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LICENSE TO WORK

A National Study of Burdens from Occupational Licensing

2nd Edition



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Foreword

by Maureen K. Ohlhausen
Acting Chairman, Federal Trade Commission

When you were a child, did you ever set up a lemonade stand? Drum up snow-shoveling jobs after a big storm? Walk your neighbors' dogs? From an early age, you learned that entrepreneurship leads to productivity, self-fulfillment and a sense of accomplishment. And when your neighbor set up a similar stand or offered to shovel snow or walk dogs, you learned that competition prompted you to sharpen your skills and perform these jobs better. Entrepreneurship and the competition it drives are fundamental organizing principles of a strong economy. Consumers stand willing to pay for a variety of services. Ideally, when entrepreneurs are free to market their skills, a steady supply of service providers will step up to compete on terms of price, quality, convenience and innovation. Workers gain job opportunities and the ability to provide for themselves and their families. Employers get a strong labor force. And consumers, of course, reap the benefits of vigorous competition.

Unfortunately, as we grow up, we discover a difficult truth: The American marketplace does not always live up to this ideal. In far too many situations, state and local governments impose unnecessary occupational licensing regulations that stifle competition, thwart innovation and threaten economic liberty—causing real harm to workers, employers, consumers and our economy as a whole. In far too many situations, licensing serves no legitimate purpose because it does not protect against a valid health or safety concern. Instead, it only protects incumbents from competition.

The burdens of excessive occupational licensing often fall disproportionately on our nation's most economically disadvantaged citizens—those working in entry- and mid-level jobs, seeking to pull themselves up the economic ladder. And even in professions where licensing makes

sense, a lack of license portability across state lines poses another set of challenges, causing particular hardships for military families and others who move often.

The problem of excessive occupational licensing is compounded by what I call the “Brother, May I?” situation.¹ Too often, the members of an occupation gain effective control over the quasi-public board that regulates their profession. Once this happens, private actors wield their government-granted power to block potential competitors from entering “their” market.

Throughout my career, and especially as a Commissioner of the Federal Trade Commission, I have highlighted the burdens of excessive occupational licensing. Time and time again, I have called for meaningful occupational licensing reform, often citing the Institute for Justice's original May 2012 *License to Work* report to back up my arguments.² The FTC and its staff have long utilized the agency's full range of competition advocacy and enforcement tools to promote a more sensible approach to licensing.³ When President Trump designated me to serve as Acting Chairman of the FTC in January 2017, my first major initiative was to establish the FTC's Economic Liberty Task Force to focus on occupational licensing issues.⁴

The Task Force has already succeeded in amplifying a critical message: U.S. consumers and employers will be better off if we seek less restrictive alternatives to licensing whenever possible. This second edition of *License to Work* could not have come at a better moment for our nation, and I am deeply grateful to IJ for pursuing this project. Together, we can ensure that occupational licensing reform continues to gain traction and attention across the country.

1 See Ohlhausen, M. K., & Luib, G. P. (2016). Brother, may I?: The challenge of competitor control over market entry. *Journal of Antitrust Enforcement*, 4(1), 111–113. https://www.ftc.gov/system/files/documents/public_statements/801861/150917brothermayi.pdf

2 Carpenter, D. M., Knepper, L., Erickson, A. C., & Ross, J. K. (2012). *License to work: A national study of burdens from occupational licensing*. Arlington, VA: Institute for Justice. <http://ij.org/wp-content/uploads/2015/04/licensetowork1.pdf>; see, e.g., U.S. Federal Trade Commission. (2016). *Remarks of Commissioner Maureen K. Ohlhausen, From Hammurabi to hair braiding: The ongoing struggle for economic liberty, April 28, 2016*. https://www.ftc.gov/system/files/documents/public_statements/946853/160428instituteofjustice.pdf; U.S. Federal Trade Commission. (2017a). *Remarks of Acting Chairman Maureen K. Ohlhausen, Advancing Economic Liberty, February 23, 2017*. https://www.ftc.gov/system/files/documents/public_statements/1098513/ohlhausen_-_advancing_economic_liberty_2-23-17.pdf

3 See *Barriers to entrepreneurship: Examining the anti-trust implications of occupational licensing: Hearings before the House Committee on Small Business*, 113th Cong. 14 (2014) (prepared statement of the Federal Trade Commission on competition and the potential costs and benefits of professional licensure). https://www.ftc.gov/system/files/documents/public_statements/568171/140716professionallicensurehouse.pdf

4 See U.S. Federal Trade Commission, 2017a; U.S. Federal Trade Commission (2017b, March 16). FTC launches new website dedicated to economic liberty [Press release]. <https://www.ftc.gov/news-events/press-releases/2017/03/ftc-launches-new-website-dedicated-economic-liberty>

Table of Contents

<i>Executive Summary</i>	6
<i>Introduction</i>	8
<i>The Occupations</i>	12
<i>Ranking the Occupations</i>	15
<i>Ranking the States</i>	20
<i>The Irrationalities of Occupational Licensure</i>	24
<i>The Protectionist Origins of Licensure</i>	29
<i>The Power of Licensing Boards</i>	30
<i>To License or Not to License: A False Choice</i>	32
<i>Recommendations for Reform</i>	34
<i>Conclusion</i>	42
<i>State Profiles</i>	43
<i>Occupation Profiles</i>	145
<i>Appendix A: General Methods</i>	200
<i>Appendix B: Explanation of Specific Occupations</i>	204
<i>Appendix C: Research on Occupational Licensing</i>	210
<i>Endnotes</i>	212
<i>About the Authors</i>	220

Executive Summary

The right to earn an honest living has always been a fundamental American right. But in recent decades, this right has become increasingly circumscribed by occupational licensing laws. Occupational licensing is, put simply, government permission to work in a particular field. In the 1950s, about one in 20 American workers needed an occupational license before they could work in the occupation of their choice. Today, that figure stands at about one in four. Securing an occupational license may require education or experience, exams, fees, and more, and working without one can mean fines or even jail time.

The growth of occupational licensing and the barriers it presents to job seekers have attracted mounting bipartisan concern. Policymakers, scholars and opinion leaders left, right and center are increasingly recognizing that licensing comes with high costs—fewer job opportunities and steeper prices—and does little to improve quality or protect consumers.

This second edition of *License to Work* examines both the scope and the specific burdens of occupational licensing, documenting licensing requirements for 102 lower-income occupations across all 50 states and the District of Columbia. It finds that these barriers to entry can pose substantial difficulties for job seekers and would-be entrepreneurs. Key findings include:

- The 102 occupational licenses require, on average, \$267 in fees, one exam, and nearly a year of education and experience.
- Interior designer is the most difficult occupation to enter, though it is licensed by only three states and D.C.
- Among the jobs that require licenses nearly everywhere, cosmetology trades (cosmetologist, barber, skin care specialist and manicurist), truck

and bus drivers, and pest control applicators rank as some of the most difficult to enter.

- Louisiana and Washington license more of the occupations studied than any other state—77 of 102. Wyoming, with a mere 26, licenses the fewest. On average, states license 54 occupations.
- Hawaii imposes the steepest licensing requirements, averaged across the occupations it licenses, while Nebraska's average requirements are the lightest.
- California licenses a large number of occupations and imposes steep requirements, making it the most widely and onerously licensed state. Wyoming is the least widely and onerously licensed state.

This report also reveals many inconsistencies and irrationalities in licensing burdens:

- Most of the 102 occupations are practiced in at least one state without state licensing and apparently without widespread harm. Only 23 of these occupations are licensed by 40 states or more.

- Licensing burdens also often vary considerably across states. For example, four states require four years—1,460 days—of experience to become licensed as a residential landscape contractor; 40 others require none. Such variation is common: In roughly half of the occupations studied, the difference between the heaviest state education and experience requirements and the lightest is more than 1,000 days.
- Licensing burdens are frequently disproportionate to the actual public health and safety risks of an occupation. Cosmetologists, for example, must complete more than a year of education or experience on average. Emergency medical technicians (EMTs), on the other hand, need to complete only about a month. Indeed, 73 occupations have greater average burdens than EMTs.

Such inconsistencies and irrationalities suggest that many licensing burdens are excessive and call into question whether many licensing schemes are even necessary at all.

Fortunately, there are alternatives to licensure. Less restrictive options like certification, bonding, insurance, inspections and registration all offer consumer protection without shutting people out of work. Only where there is evidence of present and significant harm that cannot be remedied by a less restrictive alternative should licensure be considered.

Starting from this simple premise, this report recommends that state policymakers take the following steps to rein in licensing and mitigate its ill effects:

- Repeal needless licenses and—if necessary—replace them with less restrictive alternatives.

- Scale back licensing statutes and policies that have swept up previously unlicensed activities. Often, the boards that oversee licensed occupations will adopt rules or use enforcement actions to expand their authority even over non-licensurees.
- Codify in statute the right to engage in a lawful occupation. Empower courts to enforce this right by striking down licensing laws that restrict it without evidence of real public harm.
- Implement meaningful sunrise and sunset processes to evaluate the need for proposed and existing licenses and to consider less restrictive alternatives.
- Establish oversight bodies to actively supervise licensing boards. Boards are commonly dominated by licensees, and effective oversight should aim to curb their tendency toward anticompetitive behavior.
- Curtail license denials based on irrelevant or long-past criminal records.
- Improve interstate mobility for workers and entrepreneurs first and foremost by repealing unnecessary licenses and, where necessary, replacing them with less restrictive alternatives.

The 20th century was the era of ever-expanding licensing. By putting this report's recommendations into practice, policymakers can help ensure that the 21st is the era of transforming licenses into liberty and economic opportunity.

Introduction

An overgrown thicket of state regulations is strangling more and more of the American workforce. These regulations are known as occupational licensing.

Occupational licensing forces aspiring workers and entrepreneurs to clear various government-mandated hurdles before they may legally perform their jobs. They must earn a particular degree or apprentice for a set amount of time, attain a certain grade level, pass exams, pay fees to the state, and more. If they practice a licensed occupation without a license, they may face fines or even jail time. In effect, occupational licensing requires workers and entrepreneurs to secure a government permission slip to work.

This government-defined pathway to employment contrasts sharply with the way in which people typically develop their careers. In most fields, workers and entrepreneurs build skills by investing in education, gradually gaining experience in the workplace, or both. Potential employers evaluate whether workers' knowledge and experience fit the job, and potential customers decide whether a business is worth their money. Thus, for most occupations, there are a variety of ways to break in and learn on the job, providing flexibility to workers and employers alike. In licensed occupations, there is usually only one.

This report documents the state-mandated paths into a sample of lower-income occupations across all 50 states and the District of Columbia, recording the requirements needed to obtain licenses. It finds that these licensing requirements are frequently steep, inconsistent and irrational.

Research on Occupational Licensing

Research suggests that the thicket of occupational licensing is growing, imposing substantial costs on workers, entrepreneurs and consumers. And these costs come with little evidence of improved services or other public benefits.

As a result, policymakers and advocates from across the ideological spectrum are increasingly recognizing that pruning back licensing is a reform strategy that can expand economic opportunity without compromising consumer protection.

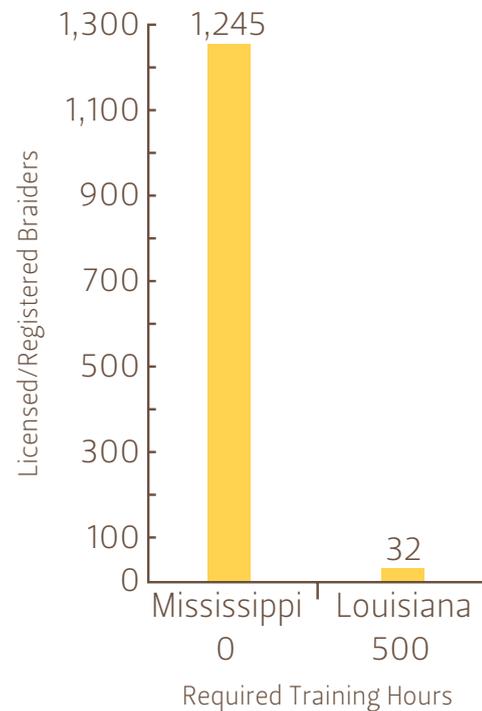
The growing burden of licensing

The share of American workers needing a license to work has climbed steadily in recent decades, from 1 in 20 workers in the 1950s to roughly 1 in 4 today, according to economist and licensure expert Morris Kleiner, Princeton economist Alan Krueger and data from the Bureau of Labor Statistics (BLS).¹ Research suggests this growth is not primarily due to more workers leaving the farm and the factory for traditionally licensed fields like medicine and law. Instead, the main driver is new laws expanding licensing into previously unlicensed occupations.²

Licensing laws now guard entry into hundreds of occupations, including jobs that can offer opportunities for upward mobility to those of modest means, such as cosmetologist, auctioneer, athletic trainer, landscape contractor and massage therapist. The tangle of laws has become so thick that a commission in California recently admitted that the state has no way of knowing how many occupations it licenses.³

Figure 1: Stricter Licensing Often Means Fewer Jobs and Service Providers

Required Training Hours vs. Number of Licensed/Registered Hair Braiders, Mississippi and Louisiana, 2012



The requirements licensing laws impose often create serious impediments to people hoping to break into new occupations, and these impediments may be more difficult for certain workers to overcome. Among others, minorities, lower-income workers and older workers switching careers may find mandated education and experience too costly or time-consuming.⁴ Veterans often discover that their military training does not match state requirements for similar jobs, shutting them out of occupations for which they are qualified or forcing them to undergo pointlessly duplicative training.⁵ Military spouses often encounter a similar problem when relocated to a new state with different licensing rules.⁶ And workers with a criminal record often face outright prohibitions or other special barriers to becoming licensed, impeding their integration into the workforce and the larger community.⁷

Licensing's economic effects

As occupational licensing spreads through the labor market, it has significant effects on the economy as a whole. Researchers have found that licensing reduces access to jobs, inhibits geographic mobility and raises the costs of services.

Licensing limits job opportunities and entrepreneurship by keeping people out of licensed occupations. Research indicates that occupations experience slower employment growth in states where they are licensed than in states where they are not, suggesting that licensing acts as a barrier to newcomers.⁸ Steeper license requirements also present steeper barriers. Studies of multiple occupations have linked higher licensing burdens with lower levels of employment in licensed fields, as well as lower rates of entrepreneurship among low-income workers.⁹ Altogether, licensing laws may cost the American economy as many as 2.85 million jobs.¹⁰

Another way licensing impacts employment is by inhibiting geographic mobility. States vary in both the occupations they license and the requirements they set for entering licensed occupations. As a result, to practice legally in a new state, licensed workers may need to acquire additional credentials or even go back to square one, while unlicensed workers may need to become licensed for the first time, even if they led successful careers before moving. Not only do such licensing barriers often make little sense—workers do not become unqualified by crossing a state border—but they also deter interstate mobility, making it harder for workers to move to where jobs are and for entrepreneurs to relocate to more desirable markets.¹¹

In addition to restricting opportunities for workers, licensing hits consumers in their pocketbooks. Multiple studies have linked licensing to higher prices, likely because the artificially limited supply of practitioners can command higher fees.¹² In all, consumers may pay an additional \$203 billion nationwide due to licensing each year.¹³ Licensing may also reduce the availability of services, both by pricing them beyond the reach of lower-income consumers and by driving service providers out of the market.¹⁴

One example neatly illustrates licensing's effects on jobs, entrepreneurial activity and the availability of services: African-style hair braiding in Louisiana and Mississippi. With a substantially larger black population, Louisiana might be expected to be a better market for African-style hair braiders than neighboring Mississippi. Yet in 2012, Louisiana had just 32 braiders legally allowed to serve the whole state, while Mississippi had over 1,200 (see Figure 1 above). The difference is not market opportunity but rather licensing barriers: Louisiana demands braiders undergo 500 hours of training for a braiding license, while Mississippi requires only simple registration. Louisiana's steep requirements lock aspiring braiders out of work and make braiding services significantly harder to find—as do other states' needlessly high barriers.¹⁵

Little public benefit from licensing

While the economic costs of licensing are well established, evidence for public benefits is harder to find. In theory, licensing should improve the consumer experience and protect public health and safety by setting minimum qualifications and weeding out incompetent practitioners, especially in fields where consumers might be unable to tell good providers from bad ones on their own. Yet most research has failed to find a connection between licensing and service quality or safety.¹⁶

Studies of licensing and service quality have examined a wide range of occupations, including florists, tour guides, hair braiders and cosmetologists, without finding positive effects.¹⁷ Even research on occupations where health risks may be more pronounced, such as dental hygienists, nurse practitioners and opticians, has found that licensing restrictions raise the cost of services without improving quality.¹⁸ Put differently, research suggests that consumers are paying more without getting better results.

Growing recognition of the need for reform

As licensing has extended its reach into the labor market, recognition of its economic and human consequences has likewise spread. A broad, ideologically diverse array of policymakers and research institutes are now questioning whether licensing has gone too far.

In 2015, the U.S. Treasury Department, the Council of Economic Advisers and the Labor Department under former President Barack Obama issued a report documenting problems with licensing policy and calling for widespread reform.¹⁹ Obama and former Vice President Joe Biden called attention to the issue, while Dr. Jill Biden and former First Lady Michelle Obama worked to reduce licensing barriers for military spouses.²⁰ The BLS has started collecting data on licensed workers through its Current Population Survey, and in early 2017 the Federal Trade Commission created an Economic Liberty Task Force focused in part on occupational licensing reform. And in July 2017, the U.S. Secretary of Labor under President Donald Trump, Alexander Acosta, highlighted the issue and encouraged state legislators to undertake occupational licensing reform.²¹

Licensing reform is also now championed by public policy organizations left, right and center, including the Brookings Institution’s Hamilton Project, the Cato Institute, the Heritage Foundation, the Ewing Marion Kauffman Foundation, the Mercatus Center at George Mason University, the National Conference of State Legislatures, the National Governors Association, the Council of State Governments and the American Legislative Exchange Council.²²

At the state level, governors in Arizona, California, Illinois, Indiana and Iowa have either vetoed bills proposing new occupational regulations or urged broader reform.²³ California’s well-regarded Little Hoover Commission, an independent and bipartisan state oversight agency, released an in-depth study of the issue and outlined strategies to ease licensing barriers.²⁴ In Indiana, the Professional Licensing Agency, which oversees licensed occupations, put forward a plan for reducing licensing barriers by establishing self-certification as an alternative.²⁵ Research institutes in Alabama, Arkansas, Connecticut, Michigan, Missouri, Wisconsin and elsewhere have called on their states to reform licensing laws.²⁶ Among policymakers and advocates at both the state and national levels, interest in licensing reform is at an all-time high.

Measuring Licensing Burdens for Lower-Income Workers

This report contributes to the national discussion on occupational licensing by measuring the burdens state licensing laws impose on low- and middle-income workers. The original edition of *License to Work* broke new ground in 2012 by providing the first detailed nationwide picture of such licensing burdens. Until then, most national studies of

occupational licensing laws had measured only their scope, usually by counting state licenses, or else recorded only whether a particular requirement was imposed, not how severe it was.²⁷ This second edition of *License to Work*, like the first, examines both the scope and the specific burdens of licensing, documenting the requirements to enter 102 lower-income occupations across all 50 states and the District of Columbia.

For each occupation in the sample, this report captures the five types of licensing requirements most commonly imposed on aspiring workers: fees, education and experience, exams, minimum grade completed, and minimum age. Occupations are considered licensed when government permission is required to legally practice, even if the statute uses a label other than “license,” such as “certification” or “permit.” Requirements to pay fees alone, often known as “registration,” are also included in order to encompass the full range of barriers to work. Restrictions on the use of an occupational title (e.g., “interior designer” or “certified interior designer”) are not included because they allow for open entry into the occupation. With these data, we can compare how difficult the 50 states and D.C. make it for workers to enter various occupations.

This second edition of *License to Work* offers both updated data and several improvements in data collection and analysis. First, although both editions study 102 occupations, the mix of occupations has changed slightly. As in the first edition, this report examines occupations that are 1) recognized by the BLS as ones in which practitioners, as of 2012, made less than the national average income and 2) licensed by at least one state. But this second edition modified or dropped a handful of occupations in order to achieve greater consistency and clarity in licenses recorded across states.

Second, this edition offers an improved approach to recording contractor licensing within the construction trades. Both editions consider commercial and residential contractor licenses separately, as many states have distinct licenses with different requirements that depend on the setting of the work. Other states, however, do not. These states require the same license, sometimes called a general contractor license, regardless of the setting. The first edition recorded such licenses only in the commercial category to avoid double counting. This second edition, by contrast, records them in both commercial and residential settings. While this results in counting some licenses twice, it gives a fuller and more accurate picture of the extent of licensing for residential contracting work.

Third, where possible, this edition focuses more consistently on the licenses required to be a sole proprietor within each occupation. In some occupations, states set stricter requirements for those running a business than for employees. Because we are interested in the effects of licensing on entrepreneurship, this second edition favors capturing the requirements to be a sole proprietor. As a result, in some cases, license requirements may appear stricter than previously



recorded, or it may appear that an occupation is newly licensed, while, in fact, this second edition is simply documenting a different level of license within the same occupation.

Details on methods and improvements from the first edition can be found in Appendixes A and B. Together, the improvements in data collection and analysis result in a clearer picture of the extent and burdens of licensing among lower-income occupations. Unfortunately, they also limit the ability to compare state and occupational rankings across the two editions. For those interested in comparisons over time, we provide on our website a dataset containing licensing requirements for a subset of occupations consistently recorded in both editions. Importantly, even with these changes, the second edition of *License to Work* finds results very similar to the first, concluding that licensing barriers are widespread and often severe, arbitrary and irrational.

Tip of the Iceberg

While the burdens documented here are substantial, this report actually understates the extent to which licensing acts as a barrier to entry. First, it reviews only a sample of 102 lower-income occupations, excluding higher-income occupations as well as those not covered by the BLS when we created our original sample in 2012. Recent evidence indicates that states license many more occupations than examined here. For example, Indiana's Professional Licensing Agency reports that the state licenses 134 different occupations, though *License to Work* covers only 37 occupations licensed by the state.²⁸ Similarly, a study by the Mackinac Center for Public Policy identified 164 occupations licensed by Michigan, while this report studies only 49.²⁹

Second, this report examines only state licenses, not those issued by the federal government, counties or cities. In some states, certain occupations may be licensed by cities or counties instead of state governments.³⁰ And some cities impose their own licensing requirements in addition to state requirements. Detroit, for example, licenses roughly 60 occupations, about half of which are also licensed by Michigan.³¹ The rest are licensed only by the city, including occupations like mover, auctioneer and landscape gardener. Another city that issues its own occupational licenses—Baltimore—is examined in the sidebar at right.

Third, this report underestimates licensing burdens by taking a conservative approach to documenting licensing requirements. Although we favor recording license requirements for sole proprietors where possible, when multiple license options are available, we generally

Local Governments Put Up Roadblocks, Too

Just because an occupation isn't licensed at the state level doesn't mean it isn't licensed at all. Many counties and municipalities also license occupations, often quite onerously. Take Baltimore for example. The city of Baltimore requires licenses or registrations for at least 26 occupations in addition to the 59 low- and middle-income occupations licensed by the state of Maryland.

For example, Maryland is one of the 21 states that do not license auctioneers, but auctioneers in Baltimore must get a license from the city to work. And that license is relatively onerous, requiring \$1,600 in licensing fees and either a one-year apprenticeship or an expensive training course.¹ Most of the 30 state auctioneer licenses are easier to obtain, requiring a comparatively low \$278 in fees and 94 days of education and experience on average.

In addition to the types of burdens studied in this report, Baltimore imposes other restrictions, such as residency requirements and license caps. For example, an aspiring auctioneer must have been a Maryland resident for at least two years before becoming licensed.² Baltimore also makes it illegal for more than 50 auctioneers to be licensed in the city at any one time.³ Pawnbrokers also face a cap—no more than 45 licensees are allowed—and must pay a steep licensing fee of \$2,000 each year.⁴

Many of the occupations Baltimore regulates are not among the 102 low- and middle-income occupations studied in this report. These include antique dealers, itinerant wholesale produce dealers, motor fuel retail dealers, scrap metal dealers, street entertainers, tattooists, towing services and waste haulers.⁵

Not all of these regulations are as onerous as Baltimore's auctioneer license, with most requiring only registration and fairly minor fees. However, they are all still barriers to be overcome. And Baltimore is far from the only locality to put up such roadblocks to work and entrepreneurship.⁶ Although most occupational licensing happens at the state level, local governments also erect roadblocks making it difficult for their citizens to get down to business.

1 Balt. City, Md., Code art. 2 §§ 1-5, 1-9.

2 *Id.* § 1-5.

3 *Id.* § 1-4.

4 *Id.* § 11-2.

5 *Id.* § 12-3; *id.* § 10-2; *id.* § 8-6; Balt. City, Md., Code art. 15 § 18-4; *id.* § 15-9; *id.* § 22-4; Balt. City, Md., Code art. 31 § 22-6; Balt. City, Md., Health Code § 13-202; *id.* § 7-205.

6 The Institute for Justice has published reports about barriers to employment and entrepreneurship in Newark (New Jersey), Chicago, Houston, Los Angeles, Miami, Philadelphia, the District of Columbia and Milwaukee. These reports can be found at http://www.ij.org/research-types/studies-on-barriers-to-entrepreneurship/?post_type=report

select the lowest-level license that permits the broadest scope of practice. Similarly, if a state allows multiple pathways to licensure—for example, securing a specialized degree or obtaining specified experience in the field—we record the requirement that takes the least amount of time to complete. However, that pathway may not be the least burdensome option for a particular individual due to other constraints, such as cost of schooling or availability of nearby schools or apprenticeship opportunities.

Lastly, this report does not attempt to quantify the indirect costs of becoming licensed, such as tuition for required schooling or income forgone while in training. Such costs may represent particular hardships for lower-income workers hoping to break into licensed occupations.

The Occupations

Table 1 lists all of the 102 lower-income occupations included in this report. Appendix A describes how we derived this list and collected the relevant data.

Despite sharing the trait of being low- to middle-income, the occupations are diverse. Some, such as family child care home operator, public school preschool teacher and non-instructional teacher assistant, cater to the needs of children. Others, like dental assistant, dietetic technician, optician and psychiatric worker, come from the health care sector. Still others represent the service sector and the construction and transportation trades. These include barber, bartender, cosmetologist, massage therapist, manicurist and skin care specialist; various contractor designations; and bus, taxi and truck driver. Many of the occupations are ideally suited for people initially entering or reentering the economy.

The list of 102 occupations includes some that are commonly licensed—and commonly recognized as such—including barber and cosmetologist, two ubiquitously and long-licensed occupations. Also on the list are many occupations that are generally familiar to the public, though the fact that they are licensed may not be. Such occupations include florist, funeral attendant, home entertainment installer, locksmith and upholsterer. Finally, there are some occupations on the list that are, along with their licenses, highly obscure: milk sampler, conveyor operator and dairy equipment still machine setter, for example. (See the Occupation Profiles starting on page 145 for definitions of all 102 occupations.)

Some of the 102 occupations represent jobs in which practitioners work for others as employees. However, many offer opportunities for entrepreneurship. Occupations that frequently offer opportunities for individuals to open their own businesses include various construction and cosmetology trades, massage therapist, mobile home installer, taxi driver and chauffeur, animal breeder and trainer, and tree trimmer. By limiting entry into these types of occupations, licensing does more than reduce job opportunities on the crucial first rungs of the economic ladder; it also restricts new business growth in that same sector of the labor market.

