *Journal of Law and Economics* 19, no. 2 (1976): 211–40.
42. Kleiner and Krueger, "Prevalence and Effects."
43. Matthew Mitchell, *The Pathology of Privilege: The Economic Consequences of Government Favoritism* (Arlington, VA: Mercatus Center at George Mason University, 2014); Patrick A. McLaughlin, Matthew Mitchell, and Ethan Roberts, "Regulatory Subsidies: How

Regulations Can Become Privileges for Firms and Burdens for Consumers" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, forthcoming).

44. Department of the Treasury et al., *Occupational Licensing: A Framework*, 4–5.

45. The fifth study, which found a disparate effect of licensure in only 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.

46. 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, 2016).

47. 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, 2017).

48. 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).

49. Thierer et al., "How the Internet, the Sharing Economy, and Reputational Feedback Mechanisms Solve the 'Lemons Problem.'"

50. Quoted in Richard Adams, "Alfred Kahn Obituary," *Guardian*, January 12, 2011. See also Alfred Kahn, *The Economics of Regulation: Principles and Institutions* (Cambridge, MA: Massachusetts Institute of Technology, 1988).

51. Jerry Brito, "Running for Cover: The BRAC Commission as a Model for Federal Spending Reform," *Georgetown Journal of Law & Public Policy* 9 (2010): 131–56.

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