Table 1: Breadth of Licensure
Number of States That License 102 Lower-Income Occupations

Occupation	States Licensed
Barber	51
Bus Driver, City/Transit	51
Cosmetologist	51
Earth Driller, Water Well	51
Emergency Medical Technician	51
Pest Control Applicator	51
School Bus Driver	51
Truck Driver, Other	51
Truck Driver, Tractor-Trailer	51
Vegetation Pesticide Applicator	51
Manicurist	50
Preschool Teacher, Public School	50
Skin Care Specialist	50
Athletic Trainer	49
Coach, Head (High School Sports)	48
Landscape Contractor (Residential)	48
Landscape Contractor (Commercial)	47
Child Care Home, Family	44
Massage Therapist	44
Pharmacy Technician	44
Fisher, Commercial	43
Milk Sampler	42
Makeup Artist	41
Fire Alarm Installer	39
Mobile Home Installer	39
HVAC Contractor (Commercial)	37
Security Alarm Installer	37
Shampooer	37
Sheet Metal Contractor, HVAC (Commercial)	37
Travel Guide	37
Sheet Metal Contractor, HVAC (Residential)	36
Veterinary Technician	36
HVAC Contractor (Residential)	35
Security Guard, Unarmed	34
Bill Collection Agency	31
Mason Contractor (Residential)	31
Sheet Metal Contractor, Other (Residential)	31
Auctioneer	30
Carpenter/Cabinet Maker Contractor (Residential)	30
Cement Finishing Contractor (Residential)	30
Drywall Installation Contractor (Residential)	30
Gaming Supervisor	30
Glazier Contractor (Residential)	30
Insulation Contractor (Residential)	30
Iron/Steel Contractor (Residential)	30
Door Repair Contractor (Residential)	29
Gaming Cage Worker	29
Animal Breeder	28
Gaming Dealer	28
Midwife, Direct Entry	28
Painting Contractor (Residential)	28

Occupation	States Licensed
Paving Contractor (Residential)	28
Slot Supervisor	28
Taxidermist	28
Terrazzo Contractor (Residential)	28
Floor Sander Contractor (Residential)	27
Pipelayer Contractor	27
Glazier Contractor (Commercial)	26
Iron/Steel Contractor (Commercial)	26
Mason Contractor (Commercial)	26
Sheet Metal Contractor, Other (Commercial)	26
Carpenter/Cabinet Maker Contractor (Commercial)	25
Drywall Installation Contractor (Commercial)	25
Insulation Contractor (Commercial)	25
Weigher	25
Cement Finishing Contractor (Commercial)	24
Door Repair Contractor (Commercial)	24
Paving Contractor (Commercial)	24
Terrazzo Contractor (Commercial)	23
Wildlife Control Operator	23
Floor Sander Contractor (Commercial)	22
Interpreter, Sign Language	22
Optician	22
Painting Contractor (Commercial)	22
Crane Operator	18
Taxi Driver/Chauffeur	16
Locksmith	14
Bartender	13
Farm Labor Contractor	10
Upholsterer	10
Animal Trainer	9
Dental Assistant	9
Animal Control Officer	7
Title Examiner	7
Travel Agency	7
Tree Trimmer	7
Packer	6
Psychiatric Technician	5
Teacher Assistant, Non-Instructional	5
Interior Designer	4
Funeral Attendant	3
Still Machine Setter, Dairy Equipment	3
Dietetic Technician	2
Electrical Helper	2
Log Scaler	2
Nursery Worker	2
Conveyor Operator	1
Florist	1
Forest Worker	1
Home Entertainment Installer	1
Psychiatric Aide	1
Social and Human Service Assistant	1

U.S. GOVERNMENT PRINTING OFFICE: 2010

LICENSE CERTIFICATE

STATE OF CALIFORNIA - DEPARTMENT OF INDUSTRIAL RELATIONS

EMPLOYEE: **LEONARD, JR.** EMPLOYER: **GEORGE W. PUTNAM, INC.**

DATE: **01/15/11** EXPIRES: **01/15/12**

CLASSIFICATION: **OPERATOR**

ISSUING OFFICE: **01010**

1. Name
2. Employer
3. Other income
4. Federal income tax withheld
5. Medical and health care payments
6. Subsidy payments in lieu of benefits or interest
7. Nonemployee compensation
8. Crop insurance proceeds
9. Payer made direct sales of \$5,000 or more of consumer products to a buyer (recipient for resale)
10. Crop insurance proceeds
11. Excess golden parachute payments
12. Gross proceeds paid to an attorney
13. State tax withheld
14. Gross proceeds paid to an attorney
15. State income
16. State tax withheld
17. State-Payer's state no.
18. State income

15a Section 409A deferrals
15b Section 409A income

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Ranking the Occupations

Breadth of Licensure

As shown in Table 1, 10 of the 102 occupations studied in this report are licensed by all 50 states and the District of Columbia: barber, city/transit bus driver, cosmetologist, emergency medical technician (EMT), pest control applicator, school bus driver, tractor-trailer driver, other truck driver, vegetation pesticide applicator, and water well earth driller. Another 13 occupations are licensed by 40 to 50 states. (Throughout the report, we count the District of Columbia as a state.) Thus, the vast majority of the occupations studied here are licensed by fewer than 40 states. Six are licensed by only one state each: conveyor operator, florist, forest worker, home entertainment installer, psychiatric aide and social and human service assistant. On average, the occupations on this list are licensed by about 27 states.

Burdens of Licensure

Table 2 on pages 16–17 provides the average requirements for all 102 occupations in the states that license them. Because education and experience requirements take different forms, we created a standard measure (“estimated calendar days lost”) to allow for averaging and comparisons. As its name suggests, this measure estimates how long it takes to complete required education and experience. Because the requirements in Table 2 are averages, minimum grade level and age may be confusing. No state has a minimum age of three, for example—more typical is 16, 18 or 21 (or no minimum at all). A low average indicates that while a few states impose age minimums, more do not; the zeros for those states bring down the average. An average age of roughly 18, by contrast, indicates that states fairly consistently impose an age minimum of 18 across licensed occupations.

Table 2 also ranks occupations from most to least burdensome. To create this ranking, we combined the various average requirements into a single “burden score,” weighting the measures to reflect the relative difficulty of meeting different types of requirements. For example, we consider education and experience requirements to be more burdensome than fees. (See Appendix A for details.) Our rankings of occupations do not reflect any judgment about whether the burdens placed on occupational

aspirants are appropriate; rather, they compare average burdens across occupations to determine which occupations are easier or more difficult to enter.

Interior designer tops the list as the most difficult occupation to enter in the states that license it, just as it did in the first edition of this report. The occupation is licensed by only three states and D.C., but the requirements are onerous. Aspiring interior designers must pass a national exam, pay an average of \$1,265 in fees and devote an average of almost 2,200 days—six years—to a combination of education and apprenticeship before they can begin work. The next five occupations require, on average, almost four years of education and experience in addition to fees ranging from nearly \$400 to \$1,383, one to two exams, and minimum grade and age requirements.

Thirty-six occupations require one to three years of education and experience, while another 28 require three months to one year. For 52 occupations, an average of at least one exam is required. On average, the occupational licenses studied here require passing one exam, paying more than \$260 in fees, and completing more than 360 days, or almost a year, of education and experience.

Breadth and Burden Combined

Table 3 on pages 18–19 provides a national perspective that combines measures of the breadth and burden of licensure for lower-income workers. To create this combined measure, we multiplied the burden scores used in Table 2 by the number of states that license each occupation, as listed in Table 1. The occupations that top this ranking are licensed both widely and onerously.

The example of interior designer illustrates the difference between the rankings in Tables 2 and 3: While it has the most burdensome entry requirements (Table 2), it ranks as the 87th most widely and onerously licensed occupation (Table 3) because it is licensed by only three states and D.C. By contrast, EMT has the 74th most burdensome entry requirements, but because it is licensed by all states, it ranks as the 15th most widely and onerously licensed occupation. Factoring in the number of licensed states has a significant effect on the ranking of occupations.

The Occupation Profiles starting on page 145 provide definitions for each occupation drawn from the U.S. Department of Labor-sponsored O*NET OnLine (www.onetonline.org), except where noted. The Occupation Profiles also provide summary results for each occupation.

Table 2: Burdens of Licensure
Occupations Ranked by Average Burden

Rank	Occupation	States Licensed	Average Fees	Average Estimated Calendar Days Lost	Average Exams	Average Min. Grade	Average Min. Age
1	Interior Designer	4	\$1,265	2,190	1	3	5
2	Preschool Teacher, Public School	50	\$492	2,050	2	0	5
3	Athletic Trainer	49	\$472	1,460	1	0	4
4	Midwife, Direct Entry	28	\$1,383	1,152	1	10	8
5	Sheet Metal Contractor, HVAC (Commercial)	37	\$394	1,215	2	1	10
6	HVAC Contractor (Commercial)	37	\$400	1,197	2	1	10
7	Interpreter, Sign Language	22	\$661	1,088	2	3	16
8	HVAC Contractor (Residential)	35	\$397	1,055	2	0	10
9	Sheet Metal Contractor, HVAC (Residential)	36	\$384	1,026	2	1	9
10	Fire Alarm Installer	39	\$557	915	2	1	11
11	Optician	22	\$449	714	2	11	17
12	Security Alarm Installer	37	\$487	836	2	1	11
13	Earth Driller, Water Well	51	\$356	837	2	1	10
14	Psychiatric Aide	1	\$0	730	0	12	18
15	Dietetic Technician	2	\$176	835	1	0	0
16	Veterinary Technician	36	\$380	730	2	1	7
17	Social and Human Service Assistant	1	\$50	730	1	0	0
18	Home Entertainment Installer	1	\$185	575	1	12	0
19	Tree Trimmer	7	\$325	574	2	0	13
20	Glazier Contractor (Commercial)	26	\$366	581	1	0	7
21	Sheet Metal Contractor, Other (Commercial)	26	\$360	567	1	0	8
22	Pipelayer Contractor	27	\$377	546	1	0	8
23	Iron/Steel Contractor (Commercial)	26	\$368	525	1	0	7
24	Mason Contractor (Commercial)	26	\$372	525	1	0	7
25	Drywall Installation Contractor (Commercial)	25	\$365	517	1	0	7
26	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$381	517	1	0	6
27	Cement Finishing Contractor (Commercial)	24	\$365	508	1	0	7
28	Paving Contractor (Commercial)	24	\$365	508	1	0	7
29	Door Repair Contractor (Commercial)	24	\$372	508	1	0	7
30	Cosmetologist	51	\$177	386	2	8	13
31	Painting Contractor (Commercial)	22	\$382	488	1	0	7
32	Floor Sander Contractor (Commercial)	22	\$359	485	1	0	7
33	Terrazzo Contractor (Commercial)	23	\$364	482	1	0	6
34	Barber	51	\$154	368	2	7	14
35	Insulation Contractor (Commercial)	25	\$366	458	1	0	6
36	Psychiatric Technician	5	\$119	346	1	12	7
37	School Bus Driver	51	\$112	300	6	0	19
38	Iron/Steel Contractor (Residential)	30	\$318	392	1	0	7
39	Mason Contractor (Residential)	31	\$319	380	1	0	8
40	Carpenter/Cabinet Maker Contractor (Residential)	30	\$319	368	1	0	7
41	Glazier Contractor (Residential)	30	\$322	368	1	0	7
42	Drywall Installation Contractor (Residential)	30	\$313	368	1	0	7
43	Sheet Metal Contractor, Other (Residential)	31	\$302	356	1	0	8
44	Log Scaler	2	\$25	365	2	0	9
45	Shampooer	37	\$130	248	2	8	13
46	Coach, Head (High School Sports)	48	\$79	367	0	2	4
47	Door Repair Contractor (Residential)	29	\$320	343	1	0	7
48	Mobile Home Installer	39	\$344	309	1	0	8
49	Paving Contractor (Residential)	28	\$295	329	1	0	6
50	Pest Control Applicator	51	\$260	274	2	0	11
51	Cement Finishing Contractor (Residential)	30	\$300	307	1	0	7

Table 2 continued on next page

Table 2 continued from previous page

Rank	Occupation	States Licensed	Average Fees	Average Estimated Calendar Days Lost	Average Exams	Average Min. Grade	Average Min. Age
52	Terrazzo Contractor (Residential)	28	\$301	290	1	0	6
53	Floor Sander Contractor (Residential)	27	\$308	287	1	0	6
54	Insulation Contractor (Residential)	30	\$302	283	1	0	7
55	Painting Contractor (Residential)	28	\$312	277	1	0	6
56	Skin Care Specialist	50	\$175	145	2	8	13
57	Crane Operator	18	\$225	222	2	0	17
58	Makeup Artist	41	\$169	134	2	8	14
59	Massage Therapist	44	\$372	142	1	5	15
60	Manicurist	50	\$172	91	2	8	13
61	Bus Driver, City/Transit	51	\$106	100	5	0	19
62	Landscape Contractor (Commercial)	47	\$235	228	1	0	3
63	Vegetation Pesticide Applicator	51	\$259	134	3	0	10
64	Truck Driver, Tractor-Trailer	51	\$107	79	5	0	18
65	Bill Collection Agency	31	\$551	159	0	1	5
66	Landscape Contractor (Residential)	48	\$203	198	0	0	4
67	Truck Driver, Other	51	\$106	79	4	0	18
68	Auctioneer	30	\$278	94	1	3	14
69	Taxi Driver/Chauffeur	16	\$47	148	0	0	16
70	Child Care Home, Family	44	\$79	48	0	7	18
71	Dental Assistant	9	\$138	92	1	4	8
72	Title Examiner	7	\$355	104	1	0	8
73	Pharmacy Technician	44	\$136	46	1	7	9
74	Emergency Medical Technician	51	\$108	34	2	3	18
75	Teacher Assistant, Non-Instructional	5	\$16	1	0	12	8
76	Animal Trainer	9	\$209	122	1	0	3
77	Travel Guide	37	\$323	78	0	0	8
78	Funeral Attendant	3	\$124	2	0	8	6
79	Locksmith	14	\$167	54	1	1	9
80	Security Guard, Unarmed	34	\$89	10	1	1	15
81	Conveyor Operator	1	\$117	0	1	0	18
82	Slot Supervisor	28	\$467	0	0	0	14
83	Gaming Supervisor	30	\$462	0	0	0	13
84	Bartender	13	\$7	1	1	0	20
85	Gaming Cage Worker	29	\$174	0	0	0	13
86	Electrical Helper	2	\$55	0	0	0	17
87	Gaming Dealer	28	\$174	0	0	0	12
88	Wildlife Control Operator	23	\$68	0	1	0	9
89	Still Machine Setter, Dairy Equipment	3	\$67	0	1	0	6
90	Forest Worker	1	\$300	0	1	0	0
91	Weigher	25	\$62	0	0	0	9
92	Florist	1	\$189	0	1	0	0
93	Animal Control Officer	7	\$26	12	1	0	3
94	Travel Agency	7	\$211	0	0	0	3
95	Farm Labor Contractor	10	\$173	0	0	0	2
96	Milk Sampler	42	\$22	0	1	0	1
97	Fisher, Commercial	43	\$142	0	0	0	2
98	Animal Breeder	28	\$148	0	0	0	1
99	Upholsterer	10	\$102	0	0	0	0
100	Taxidermist	28	\$78	0	0	0	0
101	Nursery Worker	2	\$55	0	0	0	0
102	Packer	6	\$33	0	0	0	0

Table 3: Breadth and Burdens of Licensure
Occupations Ranked by Number and Average Burden of Licensed States Combined

Rank	Occupation	States Licensed	Average Fees	Average Estimated Calendar Days Lost	Average Exams	Average Min. Grade	Average Min. Age
1	Preschool Teacher, Public School	50	\$492	2,050	2	0	5
2	Athletic Trainer	49	\$472	1,460	1	0	4
3	Earth Driller, Water Well	51	\$356	837	2	1	10
4	Cosmetologist	51	\$177	386	2	8	13
5	Barber	51	\$154	368	2	7	14
6	School Bus Driver	51	\$112	300	6	0	19
7	Pest Control Applicator	51	\$260	274	2	0	11
8	Bus Driver, City/Transit	51	\$106	100	5	0	19
9	Skin Care Specialist	50	\$175	145	2	8	13
10	Vegetation Pesticide Applicator	51	\$259	134	3	0	10
11	Truck Driver, Tractor-Trailer	51	\$107	79	5	0	18
12	Truck Driver, Other	51	\$106	79	4	0	18
13	Manicurist	50	\$172	91	2	8	13
14	Coach, Head (High School Sports)	48	\$79	367	0	2	4
15	Emergency Medical Technician	51	\$108	34	2	3	18
16	Sheet Metal Contractor, HVAC (Commercial)	37	\$394	1,215	2	1	10
17	HVAC Contractor (Commercial)	37	\$400	1,197	2	1	10
18	Fire Alarm Installer	39	\$557	915	2	1	11
19	Landscape Contractor (Residential)	48	\$203	198	0	0	4
20	Landscape Contractor (Commercial)	47	\$235	228	1	0	3
21	Sheet Metal Contractor, HVAC (Residential)	36	\$384	1,026	2	1	9
22	Massage Therapist	44	\$372	142	1	5	15
23	Security Alarm Installer	37	\$487	836	2	1	11
24	HVAC Contractor (Residential)	35	\$397	1,055	2	0	10
25	Child Care Home, Family	44	\$79	48	0	7	18
26	Pharmacy Technician	44	\$136	46	1	7	9
27	Veterinary Technician	36	\$380	730	2	1	7
28	Makeup Artist	41	\$169	134	2	8	14
29	Mobile Home Installer	39	\$344	309	1	0	8
30	Fisher, Commercial	43	\$142	0	0	0	2
31	Milk Sampler	42	\$22	0	1	0	1
32	Shampooer	37	\$130	248	2	8	13
33	Midwife, Direct Entry	28	\$1,383	1,152	1	10	8
34	Travel Guide	37	\$323	78	0	0	8
35	Mason Contractor (Residential)	31	\$319	380	1	0	8
36	Sheet Metal Contractor, Other (Residential)	31	\$302	356	1	0	8
37	Security Guard, Unarmed	34	\$89	10	1	1	15
38	Iron/Steel Contractor (Residential)	30	\$318	392	1	0	7
39	Carpenter/Cabinet Maker Contractor (Residential)	30	\$319	368	1	0	7
40	Glazier Contractor (Residential)	30	\$322	368	1	0	7
41	Drywall Installation Contractor (Residential)	30	\$313	368	1	0	7
42	Cement Finishing Contractor (Residential)	30	\$300	307	1	0	7
43	Bill Collection Agency	31	\$551	159	0	1	5
44	Insulation Contractor (Residential)	30	\$302	283	1	0	7
45	Door Repair Contractor (Residential)	29	\$320	343	1	0	7
46	Pipelayer Contractor	27	\$377	546	1	0	8
47	Auctioneer	30	\$278	94	1	3	14
48	Paving Contractor (Residential)	28	\$295	329	1	0	6
49	Glazier Contractor (Commercial)	26	\$366	581	1	0	7
50	Sheet Metal Contractor, Other (Commercial)	26	\$360	567	1	0	8
51	Terrazzo Contractor (Residential)	28	\$301	290	1	0	6

Table 3 continued on next page

Table 3 continued from previous page

Rank	Occupation	States Licensed	Average Fees	Average Estimated Calendar Days Lost	Average Exams	Average Min. Grade	Average Min. Age
52	Painting Contractor (Residential)	28	\$312	277	1	0	6
53	Iron/Steel Contractor (Commercial)	26	\$368	525	1	0	7
54	Mason Contractor (Commercial)	26	\$372	525	1	0	7
55	Interpreter, Sign Language	22	\$661	1,088	2	3	16
56	Gaming Supervisor	30	\$462	0	0	0	13
57	Floor Sander Contractor (Residential)	27	\$308	287	1	0	6
58	Drywall Installation Contractor (Commercial)	25	\$365	517	1	0	7
59	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$381	517	1	0	6
60	Gaming Cage Worker	29	\$174	0	0	0	13
61	Insulation Contractor (Commercial)	25	\$366	458	1	0	6
62	Slot Supervisor	28	\$467	0	0	0	14
63	Optician	22	\$449	714	2	11	17
64	Gaming Dealer	28	\$174	0	0	0	12
65	Cement Finishing Contractor (Commercial)	24	\$365	508	1	0	7
66	Paving Contractor (Commercial)	24	\$365	508	1	0	7
67	Door Repair Contractor (Commercial)	24	\$372	508	1	0	7
68	Animal Breeder	28	\$148	0	0	0	1
69	Taxidermist	28	\$78	0	0	0	0
70	Terrazzo Contractor (Commercial)	23	\$364	482	1	0	6
71	Painting Contractor (Commercial)	22	\$382	488	1	0	7
72	Floor Sander Contractor (Commercial)	22	\$359	485	1	0	7
73	Weigher	25	\$62	0	0	0	9
74	Wildlife Control Operator	23	\$68	0	1	0	9
75	Crane Operator	18	\$225	222	2	0	17
76	Taxi Driver/Chauffeur	16	\$47	148	0	0	16
77	Locksmith	14	\$167	54	1	1	9
78	Bartender	13	\$7	1	1	0	20
79	Farm Labor Contractor	10	\$173	0	0	0	2
80	Upholsterer	10	\$102	0	0	0	0
81	Dental Assistant	9	\$138	92	1	4	8
82	Animal Trainer	9	\$209	122	1	0	3
83	Tree Trimmer	7	\$325	574	2	0	13
84	Title Examiner	7	\$355	104	1	0	8
85	Animal Control Officer	7	\$26	12	1	0	3
86	Travel Agency	7	\$211	0	0	0	3
87	Interior Designer	4	\$1,265	2,190	1	3	5
88	Packer	6	\$33	0	0	0	0
89	Psychiatric Technician	5	\$119	346	1	12	7
90	Teacher Assistant, Non-Instructional	5	\$16	1	0	12	8
91	Funeral Attendant	3	\$124	2	0	8	6
92	Still Machine Setter, Dairy Equipment	3	\$67	0	1	0	6
93	Dietetic Technician	2	\$176	835	1	0	0
94	Log Scaler	2	\$25	365	2	0	9
95	Electrical Helper	2	\$55	0	0	0	17
96	Nursery Worker	2	\$55	0	0	0	0
97	Psychiatric Aide	1	\$0	730	0	12	18
98	Social and Human Service Assistant	1	\$50	730	1	0	0
99	Home Entertainment Installer	1	\$185	575	1	12	0
100	Conveyor Operator	1	\$117	0	1	0	18
101	Forest Worker	1	\$300	0	1	0	0
102	Florist	1	\$189	0	1	0	0

Ranking the States

As Table 4 shows, Louisiana and Washington license 77 of the 102 occupations studied here—more than any of the other states. They are followed closely by California (76) and Nevada (75). Just as in the first edition of this report, Wyoming licenses the fewest—a mere 26. It is followed by Vermont (31), Montana (32), and South Dakota (32). On average, states license 54 of the occupations.

When it comes to the burdens states impose on would-be workers, however, a different picture emerges. Table 5 on page 22 ranks states from most to least burdensome. Hawaii tops the list as the most burdensome state, as it did in the first edition, with an average of almost 988 days in education and experience, more than \$430 in fees, almost two exams, and grade and age requirements for the 63 occupations it licenses. Nevada is not far behind, with an average of more than 860 days lost to education and experience, more than \$700 in fees, almost two exams, and grade and age requirements for the 75 occupations it licenses. California, Arizona and Florida round out the top five most burdensome states. In all, 18 states require more than a year of education and experience *on average* for the occupations they license.

Nebraska is the least burdensome state, with 118 days—not quite four months—in education and experience, \$76 in fees, one exam, and grade and age requirements. Three states—Pennsylvania, North Dakota and Washington—follow closely with similar burdens: less than six months of education and experience, \$138 to \$209 in fees, one exam, and grade and age requirements.

Taking into account both how many occupations a state licenses and how onerously, Table 6 on page 23 ranks states according to a combined measure of number of occupations licensed and average burden of licensing requirements. States

that appear high on this list are those that license a large number of occupations *and* impose more burdensome requirements.

By this measure, California ranks at the top, with an average of almost 827 days—more than two years—in education and experience, \$486 in fees and two exams, as well as grade and age requirements. It also licenses 76 occupations. Nevada ranks a close second. Seven of the top 10 most burdensome states, listed in Table 5, remained in the top 10 in Table 6: Arizona, Arkansas, California, Hawaii, Nevada, Oregon and Virginia. These states already imposed comparably heavy licensure burdens on their citizens; factoring in the number of occupations licensed merely changed their relative positions among the top 10 most burdensome states.

A handful of other states license relatively few occupations but do so onerously. They rank high in Table 5 but substantially lower in Table 6. Examples include Kentucky (12th most burdensome, but 40th combined), Montana (23rd most burdensome, but 49th combined), South Dakota (19th most burdensome, but 48th combined), Texas (21st most burdensome, but 42nd combined) and Wyoming (25th most burdensome, but 51st combined).

Conversely, some states impose relatively light burdens but license a large number of occupations. Such states include Mississippi (66 occupations, 46th most burdensome), Nebraska (63 occupations, 51st most burdensome), Tennessee (71 occupations, 39th most burdensome), Washington (77 occupations, 48th most burdensome) and West Virginia (70 occupations, 44th most burdensome).

The State Profiles starting on page 43 provide summary results for each state as well as tables showing all of the occupations licensed by a given state and their respective burdens, including both our standardized estimate of time lost to education and experience and—in an improvement from the first edition—the actual education and experience requirements.

Table 4: Number and Percentage of Lower-Income Occupations Licensed by State

State	Number of 102 Lower-Income Occupations Licensed	Percentage of 102 Lower-Income Occupations Licensed
Louisiana	77	75.5%
Washington	77	75.5%
California	76	74.5%
Nevada	75	73.5%
Arkansas	72	70.6%
Rhode Island	72	70.6%
Iowa	71	69.6%
Tennessee	71	69.6%
West Virginia	70	68.6%
Oregon	69	67.6%
Arizona	68	66.7%
Virginia	68	66.7%
Idaho	67	65.7%
North Carolina	67	65.7%
Mississippi	66	64.7%
New Mexico	66	64.7%
North Dakota	65	63.7%
Connecticut	64	62.7%
Utah	64	62.7%
Alabama	63	61.8%
Alaska	63	61.8%
Hawaii	63	61.8%
Nebraska	63	61.8%
District of Columbia	60	58.8%
South Carolina	60	58.8%
Maryland	59	57.8%
Florida	56	54.9%
New Jersey	54	52.9%
Pennsylvania	51	50.0%
Massachusetts	50	49.0%
Michigan	49	48.0%
Maine	45	44.1%
Delaware	44	43.1%
Wisconsin	42	41.2%
Georgia	41	40.2%
New York	41	40.2%
Oklahoma	41	40.2%
Illinois	40	39.2%
Ohio	40	39.2%
New Hampshire	38	37.3%
Indiana	37	36.3%
Kentucky	37	36.3%
Missouri	37	36.3%
Texas	37	36.3%
Kansas	35	34.3%
Colorado	34	33.3%
Minnesota	34	33.3%
Montana	32	31.4%
South Dakota	32	31.4%
Vermont	31	30.4%
Wyoming	26	25.5%

Table 5: States Ranked by Average Burden of Licensing Requirements

Rank	State	Number of 102 Lower-Income Occupations Licensed	Average Fees	Average Estimated Calendar Days Lost	Average Exams	Average Min. Grade	Average Min. Age
1	Hawaii	63	\$438	988	2	1	16
2	Nevada	75	\$704	861	2	2	15
3	California	76	\$486	827	2	1	15
4	Arizona	68	\$612	765	2	1	16
5	Florida	56	\$318	693	1	1	15
6	Arkansas	72	\$246	642	1	2	7
7	Virginia	68	\$291	620	1	1	14
8	Oregon	69	\$335	537	1	1	13
9	New Mexico	66	\$266	520	2	2	14
10	Massachusetts	50	\$309	513	1	2	11
11	Maryland	59	\$288	529	1	1	11
12	Kentucky	37	\$240	466	2	4	13
13	Utah	64	\$367	504	2	0	4
14	Georgia	41	\$185	464	2	3	12
15	Delaware	44	\$199	475	1	2	8
16	New Jersey	54	\$224	422	1	3	10
17	South Carolina	60	\$220	440	2	1	7
18	Oklahoma	41	\$234	399	2	2	10
19	South Dakota	32	\$198	355	2	4	10
20	Ohio	40	\$188	350	1	3	10
21	Texas	37	\$253	341	2	3	10
22	Missouri	37	\$179	348	1	2	12
23	Montana	32	\$261	312	2	4	11
24	Connecticut	64	\$264	361	1	1	6
25	Wyoming	26	\$345	280	2	4	11
26	Indiana	37	\$163	323	1	2	12
27	Rhode Island	72	\$223	326	1	1	14
28	Vermont	31	\$193	287	2	3	9
29	Minnesota	34	\$238	300	2	3	5
30	Idaho	67	\$164	332	1	1	7
31	Maine	45	\$188	298	1	2	7
32	New York	41	\$279	275	2	1	11
33	Michigan	49	\$242	255	2	3	12
34	New Hampshire	38	\$183	273	2	2	8
35	Illinois	40	\$244	249	1	3	13
36	Colorado	34	\$344	260	2	1	11
37	Iowa	71	\$178	288	1	2	5
38	District of Columbia	60	\$400	261	1	1	6
39	Tennessee	71	\$327	226	1	1	7
40	Kansas	35	\$133	200	2	3	9
41	North Carolina	67	\$199	234	1	1	6
42	Wisconsin	42	\$259	214	1	1	10
43	Louisiana	77	\$360	202	2	1	7
44	West Virginia	70	\$172	210	2	2	7
45	Alaska	63	\$298	211	1	1	5
46	Mississippi	66	\$330	160	2	2	6
47	Alabama	63	\$329	142	1	1	5
48	Washington	77	\$209	163	1	1	6
49	North Dakota	65	\$156	122	1	1	13
50	Pennsylvania	51	\$138	117	1	1	8
51	Nebraska	63	\$76	118	1	2	6

Table 6: States Ranked by Number and Average Burden of Licensing Requirements Combined

Rank	State	Number of 102 Lower-Income Occupations Licensed	Average Fees	Average Estimated Calendar Days Lost	Average Exams	Average Min. Grade	Average Min. Age
1	California	76	\$486	827	2	1	15
2	Nevada	75	\$704	861	2	2	15
3	Arkansas	72	\$246	642	1	2	7
4	Arizona	68	\$612	765	2	1	16
5	Hawaii	63	\$438	988	2	1	16
6	Louisiana	77	\$360	202	2	1	7
7	Virginia	68	\$291	620	1	1	14
8	Oregon	69	\$335	537	1	1	13
9	Washington	77	\$209	163	1	1	6
10	Rhode Island	72	\$223	326	1	1	14
11	New Mexico	66	\$266	520	2	2	14
12	Iowa	71	\$178	288	1	2	5
13	Tennessee	71	\$327	226	1	1	7
14	West Virginia	70	\$172	210	2	2	7
15	Utah	64	\$367	504	2	0	4
16	Idaho	67	\$164	332	1	1	7
17	North Carolina	67	\$199	234	1	1	6
18	Connecticut	64	\$264	361	1	1	6
19	Mississippi	66	\$330	160	2	2	6
20	Maryland	59	\$288	529	1	1	11
21	Florida	56	\$318	693	1	1	15
22	South Carolina	60	\$220	440	2	1	7
23	North Dakota	65	\$156	122	1	1	13
24	Alaska	63	\$298	211	1	1	5
25	Alabama	63	\$329	142	1	1	5
26	District of Columbia	60	\$400	261	1	1	6
27	Nebraska	63	\$76	118	1	2	6
28	New Jersey	54	\$224	422	1	3	10
29	Massachusetts	50	\$309	513	1	2	11
30	Michigan	49	\$242	255	2	3	12
31	Pennsylvania	51	\$138	117	1	1	8
32	Delaware	44	\$199	475	1	2	8
33	Maine	45	\$188	298	1	2	7
34	Georgia	41	\$185	464	2	3	12
35	Oklahoma	41	\$234	399	2	2	10
36	Wisconsin	42	\$259	214	1	1	10
37	New York	41	\$279	275	2	1	11
38	Ohio	40	\$188	350	1	3	10
39	Illinois	40	\$244	249	1	3	13
40	Kentucky	37	\$240	466	2	4	13
41	New Hampshire	38	\$183	273	2	2	8
42	Texas	37	\$253	341	2	3	10
43	Missouri	37	\$179	348	1	2	12
44	Indiana	37	\$163	323	1	2	12
45	Kansas	35	\$133	200	2	3	9
46	Minnesota	34	\$238	300	2	3	5
47	Colorado	34	\$344	260	2	1	11
48	South Dakota	32	\$198	355	2	4	10
49	Montana	32	\$261	312	2	4	11
50	Vermont	31	\$193	287	2	3	9
51	Wyoming	26	\$345	280	2	4	11

The Irrationalities of Occupational Licensure

The data in this report show that licensing of lower-income occupations is not only widespread and onerous but also, in many cases, irrational and arbitrary. In recent years, courts have started coming to this same conclusion. On June 26, 2015, in an Institute for Justice (IJ) case, *Patel v. Texas Department of Licensing and Regulation*, the Texas Supreme Court struck down a requirement that eyebrow threaders—who practice the ancient South Asian and Middle Eastern art of using a single length of cotton thread to remove unwanted hair—obtain esthetician licenses, an endeavor requiring a high school degree, passage of two examinations and almost a year of irrelevant education and training. (See the sidebar on page 25 to learn more.)

In a sweeping rebuke to the growth and irrationalities of licensing, the court recognized that the state had no basis for imposing such a burden on threaders, writing that, “as applied to them, the requirement of 750 hours of training to become licensed is not just unreasonable or harsh, but it is so oppressive that it violates ... the Texas Constitution.”³²

But it was not just the burden of requiring an esthetician license for threaders that drew reproach. So, too, did the types of irrationalities this report illustrates. As Justice Don Willett wrote in his concurring opinion joined by two other justices:

As today’s case shows, the Texas occupational licensure regime, predominantly impeding Texans of modest means, can seem a hodge-podge of disjointed, logic-defying irrationalities, where the burdens imposed seem almost farcical, forcing many lower-income Texans to face a choice: submit to illogical bureaucracy or operate an illegal business? Licensure absurdities become apparent when you compare the wildly disparate education/experience burdens visited on various professions. The disconnect between the strictness of some licensing rules and their alleged public-welfare rationale is patently bizarre.³³

Unnecessary Licenses

This report’s findings suggest that numerous occupations in various states are licensed unnecessarily. A short list would include auctioneer, florist, funeral attendant, home entertainment installer, interior designer, locksmith, tree trimmer and upholsterer. Most of these occupations are licensed by only a handful of states: funeral attendants by three, tree trimmers by seven and locksmiths by 14. If, as licensure proponents often claim, a license were really necessary to protect public health and safety, one would expect to see greater consistency in which occupations are licensed across

states. For example, only seven states license tree trimmers, but it is highly unlikely that trees in those states—or the tasks required to trim them—are any more complex or dangerous than those in the other 44 that require no license.

On average, the 102 occupations studied here are licensed by just 27 states. Only 23 occupations are licensed by 40 states or more. Such inconsistency is suspect. The vast majority of these occupations are practiced in at least one state—and typically many more than one—without need of permission from the state and evidently without widespread harm.

A similar inconsistency is present when examining the number of occupations licensed by state. California, Louisiana, Nevada and Washington license 75 or more of the 102 occupations in this report, while Colorado, Minnesota, Montana, South Dakota, Vermont and Wyoming license fewer than 35. The average state licenses 54, leaving their citizens free to pursue, to no apparent ill effect, many other occupations that are licensed elsewhere.

Inconsistent and Irrational Burdens

In addition to calling into doubt whether some of the occupations studied here need be licensed at all, this report’s findings point to widespread inconsistencies and irrationalities in requirements imposed to enter occupations. A first category of irrationalities is evident when looking at licensing burdens through the lens of the actual risks an occupation poses to the public, both on their face and in comparison to other occupations. A second category flows from inconsistencies in the requirements imposed by different states for the same occupations. And a third category becomes apparent in examining occupations that are licensed rarely but onerously.

First, licensing burdens are often seemingly out of proportion to the public health and safety risks posed by an occupation. Massage therapists, for instance, must spend an average of more than four months in education and training and pass one exam to legally practice in the 44 states that license the occupation. Yet massage therapy is an exceptionally safe occupation. A Vermont state agency reviewed research on the field and concluded that it “tends strongly to suggest massage therapy is very safe.”³⁴ One study cited by the agency identified only 11 cases of harm related to massage therapy between 1965 and 2003, and the agency found no evidence suggesting any safety difference between those with and those without formal training of the sort required for state licensing.³⁵ With such little risk, it makes little sense to require aspiring massage therapists to spend so much time in training to earn government permission to work.

Another example is log scalers, who “[g]rade logs or estimate the marketable content or value of logs or pulpwood in sorting yards, millpond[s], log deck[s] or similar locations,” as well as “[i]nspect logs for defects or measure logs to determine volume.”³⁶ Log scalers are licensed by only two states, but the requirements—two years of experience and passage of a state

exam in Maine and passage of two state exams in Idaho—seem peculiarly stringent given that the occupation bears little relationship to public safety.

And as irrational as some licensure burdens look in light of the nature of the work, they frequently look even more so in light of the burdens placed on other occupations with more obvious, and serious, implications for public health and safety. For example, according to the *Dictionary of Occupational Titles*, an EMT, among other things,

Removes or assists in removal of victims from scene of accident or catastrophe. ... Administers prescribed first-aid treatment at site of emergency, or in specially equipped vehicle, performing such activities as application of splints, administration of oxygen or intravenous injections, treatment of minor wounds or abrasions, or administration of artificial resuscitation.³⁷

EMTs hold lives in their hands, yet 73 other occupations have greater average licensure burdens. This includes barbers and cosmetologists, home entertainment installers, interior designers, log scalers, manicurists and numerous contractor designations. For perspective, while the average cosmetologist must complete 386 days of training, the average EMT must complete a mere 34. Even the average tree trimmer must complete more than 16 times the amount of education and experience as the average EMT. Such discrepancies do not mean that EMTs should face steeper requirements. Instead, they suggest barriers for other occupations could be safely lowered.

A second type of irrationality is apparent from glaring inconsistencies in licensing burdens for the same occupations across the states. For example, 14 states have locksmith licenses, with most requiring little or no training. However, New Jersey mandates more than two years of education and experience and passage of a state exam. Eighteen states license crane operators, but 10 of them require no education or experience. Of the other eight states, four require two or more years of experience. Most of the 34 states that license unarmed security guards require a few days of education and experience at most; North Dakota requires 244 days. While 12 states require four months or more of schooling for manicurists, Massachusetts demands less than a month and Virginia a little more than a month. It seems improbable that aspiring



Back in Business: Ash Patel

Ash Patel's future looked bright in 2009. The Indian immigrant owned three eyebrow threading salons in Texas, employed 11 people, and had recently signed leases on seven new locations. But then, without warning, Texas regulators decided to start treating threading as cosmetology—and threaders without esthetician licenses as criminals. Never mind that cosmetology schools in Texas did not teach this technique for removing unwanted hair using only cotton thread or that the state's licensing exams for estheticians did not test it.

Ash's business was thrown into turmoil. Unable to staff his new locations, Ash was eventually forced to default on his leases, lay off his employees and shutter his existing salons.

Ash's story is not unusual. All across the nation, arbitrary and irrational occupational regulations are driving service providers out of business or underground and preventing others from ever getting going.

But Ash fought back, joining with the Institute for Justice to sue Texas. And, in 2015, he won, with the Texas Supreme Court reaffirming the right of all Texans to earn a living in their chosen occupation without unreasonable government interference. The high court's landmark ruling also established a new legal standard, one offering greater protection for economic liberty under the Texas Constitution than that currently available under the U.S. Constitution.

Now Ash is back in business, with three threading salons now open and another five planned for 2018. He employs seven people and will be hiring many more to work at his new locations. He has also inspired others to create their own jobs. During a 2016 visit to Houston, a grateful stranger approached Ash to tell him that she had opened her own threading salon following his victory. Ash estimates that there are now 500 to 600 threading salons operating in Texas.

Ash sees the competition as good for business. In fact, he plans to start an association to train threaders on proper hygiene and professionalism in general. He believes that helping threaders improve their quality of service will only drive demand for threading.

Since 1991, IJ has helped to strike down or defang more than 40 occupational licenses, freeing countless other entrepreneurs from unnecessary and cumbersome licensing requirements, allowing them to get back to business. On the following pages are some of their stories.

manicurists in Alabama, which requires 175 days, or in the 10 states that require 140 days, truly need so much more time in training than their less onerously licensed counterparts in other states. Figure 2 on page 27 shows the estimated calendar days lost for these four occupations across the states that license them.

Such a high degree of variation is prevalent throughout the occupations studied in this report. As shown in Figure 3 on page 28, 50 of the 102 have differences of more than 1,000 days between the minimum and maximum number of days of required education and experience. And another eight occupations have differences of more than 700 days.

Finally, the third type of irrationality is visible with those occupations that are licensed by one or only a few states and then very onerously. Just as in the first edition of this report, interior design exemplifies this type of discrepancy. It remains the most difficult occupation to enter while being licensed by only three states and D.C. Similarly, the single state in which psychiatric aides must earn a license requires them to demonstrate two years of experience in order to do so. The two states that license dietetic technicians require 835 days of education and experience, making for the 15th most burdensome requirements. Similar inconsistencies are present among home entertainment installers, social and human service assistants, and tree trimmers. It is already problematic when a state licenses an occupation that no or only a few other states license; it is even more problematic when a state licenses such an occupation very onerously.

Figure 2: Licensing Burdens Vary Widely
 Estimated Calendar Days Lost for Four Occupations Across Licensed States

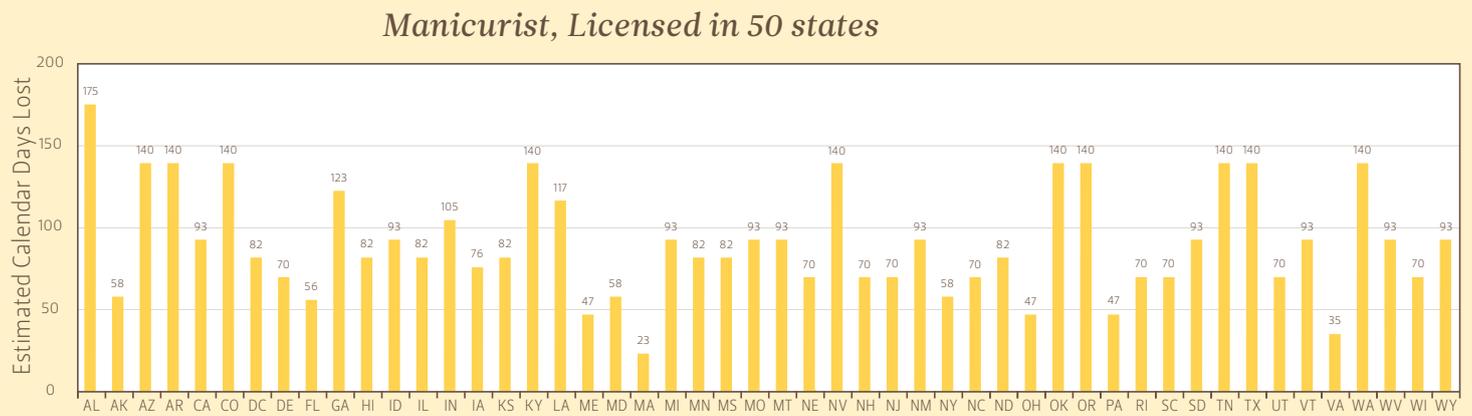
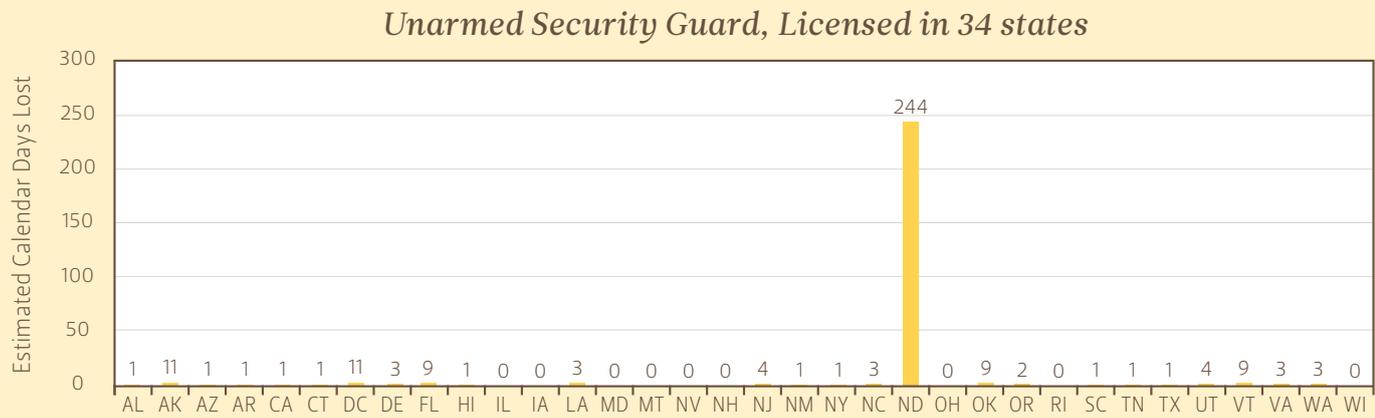
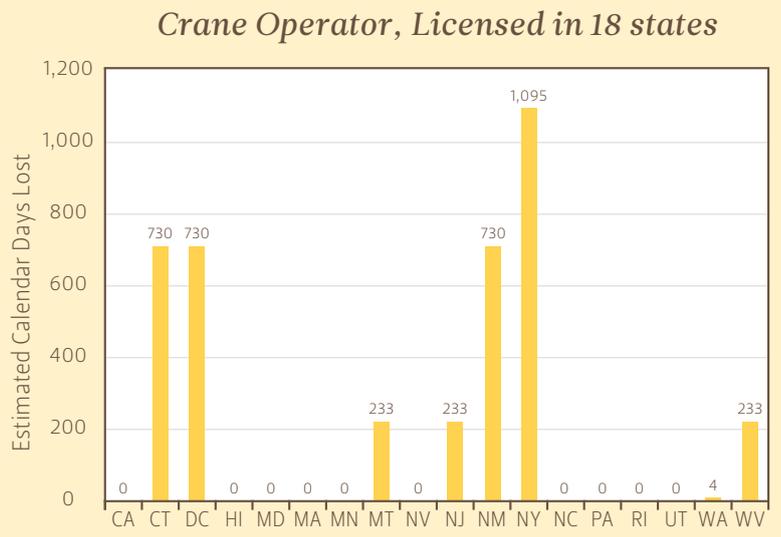
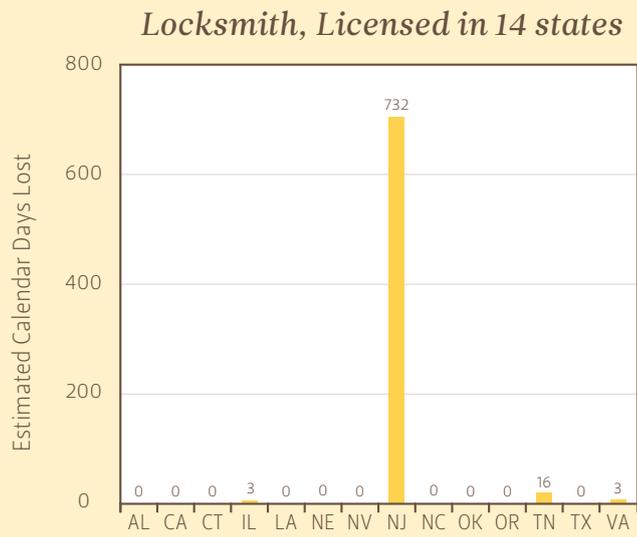
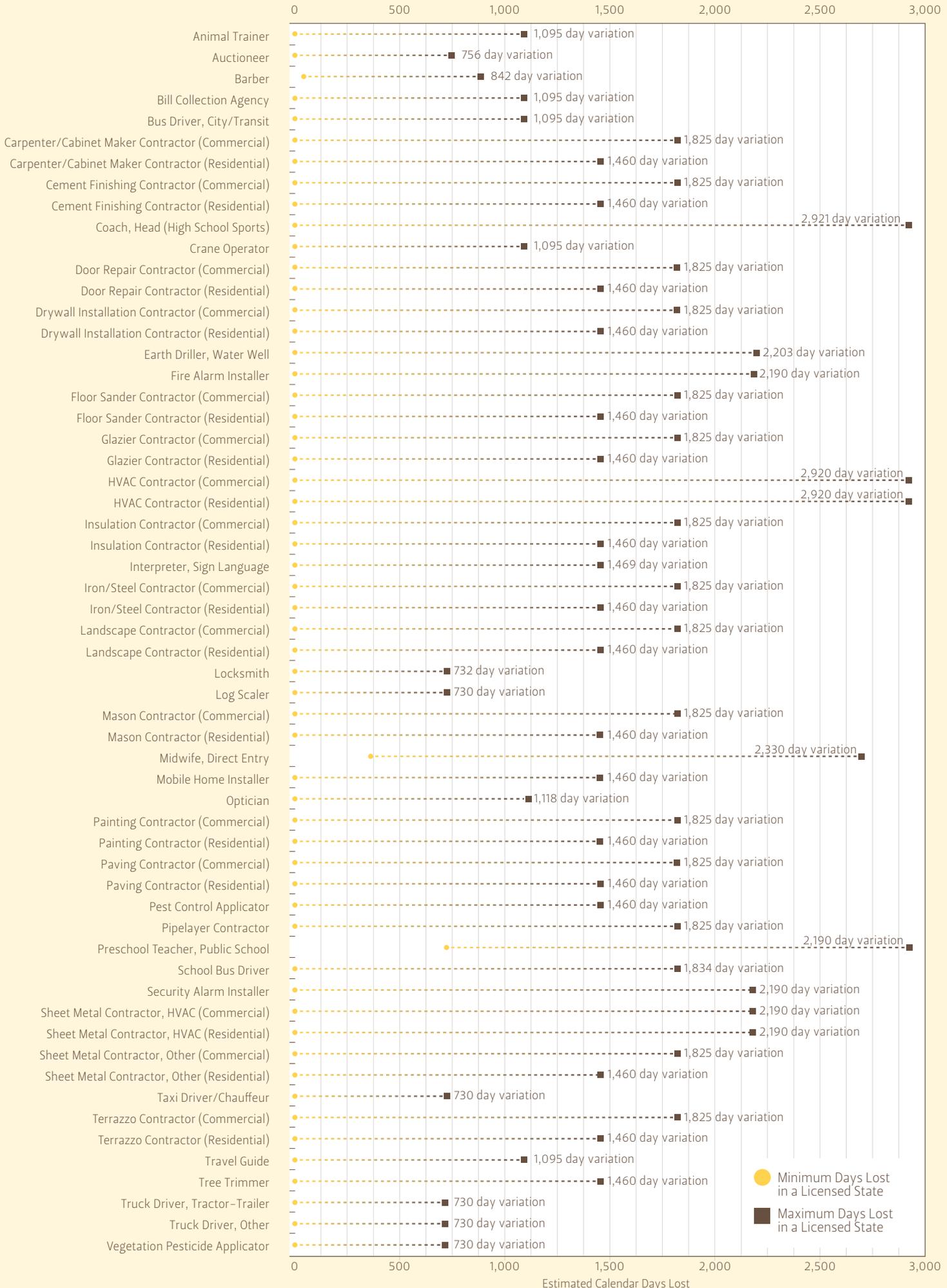


Figure 3: Wide Variation in Licensing Burdens Is Common
 For 58 Occupations, Estimated Calendar Days Lost Varies by 700 Days or More



The Protectionist Origins of Licensure

Such inconsistencies and irrationalities are likely not the result of rational or evidence-based policy responses to real risks. Indeed, legislators rarely create licenses at the behest of consumers seeking protection from a demonstrated threat to health and safety from an occupation. Instead, they most often create licenses in response to lobbying by those already at work in an occupation and their industry associations.³⁸

The idea that an industry would ask to be regulated may seem counterintuitive, but it makes sense given that occupational licenses primarily benefit licensed workers themselves. In serving as a bottleneck on entry into an occupation, licensing restricts the supply of practitioners, allowing those who are licensed to command more in wages and prices for their services.³⁹ This effect has long been known to economists, starting with Adam Smith, who observed in 1776 that trades conspire to reduce the availability of skilled craftspeople in order to raise wages.⁴⁰

Industries may also pursue licensure because they believe it will confer on them greater status and recognition.⁴¹ For example, in an extended defense of licensing in the interior design industry, one interior design professor asserted that her trade was no mere occupation but a profession. And because, according to this professor, “[o]ne characteristic of a profession is regulation of its practice,” licensing of her industry was necessary to elevate it to that status.⁴² This, of course, ignores the fact that thousands of professions—including college professor—require no license of any kind to practice.

Examples abound of industries that have demanded their own regulation. The American Society of Interior Designers (ASID),

for instance, has spent decades lobbying state legislators for regulation of its industry. Though only three states and D.C. license interior designers, regulation of some type once covered almost half of the states. Instead of licensing laws, most of these states adopted “titling” laws that restricted who could call themselves “certified interior designer,” “registered interior designer” or even just “interior designer.” Advocates have typically seen such titling laws as a first step toward licensure.⁴³

In another example of an industry-mounted campaign for licensing, the American Dietetic Association (ADA)⁴⁴ first called for licensure of dietitians and nutritionists in the 1930s. It formalized this campaign during a 1944 meeting at which its president proclaimed, “[f]or the protection of the profession, there is a need for improving the status of dietitians. . . . For the protection of the profession, the term dietitian should be legally defined and state registration of dietitians required.”⁴⁵ The ADA’s state affiliates intensified the campaign through the 1960s and 1970s.⁴⁶ Today, almost every state regulates dietitians and nutritionists, either through licensure, certification or a restriction on the use of the title “dietitian” or the letters “RD” (which stand for “registered dietitian”).⁴⁷ And, as this report finds, two states have adopted licenses for dietetic technicians, who work under dietitians.

In a more recent example, in 2005, the American Music Therapy Association and its sister organization, the Certification Board for Music Therapists, formulated the State Recognition Operational Plan “to achieve state recognition for the music therapy profession and to have [a license] required for competent practice.”⁴⁸ Never mind that music therapy had been practiced freely and safely for years without licensure.

Campaigns for licensure often look similar from one industry to another. Industry associations mount coordinated letter-writing efforts to legislators asserting the need for licensing and hold industry day events at state capitols. Industry members



Back in Business:

Grace Granatelli

In 2013, Grace Granatelli was a privately certified canine massage therapist, and owner of her own canine massage business, with close to a decade of experience and a host of appreciative canine clients. But then Arizona’s veterinary board declared animal massage to be the practice of veterinary medicine, requiring a full veterinary license to practice. Facing the possibility of jail time, Grace stopped working with her furry clients. But she also fought back with IJ’s help, challenging the board in court. In early 2017, the board finally capitulated, allowing Grace to get back to work. Since her victory, Grace is happy to be helping dogs again. Her client base has been growing steadily, and she receives requests from new clients weekly.

invite legislators to their places of business or visit legislators' offices to raise awareness of their practice and cultivate relationships that can be used when identifying potential bill sponsors. Industry associations create sample licensing legislation and provide it to legislators. When a licensing bill is introduced, industry members turn out to committee hearings en masse. Some provide testimony about the need for licensing to protect public health and safety, although they rarely present any actual evidence of such a need. Industry associations give special awards to legislators considered "friends" of the industry. And strategic campaign contributions are made.⁴⁹

Once industries succeed in securing licensure, they guard it jealously against reform bills or legal challenges. These efforts frequently resemble the original campaigns for licensure. For instance, in 2011, when the Florida Legislature was considering a bill to eliminate the state's license for interior designers, a multi-week battle ensued as ASID and its state chapter sent members to lobby aggressively for the license at the state capitol. A series of heated hearings pushed the final decision into the last few hours of the legislative session. When the final gavel fell, ASID's anticompetitive fence remained standing.⁵⁰

The Power of Licensing Boards

Industry insiders do not stop at securing and then preserving their licensing regimes. They also push the boundaries of those regimes outward, something they can do because of their "capture" of the state licensing boards charged with overseeing them.

The same legislation that creates a license also frequently creates a licensing board to administer that license. Often, the law requires that boards be composed almost entirely of occupational practitioners.⁵¹ The result is that licensing boards are frequently run by people with a vested interest in the occupation and sometimes even by the same people who lobbied for a license's creation.

These boards enjoy tremendous power, which they routinely wield to exclude potential competitors from the field. A common tactic is to broaden the definition or scope of practice of a licensed occupation, a practice we term "license creep." Licensing legislation ordinarily describes the activities that define the practice of the occupation. Through license creep, boards expand these definitions to encompass occupations that operate at the fringe of a regulated occupation. Or, when expanding an occupational definition requires legislative assent, boards join forces with their professional association colleagues to lobby legislators to approve the desired license creep.

For example, cosmetology licensing boards in numerous states have interpreted their scope of practice to include eyebrow threading and African-style hair braiding.⁵² These activities may share with cosmetology the same general goal of improving

personal appearance, but they involve techniques, tools and practices that differ significantly from the traditions and legislated definitions of cosmetology.

Cosmetology boards are not alone in pushing the boundaries of their scope of practice. Veterinary boards have sought to restrict the practice of animal massage and horse teeth floating to licensed veterinarians. Animal massage therapists provide relief to animals that suffer from excessively tight muscles. Horse teeth floaters file or "float" a horse's teeth, a necessary procedure since horses' teeth grow throughout their lifetimes. State veterinary boards have tried blocking these less expensive (and often far better qualified) competitors even though few veterinary schools provide significant instruction in either practice.⁵³

Human health and dental care providers are not above deploying license creep to stymie their competition. A 2013 IJ study found that since 2005 at least 30 state dental boards—or legislatures at the behest of industry insiders—had attempted to shut down teeth-whitening businesses, claiming that teeth whitening should fall under the exclusive domain of licensed dentists.⁵⁴ Teeth whitening is a significant moneymaker for many dentists, and boards are manifestly using their power to shut out competition. To cover their tracks, they claim a public health and safety concern, even though teeth-whitening entrepreneurs merely offer the same products people can already buy over the counter and do not touch the mouths of their customers.

The actions of one of those dental boards—the North Carolina State Board of Dental Examiners—led to a Federal Trade Commission (FTC) case before the U.S. Supreme Court, *North Carolina State Board of Dental Examiners v. FTC*. The Board, composed almost entirely of practicing dentists, had launched a series of enforcement actions against non-dentist teeth whiteners in response to complaints (from dentists) focused mainly on "the low prices charged by nondentists."⁵⁵ The FTC argued the Board's actions against non-dentists amounted to the suppression of competition and violated federal antitrust law. In response, the Board claimed it was entitled to immunity from antitrust enforcement as an arm of the state government. But in 2015, the U.S. Supreme Court held otherwise.⁵⁶ The Court recognized the threat to competition posed by licensing boards made up of members of the licensed occupation, which research has shown to be a particular problem.⁵⁷ The Court ruled that boards composed of market participants setting the rules of the game may be subject to antitrust liability unless states exercise "active supervision" over them.⁵⁸

Across the border, the South Carolina Legislature in 2016 adopted a bill designed to shut down a new web-based invention that enables consumers to obtain a prescription for corrective lenses without an optometrist's aid. The technology has the potential to expand eye care to low-income and rural consumers, but the American Optometric Association saw it as an economic threat. It lobbied the Legislature for the creation of the so-called Eye Care Consumer Protection Law,⁵⁹ which outlawed

telemedicine for corrective lenses.⁶⁰ On May 16, 2016, Gov. Nikki Haley vetoed the bill as plainly anticompetitive.⁶¹ Unfortunately, the Legislature voted to override her veto,⁶² neatly illustrating how industry associations can use their influence to stop their competition in its tracks.

Still another quintessential example of license creep comes from the death industry. Over the course of the late 19th and early 20th centuries, the National Funeral Directors Association lobbied legislators to pass laws licensing funeral directors and embalmers in all 50 states and the District of Columbia, thereby restricting their competition.⁶³ But the real money to be made was in selling funeral merchandise, particularly caskets. So licensed funeral directors successfully pressured legislatures in a dozen states to adopt laws allowing only licensed funeral directors such as themselves to sell caskets—essentially large, empty boxes—and other funeral merchandise to the public.⁶⁴

In a particularly pernicious form of license creep, licensing boards have even attempted to use their power to censor speech. The Kentucky Board of Psychology, for example, sought to censor a North Carolina psychologist—John Rosemond—who writes a weekly syndicated column that appears in hundreds of newspapers, including one in Kentucky. After receiving a complaint that John was, through his column, practicing psychology in Kentucky without a Kentucky license,⁶⁵ the Board sent a cease-and-desist letter.⁶⁶ Then, when John sued the Board for violating his First Amendment rights, the Board showed its commitment to protectionism by taking the suit to court—and losing.⁶⁷

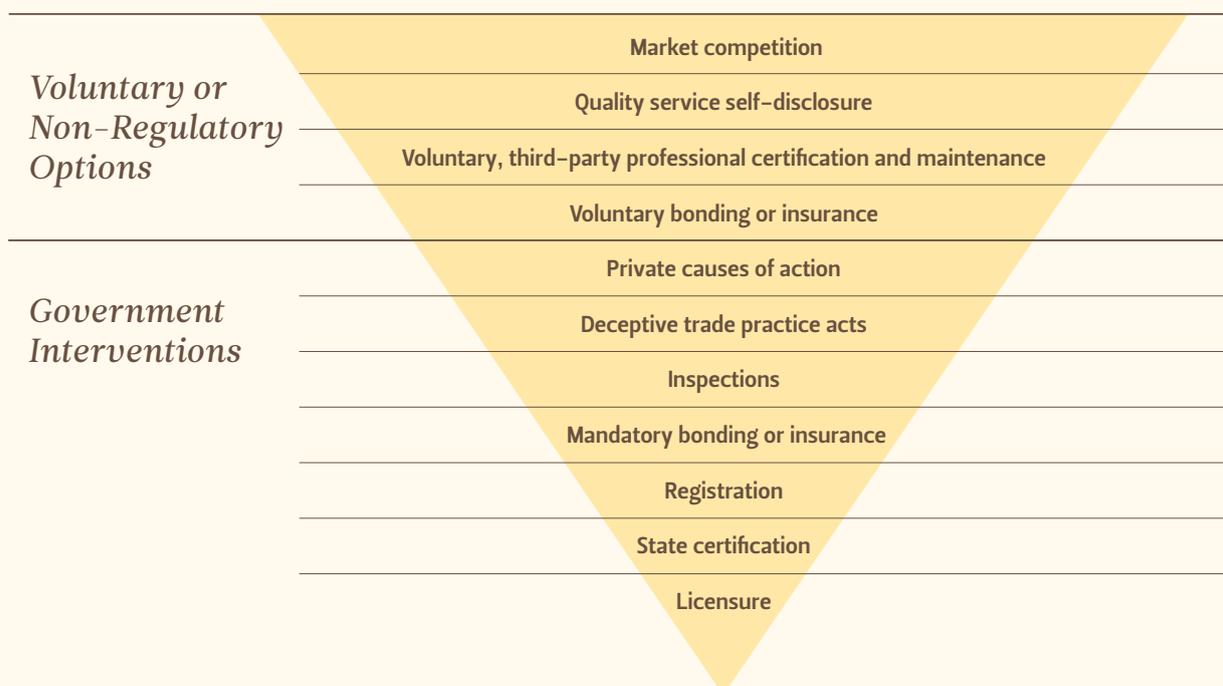
Similarly, the North Carolina Board of Dietetics/Nutrition attempted to censor blogger Steve Cooksey, who writes about managing his Type 2 diabetes through diet and exercise and

answers questions from his readers. Believing such speech constituted the practice of dietetics and nutrition, the Board ordered Steve to remove content from his blog and cease answering reader questions.⁶⁸ Like the Kentucky psychology board, the Board clung to its position all the way through a costly legal action, retreating only when defeat was certain.⁶⁹

License creep is only one way in which licensing boards use their power to restrict competition. In addition to the power to define their own scope of practice, boards often also have the power to set the standards for admission into an occupation. Enabling legislation often prescribes licensing requirements, but legislatures sometimes delegate this task to boards. For example, statutes in Minnesota and West Virginia give cosmetology boards the authority to establish some or all licensing requirements.⁷⁰ The same is true for auctioneers in New Hampshire and pharmacy technicians in Louisiana.⁷¹ And because boards are frequently populated by members of the occupation they oversee,⁷² they have a strong incentive to restrict new competitors from entering the market by making licensing requirements as stringent as practicable.

Not only can boards often set standards prohibitively high in the first place, they can frequently manipulate licensing requirements at will and with little oversight. For instance, if a board feels too many competitors are entering the market, it can increase the minimum score needed to pass a licensing exam to lower the pass rate, thereby reducing the flow of new entrants to a trickle.⁷³

Figure 4: The Inverted Pyramid
A Hierarchy of Alternatives to Licensing



To License or Not to License: A False Choice

Occupational insiders alone cannot take all the credit for the growth of licensing in recent years. They could not achieve licensure without the aid of accommodating legislators. Indeed, licensing’s growth has likely stemmed, in part, from policymakers’ proclivity for erring on the side of “doing something” when they see their options as action or inaction—licensing or no licensing. Given such a binary choice—and in the face of industry assertions that licensing is necessary to protect public health and safety—legislators may be more likely to choose licensing to be “better safe than sorry.”

Yet this choice is a false one that ignores a whole range of other regulatory options between no licensing and licensing.⁷⁴ These options are listed in Figure 4 above, from least to most restrictive. In many cases, such alternatives can protect the public as well as or better than licensing without imposing its costs. The top four options, which can be considered voluntary or “non-regulatory,” are:

(a) Market competition. Market competition takes the primary position in the inverted pyramid’s hierarchy because open markets with no or limited government intervention provide the widest range of consumer choices, allocate resources more efficiently and give businesses strong incentives to keep their reputations as providers of high-quality services.⁷⁵ When service providers are free to compete, consumers weed out providers who fail to deliver safe and quality service. They do this by 1) denying repeat business to such service providers and 2) telling others about their experience.

Proponents of licensing often claim it is necessary to overcome the problem of asymmetrical information, which is when service providers have more or better information than consumers, potentially giving them an advantage in the marketplace.⁷⁶ Licensing is thought to solve this problem by providing a “seal of approval,” signaling to consumers that practitioners possess the skills and knowledge necessary to provide safe and quality service.⁷⁷ But governments may have no better information than consumers, or they may be subject to “capture” by private interests, resulting in needless licensing that restricts consumer choice without delivering any benefits.

Innovations in the private marketplace, however, can reduce information asymmetries without licensing’s downsides. For example, thanks to the internet, today’s consumers have at their fingertips copious amounts of information about service providers. Reviews on social media, advice blogs and services like Angie’s List, Thumbtack, HomeAdvisor, Houzz and Yelp have proliferated in response to consumer demand. And these reviews often offer far more detailed and useful feedback than simply knowing whether a provider is licensed. This market response shows how market forces can help level the informational playing field for consumers and weed out incompetents and fraudsters more quickly and effectively than licensing.⁷⁸

(b) Quality service self-disclosure. Service providers themselves can help solve the “information problem” through self-disclosure—that is, by proactively sharing information about how previous customers have rated the quality of their goods and services. Occupational practitioners can link to third-party evaluation sites from their websites to provide consumers with an important competitive “signal” that they are open to disclosure regarding their service quality.

Practitioners without websites can exercise this option by providing prospective customers with lists of past customers or other references who can provide information about them. And consumers can spur disclosure by demanding such information as a condition of doing business.

(c) Voluntary, third-party professional certification and maintenance. Another way service providers can help address the problem of asymmetrical information is by voluntarily pursuing and maintaining certification from a non-governmental organization. Like licensing, third-party certification sends a signal that an occupational practitioner has attained a certain degree of education or experience. But unlike licensing, it does so without creating any barriers to entry. It therefore provides the purported benefits of licensing while avoiding the pitfalls, including higher costs and fewer services for consumers. Third-party certification is already in use for nurses, automotive occupations, respiratory therapists, counselors and crane operators, to name just a few occupations, with many firms voluntarily making such certifications a requirement for employment.

(d) Voluntary bonding or insurance. Some occupations pose greater risks to consumers than others. Voluntary bonding and insurance allow practitioners of such occupations to outsource management of risks to bonding or insurance companies, which will provide a guarantee of protection against, respectively, a provider's failure to fulfill an obligation (e.g., a moving company's failure to deliver goods by the agreed date) or losses from theft or damage by the provider. This option is already in common use among temporary personnel agencies, janitorial companies and companies with government contracts.

The next six options are government interventions that, although more restrictive than the non-regulatory options above, are nevertheless less restrictive than licensure:

(e) Private causes of action. Private causes of action give consumers the right to bring lawsuits against service providers who have injured them. Where they do not already exist, legislators can create them. The existence of such rights may compel providers to adopt standards of quality to avoid litigation and an accompanying loss of reputation. The cost to consumers of obtaining a remedy could be reduced by allowing them to sue in small claims court or, if suing in district court, to collect court and attorneys' fees when their claims are successful.

(f) Deceptive trade practice acts. All 50 states and the District of Columbia already have deceptive trade practice acts, consumer protection laws that allow attorneys general and consumers to sue service providers engaged in certain practices deemed

false, misleading or deceptive and permit enforcement agencies to prosecute them. Such deceptive trade practice acts are an important and frequently used means of protecting consumers from predatory and unscrupulous business practices.⁷⁹

(g) Inspections. Inspections are already common in some settings. For example, many municipalities use inspections to ensure restaurant hygiene, favoring them over onerous licensing of food preparers, wait staff and dishwashers. In other settings where the state may have a legitimate interest in instrument or facility cleanliness, inspections may be sufficient and preferable to new or existing licensing. Periodic random inspections could also replace the licensing of various trades, such as electricians, carpenters and other building contractors, where the application of skills is repeated and detectable to the experienced eye of an inspector. Where inspections are already used as a complement to licensing, states may find that inspections alone suffice.

(h) Mandatory bonding or insurance. For some occupations, a system of mandatory bonding or insurance can be a better alternative to full licensure. Voluntary bonding or insurance is generally preferable, but states may prefer a mandatory requirement when the risks associated with the services of certain firms extend beyond just the immediate consumer. For example, the state interest in regulating a tree trimmer is in ensuring that the service provider can pay for repairs in the event of damage to power lines or the home or other property of a party—a neighbor, for instance—not involved in the contract between the firm and the consumer. Because tree trimming presents few other threats, states can achieve this objective through bonding or insurance requirements while allowing workers to otherwise practice freely. Similarly, while many states require construction contractors to comply with expensive and burdensome licensing laws, Minnesota requires only bonding for HVAC contractors.⁸⁰ If that occupation can be practiced freely and safely with only bonding as a requirement, the same is likely true of other trades both in Minnesota and in other states.

(i) Registration. Registration requires service providers to provide the government with their name, their address and a description of their services. Registration can complement private causes of action because it often requires providers to indicate where and how they take service of process in the event they are sued. However, the simple requirement to register with the state may be sufficient in and of itself to deter bad actors.

(j) State certification. Like voluntary, third-party certification, state certification overcomes the problem of asymmetrical information by sending a signal to potential customers and employers that an occupational practitioner meets certain standards. However, state certification differs from third-party

certification in two major respects. First, the certifying body is the government rather than a private association. And second, state certification restricts the use of an occupational title—though not, as licensing does, the practice of an occupation. Under state certification, anyone can work in an occupation, but only those who meet the state’s qualifications can use a designated title, such as certified interior designer or certified financial planner. Third-party certification is generally preferable because state certification requires new or expanded government bureaucracy, which comes with costs. Further, third-party organizations are likely to be more responsive to industry and consumer trends. Nevertheless, state certification is less restrictive than occupational licensing and presents few costs in terms of increased unemployment and consumer prices.

Finally, at the bottom of the inverted pyramid’s hierarchy is licensure, the most restrictive form of occupational regulation. Only where there is proof of demonstrated, substantial harms from an occupation that cannot be mitigated by one of the less restrictive options in the above menu should policymakers consider this regulation of last resort.

Recommendations for Reform

Today’s nationwide thicket of occupational licensing laws took root over decades, and pruning it back will take a similarly sustained effort. No single reform strategy offers a quick fix or a complete solution. Fortunately, there are several options for lawmakers interested in expanding economic opportunities, lowering consumer costs and increasing consumer choice by reining in occupational licensing. Reform options fall into two categories: those aimed at specific licensing barriers and those designed to improve licensing practices across the board.

The goal of any reform strategy should be to ensure that occupational regulation is no more burdensome than needed to address present, significant and substantiated harm. Only by applying the least restrictive regulation necessary can lawmakers ensure that licensing is being used to protect the public rather than to fence out competition.

License-specific reforms

The first category of reforms, those targeted toward specific licenses, call on lawmakers to evaluate their states’ licensing regimes, identifying licenses that can be repealed and opportunities to curb anticompetitive licensing rules.

Repeal needless licenses

The most direct way to free workers and entrepreneurs from licensing red tape is to repeal needless licenses and, if necessary, replace them with less burdensome alternatives. State lawmakers should scrutinize the occupations their states license, looking beyond those sampled in this report, and target for elimination any licensing laws that create barriers to



Back in Business: Bill Main and Tonia Edwards

When immigrants Bill Main and Tonia Edwards introduced guided Segway tours to the nation’s capital in 2005, they had no idea the District of Columbia required a license for tour guides—until licensed guides started telling them so. Bill and Tonia balked at the idea they needed government permission to talk for a living, so they continued giving tours unlicensed, risking fines and jail time. They also teamed with IJ in 2014 to get the licensing law overturned. Today, Bill and Tonia no longer fear harassment by the police or busybody guides. They have added more tours to their roster and estimate that they have provided jobs to more than 100 guides over the years.

Momentum for Licensing Reform Is Growing Nationwide

In recent years, occupational licensing reform has gained momentum at the state and federal levels. While some reforms have aimed at rolling back specific licensing barriers, others have sought to improve licensing practices more generally.

One dramatic example of rolling back barriers is the growing number of states that now permit African-style hair braiders to work without obtaining expensive, time-consuming and irrelevant cosmetology or barber licenses. To date, 23 states have exempted braiders from licensure—12 of them since 2014.¹

Some states have also outright repealed licenses. For example, in 2017, Connecticut eliminated several licenses that had no educational or training requirements, including those for swimming pool builders, shorthand reporters, itinerant vendors and athlete agents.² Other states, including Arizona and Michigan, have also removed or reduced licensing barriers, while New Mexico's contractor licensing board has eliminated licenses for a handful of building trades.³

Beyond removing licensing barriers, reformers have also sought to reduce anticompetitive occupational regulations and make it easier for people with criminal records to find work and rejoin society.

At the federal level, legislation has been introduced that would bring state licensing boards under the direct supervision of the legislative and executive branches and reduce the risk of federal antitrust lawsuits. The Restoring Board Immunity Act would require states to enact a policy of implementing the least restrictive means available to promote public health and safety and then choose one of two paths for ensuring that they follow that policy. States would have to either 1) establish “active supervision” over licensing boards and conduct periodic review of them, or 2) provide for more meaningful judicial review of licensing laws.⁴

At the state level, a 2017 Mississippi bill created a commission charged with reviewing regulations proposed by licensing boards to ensure that they “increase economic opportunities ... by promoting competition” and use “the least restrictive regulation necessary to protect consumers.”⁵ Such independent active supervision also reduces the state's liability under federal antitrust law.

Also in 2017, Arizona passed a “cause of action” bill enabling people to go to court to challenge barriers to entry that the state

has failed to show are necessary to protect the public.⁶ Unfortunately, the bill exempts from challenge occupational regulations created by statute—which is most of them.⁷

Meanwhile, Arizona Gov. Doug Ducey has been trying to rein in exces-

sive occupational regulations. In 2015, he declared a moratorium on regulatory rulemaking by state agencies.⁸ Two years later, he issued an executive order requiring the state's licensing boards to report their minimum requirements for licensure and justify any that exceed national averages in “specific reference to potential harm” to state citizens.⁹ The order also requires boards to report whether a criminal record is an automatic disqualification for licensure, as well as the number of applicants denied a license “due to character concerns,” including a prior conviction.¹⁰

A 2017 Kentucky law also addresses licensing barriers facing people with a criminal record. It bars licensing boards from disqualifying applicants solely because of a criminal conviction and requires that they grant applicants a hearing before disqualifying them.¹¹ Boards also bear the burden of proof to show that there is a direct relationship between a prior conviction and a particular occupational license.¹²

These efforts have the potential to improve the lives of many Americans. They also show that, where there is political will, occupational licensing reform is eminently possible.

Licensing reform efforts have the potential to improve the lives of many Americans. They also show that, where there is political will, occupational licensing reform is eminently possible.

1 States that exempt braiders (exemptions since 2014 in italics): Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Michigan, Mississippi, Nebraska, New Hampshire, South Dakota, Texas, Utah, Virginia, Washington and West Virginia. See <http://ij.org/activism/legislation/model-legislation/model-braiding-law/>

2 2017 Conn. Acts 75 (Reg. Sess.) (Sub. S.B. 191), https://www.cga.ct.gov/asp/CGABillStatus/cgabillstatus.asp?selBillType=Bill&bill_num=SB191

3 H.B. 2613, 52nd Leg., 2nd Reg. Sess. (Ariz. 2016); Office of Governor Rick Snyder. (2014, June 11). Governor Rick Snyder signs legislation supporting military families [Press release]. http://www.michigan.gov/snyder/0,4668,7-277-57577_57657-330610--,00.html; New Mexico Regulation & Licensing Department, Construction Industries Division, Notice: License Classifications and Scopes (2016), [http://www.rld.state.nm.us/uploads/files/Scanned%20from%20a%20Xerox%20multifunction%20device\(2\).pdf](http://www.rld.state.nm.us/uploads/files/Scanned%20from%20a%20Xerox%20multifunction%20device(2).pdf)

4 Summary of the “Restoring Board Immunity Act”: Occupational Licensing Reform in

the States. (n.d.). http://issa.house.gov/sites/issa.house.gov/files/Summary_RBI%20Act%5B1%5D.pdf

5 H.B. 1425, Reg. Sess., § 4 (Miss. 2017), <http://billstatus.ls.state.ms.us/documents/2017/html/HB/1400-1499/HB1425IN.htm>

6 S.B. 1437, 53rd Leg., Reg. Sess. (Ariz. 2017), <https://legiscan.com/AZ/bill/SB1437/2017>

7 See *id.* § 5.

8 Office of the Governor Doug Ducey. (2015, January 5). Governor Ducey issues moratorium on regulatory rulemaking [News release]. <https://azgovernor.gov/governor/news/governor-doug-ducey-issues-moratorium-regulatory-rulemaking>

9 Gov. Douglas A. Ducey, Internal Review of Training Requirements, Continuing Education, Fees, and Processes, Exec. Order No. 2017-03 (March 29, 2017), https://azgovernor.gov/sites/default/files/executive_order_2017-03.pdf

10 *Id.*

11 Ky. Rev. Stat. §§ 335B.020(1), .030(2)(a).

12 *Id.* § 335B.030(3).

entry without advancing public health and safety. To identify such licenses, legislators should employ the inverted pyramid described above.⁸¹

Reformers often attempt to identify and draw a line between occupations that should be licensed and those that should not. Not only is drawing such a line difficult, it is also ill advised and, indeed, unnecessary. As the inverted pyramid illustrates, reformers have many more options than just leaving a license in place or fully deregulating an occupation. Reformers can use the inverted pyramid to find the proper regulatory or non-regulatory option for a given occupation by asking two questions: Is there a demonstrated need to regulate this occupation? And if so, what is the least restrictive means of addressing the problem?⁸²

To answer the first question, lawmakers should demand credible proof of systemic harm that would justify government intervention. That means understanding how the occupation works and what harms, if any, can result from its practice—as well as whether any harms can be mitigated with non-regulatory alternatives, such as those at the top of the inverted pyramid’s hierarchy. Issues to consider include:

- What is the specific harm at issue? Is it widespread? Is there systematic evidence, such as consumer complaints, linking the harm to unlicensed practice, either in this state or others?⁸³
- Is the occupation unlicensed in other states? Has it been practiced safely without licensing previously?
- Has the practice of the occupation evolved, including through the development of safer techniques or technologies, such that licensing is now obsolete?

- Are there consumer ratings services commonly used by purchasers of the service? Is voluntary self-disclosure a common practice in the field?
- Is there a private certifying organization for the occupation?
- Is voluntary bonding or insurance common in the field? Could it be?

Without credible evidence of systemic harm that cannot be addressed through non-regulatory means, repeal may be in order. For instance, if the occupation has been practiced safely without licensing, in the past or elsewhere, licensing may not be necessary. And if market-based information and mechanisms for incentivizing quality and weeding out poor service providers are already—or could easily be—in use, licensing may be superfluous.

The second question posed by the inverted pyramid—what is the least restrictive means of addressing the problem?—should only come into play if empirical evidence identifies a problem that non-regulatory mechanisms cannot mitigate. Then, lawmakers should select the least intrusive regulatory option that best addresses the problem. For example, if sanitation is the concern, inspections may be more appropriate than licensing. Or if consumers face the potential for hefty losses from botched service, requiring providers to carry reasonable bonding or insurance may better protect their clients than licensing. All regulatory alternatives to licensing, including deceptive trade practice acts, registration and state certification, should be preferred to licensing.



Back in Business: The Monks of Saint Joseph Abbey

After Hurricane Katrina destroyed their timberland, the monks of Saint Joseph Abbey needed a new source of income. Finally, they hit upon a solution: caskets. For years, the simple wooden caskets the monks made for themselves had attracted interest from people wanting to buy them, so the monks set up shop. But before they had sold even a single casket with their new venture, the state tried to shut them down. In Louisiana, only licensed funeral directors could legally sell caskets—i.e., big, empty boxes. Together with IJ, the monks challenged the law and in 2013 won in federal appellate court. The casket-making operation has helped the monks support themselves and inspired other entrepreneurial ventures. Today, the monks also sell Abbee Honey and Monk Soap.

In addition, before settling on an occupational regulation, lawmakers should examine whether the broader regulatory environment of an occupation already mitigates potential harm. For instance, if practitioners work solely under the supervision of other licensees, as is common for various technicians in health care fields, occupational regulations may not be needed. Similarly, occupational practices in some fields may already be regulated through non-licensing means such as permitting and building codes.

If, after identifying proof of harm and fully considering all alternatives, lawmakers determine that an occupation should be licensed, they should ensure that barriers to entry are set no higher than necessary. Licensing requirements should be carefully tailored to the harms identified. Requirements that do not address a proven harm may serve only to restrict competition and should be eliminated.

By examining a state's licensing regime through the lens of the inverted pyramid, reformers and policymakers can identify licenses for repeal and, where necessary, replace them with less onerous regulations that promote the public interest instead of suppressing competition.

Roll back license creep

In addition to repealing needless licenses, untangling licensing red tape also requires rolling back license creep—the expansion of occupational boundaries and accretion of unnecessary occupational rules that stifle competition.

Legislators have the authority to revise and clarify licensing statutes and rules to pare back such anticompetitive regulations and should do so by:

- Trimming occupational definitions by explicitly exempting in statutes distinct fields where licensing is unnecessary, such as African-style hair braiding and eyebrow threading (cosmetology), teeth whitening (dentistry), and animal massage and animal husbandry (veterinary medicine);
- Revising occupational definitions to permit lower-cost practitioners to provide services they are trained to provide, such as allowing registered nurses to prescribe some medicines and paralegals to prepare standard legal documents⁸⁴;
- Repealing regulations that allow licensed practitioners to monopolize harmless occupational practices, such as prohibiting anyone but licensed funeral directors from selling caskets; and
- Repealing regulations that stifle innovative practices by non-licensees, such as bans on online eye exams.

Across-the-board reforms

The second category of licensing reforms apply across the board to all of a state's licensing regimes. Some of these reforms aim to stem the growth of licensing by making it harder for anticompetitive restrictions to get on the books and stay there. Other across-the-board reform options seek to untangle licensing red tape that prevents people with criminal records from obtaining gainful employment and that impedes the flow of workers and entrepreneurs across state borders.

Codify in statute the right to engage in a lawful occupation and empower the courts to enforce it

One method for reducing needless licensing is to make it easier for aspiring workers and entrepreneurs to bring—and win—lawsuits against licensing laws in court. The U.S. Constitution protects the right to earn an honest living free from unreasonable government interference, yet courts have often been reluctant to enforce this right by striking down arbitrary or irrational licensing laws.⁸⁵ In fact, under the prevailing legal standard, licensing laws are presumed valid when challenged in court, and individuals must prove that they are unconstitutional.⁸⁶ This gets it exactly backward. Governments should have to prove that licensing laws advance legitimate health and safety concerns to justify restrictions on the right to earn a living.⁸⁷

State lawmakers can help remedy the problem by creating another, easier path for challenging licensing laws—a statutory right to engage in a lawful occupation that the courts are empowered to enforce. There are at least three ways of establishing such a right:

- Create a legal right to challenge unnecessary licensing restrictions. This would give aspiring workers and entrepreneurs stymied by licensing laws the right to challenge them in court under a state statute, rather than relying solely on constitutional claims. In creating such a statutory right, the legislature could flip the burden of proof and require the government to prove in court that challenged licensing laws advance legitimate public health and safety interests. Absent such proof, the courts would be empowered to strike down the laws.
- Create a legal defense against enforcement actions by licensing boards. This would afford those accused of unlicensed practice by a licensing board a new statutory argument to make in their own defense. The legislature could require the government to put forward evidence that unlicensed practice of the occupation poses a threat to public health and safety before it can force someone out of work.

- Create a right to petition licensing boards to repeal or modify unnecessary licensing restrictions and a legal right to challenge them if the board fails to do so. This would give individuals stymied by needless restrictions the opportunity to press boards for reform before facing an enforcement action. If the board fails to act, petitioners could challenge the restrictions in court, where boards would be required to demonstrate that the challenged regulations advance public health and safety.

Implement meaningful sunrise and sunset reviews for licensing laws

Another approach to stemming the growth of licensing laws is to establish a formal process that would subject them to meaningful scrutiny when proposed and then again regularly after enacted. Under this approach, lawmakers would charge an independent agency with reviewing proposed and existing occupational regulations and give it a mandate to protect competition by favoring regulation only in cases of demonstrated harm and by selecting the least restrictive option to address that harm.

Several states already conduct reviews of occupational regulations, commonly known as “sunrise” (for proposed regulations) and “sunset” (for existing regulations) reviews.⁸⁸ Unfortunately, current sunrise and sunset systems are often hampered by shortcomings that can limit their effectiveness as tools to curb licensing.⁸⁹ The scope, depth and quality of analyses vary, evaluation criteria are sometimes unclear, procedures are not consistently applied, and industry representatives can occasionally exert disproportionate influence.⁹⁰ And often, sunset review is directed at assessing executive agency performance rather than examining the continued need for regulation.⁹¹

To remedy or avoid such shortcomings, lawmakers can reform current sunrise and sunset systems or establish new systems with the following recommendations⁹²:

- Protect sunrise and sunset processes from political pressure by charging a neutral, nonpartisan agency with conducting reviews and by providing the agency with adequate staff and funding.⁹³
- Require that sunrise and sunset reviews provide systematic proof of present and significant harms to justify occupational regulation and specify that sunset review should evaluate the justification for continued regulation, not just board or agency performance.
- Mandate that the agency determine the least restrictive regulation, if any, necessary to mitigate demonstrated harms, following the inverted pyramid.
- Make clear that the agency should conduct a thorough search for information to evaluate the need for regulation and the appropriate type of regulation, including:
 - systematic data indicating the risk and nature of potential harm, such as consumer complaints, enforcement actions, insurance data, litigation, and data from state or county health departments;
 - interviews with or surveys of practitioners and consumers;



Back in Business: Essence Farmer

When Essence Farmer moved to Maryland for college in 2000, she helped pay the bills by braiding hair in a salon and a barber-shop, no license required. But when she moved back to Arizona a few years later, she needed a 1,600-hour cosmetology license to practice her craft. So Essence teamed up with IJ and in 2004 won an exemption for natural hair stylists from the state’s cosmetology regime. Today, Essence owns an award-winning natural hair styling studio, which she plans to franchise. Aspiring stylists have come from as far away as Boston to work in her studio and a number of her employees have gone on to start their own businesses. Essence is now working to reach even more people through her online academy, which offers training in both braiding and business.

- current occupational practices, including whether innovative techniques or technologies have reduced the risk of harm;
 - non-licensing regulations of the occupation;
 - other states' regulations;
 - non-regulatory mechanisms for mitigating potential harm; and
 - scholarly research, where available.
- If the agency recommends new or continued licensing, require that the agency review the licensing requirements to ensure they are narrowly tailored to the harm identified.
 - Apply sunrise and sunset review to all occupations, as well as to scope-of-practice expansions and escalations of requirements for existing licenses.
 - Adopt legislative rules that forbid legislative committees from voting on new or modified occupational regulations prior to receiving sunrise or sunset reports.

Establishing a formal process for methodically evaluating occupational regulations can be one way to counter industry influence and to provide an advocate for the consumers and aspiring workers who are typically underrepresented in licensing decisions.⁹⁴ In the end, however, even the most conscientious sunrise or sunset systems will work only if legislatures are willing to follow their recommendations to rein in anticompetitive licensing.⁹⁵

Rein in anticompetitive behavior by licensing boards

An additional way lawmakers can curb anticompetitive licensing laws, policies and rules is to rein in the regulatory boards that are charged with promulgating and enforcing them. Restraining boards' power to fence out competition will also help states avoid antitrust liability under the Supreme Court's holding in *North Carolina State Board of Dental Examiners v. FTC*.

The surest way to curtail licensing boards' anticompetitive behavior and to eliminate all exposure to antitrust litigation is to repeal needless occupational licensing laws, replacing them where necessary with less restrictive regulations following the inverted pyramid. None of the alternatives to licensing in the pyramid's menu restrain competition as licensing does, and thus none carry the same exposure to antitrust litigation and its corresponding costs and damages.⁹⁶

For licenses that are maintained, states should establish meaningful oversight of licensing boards by charging an

independent office in the executive branch with approving or disapproving boards' rules, policies and enforcement actions prior to implementation. The supervisory office, whether it reports to the governor, the attorney general or the commissioner of an agency, should be given a mandate to promote competition and to ensure that boards' actions adopt the least restrictive means necessary to address proven public health and safety harms.⁹⁷ And the supervisory office should be required to provide feedback to members of both the executive and legislative branches about future changes to state law that will increase competition and reduce litigation risk.

Unlike other proposed reforms—including adding public members to boards, changing the selection process for members and giving cursory review to board actions—such a supervisory office would both curb anticompetitive behavior by licensing boards and establish the active supervision required for antitrust immunity under *N.C. Dental*.⁹⁸

Strengthen rights of former offenders to gain meaningful employment

In addition to enacting reforms designed to stem the growth of licensing, lawmakers should remove unnecessary barriers that often keep former offenders from gaining meaningful employment and reintegrating into society. The most straightforward way to ensure individuals with a criminal record are not held back for lack of a license is to repeal unnecessary licenses and replace them, if necessary, with less restrictive regulation. Licensing itself, not just exclusions based on criminal records, creates barriers for former offenders trying to enter or reenter the workforce.⁹⁹

But where licenses are not eliminated, lawmakers should limit license denials based on criminal history to those cases where the crime is relevant and there is evidence that the likelihood of harm to public health and safety would increase if the state grants the license.

First, lawmakers should do away with blanket exclusions that keep anyone with a certain type of criminal record, for instance a felony conviction, from obtaining a license. Second, lawmakers should require case-by-case decisions on license denials for former offenders and establish clear criteria for such denials. Third, lawmakers should allow occupational aspirants to petition boards for a written determination of whether their criminal history is disqualifying *before* they invest in required education and training for a license.¹⁰⁰

In allowing for such petitions, lawmakers should establish criteria for denials that require boards to provide substantial proof that the offense is relevant to the occupation and that the petitioner poses a greater risk to public health and safety if licensed than if not.¹⁰¹ Such a process would allow well-considered denials in the public interest, but it would put the burden of proof on boards to demonstrate that granting a license to a former

Licensing Laws Make It Harder for Former Offenders to Find Work

People with criminal records often find it particularly difficult to jump occupational licensing hurdles. Not only do many former offenders lack the time and money needed to navigate the licensing process, but they are often needlessly prohibited from obtaining an occupational license based on their criminal history, making it even harder to find meaningful employment and stay on the right side of the law. Given that approximately one in three adults has a prior arrest or conviction on their record, such licensing prohibitions likely affect a sizable share of the workforce.¹

Licensing laws target individuals with a criminal record in two main ways. First, many states' laws contain blanket bans which, for example, prohibit anyone with a criminal conviction from obtaining an occupational license, regardless of whether the offense is relevant to the practice of the occupation or poses a substantive risk to public safety. Second, licensing laws often contain "good-character" provisions that grant licensing boards broad discretion to deny applications due to an applicant's criminal history, including convictions for minor offenses and sometimes even arrests that never led to a conviction.²

In half of the states, boards may deny an application on "good character" grounds only if the applicant committed an offense that is related to the occupation, but what that means is often unclear.³ The other half of states lack even this vague standard, giving boards broad leeway and leaving applicants in the dark. As a result, in most states former offenders and others with a record risk investing considerable time and money training for a license only to later be disqualified. And to find out, they may have to wait six months to a year while a state board conducts a criminal history review.⁴ This daunting and uncertain process can discourage many from even trying to enter a licensed occupation, effectively closing off avenues to employment and entrepreneurship.

No one should be kept out of a job without good reason to believe that granting an occupational license would pose a significant threat to public safety.

Limiting employment opportunities not only hurts those with criminal records, it also puts communities at risk by making it tempting for former offenders to fall back into crime.⁵ Indeed, research has found a relationship between higher rates of recidivism and heavy licensing burdens, such as good character provisions, high license fees, extensive training and experience requirements, and multiple license exams. Between 1997 and 2007, recidivism rates grew by more than 9 percent in states with the heaviest licensing burdens and shrank by 2.5 percent in states with the lowest licensing burdens.⁶ Reducing licensing burdens could make considerable strides toward reducing recidivism rates by putting former offenders back to work and helping them reintegrate into society.

Licensing barriers for former offenders also act as a drag on the economy. In 2014 alone, employment barriers faced by people with felony convictions—including occupational licensing and other challenges, such as lower levels of education and job skills—were associated with a reduction in the overall employment rate amounting to a loss of at least 1.7 million workers from the workforce and a cost of at least \$78 billion to the economy.⁷ And occupational licenses also prevent many former offenders from starting their own businesses within a licensed industry, stifling entrepreneurship and new business creation.⁸

No one should be kept out of a job without good reason to believe that granting an occupational license would pose a significant threat to public safety. And there is no evidence to suggest that criminal history is associated with poor job performance.⁹ Without such evidence, continuing to punish people who have already served their time by preventing them from earning a living in their chosen occupation only leads to worse outcomes for former offenders and for society at large.

1 Rodriguez, M. N., & Avery, B. (2016). *Unlicensed and untapped: Removing barriers to state occupational licenses for people with records*. New York, NY: National Employment Law Project. <http://nelp.org/content/uploads/Unlicensed-Untapped-Removing-Barriers-State-Occupational-Licenses.pdf>

2 Department of the Treasury Office of Economic Policy, Council of Economic Advisers, & Department of Labor. (2015). *Occupational licensing: A framework for policymakers*. Washington, DC: White House. https://obamawhitehouse.archives.gov/sites/default/files/docs/licensing_report_final_nonembargo.pdf

3 Department of the Treasury Office of Economic Policy, Council of Economic Advisers, & Department of Labor, 2015; Little Hoover Commission. (2016). *Jobs for Californians: Strategies to ease occupational licensing barriers* (Report #234). Sacramento, CA. <http://www.lhc.ca.gov/sites/lhc.ca.gov/files/Reports/234/Report234.pdf>; Rodriguez and Avery, 2016.

4 Department of the Treasury Office of Economic Policy, Council of Economic Advisers, and Department of Labor, 2015.

5 Fetsch, E. (2016). *No bars: Unlocking the economic power of the formerly incarcerated*. Kansas City, MO: Ewing Marion Kauffman Foundation. http://www.kauffman.org/-/media/kauffman_org/microsites/mayors2016/occupational%20licensing%20and%20the%20formerly%20incarcerated_final.pdf

6 Slivinski, S. (2016). *Turning shackles into bootstraps: Why occupational licensing reform is the missing piece of criminal justice reform* (Policy Report No. 2016-01). Tempe, AZ: Center for the Study of Economic Liberty, Arizona State University. <https://research.wpcarey.asu.edu/economic-liberty/wp-content/uploads/2016/11/CSEL-Policy-Report-2016-01-Turning-Shackles-into-Bootstraps.pdf>

7 Bucknor, C., & Barber, A. (2016). *The price we pay: Economic costs of barriers to employment for former prisoners and people convicted of felonies*. Washington, DC: Center for Economic and Policy Research. <http://cepr.net/images/stories/reports/employment-prisoners-felonies-2016-06.pdf?v=5>

8 Fetsch, 2016; Rodriguez and Avery, 2016.

9 Rodriguez and Avery, 2016.

offender is too risky, rather than force individuals to prove that they deserve a license.

Welcome out-of-state workers

Lawmakers should also lower or eliminate licensing barriers that impede the free flow of workers and entrepreneurs into their states. Solutions to the problem of restricted interstate mobility should start by recognizing its root cause: unnecessary licensing red tape. Lawmakers can help more in-state and out-of-state workers find jobs by eliminating needless licensing requirements and, if needed, substituting less restrictive alternatives.

A popular alternative solution—reciprocity—should be a last resort. Reciprocity arrangements like interstate compacts and endorsement of out-of-state licenses involve states agreeing to accept each other's licenses as valid or agreeing upon uniform licensing requirements.¹⁰² Such approaches have at least three disadvantages compared to curbing licensing outright. First, reciprocity agreements can effectively cement unwarranted licenses in place. Once states agree to reciprocity arrangements, it becomes harder to reduce or eliminate licensing barriers; partner states may balk at accepting less stringent licenses or alternatives to licensing like certification or registration. Second, to reach agreement, states may settle upon licensing requirements that are too high, needlessly restricting economic opportunities. In the interest of achieving reciprocity and boosting mobility, states may wind up erecting higher barriers for their own workers.¹⁰³ Third, reciprocity agreements can lead to unjust treatment of

people coming from unlicensed states, shutting out experienced practitioners who have never previously needed a license or requiring them to complete requirements unnecessarily.

Because of these drawbacks, reciprocity arrangements should be limited to occupations where there is a demonstrated need for licensing. Before addressing reciprocity, lawmakers should determine whether licensing a particular occupation is justified and consider whether current licensing barriers are too high. After all, if other states permit easier entry into the occupation, this is evidence that barriers could be lowered or eliminated without resulting in harm. Restricted mobility is the symptom; needless licensing red tape is the disease.

Yet another approach to the interstate mobility problem is state recognition of out-of-state licenses or certifications. Unlike reciprocity, recognition is a unilateral solution: A state simply chooses to allow workers with licenses or certifications from other states to practice, regardless of the requirements other states set. As a result, recognition can enhance mobility without the drawbacks of cementing needless licensing in place or ratcheting up requirements. Unfortunately, recognition of out-of-state licenses or certifications does nothing to help in-state workers stymied by unnecessary licenses or barriers that are too high. Pruning needless licensing requirements therefore remains the first-choice solution.

Conclusion

The right to earn an honest living—the “free choice of [our] occupations,” as James Madison called it¹⁰⁴—has always been a fundamental American right. But in recent decades, this right has become increasingly circumscribed by licensing barriers. The results are on full display in this report—occupational licenses that are often plainly unnecessary, unjustifiably burdensome or irrationally inconsistent. And as a growing body of research indicates, these regulatory hurdles impose severe costs, first on those who must clear them and then on the wider community in the form of higher prices, less consumer choice, fewer job opportunities, and reduced economic and geographic mobility.

But this problem is solvable. Policymakers, scholars and opinion leaders left, right and center are increasingly coming to understand the drawbacks of licensing and calling for reform. They can use this report not only to better understand the burdens of licensing but also to identify where reform is needed and the mechanisms by which it can be implemented. Just as the 20th century was the era of ever-expanding licensing, the 21st can be the era of transforming licenses into liberty.

Form 1099-MISC
Do Not Cut or Separate Forms on This Page

9595

PAYER'S name, street address, city, state, ZIP code, and telephone no.

RECIPIENT'S identification number

RECIPIENT'S name

Street address (including apt. no.)

City, state, and ZIP code

Account number (see instructions)

15a Section 409A deferrals

15b Section 409A income

16-0331690

Form 1099-MISC

1 Points

2 Royalties

3 Other income

4 Fishing boat proceeds

5 Nonemployee compensation

6 Payer made direct sales of \$5,000 or more of consumer products to a buyer (recipient) for resale

7 Excess golden parachute payments

8 State tax withheld

9 Federal income tax withheld

10 Medical and health care payments

11 Substitute payments in lieu of dividends or interest

12 Crop insurance proceeds

13 Gross proceeds paid to an attorney

14 State/Payer's state no.

15 State income

Miscellaneous Income

Copy A
For Internal Revenue Service Center
File with Form 1096.

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Department of the Treasury - Internal Revenue Service

1390 Market Street, Suite 210 San Francisco, CA
Phone 252-3800, Fax 252-3875

State Profiles

Alabama

63
of 102 lower-income
occupations licensed

47th
most burdensome
licensing laws

25th
most broadly and
onerously licensed state

Alabama licenses more lower-income occupations than average—63 of the 102 studied here—and its laws are the 47th most burdensome. On average, Alabama's barriers to entry into lower-income occupations are \$329 in fees, 142 days of education and experience, and approximately one exam. The state ranks as the 25th most broadly and onerously licensed, placing it right in the middle of the pack.

Alabama licenses some occupations that are rarely licensed elsewhere. For example, few other states license animal trainers (eight), bartenders (12) or locksmiths (13). And Alabama charges much higher fees than many other states for pipelayer contractors: \$592 compared to the \$377 average in the 27 states that license them.

Alabama also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater

risks to the public. For example, auctioneer is Alabama's seventh most onerously licensed occupation, requiring \$500 in fees and 385 days of education and experience (comprising an 85-hour course and a one-year apprenticeship). These barriers are higher than both the average barriers in the 30 states that license auctioneers (\$278 in fees and 94 days of education and experience) and Alabama's own fee and education and experience requirements for EMTs, an occupation that has far more to do with public health and safety. Aspiring EMTs need only pay a \$90 fee and complete an estimated 42 days (180 hours) of education to become licensed. To expand opportunity for workers in the state, Alabama should reduce or repeal irrational licensing burdens, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$594	1,460	4 years	None	4	0	0
2	Athletic Trainer	49	\$475	1,460	4 years	None	1	0	0
3	Veterinary Technician	36	\$410	730	2 years	None	2	0	18
4	Earth Driller, Water Well	51	\$275	730	None	2 years	1	0	0
5	HVAC Contractor (Commercial)	37	\$315	700	None	3,000 clock hours	1	0	0
5	Sheet Metal Contractor, HVAC (Commercial)	37	\$315	700	None	3,000 clock hours	1	0	0
7	Auctioneer	30	\$500	385	85 clock hours	1 year	3	0	19
8	Cosmetologist	51	\$235	350	1,500 clock hours	None	2	10	16
9	Pest Control Applicator	51	\$295	365	None	1 year	1	0	0
10	Barber	51	\$235	233	1,000 clock hours	None	2	10	16
10	Makeup Artist	41	\$235	233	1,000 clock hours	None	2	10	16
10	Skin Care Specialist	50	\$235	233	1,000 clock hours	None	2	10	16
13	Manicurist	50	\$235	175	750 clock hours	None	2	10	16
14	Massage Therapist	44	\$320	152	650 clock hours	None	1	0	18
15	Interpreter, Sign Language	22	\$580	0	None	None	2	12	18
16	Landscape Contractor (Commercial)	47	\$721	67	None	3 jobs	3	0	0
17	Pipelayer Contractor	27	\$592	67	None	3 jobs	2	0	0
18	Paving Contractor (Commercial)	24	\$502	67	None	3 jobs	2	0	0
19	School Bus Driver	51	\$81	3	16 clock hours	None	8	0	21
20	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$492	67	None	3 jobs	2	0	0
20	Cement Finishing Contractor (Commercial)	24	\$492	67	None	3 jobs	2	0	0
20	Door Repair Contractor (Commercial)	24	\$492	67	None	3 jobs	2	0	0
20	Drywall Installation Contractor (Commercial)	25	\$492	67	None	3 jobs	2	0	0
20	Floor Sander Contractor (Commercial)	22	\$492	67	None	3 jobs	2	0	0
20	Glazier Contractor (Commercial)	26	\$492	67	None	3 jobs	2	0	0
20	Insulation Contractor (Commercial)	25	\$492	67	None	3 jobs	2	0	0
20	Iron/Steel Contractor (Commercial)	26	\$492	67	None	3 jobs	2	0	0
20	Mason Contractor (Commercial)	26	\$492	67	None	3 jobs	2	0	0
20	Painting Contractor (Commercial)	22	\$492	67	None	3 jobs	2	0	0
20	Sheet Metal Contractor, Other (Commercial)	26	\$492	67	None	3 jobs	2	0	0
20	Terrazzo Contractor (Commercial)	23	\$492	67	None	3 jobs	2	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age	
32	Child Care Home, Family	44	\$49	4	None	24 clock hours	0	12	19	
33	Emergency Medical Technician	51	\$90	42	180 clock hours	None	2	0	18	
34	Truck Driver, Tractor-Trailer	51	\$111	0	None	None	5	0	18	
35	Bus Driver, City/Transit	51	\$81	0	None	None	5	0	18	
36	Truck Driver, Other	51	\$101	0	None	None	4	0	18	
37	Security Alarm Installer	37	\$490	4	22 clock hours	None	2	0	0	
38	Bartender	13	\$0	1	5 clock hours	None	1	0	21	
39	Landscape Contractor (Residential)	48	\$325	0	None	None	2	0	0	
40	Fire Alarm Installer	39	\$425	0	None	None	1	0	0	
41	Mobile Home Installer	39	\$400	2	12 clock hours	None	1	0	0	
42	Carpenter/Cabinet Maker Contractor (Residential)	30	\$403	0	None	None	1	0	0	
42	Iron/Steel Contractor (Residential)	30	\$403	0	None	None	1	0	0	
42	Mason Contractor (Residential)	31	\$403	0	None	None	1	0	0	
45	Security Guard, Unarmed	34	\$90	1	8 clock hours	None	0	0	18	
46	Pharmacy Technician	44	\$60	0	None	None	0	0	17	
47	Vegetation Pesticide Applicator	51	\$295	0	None	None	1	0	0	
48	Shampooer	37	\$75	0	None	None	0	0	16	
49	Cement Finishing Contractor (Residential)	30	\$350	0	None	None	0	0	0	
49	Door Repair Contractor (Residential)	29	\$350	0	None	None	0	0	0	
49	Drywall Installation Contractor (Residential)	30	\$350	0	None	None	0	0	0	
49	Floor Sander Contractor (Residential)	27	\$350	0	None	None	0	0	0	
49	Glazier Contractor (Residential)	30	\$350	0	None	None	0	0	0	
49	Insulation Contractor (Residential)	30	\$350	0	None	None	0	0	0	
49	Painting Contractor (Residential)	28	\$350	0	None	None	0	0	0	
49	Paving Contractor (Residential)	28	\$350	0	None	None	0	0	0	
49	Sheet Metal Contractor, Other (Residential)	31	\$350	0	None	None	0	0	0	
49	Terrazzo Contractor (Residential)	28	\$350	0	None	None	0	0	0	
59	Locksmith	14	\$190	0	None	None	1	0	0	
60	Fisher, Commercial	43	\$100	0	None	None	0	0	0	
61	Coach, Head (High School Sports)	48	\$40	1	5.5 clock hours	None	0	0	0	
62	Weigher	25	\$20	0	None	None	0	0	0	
63	Animal Trainer	9	\$5	0	None	None	0	0	0	
NA	Midwife, Direct Entry	28	Prohibited or appears to be prohibited							
Averages		35.0	\$329	142.4			1.5	1.2	5.3	

Alaska

63

of 102 lower-income occupations licensed

45th

most burdensome licensing laws

24th

most broadly and onerously licensed state

Alaska licenses more occupations than average—63 of the 102 lower-income occupations studied here—and its laws are the 45th most burdensome. Alaska's average barriers to entry are \$298 in fees, 211 days of education and experience, and around one exam. As the 24th most broadly and onerously licensed state, Alaska has much room for improvement.

Alaska's license requirements for some occupations are particularly burdensome when compared to the average burdens across licensed states. For example, at \$1,000, the fee to become an athletic trainer in Alaska is twice the licensed-state average. And Alaska requires about 1,097 days of education and experience (comprising three years of experience and 10 hours of education) to become a licensed school bus driver, when the national average is just 300 days.

Alaska also imposes fee and education burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. Veterinary technicians, for example, must complete two years (730 days) of education and pay \$535 in fees in Alaska. These barriers are much higher than those for EMTs, who provide emergency first aid to humans but must only complete 120 hours (around 28 days) of specialized education and pay \$105 in fees. Alaska could improve its rank by repealing or reducing inconsistent or irrational burdens for vet techs and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$730	2,190	4 years	2 years	2	0	0
2	Athletic Trainer	49	\$1,000	1,460	4 years	None	1	0	0
3	HVAC Contractor (Commercial)	37	\$450	1,460	None	4 years	1	0	0
3	Sheet Metal Contractor, HVAC (Commercial)	37	\$450	1,460	None	4 years	1	0	0
5	School Bus Driver	51	\$190	1,097	10 clock hours	3 years	6	0	21
6	Fire Alarm Installer	39	\$300	730	None	2 years	2	0	18
7	Veterinary Technician	36	\$535	730	2 years	None	1	0	0
8	HVAC Contractor (Residential)	35	\$450	730	None	2 years	1	0	0
8	Sheet Metal Contractor, HVAC (Residential)	36	\$450	730	None	2 years	1	0	0
10	Optician	22	\$550	420	None	1,800 clock hours	1	12	18
11	Bus Driver, City/Transit	51	\$140	365	None	1 year	5	0	19
12	Truck Driver, Tractor-Trailer	51	\$140	365	None	1 year	5	0	18
13	Truck Driver, Other	51	\$140	365	None	1 year	4	0	18
14	Cosmetologist	51	\$450	385	1,650 clock hours	None	2	0	0
15	Barber	51	\$315	385	1,650 clock hours	None	2	0	0
16	Massage Therapist	44	\$805	117	504 clock hours	None	1	0	18
17	Bill Collection Agency	31	\$175	0	None	None	0	12	19
18	Pharmacy Technician	44	\$120	0	None	None	0	12	18
19	Makeup Artist	41	\$450	82	350 clock hours	None	2	0	0
19	Skin Care Specialist	50	\$450	82	350 clock hours	None	2	0	0
21	Manicurist	50	\$390	58	250 clock hours	None	1	0	0
22	Emergency Medical Technician	51	\$105	28	120 clock hours	None	2	0	18
23	Child Care Home, Family	44	\$115	28	120 clock hours	None	0	0	21
24	Pest Control Applicator	51	\$25	0	None	None	2	0	18
24	Vegetation Pesticide Applicator	51	\$25	0	None	None	2	0	18
26	Bartender	13	\$0	1	4 clock hours	None	1	0	21
27	Security Guard, Unarmed	34	\$102	11	48 clock hours	None	0	0	18
28	Wildlife Control Operator	23	\$100	0	None	None	0	0	18
29	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$300	0	None	None	0	0	0
29	Carpenter/Cabinet Maker Contractor (Residential)	30	\$300	0	None	None	0	0	0
29	Cement Finishing Contractor (Commercial)	24	\$300	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
29	Cement Finishing Contractor (Residential)	30	\$300	0	None	None	0	0	0
29	Door Repair Contractor (Commercial)	24	\$300	0	None	None	0	0	0
29	Door Repair Contractor (Residential)	29	\$300	0	None	None	0	0	0
29	Drywall Installation Contractor (Commercial)	25	\$300	0	None	None	0	0	0
29	Drywall Installation Contractor (Residential)	30	\$300	0	None	None	0	0	0
29	Earth Driller, Water Well	51	\$300	0	None	None	0	0	0
29	Floor Sander Contractor (Commercial)	22	\$300	0	None	None	0	0	0
29	Floor Sander Contractor (Residential)	27	\$300	0	None	None	0	0	0
29	Glazier Contractor (Commercial)	26	\$300	0	None	None	0	0	0
29	Glazier Contractor (Residential)	30	\$300	0	None	None	0	0	0
29	Insulation Contractor (Commercial)	25	\$300	0	None	None	0	0	0
29	Insulation Contractor (Residential)	30	\$300	0	None	None	0	0	0
29	Iron/Steel Contractor (Commercial)	26	\$300	0	None	None	0	0	0
29	Iron/Steel Contractor (Residential)	30	\$300	0	None	None	0	0	0
29	Landscape Contractor (Commercial)	47	\$300	0	None	None	0	0	0
29	Landscape Contractor (Residential)	48	\$300	0	None	None	0	0	0
29	Mason Contractor (Commercial)	26	\$300	0	None	None	0	0	0
29	Mason Contractor (Residential)	31	\$300	0	None	None	0	0	0
29	Painting Contractor (Commercial)	22	\$300	0	None	None	0	0	0
29	Painting Contractor (Residential)	28	\$300	0	None	None	0	0	0
29	Paving Contractor (Commercial)	24	\$300	0	None	None	0	0	0
29	Paving Contractor (Residential)	28	\$300	0	None	None	0	0	0
29	Pipelayer Contractor	27	\$300	0	None	None	0	0	0
29	Security Alarm Installer	37	\$300	0	None	None	0	0	0
29	Sheet Metal Contractor, Other (Commercial)	26	\$300	0	None	None	0	0	0
29	Sheet Metal Contractor, Other (Residential)	31	\$300	0	None	None	0	0	0
29	Terrazzo Contractor (Commercial)	23	\$300	0	None	None	0	0	0
29	Terrazzo Contractor (Residential)	28	\$300	0	None	None	0	0	0
60	Taxidermist	28	\$200	0	None	None	0	0	0
61	Fisher, Commercial	43	\$99	0	None	None	0	0	0
62	Travel Guide	37	\$29	0	None	None	0	0	0
63	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0
Averages		35.6	\$298	210.8			0.8	0.6	4.7

Arizona

68

of 102 lower-income occupations licensed

4th

most burdensome licensing laws

4th

most broadly and onerously licensed state

Arizona remains one of the worst states in the nation when it comes to licensing burdens for lower-income occupations. It licenses 68 of the 102 occupations studied here, and its licensing laws rank as the fourth most burdensome, due to high licensing fees and arduous education and experience requirements. Occupational licenses in Arizona require an average of \$612 in fees, 765 days—more than two years—of education and experience, and approximately two exams. Because it licenses so many occupations so onerously, Arizona ranks as the fourth most broadly and onerously licensed state.

Arizona imposes particularly burdensome fees and experience requirements on would-be licensees in several occupations. Its highest fees are roughly three times the national average. Bill collection agencies face Arizona's heftiest fees, paying \$1,500 (compared to the \$551 average across licensed states). Water well earth drillers must pay \$1,031 (compared to

the \$356 national average). And Arizona's experience burdens for aspiring opticians are some of the heaviest of their type in the nation, requiring 1,095 days (three years) of experience. This is considerably higher than the average 714 days required in the 22 states that license opticians.

Arizona's licensing laws are also rife with irrationalities, often imposing burdens on some occupations that seem excessive compared with those for others that may pose greater risks. For example, 15 of the 33 Arizona contractor licenses studied are more burdensome than the state's direct entry midwife license, and all of the contractor licenses studied are considerably more onerous than its EMT license, which merely requires a 110-hour course (an estimated 26 days lost), an \$80 fee and two exams. To improve its rankings, Arizona should reduce or repeal its onerous licenses for contractors and other occupations, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$437	2,190	4 years	2 years	2	0	0
2	Interpreter, Sign Language	22	\$820	1,469	4 years and 40 clock hours	None	2	12	18
3	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$956	1,460	None	4 years	2	0	18
3	Carpenter/Cabinet Maker Contractor (Residential)	30	\$956	1,460	None	4 years	2	0	18
3	Door Repair Contractor (Commercial)	24	\$956	1,460	None	4 years	2	0	18
3	Door Repair Contractor (Residential)	29	\$956	1,460	None	4 years	2	0	18
3	Fire Alarm Installer	39	\$956	1,460	None	4 years	2	0	18
3	Mason Contractor (Commercial)	26	\$956	1,460	None	4 years	2	0	18
3	Mason Contractor (Residential)	31	\$956	1,460	None	4 years	2	0	18
10	Iron/Steel Contractor (Commercial)	26	\$886	1,460	None	4 years	2	0	18
10	Pipelayer Contractor	27	\$886	1,460	None	4 years	2	0	18
12	Cement Finishing Contractor (Residential)	30	\$826	1,460	None	4 years	2	0	18
12	Iron/Steel Contractor (Residential)	30	\$826	1,460	None	4 years	2	0	18
14	Cement Finishing Contractor (Commercial)	24	\$686	1,460	None	4 years	2	0	18
15	Landscape Contractor (Commercial)	47	\$586	1,460	None	4 years	2	0	18
15	Landscape Contractor (Residential)	48	\$586	1,460	None	4 years	2	0	18
17	Paving Contractor (Commercial)	24	\$836	1,460	None	4 years	1	0	18
18	Paving Contractor (Residential)	28	\$636	1,460	None	4 years	1	0	18
19	Athletic Trainer	49	\$622	1,460	4 years	None	1	0	0
20	Midwife, Direct Entry	28	\$1,150	1,095	3 years	None	2	12	21
21	Optician	22	\$650	1,095	None	3 years	3	12	18
22	Earth Driller, Water Well	51	\$1,031	1,095	None	3 years	3	0	18
23	Glazier Contractor (Commercial)	26	\$956	1,095	None	3 years	2	0	18
23	Glazier Contractor (Residential)	30	\$956	1,095	None	3 years	2	0	18
23	Terrazzo Contractor (Commercial)	23	\$956	1,095	None	3 years	2	0	18
23	Terrazzo Contractor (Residential)	28	\$956	1,095	None	3 years	2	0	18
27	Mobile Home Installer	39	\$454	1,096	8 clock hours	3 years	1	0	0
28	HVAC Contractor (Residential)	35	\$956	730	None	2 years	2	0	18
28	Painting Contractor (Commercial)	22	\$956	730	None	2 years	2	0	18
28	Painting Contractor (Residential)	28	\$956	730	None	2 years	2	0	18
28	Sheet Metal Contractor, HVAC (Residential)	36	\$956	730	None	2 years	2	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	HVAC Contractor (Commercial)	37	\$686	730	None	2 years	2	0	18
32	Sheet Metal Contractor, HVAC (Commercial)	37	\$686	730	None	2 years	2	0	18
34	Drywall Installation Contractor (Commercial)	25	\$906	730	None	2 years	1	0	18
34	Drywall Installation Contractor (Residential)	30	\$906	730	None	2 years	1	0	18
34	Floor Sander Contractor (Commercial)	22	\$906	730	None	2 years	1	0	18
34	Floor Sander Contractor (Residential)	27	\$906	730	None	2 years	1	0	18
34	Insulation Contractor (Commercial)	25	\$906	730	None	2 years	1	0	18
34	Insulation Contractor (Residential)	30	\$906	730	None	2 years	1	0	18
34	Sheet Metal Contractor, Other (Commercial)	26	\$906	730	None	2 years	1	0	18
34	Sheet Metal Contractor, Other (Residential)	31	\$906	730	None	2 years	1	0	18
42	Veterinary Technician	36	\$150	730	2 years	None	2	0	18
43	Pest Control Applicator	51	\$645	449	12 credit hours	1 year	4	0	18
43	Vegetation Pesticide Applicator	51	\$645	449	12 credit hours	1 year	4	0	18
45	Cosmetologist	51	\$247	373	1,600 clock hours	None	2	10	16
46	School Bus Driver	51	\$57	371	14 clock hours	1 year and 20 clock hours	7	0	18
47	Barber	51	\$140	350	1,500 clock hours	None	2	10	16
48	Truck Driver, Tractor-Trailer	51	\$50	365	None	1 year	5	0	18
49	Bus Driver, City/Transit	51	\$35	365	None	1 year	5	0	18
50	Truck Driver, Other	51	\$50	365	None	1 year	4	0	18
51	Massage Therapist	44	\$412	163	700 clock hours	None	1	12	18
52	Pharmacy Technician	44	\$197	140	None	600 clock hours	1	12	18
53	Manicurist	50	\$247	140	600 clock hours	None	2	10	16
53	Skin Care Specialist	50	\$247	140	600 clock hours	None	2	10	16
55	Coach, Head (High School Sports)	48	\$129	163	15 credit hours	250 clock hours	0	0	0
56	Emergency Medical Technician	51	\$80	26	110 clock hours	None	2	0	18
57	Travel Guide	37	\$337	0	None	None	1	0	18
58	Bill Collection Agency	31	\$1,500	0	None	None	0	0	0
59	Weigher	25	\$48	0	None	None	1	0	18
60	Gaming Cage Worker	29	\$250	0	None	None	0	0	18
60	Gaming Dealer	28	\$250	0	None	None	0	0	18
60	Gaming Supervisor	30	\$250	0	None	None	0	0	18
60	Slot Supervisor	28	\$250	0	None	None	0	0	18
64	Security Alarm Installer	37	\$192	0	None	None	0	0	18
65	Security Guard, Unarmed	34	\$72	1	8 clock hours	None	0	0	18
66	Taxidermist	28	\$150	0	None	None	0	0	0
67	Animal Breeder	28	\$75	0	None	None	0	0	0
68	Milk Sampler	42	\$50	0	None	None	0	0	0
Averages		34.9	\$612	765.5			1.7	1.5	15.8

Arkansas

72
of 102 lower-income
occupations licensed

6th
most burdensome
licensing laws

3rd
most broadly and
onerously licensed state

Arkansas is one of the worst states in the nation when it comes to licensing lower-income occupations. It licenses 72 of the 102 occupations studied here, and its licensing laws rank as the sixth most burdensome, due to high average education and experience burdens. On average, Arkansas requires \$246 in fees, 642 days of education and experience, and about one exam. Because it licenses so many occupations so onerously, the state ranks as the third most broadly and onerously licensed.

Arkansas licenses several occupations that are rarely licensed elsewhere. For example, nursery workers are licensed by just one other state, psychiatric technicians by four and title examiners by six. Among these, title examiners face particularly steep burdens. They need at least one year

of experience to become licensed in Arkansas, which is more than three times the average required in other licensed states (about 104 days).

The most onerously licensed occupation in Arkansas is fire alarm installer. Licensees must have 1,825 days—five years—of experience, pay \$1,443 in fees and pass four exams before they can open for business. By comparison, the average across licensed states is about half that: \$557 in fees, 915 days lost to education and experience, and two exams. To open up more employment opportunities in the state, Arkansas should reduce, if not repeal, these and other particularly onerous licensing burdens, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Fire Alarm Installer	39	\$1,443	1,825	None	5 years	4	0	18
2	Earth Driller, Water Well	51	\$750	1,825	None	5 years	2	0	18
3	HVAC Contractor (Commercial)	37	\$485	1,825	None	5 years	2	0	18
4	Sheet Metal Contractor, HVAC (Commercial)	37	\$380	1,825	None	5 years	2	0	18
5	Landscape Contractor (Commercial)	47	\$330	1,825	None	5 years	1	0	0
6	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$180	1,825	None	5 years	1	0	0
6	Cement Finishing Contractor (Commercial)	24	\$180	1,825	None	5 years	1	0	0
6	Door Repair Contractor (Commercial)	24	\$180	1,825	None	5 years	1	0	0
6	Drywall Installation Contractor (Commercial)	25	\$180	1,825	None	5 years	1	0	0
6	Floor Sander Contractor (Commercial)	22	\$180	1,825	None	5 years	1	0	0
6	Glazier Contractor (Commercial)	26	\$180	1,825	None	5 years	1	0	0
6	Insulation Contractor (Commercial)	25	\$180	1,825	None	5 years	1	0	0
6	Iron/Steel Contractor (Commercial)	26	\$180	1,825	None	5 years	1	0	0
6	Mason Contractor (Commercial)	26	\$180	1,825	None	5 years	1	0	0
6	Painting Contractor (Commercial)	22	\$180	1,825	None	5 years	1	0	0
6	Paving Contractor (Commercial)	24	\$180	1,825	None	5 years	1	0	0
6	Pipelayer Contractor	27	\$180	1,825	None	5 years	1	0	0
6	Sheet Metal Contractor, Other (Commercial)	26	\$180	1,825	None	5 years	1	0	0
6	Terrazzo Contractor (Commercial)	23	\$180	1,825	None	5 years	1	0	0
20	Preschool Teacher, Public School	50	\$421	1,460	4 years	None	2	0	0
21	Coach, Head (High School Sports)	48	\$395	1,462	4 years and 9 clock hours	None	2	0	0
22	Athletic Trainer	49	\$425	1,460	4 years	None	1	0	0
23	Optician	22	\$260	1,095	None	3 years	2	12	21
24	Midwife, Direct Entry	28	\$900	800	None	40 births	2	12	0
25	Security Alarm Installer	37	\$1,118	730	None	2 years	2	0	18
26	HVAC Contractor (Residential)	35	\$255	730	None	2 years	1	0	18
26	Sheet Metal Contractor, HVAC (Residential)	36	\$255	730	None	2 years	1	0	18
28	Veterinary Technician	36	\$350	730	2 years	None	1	0	0
29	Barber	51	\$115	350	1,500 clock hours	None	3	8	17
30	Cosmetologist	51	\$125	350	1,500 clock hours	None	2	10	16
31	Pest Control Applicator	51	\$350	365	None	1 year	2	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Title Examiner	7	\$50	365	None	1 year	1	0	18
33	Massage Therapist	44	\$375	117	500 clock hours	None	2	12	18
34	Manicurist	50	\$125	140	600 clock hours	None	2	10	16
34	Skin Care Specialist	50	\$125	140	600 clock hours	None	2	10	16
36	Psychiatric Technician	5	\$38	210	900 clock hours	None	1	12	0
37	Mobile Home Installer	39	\$2,790	92	1 day	3 jobs	1	0	0
38	Makeup Artist	41	\$125	140	600 clock hours	None	1	10	16
39	School Bus Driver	51	\$92	4	24 clock hours	None	6	0	19
40	Vegetation Pesticide Applicator	51	\$700	0	None	None	4	0	18
41	Child Care Home, Family	44	\$50	0	None	None	0	12	21
42	Bus Driver, City/Transit	51	\$92	0	None	None	5	0	18
42	Truck Driver, Tractor-Trailer	51	\$92	0	None	None	5	0	18
44	Shampooer	37	\$35	31	20 days	20 clock hours	1	12	0
45	Truck Driver, Other	51	\$92	0	None	None	4	0	18
46	Pharmacy Technician	44	\$73	0	None	None	0	12	0
47	Emergency Medical Technician	51	\$80	28	120 clock hours	None	2	0	18
48	Auctioneer	30	\$339	0	None	None	2	0	18
49	Security Guard, Unarmed	34	\$75	1	6 clock hours	None	1	0	18
50	Bill Collection Agency	31	\$140	0	None	None	0	0	21
51	Gaming Cage Worker	29	\$75	0	None	None	0	0	21
51	Gaming Supervisor	30	\$75	0	None	None	0	0	21
51	Slot Supervisor	28	\$75	0	None	None	0	0	21
54	Interpreter, Sign Language	22	\$170	0	None	None	2	0	0
55	Milk Sampler	42	\$10	0	None	None	1	0	0
56	Landscape Contractor (Residential)	48	\$200	0	None	None	0	0	0
57	Carpenter/Cabinet Maker Contractor (Residential)	30	\$50	0	None	None	0	0	0
57	Cement Finishing Contractor (Residential)	30	\$50	0	None	None	0	0	0
57	Door Repair Contractor (Residential)	29	\$50	0	None	None	0	0	0
57	Drywall Installation Contractor (Residential)	30	\$50	0	None	None	0	0	0
57	Floor Sander Contractor (Residential)	27	\$50	0	None	None	0	0	0
57	Glazier Contractor (Residential)	30	\$50	0	None	None	0	0	0
57	Insulation Contractor (Residential)	30	\$50	0	None	None	0	0	0
57	Iron/Steel Contractor (Residential)	30	\$50	0	None	None	0	0	0
57	Mason Contractor (Residential)	31	\$50	0	None	None	0	0	0
57	Painting Contractor (Residential)	28	\$50	0	None	None	0	0	0
57	Paving Contractor (Residential)	28	\$50	0	None	None	0	0	0
57	Sheet Metal Contractor, Other (Residential)	31	\$50	0	None	None	0	0	0
57	Terrazzo Contractor (Residential)	28	\$50	0	None	None	0	0	0
70	Fisher, Commercial	43	\$25	0	None	None	0	0	0
70	Travel Guide	37	\$25	0	None	None	0	0	0
72	Nursery Worker	2	\$10	0	None	None	0	0	0
Averages		34.4	\$246	641.7			1.2	1.8	7.4

California

76
of 102 lower-income
occupations licensed

3rd
most burdensome
licensing laws

Most
broadly and
onerously licensed state

California is the most broadly and onerously licensed state in the nation. Not only does it license 76 of the 102 lower-income occupations studied here—more than all but two other states—its licensing laws rank as the nation’s third most burdensome due to high average fees (\$486), lengthy average education and experience requirements (827 days lost), and a high average number of licensing exams (about two). Because it licenses so many occupations so onerously, California is the worst licensing environment for workers in lower-income occupations.

Among the many occupations California licenses are several that are rarely licensed elsewhere. Few other states license dairy equipment still machine setters (two), psychiatric technicians (four), tree trimmers (six) or travel agencies (six). Of those occupations, psychiatric technicians and tree trimmers face particularly steep burdens. Psychiatric technicians must pay \$349 in fees to obtain a license to work, compared to a \$119 average across

licensed states. And tree trimmers must prove 1,460 days (four years) of experience to operate their businesses—more than double the licensed-state average of 574 days.

California also imposes disproportionate burdens on some occupations compared to others that may pose a greater risk to public health and safety. For example, the state’s license for manicurists demands 400 hours (about 93 days) of education. Meanwhile, its license for EMTs requires only 160 hours (approximately 37 days).

As the worst state in the nation when it comes to licensing, California has much work to do. To improve its rankings and expand opportunity, California should repeal or reduce its many needless and irrational burdens, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$398	1,825	5 years	None	2	0	0
2	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$579	1,460	None	4 years	3	0	18
2	Carpenter/Cabinet Maker Contractor (Residential)	30	\$579	1,460	None	4 years	3	0	18
2	Cement Finishing Contractor (Commercial)	24	\$579	1,460	None	4 years	3	0	18
2	Cement Finishing Contractor (Residential)	30	\$579	1,460	None	4 years	3	0	18
2	Drywall Installation Contractor (Commercial)	25	\$579	1,460	None	4 years	3	0	18
2	Drywall Installation Contractor (Residential)	30	\$579	1,460	None	4 years	3	0	18
2	Earth Driller, Water Well	51	\$579	1,460	None	4 years	3	0	18
2	Fire Alarm Installer	39	\$579	1,460	None	4 years	3	0	18
2	Floor Sander Contractor (Commercial)	22	\$579	1,460	None	4 years	3	0	18
2	Floor Sander Contractor (Residential)	27	\$579	1,460	None	4 years	3	0	18
2	Glazier Contractor (Commercial)	26	\$579	1,460	None	4 years	3	0	18
2	Glazier Contractor (Residential)	30	\$579	1,460	None	4 years	3	0	18
2	HVAC Contractor (Commercial)	37	\$579	1,460	None	4 years	3	0	18
2	HVAC Contractor (Residential)	35	\$579	1,460	None	4 years	3	0	18
2	Insulation Contractor (Commercial)	25	\$579	1,460	None	4 years	3	0	18
2	Insulation Contractor (Residential)	30	\$579	1,460	None	4 years	3	0	18
2	Iron/Steel Contractor (Commercial)	26	\$579	1,460	None	4 years	3	0	18
2	Iron/Steel Contractor (Residential)	30	\$579	1,460	None	4 years	3	0	18
2	Landscape Contractor (Commercial)	47	\$579	1,460	None	4 years	3	0	18
2	Landscape Contractor (Residential)	48	\$579	1,460	None	4 years	3	0	18
2	Mason Contractor (Commercial)	26	\$579	1,460	None	4 years	3	0	18
2	Mason Contractor (Residential)	31	\$579	1,460	None	4 years	3	0	18
2	Painting Contractor (Commercial)	22	\$579	1,460	None	4 years	3	0	18
2	Painting Contractor (Residential)	28	\$579	1,460	None	4 years	3	0	18
2	Paving Contractor (Commercial)	24	\$579	1,460	None	4 years	3	0	18
2	Paving Contractor (Residential)	28	\$579	1,460	None	4 years	3	0	18
2	Pipelayer Contractor	27	\$579	1,460	None	4 years	3	0	18
2	Security Alarm Installer	37	\$579	1,460	None	4 years	3	0	18
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$579	1,460	None	4 years	3	0	18
2	Sheet Metal Contractor, HVAC (Residential)	36	\$579	1,460	None	4 years	3	0	18
2	Sheet Metal Contractor, Other (Commercial)	26	\$579	1,460	None	4 years	3	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
2	Sheet Metal Contractor, Other (Residential)	31	\$579	1,460	None	4 years	3	0	18
2	Terrazzo Contractor (Commercial)	23	\$579	1,460	None	4 years	3	0	18
2	Terrazzo Contractor (Residential)	28	\$579	1,460	None	4 years	3	0	18
36	Door Repair Contractor (Commercial)	24	\$579	1,460	None	4 years	2	0	18
36	Door Repair Contractor (Residential)	29	\$579	1,460	None	4 years	2	0	18
38	Mobile Home Installer	39	\$529	1,460	None	4 years	2	0	18
38	Tree Trimmer	7	\$529	1,460	None	4 years	2	0	18
40	Midwife, Direct Entry	28	\$1,249	1,095	3 years	None	1	0	0
41	Animal Trainer	9	\$250	1,095	None	3 years	2	0	0
42	Pest Control Applicator	51	\$716	742	16 clock hours	2 years and 40 clock hours	2	0	18
43	Veterinary Technician	36	\$351	730	2 years	None	1	0	18
44	Psychiatric Technician	5	\$349	357	1,530 clock hours	None	1	12	18
45	Cosmetologist	51	\$125	373	1,600 clock hours	None	2	10	17
46	Barber	51	\$125	350	1,500 clock hours	None	2	10	17
46	Shampooer	37	\$125	350	1,500 clock hours	None	2	10	17
48	Makeup Artist	41	\$115	140	600 clock hours	None	2	10	17
48	Skin Care Specialist	50	\$115	140	600 clock hours	None	2	10	17
50	Manicurist	50	\$110	93	400 clock hours	None	2	10	17
51	Optician	22	\$424	0	None	None	1	12	18
52	Gaming Supervisor	30	\$3,150	0	None	None	0	0	21
52	Slot Supervisor	28	\$3,150	0	None	None	0	0	21
54	School Bus Driver	51	\$99	7	20 clock hours	20 clock hours	6	0	18
55	Pharmacy Technician	44	\$290	0	None	None	1	12	0
56	Truck Driver, Tractor-Trailer	51	\$73	0	None	None	5	0	18
57	Bus Driver, City/Transit	51	\$42	0	None	None	5	0	18
58	Truck Driver, Other	51	\$73	0	None	None	4	0	18
59	Emergency Medical Technician	51	\$129	37	160 clock hours	None	2	0	18
60	Crane Operator	18	\$225	0	None	None	2	0	18
61	Security Guard, Unarmed	34	\$99	1	8 clock hours	None	1	0	18
62	Gaming Cage Worker	29	\$250	0	None	None	0	0	21
62	Gaming Dealer	28	\$250	0	None	None	0	0	21
64	Child Care Home, Family	44	\$164	0	None	None	0	0	18
65	Fisher, Commercial	43	\$137	0	None	None	0	0	16
66	Farm Labor Contractor	10	\$843	0	None	None	1	0	0
67	Vegetation Pesticide Applicator	51	\$340	0	None	None	2	0	0
68	Still Machine Setter, Dairy Equipment	3	\$100	0	None	None	2	0	0
69	Milk Sampler	42	\$75	0	None	None	2	0	0
70	Travel Agency	7	\$375	0	None	None	0	0	0
71	Upholsterer	10	\$360	0	None	None	0	0	0
72	Travel Guide	37	\$216	0	None	None	0	0	0
73	Weigher	25	\$75	0	None	None	0	0	0
74	Locksmith	14	\$69	0	None	None	0	0	0
75	Dental Assistant	9	\$0	2	10 clock hours	None	0	0	0
76	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0
Averages		32.0	\$486	826.6			2.2	1.3	14.5

Colorado

34
of 102 lower-income
occupations licensed

36th
most burdensome
licensing laws

47th
most broadly and
onerously licensed state

Colorado licenses 34 of the 102 lower-income occupations studied here, and its laws are the 36th most burdensome. On average, Colorado's barriers to entry are \$344 in fees, 260 days lost to education and experience, and roughly two exams. Because Colorado licenses fewer occupations than most states, it ranks as only the 47th most broadly and onerously licensed.

Despite this relatively good ranking, Colorado still has room for improvement. For example, it has one of the most burdensome licenses for bill collection agencies, requiring \$1,500 in fees and 730 days—two years—of experience before an agency can open for business. By comparison, 20 states do not even license bill collection agencies, and those that do require an average of \$551 in fees and 159 days of education and experience.

Colorado also imposes restrictions on barbers and cosmetologists that are disproportionately burdensome compared to those for occupations that may pose greater risks to the public. Aspiring barbers must pay a \$155 fee and complete 1,500 hours (around 350 days) of education, while would-be cosmetologists must pay a \$177 fee and complete 1,800 hours (roughly 420 days) of education. Both must also pass two exams. EMTs, on the other hand, must only pay a \$98 fee, demonstrate 150 hours (about 35 days) of education and pass two exams. Colorado should reduce, if not repeal, its inconsistent or irrational burdens for lower-income workers, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$280	1,825	5 years	None	1	0	0
2	Midwife, Direct Entry	28	\$2,100	1,195	3 years	5 births	1	12	19
3	Athletic Trainer	49	\$400	1,460	4 years	None	1	0	0
4	Earth Driller, Water Well	51	\$230	730	None	2 years	3	0	21
5	Bill Collection Agency	31	\$1,500	730	None	2 years	0	0	0
6	Pest Control Applicator	51	\$513	728	None	24 months	2	0	0
7	Cosmetologist	51	\$177	420	1,800 clock hours	None	2	0	16
8	Barber	51	\$155	350	1,500 clock hours	None	2	0	16
9	Psychiatric Technician	5	\$65	224	32 credit hours	None	1	12	0
10	Shampooer	37	\$155	280	1,200 clock hours	None	2	0	16
11	Mobile Home Installer	39	\$100	183	8 clock hours	6 months	1	0	18
12	Makeup Artist	41	\$177	140	600 clock hours	None	2	0	16
12	Manicurist	50	\$177	140	600 clock hours	None	2	0	16
12	Skin Care Specialist	50	\$177	140	600 clock hours	None	2	0	16
15	Vegetation Pesticide Applicator	51	\$576	121	None	4 months	4	0	0
16	Massage Therapist	44	\$315	117	500 clock hours	None	1	0	0
17	School Bus Driver	51	\$132	0	None	None	6	0	21
18	Bus Driver, City/Transit	51	\$257	0	None	None	5	0	18
18	Truck Driver, Tractor-Trailer	51	\$257	0	None	None	5	0	18
20	Truck Driver, Other	51	\$257	0	None	None	4	0	18
21	Gaming Supervisor	30	\$1,275	0	None	None	0	0	21
21	Slot Supervisor	28	\$1,275	0	None	None	0	0	21
23	Emergency Medical Technician	51	\$98	35	150 clock hours	None	2	0	18
24	Child Care Home, Family	44	\$43	3	None	16 clock hours	1	0	18
25	Travel Guide	37	\$100	12	50 clock hours	None	0	0	18
26	Gaming Cage Worker	29	\$115	0	None	None	0	0	21
26	Gaming Dealer	28	\$115	0	None	None	0	0	21
28	Coach, Head (High School Sports)	48	\$75	1	4.5 clock hours	None	1	0	0
29	Milk Sampler	42	\$50	0	None	None	1	0	0
30	Weigher	25	\$25	0	None	None	1	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Animal Breeder	28	\$306	0	None	None	0	0	0
32	Landscape Contractor (Commercial)	47	\$90	0	None	None	0	0	0
32	Landscape Contractor (Residential)	48	\$90	0	None	None	0	0	0
34	Fisher, Commercial	43	\$40	0	None	None	0	0	0
Averages		41.5	\$344	259.8			1.6	0.7	10.8

Connecticut

64

of 102 lower-income occupations licensed

24th

most burdensome licensing laws

18th

most broadly and onerously licensed state

Connecticut licenses 64 of the 102 lower-income occupations studied here. Its laws are the 24th most burdensome, requiring, on average, \$264 in fees, 361 days lost to education and experience, and approximately one exam. Because it licenses an above-average number of occupations, these burdens make Connecticut the 18th most broadly and onerously licensed state.

Connecticut imposes education burdens and fees on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, in Connecticut, it is more difficult to become a massage therapist than an EMT. To practice their craft, would-be massage therapists must complete 500 hours (roughly 117 days)

of education and pay a \$575 fee, while EMTs must complete only 150 hours (about 35 days) of education and pay an \$80 fee.

Particularly troubling, Connecticut licenses two occupations that are licensed by no other states: home entertainment installers and forest workers. Home entertainment installers must sacrifice about 575 days to education and experience (comprising one year of experience and 900 hours of education), pay \$185 in fees, and pass an exam before they can get to work. Forest workers must pay \$300 in fees and pass an exam. Connecticut should consider reducing or repealing such unnecessary licensing burdens, or—if government regulation is necessary—replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$1,095	2,673	4 years	40 months	2	0	0
2	Fire Alarm Installer	39	\$435	2,190	None	6 years	3	0	18
2	Security Alarm Installer	37	\$435	2,190	None	6 years	3	0	18
4	Sheet Metal Contractor, HVAC (Commercial)	37	\$465	2,190	None	6 years	3	0	0
5	Earth Driller, Water Well	51	\$371	1,825	None	5 years	3	0	0
6	Glazier Contractor (Commercial)	26	\$315	1,825	None	5 years	2	0	0
7	HVAC Contractor (Commercial)	37	\$465	1,561	None	4 years and 432 clock hours	3	0	18
8	Interpreter, Sign Language	22	\$675	1,469	4 years and 40 clock hours	None	2	0	18
9	HVAC Contractor (Residential)	35	\$465	1,460	None	4 years	3	0	18
10	Sheet Metal Contractor, HVAC (Residential)	36	\$465	1,460	None	4 years	3	0	0
11	Athletic Trainer	49	\$490	1,460	4 years	None	1	0	0
12	Optician	22	\$650	730	2 years	None	4	12	18
13	Crane Operator	18	\$100	730	None	2 years	2	0	18
14	Home Entertainment Installer	1	\$185	575	900 clock hours	1 year	1	12	0
15	Cosmetologist	51	\$100	350	1,500 clock hours	None	1	9	0
16	Barber	51	\$100	233	1,000 clock hours	None	1	8	0
17	Coach, Head (High School Sports)	48	\$0	11	48 clock hours	None	0	12	18
18	School Bus Driver	51	\$141	2	10 clock hours	None	6	0	21
19	Tree Trimmer	7	\$725	0	None	None	2	0	18
20	Massage Therapist	44	\$575	117	500 clock hours	None	1	0	0
21	Bus Driver, City/Transit	51	\$136	0	None	None	5	0	21
22	Truck Driver, Tractor-Trailer	51	\$131	0	None	None	5	0	18
23	Pest Control Applicator	51	\$400	0	None	None	3	0	18
23	Vegetation Pesticide Applicator	51	\$400	0	None	None	3	0	18
25	Truck Driver, Other	51	\$126	0	None	None	4	0	18
26	Emergency Medical Technician	51	\$80	35	150 clock hours	None	2	0	16
27	Fisher, Commercial	43	\$385	0	None	None	0	0	16
28	Security Guard, Unarmed	34	\$201	1	8 clock hours	None	0	0	18
29	Child Care Home, Family	44	\$52	0	None	None	0	0	20
30	Bill Collection Agency	31	\$500	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
30	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$500	0	None	None	0	0	0
30	Insulation Contractor (Commercial)	25	\$500	0	None	None	0	0	0
30	Iron/Steel Contractor (Commercial)	26	\$500	0	None	None	0	0	0
30	Mason Contractor (Commercial)	26	\$500	0	None	None	0	0	0
35	Weigher	25	\$40	0	None	None	0	0	18
36	Taxi Driver/Chauffeur	16	\$12	0	None	None	0	0	18
37	Forest Worker	1	\$300	0	None	None	1	0	0
38	Wildlife Control Operator	23	\$250	1	8.5 clock hours	None	1	0	0
39	Locksmith	14	\$243	0	None	None	0	0	0
40	Carpenter/Cabinet Maker Contractor (Residential)	30	\$220	0	None	None	0	0	0
40	Cement Finishing Contractor (Residential)	30	\$220	0	None	None	0	0	0
40	Door Repair Contractor (Residential)	29	\$220	0	None	None	0	0	0
40	Drywall Installation Contractor (Residential)	30	\$220	0	None	None	0	0	0
40	Floor Sander Contractor (Residential)	27	\$220	0	None	None	0	0	0
40	Glazier Contractor (Residential)	30	\$220	0	None	None	0	0	0
40	Insulation Contractor (Residential)	30	\$220	0	None	None	0	0	0
40	Iron/Steel Contractor (Residential)	30	\$220	0	None	None	0	0	0
40	Mason Contractor (Residential)	31	\$220	0	None	None	0	0	0
40	Painting Contractor (Residential)	28	\$220	0	None	None	0	0	0
40	Paving Contractor (Residential)	28	\$220	0	None	None	0	0	0
40	Sheet Metal Contractor, Other (Residential)	31	\$220	0	None	None	0	0	0
40	Terrazzo Contractor (Residential)	28	\$220	0	None	None	0	0	0
53	Animal Trainer	9	\$50	0	None	None	1	0	0
54	Milk Sampler	42	\$20	0	None	None	1	0	0
55	Taxidermist	28	\$105	0	None	None	0	0	0
56	Pharmacy Technician	44	\$100	0	None	None	0	0	0
56	Travel Guide	37	\$100	0	None	None	0	0	0
58	Upholsterer	10	\$75	0	None	None	0	0	0
59	Animal Breeder	28	\$50	0	None	None	0	0	0
60	Gaming Cage Worker	29	\$0	0	None	None	0	0	0
60	Gaming Dealer	28	\$0	0	None	None	0	0	0
60	Gaming Supervisor	30	\$0	0	None	None	0	0	0
60	Landscape Contractor (Residential)	48	\$0	0	None	None	0	0	0
60	Slot Supervisor	28	\$0	0	None	None	0	0	0
Averages		32.7	\$264	360.8			1.1	0.8	6.0

Delaware

44

of 102 lower-income occupations licensed

15th

most burdensome licensing laws

32nd

most broadly and onerously licensed state

Delaware licenses fewer of the lower-income occupations studied here than most states—44 out of 102—but its laws rank as the 15th most burdensome in the nation. On average, Delaware licenses require \$199 in fees, 475 days lost to education and experience, and approximately one exam. The state ranks as the 32nd most broadly and onerously licensed.

Delaware licenses some occupations that are rarely licensed elsewhere, such as non-instructional teacher assistants, who are licensed by only four other states. Delaware also licenses pesticide applicators more onerously than many other states: Both pest control applicators and vegetation pesticide applicators in Delaware must demonstrate 730 days (two years) of experience before opening their businesses, when the national average of days lost to education and experience is just 274 days for pest control applicators and 134 days for vegetation pesticide applicators.

Delaware also imposes burdens on some occupations that seem excessive or illogical compared to those for other occupations that may present greater risks to the public. For example, while EMTs must only demonstrate 150 hours (around 35 days) of specialized education, pay \$149 and pass two exams, barbers and cosmetologists must sacrifice 10 times as many hours to education (1,500 hours or about 350 days), pay over \$200 and pass two exams. To expand opportunity, Delaware should reduce, if not repeal, inconsistent or irrational licensing burdens like these, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$296	2,555	4 years	3 years	2	0	0
2	HVAC Contractor (Commercial)	37	\$109	2,190	None	6 years	1	0	0
2	HVAC Contractor (Residential)	35	\$109	2,190	None	6 years	1	0	0
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$109	2,190	None	6 years	1	0	0
2	Sheet Metal Contractor, HVAC (Residential)	36	\$109	2,190	None	6 years	1	0	0
6	Midwife, Direct Entry	28	\$1,253	1,095	3 years	None	1	12	21
7	Athletic Trainer	49	\$425	1,460	4 years	None	1	0	0
8	Fire Alarm Installer	39	\$566	730	None	2 years	3	0	18
9	Earth Driller, Water Well	51	\$180	730	None	2 years	1	0	18
10	Veterinary Technician	36	\$397	730	2 years	None	1	0	0
11	Pest Control Applicator	51	\$55	730	None	2 years	2	0	0
11	Vegetation Pesticide Applicator	51	\$55	730	None	2 years	2	0	0
13	Cosmetologist	51	\$225	350	1,500 clock hours	None	2	10	16
13	Shampooer	37	\$225	350	1,500 clock hours	None	2	10	16
15	Barber	51	\$218	350	1,500 clock hours	None	2	10	16
16	School Bus Driver	51	\$40	368	12 clock hours	1 year and 6 clock hours	6	0	18
17	Bus Driver, City/Transit	51	\$35	365	None	1 year	5	0	18
18	Truck Driver, Tractor-Trailer	51	\$30	365	None	1 year	5	0	18
19	Truck Driver, Other	51	\$30	365	None	1 year	4	0	18
20	Taxi Driver/Chauffeur	16	\$3	366	6 clock hours	1 year	0	0	18
21	Makeup Artist	41	\$265	140	600 clock hours	None	2	10	16
22	Skin Care Specialist	50	\$263	140	600 clock hours	None	2	10	16
23	Manicurist	50	\$267	70	300 clock hours	None	2	10	16
24	Massage Therapist	44	\$390	117	500 clock hours	None	1	0	18
25	Child Care Home, Family	44	\$65	2	None	12 clock hours	0	12	18
26	Emergency Medical Technician	51	\$149	35	150 clock hours	None	2	0	18
27	Teacher Assistant, Non-Instructional	5	\$0	0	None	None	0	12	0
28	Mobile Home Installer	39	\$238	3	15 clock hours	None	1	0	18
29	Security Alarm Installer	37	\$260	0	None	None	0	0	18
30	Security Guard, Unarmed	34	\$89	3	16 clock hours	None	1	0	18
31	Gaming Supervisor	30	\$569	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Slot Supervisor	28	\$569	0	None	None	0	0	0
33	Travel Guide	37	\$100	0	None	None	0	0	18
34	Gaming Cage Worker	29	\$269	0	None	None	0	0	0
34	Gaming Dealer	28	\$269	0	None	None	0	0	0
36	Animal Breeder	28	\$173	0	None	None	0	0	0
37	Milk Sampler	42	\$5	0	None	None	1	0	0
38	Fisher, Commercial	43	\$150	0	None	None	0	0	0
39	Auctioneer	30	\$75	0	None	None	0	0	0
39	Bill Collection Agency	31	\$75	0	None	None	0	0	0
41	Weigher	25	\$25	0	None	None	0	0	0
42	Coach, Head (High School Sports)	48	\$0	0	0.5 clock hours	None	0	0	0
43	Landscape Contractor (Commercial)	47	\$0	0	None	None	0	0	0
43	Landscape Contractor (Residential)	48	\$0	0	None	None	0	0	0
Averages		39.7	\$199	475.2			1.3	2.2	8.4

District of Columbia

60
of 102 lower-income
occupations licensed

38th
most burdensome
licensing laws

26th
most broadly and
onerously licensed state

Washington, D.C., licenses 60 of the 102 lower-income occupations studied here, and its laws are the 38th most burdensome. On average, D.C.'s licenses require \$400 in fees, 261 days of education and experience, and roughly one exam. D.C. ranks as the 26th most broadly and onerously licensed state, placing it in the middle of the pack.

D.C. is one of only four states that license interior designers—the most arduously licensed occupation in this study. Aspiring interior designers must complete six years (2,190 days) of education and pay \$1,485 in fees to work in D.C. Such high barriers to entry defy common sense given that the vast majority of states do not deem licensure for interior designers necessary.

D.C. imposes education burdens on some occupations that seem excessive compared to those for others that likely present greater risks

to the public. For example, D.C.'s license for dental assistants requires 211 days of education. Not only is this more than double the average of 92 days required by the nine states that license the occupation, but it is also substantially more than D.C.'s EMT license requires. To become licensed, EMTs need complete only about 28 days (four credit hours) of education. D.C. could open up employment opportunities for lower-income workers by reducing or repealing many of its occupational licensing requirements, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Interior Designer	4	\$1,485	2,190	6 years	None	1	0	18
2	HVAC Contractor (Commercial)	37	\$45	1,825	None	5 years	1	0	0
2	HVAC Contractor (Residential)	35	\$45	1,825	None	5 years	1	0	0
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$45	1,825	None	5 years	1	0	0
2	Sheet Metal Contractor, HVAC (Residential)	36	\$45	1,825	None	5 years	1	0	0
6	Preschool Teacher, Public School	50	\$484	1,460	4 years	None	3	0	0
7	Athletic Trainer	49	\$300	1,460	4 years	None	1	0	18
8	Crane Operator	18	\$260	730	None	2 years	1	0	0
9	Barber	51	\$230	350	1,500 clock hours	None	2	10	18
9	Cosmetologist	51	\$230	350	1,500 clock hours	None	2	10	18
11	Dental Assistant	9	\$190	211	1 day and 900 clock hours	None	0	12	18
12	Pest Control Applicator	51	\$135	365	None	1 year	2	0	0
12	Vegetation Pesticide Applicator	51	\$135	365	None	1 year	2	0	0
14	Taxi Driver/Chauffeur	16	\$275	365	None	1 year	1	0	0
15	Makeup Artist	41	\$230	140	600 clock hours	None	2	10	18
16	Skin Care Specialist	50	\$230	140	600 clock hours	None	2	10	17
17	Manicurist	50	\$230	82	350 clock hours	None	2	10	18
18	Massage Therapist	44	\$457	117	500 clock hours	None	1	0	18
19	Child Care Home, Family	44	\$300	2	None	9 clock hours	0	12	18
20	School Bus Driver	51	\$236	0	None	None	6	0	21
21	Truck Driver, Tractor-Trailer	51	\$225	0	None	None	5	0	21
22	Bus Driver, City/Transit	51	\$206	0	None	None	5	0	21
23	Truck Driver, Other	51	\$215	0	None	None	4	0	21
24	Emergency Medical Technician	51	\$125	28	4 credit hours	None	2	0	18
25	Security Guard, Unarmed	34	\$188	11	48 clock hours	None	1	0	18
26	Wildlife Control Operator	23	\$50	0	1 clock hour	None	1	0	18
27	Auctioneer	30	\$229	0	None	None	0	0	18
28	Landscape Contractor (Commercial)	47	\$655	0	None	None	0	0	0
29	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$655	0	None	None	0	0	0
29	Cement Finishing Contractor (Commercial)	24	\$655	0	None	None	0	0	0
29	Door Repair Contractor (Commercial)	24	\$655	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
29	Drywall Installation Contractor (Commercial)	25	\$655	0	None	None	0	0	0
29	Earth Driller, Water Well	51	\$655	0	None	None	0	0	0
29	Floor Sander Contractor (Commercial)	22	\$655	0	None	None	0	0	0
29	Glazier Contractor (Commercial)	26	\$655	0	None	None	0	0	0
29	Insulation Contractor (Commercial)	25	\$655	0	None	None	0	0	0
29	Iron/Steel Contractor (Commercial)	26	\$655	0	None	None	0	0	0
29	Mason Contractor (Commercial)	26	\$655	0	None	None	0	0	0
29	Painting Contractor (Commercial)	22	\$655	0	None	None	0	0	0
29	Paving Contractor (Commercial)	24	\$655	0	None	None	0	0	0
29	Pipelayer Contractor	27	\$655	0	None	None	0	0	0
29	Sheet Metal Contractor, Other (Commercial)	26	\$655	0	None	None	0	0	0
29	Terrazzo Contractor (Commercial)	23	\$655	0	None	None	0	0	0
44	Carpenter/Cabinet Maker Contractor (Residential)	30	\$442	0	None	None	0	0	0
44	Cement Finishing Contractor (Residential)	30	\$442	0	None	None	0	0	0
44	Door Repair Contractor (Residential)	29	\$442	0	None	None	0	0	0
44	Drywall Installation Contractor (Residential)	30	\$442	0	None	None	0	0	0
44	Floor Sander Contractor (Residential)	27	\$442	0	None	None	0	0	0
44	Glazier Contractor (Residential)	30	\$442	0	None	None	0	0	0
44	Insulation Contractor (Residential)	30	\$442	0	None	None	0	0	0
44	Iron/Steel Contractor (Residential)	30	\$442	0	None	None	0	0	0
44	Landscape Contractor (Residential)	48	\$442	0	None	None	0	0	0
44	Mason Contractor (Residential)	31	\$442	0	None	None	0	0	0
44	Painting Contractor (Residential)	28	\$442	0	None	None	0	0	0
44	Paving Contractor (Residential)	28	\$442	0	None	None	0	0	0
44	Sheet Metal Contractor, Other (Residential)	31	\$442	0	None	None	0	0	0
44	Terrazzo Contractor (Residential)	28	\$442	0	None	None	0	0	0
58	Fire Alarm Installer	39	\$266	0	None	None	0	0	0
58	Security Alarm Installer	37	\$266	0	None	None	0	0	0
60	Coach, Head (High School Sports)	48	\$0	0	1 clock hour	None	0	0	0
Averages		34.4	\$400	261.1			0.8	1.2	5.6

Florida

56
of 102 lower-income
occupations licensed

5th
most burdensome
licensing laws

21st
most broadly and
onerously licensed state

Florida is one of the worst states in the nation for occupational licensing. It licenses 56 of the 102 lower-income occupations studied here, and its licensing laws rank as the fifth most burdensome. On average, they require \$318 in fees, 693 days of education and experience, and around one exam. Because it licenses fewer occupations than states with similarly high burdens, Florida ranks as the 21st most widely and onerously licensed state.

Florida is one of only four states that license interior designers—the most arduously licensed occupation in this study. Aspiring interior designers must complete six years (2,190 days) of education, pay \$1,120 in fees and pass one exam to perform commercial work in Florida. Such heavy burdens seem incongruent given that 47 other states do not license interior designers at all.

Florida also licenses several occupations more severely than it does others that may present greater risk to the public. For example, the education requirements to become a barber or cosmetologist are over 10 times higher than those to become an EMT (1,200 hours versus 110 hours, or roughly 280 days versus roughly 26 days). Florida could create more avenues to employment in the state by reducing or repealing its illogical requirements for lower-income occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Interior Designer	4	\$1,120	2,190	6 years	None	1	0	0
2	School Bus Driver	51	\$62	1,834	40 clock hours	5 years	6	0	18
3	Preschool Teacher, Public School	50	\$555	1,460	4 years	None	3	0	18
4	Athletic Trainer	49	\$525	1,460	4 years and 2 clock hours	None	1	0	21
5	Drywall Installation Contractor (Commercial)	25	\$364	1,460	None	4 years	2	0	18
5	Drywall Installation Contractor (Residential)	30	\$364	1,460	None	4 years	2	0	18
5	Glazier Contractor (Commercial)	26	\$364	1,460	None	4 years	2	0	18
5	Glazier Contractor (Residential)	30	\$364	1,460	None	4 years	2	0	18
5	HVAC Contractor (Commercial)	37	\$364	1,460	None	4 years	2	0	18
5	HVAC Contractor (Residential)	35	\$364	1,460	None	4 years	2	0	18
5	Pipelayer Contractor	27	\$364	1,460	None	4 years	2	0	18
5	Sheet Metal Contractor, HVAC (Commercial)	37	\$364	1,460	None	4 years	2	0	18
5	Sheet Metal Contractor, HVAC (Residential)	36	\$364	1,460	None	4 years	2	0	18
5	Sheet Metal Contractor, Other (Commercial)	26	\$364	1,460	None	4 years	2	0	18
5	Sheet Metal Contractor, Other (Residential)	31	\$364	1,460	None	4 years	2	0	18
16	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$364	1,460	None	4 years	1	0	18
16	Carpenter/Cabinet Maker Contractor (Residential)	30	\$364	1,460	None	4 years	1	0	18
16	Iron/Steel Contractor (Commercial)	26	\$364	1,460	None	4 years	1	0	18
16	Iron/Steel Contractor (Residential)	30	\$364	1,460	None	4 years	1	0	18
16	Mason Contractor (Commercial)	26	\$364	1,460	None	4 years	1	0	18
16	Mason Contractor (Residential)	31	\$364	1,460	None	4 years	1	0	18
22	Midwife, Direct Entry	28	\$1,605	1,095	3 years and 1 clock hour	None	1	12	21
23	Fire Alarm Installer	39	\$684	1,095	None	3 years	2	0	18
23	Security Alarm Installer	37	\$684	1,095	None	3 years	2	0	18
25	Optician	22	\$943	731	2 years and 6 clock hours	None	3	12	18
26	Pest Control Applicator	51	\$760	533	24 credit hours	1 year	1	12	18
26	Vegetation Pesticide Applicator	51	\$760	533	24 credit hours	1 year	1	12	18
28	Earth Driller, Water Well	51	\$150	732	12 clock hours	2 years	1	0	18
29	Barber	51	\$428	280	1,200 clock hours	None	1	0	16

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
30	Cosmetologist	51	\$90	280	1,200 clock hours	None	2	0	16
31	Pharmacy Technician	44	\$105	245	1,050 clock hours	None	0	0	17
32	Emergency Medical Technician	51	\$115	26	110 clock hours	None	1	12	18
33	Massage Therapist	44	\$350	117	500 clock hours	None	1	0	18
34	Bus Driver, City/Transit	51	\$82	0	None	None	5	0	18
35	Truck Driver, Tractor-Trailer	51	\$75	0	None	None	5	0	18
36	Truck Driver, Other	51	\$75	0	None	None	4	0	18
37	Auctioneer	30	\$550	19	80 clock hours	None	1	0	18
38	Security Guard, Unarmed	34	\$87	9	40 clock hours	None	2	0	18
39	Mobile Home Installer	39	\$300	2	12 clock hours	None	1	0	18
40	Makeup Artist	41	\$70	61	260 clock hours	None	0	0	16
40	Skin Care Specialist	50	\$70	61	260 clock hours	None	0	0	16
42	Manicurist	50	\$70	56	240 clock hours	None	0	0	16
43	Farm Labor Contractor	10	\$160	0	None	None	1	0	18
44	Gaming Cage Worker	29	\$89	0	None	None	0	0	21
44	Gaming Supervisor	30	\$89	0	None	None	0	0	21
44	Slot Supervisor	28	\$89	0	None	None	0	0	21
47	Child Care Home, Family	44	\$70	8	None	35 clock hours	0	0	18
48	Coach, Head (High School Sports)	48	\$75	63	9 credit hours	None	0	0	0
49	Animal Control Officer	7	\$0	9	40 clock hours	None	1	0	0
50	Travel Agency	7	\$300	0	None	None	0	0	0
51	Milk Sampler	42	\$0	0	None	None	1	0	0
52	Bill Collection Agency	31	\$200	0	None	None	0	0	0
53	Gaming Dealer	28	\$159	0	None	None	0	0	0
54	Fisher, Commercial	43	\$25	0	None	None	0	0	0
54	Landscape Contractor (Commercial)	47	\$25	0	None	None	0	0	0
54	Landscape Contractor (Residential)	48	\$25	0	None	None	0	0	0
Averages		36.1	\$318	693.1			1.4	1.1	14.9

Georgia

41

of 102 lower-income occupations licensed

14th

most burdensome licensing laws

34th

most broadly and onerously licensed state

Georgia's licensing laws for lower-income occupations rank as the 14th most burdensome, requiring, on average, \$185 in fees, 464 days of education and experience, and about two exams. But because Georgia licenses a below-average number of the occupations studied here (41 out of 102), it ranks as the 34th most broadly and onerously licensed state.

Georgia licenses some occupations more onerously than many other states do. Pipelayer contractors, for example, must demonstrate 1,097 days of education and experience (comprising 12 hours of education and three years of experience). That is twice the average (546 days) required across licensed states. Pipelayer contractors are not even licensed everywhere: Just 26 other states deem licensure necessary. And Georgia licenses other occupations that are rarely licensed by other states, such as non-instructional teacher assistants (just four other states) and opticians (21 others).

Georgia also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, the education requirements for personal care occupations can be up to 13 times higher than those for EMTs: Cosmetologists and barbers must complete 1,500 hours (about 350 days) of education, and skin care specialists 1,000 hours (about 233 days), while EMTs must complete only 110 hours (about 26 days). Georgia can improve its rankings by reducing or repealing its heavy burdens for cosmetologists, barbers, skin care specialists and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$351	2,555	4 years	3 years	3	0	0
2	Coach, Head (High School Sports)	48	\$281	2,555	4 years	3 years	3	0	0
3	HVAC Contractor (Commercial)	37	\$297	1,829	24 clock hours	5 years	1	0	18
3	Sheet Metal Contractor, HVAC (Commercial)	37	\$297	1,829	24 clock hours	5 years	1	0	18
5	HVAC Contractor (Residential)	35	\$297	1,463	16 clock hours	4 years	1	0	18
5	Sheet Metal Contractor, HVAC (Residential)	36	\$297	1,463	16 clock hours	4 years	1	0	18
7	Athletic Trainer	49	\$350	1,460	4 years	None	1	0	0
8	Pipelayer Contractor	27	\$253	1,097	12 clock hours	3 years	1	0	18
9	School Bus Driver	51	\$115	734	24 clock hours	2 years	6	0	18
10	Earth Driller, Water Well	51	\$725	730	None	2 years	3	0	0
11	Veterinary Technician	36	\$360	730	2 years	None	1	0	18
12	Optician	22	\$115	365	1 year	None	3	12	18
13	Cosmetologist	51	\$139	350	1,500 clock hours	None	2	12	17
14	Barber	51	\$30	350	1,500 clock hours	None	2	7	16
15	Makeup Artist	41	\$139	233	1,000 clock hours	None	2	12	17
15	Skin Care Specialist	50	\$139	233	1,000 clock hours	None	2	12	17
17	Fire Alarm Installer	39	\$237	365	None	1 year	1	0	0
17	Security Alarm Installer	37	\$237	365	None	1 year	1	0	0
19	Massage Therapist	44	\$320	117	500 clock hours	None	1	12	18
20	Manicurist	50	\$139	123	525 clock hours	None	2	12	17
21	Auctioneer	30	\$420	19	80 clock hours	None	1	12	18
22	Bus Driver, City/Transit	51	\$120	0	None	None	5	0	18
23	Truck Driver, Tractor-Trailer	51	\$115	0	None	None	5	0	18
24	Truck Driver, Other	51	\$115	0	None	None	4	0	18
25	Emergency Medical Technician	51	\$155	26	110 clock hours	None	2	0	18
26	Teacher Assistant, Non-Instructional	5	\$0	0	None	None	0	12	0
27	Child Care Home, Family	44	\$101	31	120 clock hours	16 clock hours	0	0	18
28	Wildlife Control Operator	23	\$35	0	None	None	1	0	18
29	Mobile Home Installer	39	\$300	1	1 day	None	1	0	0
30	Pharmacy Technician	44	\$100	0	None	None	0	0	17
31	Vegetation Pesticide Applicator	51	\$190	0	None	None	2	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Landscape Contractor (Commercial)	47	\$75	0	None	None	0	0	18
32	Landscape Contractor (Residential)	48	\$75	0	None	None	0	0	18
34	Pest Control Applicator	51	\$185	0	None	None	2	0	0
35	Travel Guide	37	\$25	0	None	None	0	0	18
36	Fisher, Commercial	43	\$17	0	None	None	0	0	18
37	Taxi Driver/Chauffeur	16	\$15	0	None	None	0	0	18
38	Animal Breeder	28	\$263	0	None	None	0	0	0
39	Taxidermist	28	\$150	0	None	None	0	0	0
40	Milk Sampler	42	\$0	0	None	None	1	0	0
41	Weigher	25	\$15	0	None	None	0	0	0
NA	Midwife, Direct Entry	28	Prohibited or appears to be prohibited						
Averages		40.2	\$185	463.9			1.5	2.5	11.7

Hawaii

63

of 102 lower-income occupations licensed

Most

burdensome licensing laws

5th

most broadly and onerously licensed state

Hawaii's occupational licensing laws for lower-income occupations are the most burdensome in the nation. On average, Hawaii's barriers to entry comprise \$438 in fees, 988 days—nearly three years—of education and experience, and around two exams. Hawaii also licenses 63 of the 102 occupations studied here—more than average, though fewer than some other similarly burdensome states. For this reason, it ranks as the fifth most broadly and onerously licensed state. While this rank is better than Hawaii's first-place burden score, it still means the Aloha State is one of the worst licensing environments for lower-income occupations.

Some of Hawaii's most burdensome licenses are for occupations rarely licensed by other states. Tree trimmers, for example, must pay \$615 in fees, demonstrate 1,460 days (four years) of experience and pass two exams before they can work, while the average burdens in the seven states that license the occupation are \$325 in fees, 574 days of education and experi-

ence, and roughly two exams. With so few states licensing tree trimmers, it is questionable for Hawaii to license them at all, let alone so onerously.

Hawaii also imposes burdens on 54 occupations that are more onerous than those for EMTs, an occupation that arguably has a stronger connection to public safety. For example, it is harder to become a city/transit bus driver, cosmetologist or construction contractor than it is to become an EMT. Would-be EMTs must demonstrate 180 hours of education and 135 hours of experience (losing about 74 days) and pass two exams, while all 33 of the Hawaii contractor licenses studied require nearly 20 times as much education and experience (1,460 days or four years) and at least one—if not two—exams. Hawaii could improve its rankings by repealing or reducing such heavy burdens, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$584	2,555	4 years	3 years	2	0	0
2	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$615	1,460	None	4 years	2	0	18
2	Carpenter/Cabinet Maker Contractor (Residential)	30	\$615	1,460	None	4 years	2	0	18
2	Cement Finishing Contractor (Commercial)	24	\$615	1,460	None	4 years	2	0	18
2	Cement Finishing Contractor (Residential)	30	\$615	1,460	None	4 years	2	0	18
2	Drywall Installation Contractor (Commercial)	25	\$615	1,460	None	4 years	2	0	18
2	Drywall Installation Contractor (Residential)	30	\$615	1,460	None	4 years	2	0	18
2	Earth Driller, Water Well	51	\$615	1,460	None	4 years	2	0	18
2	Fire Alarm Installer	39	\$615	1,460	None	4 years	2	0	18
2	Floor Sander Contractor (Commercial)	22	\$615	1,460	None	4 years	2	0	18
2	Floor Sander Contractor (Residential)	27	\$615	1,460	None	4 years	2	0	18
2	Glazier Contractor (Commercial)	26	\$615	1,460	None	4 years	2	0	18
2	Glazier Contractor (Residential)	30	\$615	1,460	None	4 years	2	0	18
2	HVAC Contractor (Commercial)	37	\$615	1,460	None	4 years	2	0	18
2	HVAC Contractor (Residential)	35	\$615	1,460	None	4 years	2	0	18
2	Insulation Contractor (Commercial)	25	\$615	1,460	None	4 years	2	0	18
2	Insulation Contractor (Residential)	30	\$615	1,460	None	4 years	2	0	18
2	Iron/Steel Contractor (Commercial)	26	\$615	1,460	None	4 years	2	0	18
2	Iron/Steel Contractor (Residential)	30	\$615	1,460	None	4 years	2	0	18
2	Landscape Contractor (Commercial)	47	\$615	1,460	None	4 years	2	0	18
2	Landscape Contractor (Residential)	48	\$615	1,460	None	4 years	2	0	18
2	Mason Contractor (Commercial)	26	\$615	1,460	None	4 years	2	0	18
2	Mason Contractor (Residential)	31	\$615	1,460	None	4 years	2	0	18
2	Painting Contractor (Commercial)	22	\$615	1,460	None	4 years	2	0	18
2	Painting Contractor (Residential)	28	\$615	1,460	None	4 years	2	0	18
2	Paving Contractor (Commercial)	24	\$615	1,460	None	4 years	2	0	18
2	Paving Contractor (Residential)	28	\$615	1,460	None	4 years	2	0	18
2	Pipelayer Contractor	27	\$615	1,460	None	4 years	2	0	18
2	Security Alarm Installer	37	\$615	1,460	None	4 years	2	0	18
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$615	1,460	None	4 years	2	0	18
2	Sheet Metal Contractor, HVAC (Residential)	36	\$615	1,460	None	4 years	2	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
2	Sheet Metal Contractor, Other (Commercial)	26	\$615	1,460	None	4 years	2	0	18
2	Sheet Metal Contractor, Other (Residential)	31	\$615	1,460	None	4 years	2	0	18
2	Tree Trimmer	7	\$615	1,460	None	4 years	2	0	18
35	Athletic Trainer	49	\$685	1,460	4 years	None	1	0	18
36	Door Repair Contractor (Commercial)	24	\$540	1,460	None	4 years	1	0	18
36	Door Repair Contractor (Residential)	29	\$540	1,460	None	4 years	1	0	18
36	Terrazzo Contractor (Commercial)	23	\$540	1,460	None	4 years	1	0	18
36	Terrazzo Contractor (Residential)	28	\$540	1,460	None	4 years	1	0	18
40	Optician	22	\$536	730	2 years	None	2	12	18
41	Pest Control Applicator	51	\$355	730	None	2 years	3	0	18
41	Vegetation Pesticide Applicator	51	\$355	730	None	2 years	3	0	18
43	Cosmetologist	51	\$110	420	1,800 clock hours	None	1	12	16
44	School Bus Driver	51	\$165	365	None	1 year	6	0	21
45	Shampooer	37	\$110	292	1,250 clock hours	None	1	12	16
46	Barber	51	\$45	350	1,500 clock hours	None	1	0	17
47	Makeup Artist	41	\$110	140	600 clock hours	None	1	12	16
47	Skin Care Specialist	50	\$110	140	600 clock hours	None	1	12	16
49	Manicurist	50	\$110	82	350 clock hours	None	1	12	16
50	Security Guard, Unarmed	34	\$150	1	8 clock hours	None	1	12	18
51	Bus Driver, City/Transit	51	\$160	0	None	None	5	0	21
52	Truck Driver, Tractor-Trailer	51	\$155	0	None	None	5	0	21
53	Massage Therapist	44	\$140	133	570 clock hours	None	1	0	18
54	Truck Driver, Other	51	\$155	0	None	None	4	0	21
55	Emergency Medical Technician	51	\$184	74	180 clock hours	135 clock hours	2	0	18
56	Crane Operator	18	\$375	0	None	None	2	0	21
57	Weigher	25	\$25	0	None	None	1	0	18
58	Child Care Home, Family	44	\$71	0	None	None	0	0	18
59	Bill Collection Agency	31	\$139	0	None	None	0	0	0
60	Travel Agency	7	\$110	0	None	None	0	0	0
61	Auctioneer	30	\$100	0	None	None	0	0	0
62	Fisher, Commercial	43	\$50	0	None	None	0	0	0
63	Travel Guide	37	\$35	2	12 clock hours	None	0	0	0
Averages		34.5	\$438	987.7			1.8	1.3	16.3

Idaho

67

of 102 lower-income occupations licensed

30th

most burdensome licensing laws

16th

most broadly and onerously licensed state

Idaho licenses 67 of the 102 lower-income occupations studied here. Its laws are the 30th most burdensome, requiring an average of \$164 in fees, 332 days of education and experience, and around one exam. Despite ranking in the less burdensome half of states, Idaho is in the top half of broadly and onerously licensed states—ranking 16th—because it licenses a higher number of occupations than most states.

Idaho frequently licenses occupations that are unlicensed by other states. Bill collection agencies are licensed by just 30 other states but must demonstrate three years (roughly 1,095 days) of experience before they can operate in Idaho. (The average across licensed states is just 159 days.) And log scalers and nursery workers are each licensed by only one other state.

Idaho also imposes higher-than-average burdens on fire and security alarm installers. The state requires 1,460 days (four years) of experience before alarm installers can open for business. The average

across licensed states is about 40 percent lower: approximately 915 days of education and experience for fire alarm installers and 836 days for security alarm installers.

Idaho also imposes particularly heavy burdens on some occupations with little connection to public safety. EMTs, for example, must demonstrate only 150 hours (an estimated 35 days) of education to become licensed. But would-be cosmetologists must complete 2,000 hours (about 467 days) of education to become licensed—some of the highest cosmetology license requirements in the nation. Idaho could open up more employment opportunities in the state by reducing or repealing burdensome licensing requirements for cosmetologists and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$350	2,555	4 years	3 years	2	0	18
2	HVAC Contractor (Commercial)	37	\$395	2,190	None	6 years	2	0	18
2	HVAC Contractor (Residential)	35	\$395	2,190	None	6 years	2	0	18
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$395	2,190	None	6 years	2	0	18
2	Sheet Metal Contractor, HVAC (Residential)	36	\$395	2,190	None	6 years	2	0	18
6	Fire Alarm Installer	39	\$335	1,460	None	4 years	2	0	16
6	Security Alarm Installer	37	\$335	1,460	None	4 years	2	0	16
8	Athletic Trainer	49	\$450	1,460	4 years	None	1	0	0
9	Midwife, Direct Entry	28	\$2,000	1,095	3 years	None	1	12	0
10	Bill Collection Agency	31	\$150	1,095	None	3 years	0	0	0
11	Veterinary Technician	36	\$477	730	2 years	None	2	0	18
12	Earth Driller, Water Well	51	\$260	730	None	2 years	1	0	0
13	Cosmetologist	51	\$186	467	2,000 clock hours	None	2	10	17
14	School Bus Driver	51	\$148	367	10 clock hours	1 year	6	0	18
15	Truck Driver, Tractor-Trailer	51	\$145	365	None	1 year	5	0	18
16	Bus Driver, City/Transit	51	\$135	365	None	1 year	5	0	18
17	Truck Driver, Other	51	\$142	365	None	1 year	4	0	18
18	Barber	51	\$100	210	900 clock hours	None	3	10	17
19	Shampooer	37	\$186	210	900 clock hours	None	2	10	17
20	Massage Therapist	44	\$320	117	500 clock hours	None	1	12	18
21	Makeup Artist	41	\$186	140	600 clock hours	None	2	10	17
21	Skin Care Specialist	50	\$186	140	600 clock hours	None	2	10	17
23	Manicurist	50	\$186	93	400 clock hours	None	2	10	17
24	Pharmacy Technician	44	\$199	0	None	None	1	12	18
25	Travel Guide	37	\$820	0	None	None	1	0	18
26	Emergency Medical Technician	51	\$80	35	150 clock hours	None	2	0	18
27	Vegetation Pesticide Applicator	51	\$90	0	None	None	3	0	18
28	Mobile Home Installer	39	\$220	0	None	None	1	0	18
29	Pest Control Applicator	51	\$70	0	None	None	1	0	18
30	Weigher	25	\$10	0	None	None	0	0	18
31	Log Scaler	2	\$25	0	None	None	2	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Farm Labor Contractor	10	\$250	0	None	None	0	0	0
33	Milk Sampler	42	\$25	0	None	None	1	0	0
34	Landscape Contractor (Commercial)	47	\$130	0	None	None	0	0	0
34	Landscape Contractor (Residential)	48	\$130	0	None	None	0	0	0
36	Fisher, Commercial	43	\$112	0	None	None	0	0	0
37	Nursery Worker	2	\$100	0	None	None	0	0	0
38	Taxidermist	28	\$40	0	None	None	0	0	0
39	Paving Contractor (Commercial)	24	\$35	0	None	None	0	0	0
39	Paving Contractor (Residential)	28	\$35	0	None	None	0	0	0
41	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$30	0	None	None	0	0	0
41	Carpenter/Cabinet Maker Contractor (Residential)	30	\$30	0	None	None	0	0	0
41	Cement Finishing Contractor (Commercial)	24	\$30	0	None	None	0	0	0
41	Cement Finishing Contractor (Residential)	30	\$30	0	None	None	0	0	0
41	Door Repair Contractor (Commercial)	24	\$30	0	None	None	0	0	0
41	Door Repair Contractor (Residential)	29	\$30	0	None	None	0	0	0
41	Drywall Installation Contractor (Commercial)	25	\$30	0	None	None	0	0	0
41	Drywall Installation Contractor (Residential)	30	\$30	0	None	None	0	0	0
41	Floor Sander Contractor (Commercial)	22	\$30	0	None	None	0	0	0
41	Floor Sander Contractor (Residential)	27	\$30	0	None	None	0	0	0
41	Glazier Contractor (Commercial)	26	\$30	0	None	None	0	0	0
41	Glazier Contractor (Residential)	30	\$30	0	None	None	0	0	0
41	Insulation Contractor (Commercial)	25	\$30	0	None	None	0	0	0
41	Insulation Contractor (Residential)	30	\$30	0	None	None	0	0	0
41	Iron/Steel Contractor (Commercial)	26	\$30	0	None	None	0	0	0
41	Iron/Steel Contractor (Residential)	30	\$30	0	None	None	0	0	0
41	Mason Contractor (Commercial)	26	\$30	0	None	None	0	0	0
41	Mason Contractor (Residential)	31	\$30	0	None	None	0	0	0
41	Painting Contractor (Commercial)	22	\$30	0	None	None	0	0	0
41	Painting Contractor (Residential)	28	\$30	0	None	None	0	0	0
41	Pipelayer Contractor	27	\$30	0	None	None	0	0	0
41	Sheet Metal Contractor, Other (Commercial)	26	\$30	0	None	None	0	0	0
41	Sheet Metal Contractor, Other (Residential)	31	\$30	0	None	None	0	0	0
64	Terrazzo Contractor (Commercial)	23	\$25	0	None	None	0	0	0
64	Terrazzo Contractor (Residential)	28	\$25	0	None	None	0	0	0
66	Animal Breeder	28	\$14	0	None	None	0	0	0
67	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0
Averages		34.6	\$164	331.6			1.0	1.4	6.8

Illinois

40

of 102 lower-income occupations licensed

35th

most burdensome licensing laws

39th

most broadly and onerously licensed state

Illinois' licensing laws for lower-income occupations are the 35th most burdensome. On average, Illinois' barriers to entry are \$244 in fees, 249 days lost to education and experience, and around one exam. Licensing 40 of the 102 lower-income occupations studied here, Illinois is the 39th most broadly and onerously licensed state.

Illinois imposes more onerous requirements than many other states for some occupations. For example, sign language interpreters—the state's most onerously licensed occupation—must pay a \$900 fee, complete four years and 40 hours of education (roughly 1,469 days total), and pass two exams to become licensed. But more than half of states (29) do not license the occupation at all and, among those that do, the average requirements are just \$661 in fees, about 1,088 days of education and experience, and two exams.

Illinois also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, it takes more schooling to become a barber or a cosmetologist in Illinois than it does to become an EMT. EMTs can become licensed after completing about 37 days (160 hours) of education. Barbers and cosmetologists, on the other hand, must spend nearly 10 times as long in school (1,500 hours or roughly 350 days) before they can work. Illinois could expand lower-income employment opportunities by reducing or repealing these and other licensing burdens, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Interpreter, Sign Language	22	\$900	1,469	4 years and 40 clock hours	None	2	12	18
2	Preschool Teacher, Public School	50	\$660	1,460	4 years	None	3	0	0
3	Athletic Trainer	49	\$500	1,460	4 years	None	1	0	0
4	Security Alarm Installer	37	\$328	1,095	None	3 years	1	0	21
5	Fire Alarm Installer	39	\$328	1,095	None	3 years	1	0	21
6	Earth Driller, Water Well	51	\$50	730	None	2 years	1	0	18
7	Veterinary Technician	36	\$360	730	2 years	None	1	0	0
8	Barber	51	\$157	350	1,500 clock hours	None	1	12	16
9	Bill Collection Agency	31	\$750	365	None	1 year	0	0	18
10	Cosmetologist	51	\$210	350	1,500 clock hours	None	1	0	16
11	Makeup Artist	41	\$186	175	750 clock hours	None	1	12	16
11	Skin Care Specialist	50	\$186	175	750 clock hours	None	1	12	16
13	Pharmacy Technician	44	\$169	140	None	600 clock hours	1	12	18
14	Pest Control Applicator	51	\$325	112	16 credit hours	None	2	12	0
15	Massage Therapist	44	\$370	140	600 clock hours	None	1	0	18
16	Emergency Medical Technician	51	\$65	37	160 clock hours	None	1	12	18
17	Auctioneer	30	\$271	0	None	None	1	12	18
18	Manicurist	50	\$210	82	350 clock hours	None	1	0	16
19	School Bus Driver	51	\$114	0	None	None	6	0	21
20	Gaming Supervisor	30	\$1,050	0	None	None	0	0	21
20	Slot Supervisor	28	\$1,050	0	None	None	0	0	21
22	Child Care Home, Family	44	\$27	4	None	21 clock hours	0	12	18
23	Truck Driver, Tractor-Trailer	51	\$110	0	None	None	5	0	18
24	Bus Driver, City/Transit	51	\$50	0	None	None	5	0	18
25	Truck Driver, Other	51	\$110	0	None	None	4	0	18
26	Locksmith	14	\$174	3	20 clock hours	None	1	0	18
27	Mobile Home Installer	39	\$150	2	10 clock hours	None	1	0	18
28	Gaming Cage Worker	29	\$250	0	None	None	0	0	21
28	Gaming Dealer	28	\$250	0	None	None	0	0	21
30	Vegetation Pesticide Applicator	51	\$60	0	None	None	4	0	0
31	Wildlife Control Operator	23	\$0	0	None	None	1	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age	
32	Security Guard, Unarmed	34	\$55	0	None	None	0	0	18	
33	Coach, Head (High School Sports)	48	\$0	1	4 clock hours	None	0	0	19	
34	Milk Sampler	42	\$25	0	None	None	1	0	0	
35	Fisher, Commercial	43	\$60	0	None	None	0	0	0	
36	Landscape Contractor (Commercial)	47	\$50	0	None	None	0	0	0	
36	Landscape Contractor (Residential)	48	\$50	0	None	None	0	0	0	
36	Travel Guide	37	\$50	0	None	None	0	0	0	
39	Taxidermist	28	\$26	0	None	None	0	0	0	
40	Animal Breeder	28	\$25	0	None	None	0	0	0	
NA	Midwife, Direct Entry	28	Prohibited or appears to be prohibited							
Averages		40.6	\$244	249.4				1.2	2.7	12.9

Indiana

37

of 102 lower-income occupations licensed

26th

most burdensome licensing laws

44th

most broadly and onerously licensed state

Indiana licenses 37 of the 102 lower-income occupations studied here. Its licensing laws rank as the 26th most burdensome because Indiana's barriers to entry average \$163 in fees, 323 days lost to education and experience, and approximately one exam. Indiana ranks as the 44th most broadly and onerously licensed state for lower-income workers, making it better than most but still leaving ample room for improvement.

Indiana licenses several occupations that are not licensed by other states, such as veterinary technicians (licensed by 36 states), auctioneers (30 states), sign language interpreters (22 states), taxi drivers and chauffeurs (16 states), and bartenders (13 states). Among those, sign language

interpreters in Indiana face particularly steep burdens of more than four years of education, two exams and \$725 in fees.

Indiana also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, in Indiana, it is harder to become a manicurist than it is to become an EMT. EMTs need only about 37 days (160 hours) of education, while manicurists need around 105 days (450 hours) of education. Indiana should consider whether this and other heavy licensing burdens can be reduced, repealed or—if government regulation is necessary—replaced with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Midwife, Direct Entry	28	\$1,000	2,695	3 years	80 births	1	12	21
2	Preschool Teacher, Public School	50	\$478	2,190	6 years	None	3	0	0
3	Interpreter, Sign Language	22	\$725	1,469	4 years and 40 clock hours	None	2	0	18
4	Athletic Trainer	49	\$394	1,460	4 years	None	1	0	0
5	Veterinary Technician	36	\$392	730	2 years	None	2	12	18
6	School Bus Driver	51	\$153	370	20 clock hours	1 year and 12 clock hours	6	0	21
7	Bus Driver, City/Transit	51	\$153	365	None	1 year	5	0	21
8	Truck Driver, Tractor-Trailer	51	\$153	365	None	1 year	5	0	18
9	Cosmetologist	51	\$92	350	1,500 clock hours	None	1	10	18
10	Truck Driver, Other	51	\$153	365	None	1 year	4	0	18
11	Barber	51	\$84	350	1,500 clock hours	None	2	0	18
12	Mobile Home Installer	39	\$150	366	8 clock hours	1 year	0	0	18
13	Taxi Driver/Chauffeur	16	\$19	365	None	1 year	1	0	18
14	Makeup Artist	41	\$92	163	700 clock hours	None	1	10	18
14	Skin Care Specialist	50	\$92	163	700 clock hours	None	1	10	18
16	Manicurist	50	\$92	105	450 clock hours	None	1	8	18
17	Pharmacy Technician	44	\$193	0	None	None	1	12	18
18	Emergency Medical Technician	51	\$80	37	160 clock hours	None	2	0	18
19	Child Care Home, Family	44	\$52	1	None	7.5 clock hours	0	12	0
20	Auctioneer	30	\$105	19	80 clock hours	None	1	0	18
21	Gaming Cage Worker	29	\$250	0	None	None	0	0	21
21	Gaming Dealer	28	\$250	0	None	None	0	0	21
23	Earth Driller, Water Well	51	\$125	0	None	None	1	0	18
24	Bartender	13	\$45	0	2 clock hours	None	1	0	19
25	Gaming Supervisor	30	\$100	0	None	None	0	0	21
25	Slot Supervisor	28	\$100	0	None	None	0	0	21
27	Vegetation Pesticide Applicator	51	\$90	3	16 clock hours	None	3	0	0
28	Bill Collection Agency	31	\$100	0	None	None	0	0	18
29	Pest Control Applicator	51	\$90	0	None	None	2	0	0
30	Milk Sampler	42	\$0	2	1 day	1 day	1	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Wildlife Control Operator	23	\$0	0	None	None	1	0	0
32	Travel Guide	37	\$100	0	None	None	0	0	0
33	Landscape Contractor (Commercial)	47	\$50	0	None	None	0	0	0
33	Landscape Contractor (Residential)	48	\$50	0	None	None	0	0	0
35	Fisher, Commercial	43	\$20	0	None	None	0	0	0
36	Taxidermist	28	\$15	0	None	None	0	0	0
37	Coach, Head (High School Sports)	48	\$0	0	1 clock hour	None	0	0	0
Averages		40.1	\$163	322.6			1.3	2.3	12.3

Iowa

71
of 102 lower-income
occupations licensed

37th
most burdensome
licensing laws

12th
most broadly and
onerously licensed state

Iowa's licensing laws for lower-income occupations are the 37th most burdensome. The state's average barriers to entry are \$178 in fees, 288 days lost to education and experience, and around one exam. Because Iowa licenses a relatively high number of the 102 occupations studied here—71—it ranks as the 12th most broadly and onerously licensed state, making it one of the worst states for occupational licensing for lower-income workers.

Iowa frequently licenses occupations that are rarely licensed elsewhere. For example, few other states license travel agencies (six) or dental assistants (eight). Iowa's dental assistant license requires 20 hours of education and six months of experience (about 185 days total), \$86 in fees, and three exams, steep requirements given that most states do not license the occupation at all. Iowa also licenses commercial and residential HVAC

contractors and HVAC sheet metal contractors—some of the most heavily burdened occupations in the nation—much more onerously than the three dozen or so other states that license them. These occupations require 2,190 days—a full six years—of experience in Iowa compared to averages of about half that across licensed states.

Iowa also places some of the highest experience requirements in the nation on barbers and cosmetologists. Aspiring licensees must demonstrate 2,100 hours (roughly 490 days) of experience, while EMTs need only demonstrate 110 hours (roughly 26 days) to become licensed. Iowa should evaluate whether its high burdens for barbers, cosmetologists and other occupations can be reduced, repealed or—if government regulation is necessary—replaced with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	HVAC Contractor (Commercial)	37	\$890	2,190	None	6 years	2	12	18
1	HVAC Contractor (Residential)	35	\$890	2,190	None	6 years	2	12	18
1	Sheet Metal Contractor, HVAC (Commercial)	37	\$890	2,190	None	6 years	2	12	18
1	Sheet Metal Contractor, HVAC (Residential)	36	\$890	2,190	None	6 years	2	12	18
5	Preschool Teacher, Public School	50	\$512	2,190	4 years	2 years	2	0	0
6	Fire Alarm Installer	39	\$1,208	1,825	None	5 years	3	0	0
7	Interpreter, Sign Language	22	\$795	1,469	4 years and 40 clock hours	None	2	0	18
8	Athletic Trainer	49	\$420	1,460	4 years	None	1	0	0
9	Security Alarm Installer	37	\$893	730	None	2 years	2	0	0
10	Earth Driller, Water Well	51	\$450	730	None	2 years	2	0	0
11	Veterinary Technician	36	\$335	730	2 years	None	2	0	0
12	Barber	51	\$135	490	2,100 clock hours	None	2	10	16
13	Cosmetologist	51	\$118	490	2,100 clock hours	None	1	12	0
13	Shampooer	37	\$118	490	2,100 clock hours	None	1	12	0
15	Mobile Home Installer	39	\$300	366	8 clock hours	1 year	1	0	18
16	Dental Assistant	9	\$86	185	20 clock hours	6 months	3	12	17
17	Makeup Artist	41	\$118	140	600 clock hours	None	1	12	0
17	Skin Care Specialist	50	\$118	140	600 clock hours	None	1	12	0
19	Manicurist	50	\$118	76	325 clock hours	None	1	12	0
20	School Bus Driver	51	\$72	3	15 clock hours	None	6	0	18
21	Truck Driver, Tractor-Trailer	51	\$52	0	None	None	5	0	18
22	Bus Driver, City/Transit	51	\$26	0	None	None	5	0	18
23	Massage Therapist	44	\$315	117	500 clock hours	None	1	0	0
24	Pharmacy Technician	44	\$169	0	None	None	1	12	0
25	Truck Driver, Other	51	\$52	0	None	None	4	0	18
26	Emergency Medical Technician	51	\$110	26	110 clock hours	None	2	0	17
27	Wildlife Control Operator	23	\$25	0	None	None	2	0	18
28	Milk Sampler	42	\$20	1	None	1 day	2	0	16
29	Coach, Head (High School Sports)	48	\$85	15	65 contact hours	None	0	0	18
30	Vegetation Pesticide Applicator	51	\$75	0	None	None	3	0	0
31	Gaming Cage Worker	29	\$68	0	None	None	0	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Gaming Dealer	28	\$68	0	None	None	0	0	18
31	Gaming Supervisor	30	\$68	0	None	None	0	0	18
31	Slot Supervisor	28	\$68	0	None	None	0	0	18
35	Security Guard, Unarmed	34	\$40	0	None	None	0	0	18
35	Taxi Driver/Chauffeur	16	\$40	0	None	None	0	0	18
37	Pest Control Applicator	51	\$75	0	None	None	2	0	0
38	Fisher, Commercial	43	\$202	0	None	None	0	0	0
39	Animal Breeder	28	\$175	0	None	None	0	0	0
40	Landscape Contractor (Commercial)	47	\$75	0	None	None	0	0	0
40	Landscape Contractor (Residential)	48	\$75	0	None	None	0	0	0
42	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$50	0	None	None	0	0	0
42	Carpenter/Cabinet Maker Contractor (Residential)	30	\$50	0	None	None	0	0	0
42	Cement Finishing Contractor (Commercial)	24	\$50	0	None	None	0	0	0
42	Cement Finishing Contractor (Residential)	30	\$50	0	None	None	0	0	0
42	Door Repair Contractor (Commercial)	24	\$50	0	None	None	0	0	0
42	Door Repair Contractor (Residential)	29	\$50	0	None	None	0	0	0
42	Drywall Installation Contractor (Commercial)	25	\$50	0	None	None	0	0	0
42	Drywall Installation Contractor (Residential)	30	\$50	0	None	None	0	0	0
42	Floor Sander Contractor (Commercial)	22	\$50	0	None	None	0	0	0
42	Floor Sander Contractor (Residential)	27	\$50	0	None	None	0	0	0
42	Glazier Contractor (Commercial)	26	\$50	0	None	None	0	0	0
42	Glazier Contractor (Residential)	30	\$50	0	None	None	0	0	0
42	Insulation Contractor (Commercial)	25	\$50	0	None	None	0	0	0
42	Insulation Contractor (Residential)	30	\$50	0	None	None	0	0	0
42	Iron/Steel Contractor (Commercial)	26	\$50	0	None	None	0	0	0
42	Iron/Steel Contractor (Residential)	30	\$50	0	None	None	0	0	0
42	Mason Contractor (Commercial)	26	\$50	0	None	None	0	0	0
42	Mason Contractor (Residential)	31	\$50	0	None	None	0	0	0
42	Painting Contractor (Commercial)	22	\$50	0	None	None	0	0	0
42	Painting Contractor (Residential)	28	\$50	0	None	None	0	0	0
42	Paving Contractor (Commercial)	24	\$50	0	None	None	0	0	0
42	Paving Contractor (Residential)	28	\$50	0	None	None	0	0	0
42	Pipelayer Contractor	27	\$50	0	None	None	0	0	0
42	Sheet Metal Contractor, Other (Commercial)	26	\$50	0	None	None	0	0	0
42	Sheet Metal Contractor, Other (Residential)	31	\$50	0	None	None	0	0	0
42	Terrazzo Contractor (Commercial)	23	\$50	0	None	None	0	0	0
42	Terrazzo Contractor (Residential)	28	\$50	0	None	None	0	0	0
69	Taxidermist	28	\$18	0	None	None	0	0	0
70	Travel Agency	7	\$15	0	None	None	0	0	0
71	Bill Collection Agency	31	\$10	0	None	None	0	0	0
NA	Midwife, Direct Entry	28	Prohibited or appears to be prohibited						
Averages		34.4	\$178	287.8			0.9	2.0	5.5

Kansas

35

of 102 lower-income occupations licensed

40th

most burdensome licensing laws

45th

most broadly and onerously licensed state

Kansas' licensing laws for lower-income workers rank as the 40th most burdensome, requiring, on average, \$133 in fees, 200 days of education and experience, and roughly two exams. Because Kansas licenses relatively few of the lower-income occupations studied here—35 out of 102—it ranks as the 45th most broadly and onerously licensed state.

Kansas licenses several occupations that are unlicensed elsewhere. For example, psychiatric technicians are licensed by just four other states but in Kansas must sacrifice the better part of a year to education (900 hours or roughly 210 days), pass an exam and pay a \$146 fee to become licensed. Veterinary technicians, likewise, are licensed by only 35 other states yet must pay \$330 in fees, lose two years (730 days) to education and pass two exams to work in Kansas.

Kansas also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, barbers and cosmetologists are two of Kansas' most strictly licensed occupations. Both licenses require approximately 350 days (1,500 hours) of education. In addition, the barber license requires a \$180 fee and three exams, while the cosmetology license requires \$195 in fees and two exams. By comparison, Kansas' EMT license requires only about 81 days (11.5 credit hours) of education, \$130 in fees and two exams. Kansas should reduce or repeal some of its more burdensome and irrational licensing requirements, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$462	1,825	4 years	1 year	2	0	0
2	Athletic Trainer	49	\$380	1,460	4 years	None	1	0	0
3	Mobile Home Installer	39	\$300	731	8 clock hours	2 years	1	0	18
4	Veterinary Technician	36	\$330	730	2 years	None	2	0	0
5	Barber	51	\$180	350	1,500 clock hours	None	3	12	16
5	Shampooer	37	\$180	350	1,500 clock hours	None	3	12	16
7	Cosmetologist	51	\$195	350	1,500 clock hours	None	2	12	17
8	School Bus Driver	51	\$62	367	None	1 year and 12 clock hours	6	0	21
9	Makeup Artist	41	\$195	233	1,000 clock hours	None	2	12	17
9	Skin Care Specialist	50	\$195	233	1,000 clock hours	None	2	12	17
11	Psychiatric Technician	5	\$146	210	900 clock hours	None	1	12	0
12	Manicurist	50	\$195	82	350 clock hours	None	2	12	17
13	Emergency Medical Technician	51	\$130	81	11.5 credit hours	None	2	12	17
14	Funeral Attendant	3	\$200	0	None	None	1	12	17
15	Child Care Home, Family	44	\$85	3	None	15 clock hours	0	12	18
16	Vegetation Pesticide Applicator	51	\$180	0	None	None	4	0	18
17	Truck Driver, Tractor-Trailer	51	\$57	0	None	None	5	0	18
18	Bus Driver, City/Transit	51	\$49	0	None	None	5	0	18
19	Truck Driver, Other	51	\$57	0	None	None	4	0	18
20	Pest Control Applicator	51	\$90	0	None	None	2	0	18
21	Wildlife Control Operator	23	\$0	1	8 clock hours	None	1	0	16
22	Bartender	13	\$0	0	None	None	0	0	21
23	Title Examiner	7	\$150	0	None	None	1	0	0
24	Earth Driller, Water Well	51	\$135	0	None	None	1	0	0
25	Animal Breeder	28	\$200	0	None	None	0	0	0
26	Milk Sampler	42	\$35	1	1 clock hour	1 day	1	0	0
27	Landscape Contractor (Commercial)	47	\$85	0	None	None	0	0	0
27	Landscape Contractor (Residential)	48	\$85	0	None	None	0	0	0
29	Pharmacy Technician	44	\$68	0	None	None	0	0	0
30	Gaming Cage Worker	29	\$60	0	None	None	0	0	0
30	Gaming Dealer	28	\$60	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
30	Gaming Supervisor	30	\$60	0	None	None	0	0	0
30	Slot Supervisor	28	\$60	0	None	None	0	0	0
34	Coach, Head (High School Sports)	48	\$0	1	4 clock hours	None	0	0	0
35	Fire Alarm Installer	39	\$0	0	None	None	0	0	0
Averages		39.1	\$133	200.2			1.5	3.4	9.1

Kentucky

37
of 102 lower-income
occupations licensed

12th
most burdensome
licensing laws

40th
most broadly and
onerously licensed state

Kentucky's lower-income occupational licensing laws rank as the 12th most burdensome, requiring, on average, \$240 in fees, 466 days of education and experience, and around two exams. Because Kentucky licenses relatively few of the lower-income occupations studied here—37 out of 102—it ranks as the 40th most broadly and onerously licensed state.

Kentucky imposes more onerous requirements than many other states for several occupations. For example, the average license requirements for auctioneers are a \$278 fee, 94 days of education and experience, and one exam. Kentucky, on the other hand, requires nearly twice as much in fees (\$530), nearly eight times as much education and experience (around 751 days, comprising two years of experience and 92 hours of education), and twice as many exams (two). These steep requirements are out of sync with the relatively lower burdens imposed by other states that license auctioneers, and 31 states do not license them at all.

Kentucky also makes it much more difficult to enter 20 occupations than it does to become an EMT. EMTs must only pay a \$168 fee, complete about 28 days (119 hours) of education and pass two exams to obtain a license. But cosmetologists, for example, must pay \$200 in fees, sacrifice an estimated 602 days to education and experience (comprising 1,800 hours of education and six months of experience), and pass three exams before being allowed to work in Kentucky. To open up opportunity for lower-income workers, Kentucky should repeal or reduce its heavy burdens for cosmetologists and other occupations, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$358	1,825	5 years	None	2	0	0
2	Interpreter, Sign Language	22	\$850	1,469	4 years and 40 clock hours	None	2	0	18
3	HVAC Contractor (Commercial)	37	\$506	1,460	None	4 years	3	0	18
3	HVAC Contractor (Residential)	35	\$506	1,460	None	4 years	3	0	18
3	Sheet Metal Contractor, HVAC (Commercial)	37	\$506	1,460	None	4 years	3	0	18
3	Sheet Metal Contractor, HVAC (Residential)	36	\$506	1,460	None	4 years	3	0	18
7	Athletic Trainer	49	\$400	1,460	4 years	None	1	0	0
8	Auctioneer	30	\$530	751	92 clock hours	2 years	2	12	18
9	Optician	22	\$500	730	2 years	None	3	12	18
10	Earth Driller, Water Well	51	\$315	730	None	2 years	1	0	18
11	Cosmetologist	51	\$200	602	1,800 clock hours	6 months	3	12	16
12	Pest Control Applicator	51	\$95	730	None	2 years	1	0	18
13	Veterinary Technician	36	\$335	730	2 years	None	1	0	0
14	Barber	51	\$400	532	1,500 clock hours	6 months	2	12	18
14	Shampooer	37	\$400	532	1,500 clock hours	6 months	2	12	18
16	Coach, Head (High School Sports)	48	\$20	450	10 clock hours and 64 credit hours	None	0	12	21
17	Makeup Artist	41	\$200	233	1,000 clock hours	None	2	12	18
17	Skin Care Specialist	50	\$200	233	1,000 clock hours	None	2	12	18
19	Manicurist	50	\$100	140	600 clock hours	None	2	12	16
20	Massage Therapist	44	\$320	140	600 clock hours	None	1	0	18
21	Emergency Medical Technician	51	\$168	28	119 clock hours	None	2	12	18
22	School Bus Driver	51	\$135	4	25 clock hours	None	6	0	21
23	Bus Driver, City/Transit	51	\$130	0	None	None	5	0	18
24	Truck Driver, Tractor-Trailer	51	\$125	0	None	None	5	0	18
25	Child Care Home, Family	44	\$80	1	None	6 clock hours	0	12	18
26	Truck Driver, Other	51	\$125	0	None	None	4	0	18
27	Mobile Home Installer	39	\$100	87	15 clock hours	60 days	1	0	0
28	Wildlife Control Operator	23	\$100	0	None	None	1	0	18
29	Travel Guide	37	\$190	1	3 clock hours	None	0	0	18
30	Vegetation Pesticide Applicator	51	\$55	0	None	None	4	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Pharmacy Technician	44	\$25	0	None	None	0	0	16
32	Fisher, Commercial	43	\$150	0	None	None	0	0	0
32	Taxidermist	28	\$150	0	None	None	0	0	0
34	Milk Sampler	42	\$15	1	1 day	None	1	0	0
35	Landscape Contractor (Commercial)	47	\$40	0	None	None	0	0	0
35	Landscape Contractor (Residential)	48	\$40	0	None	None	0	0	0
37	Packer	6	\$20	0	None	None	0	0	0
NA	Midwife, Direct Entry	28	Prohibited or appears to be prohibited						
Averages		41.5	\$240	466.2			1.8	3.6	12.6

Louisiana

77
of 102 lower-income
occupations licensed

43rd
most burdensome
licensing laws

6th
most broadly and
onerously licensed state

Louisiana licenses 77 of the 102 lower-income occupations studied here. Its laws are the 43rd most burdensome, requiring, on average, \$360 in fees, 202 days of education and experience, and roughly two exams. Because Louisiana licenses so many of the occupations studied in this report—tying with Washington for the most occupations licensed—it ranks as the sixth most broadly and onerously licensed state.

Louisiana imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, the barriers to opening a fire alarm or security alarm installation business in Louisiana are extremely high, even though not every state licenses them. Alarm installers must pay over \$1,400 in fees, demonstrate more than five years (over 1,800 days) of education and experience, and pass four exams. EMTs meanwhile need only pay \$110

in fees, complete 110 hours (roughly 26 days) of education and pass two exams for licensure.

Louisiana also licenses several occupations that are rarely licensed by other states. For example, it is one of just four states to license interior designers—the most arduously licensed occupation in this study. It requires \$1,240 in fees, six years (2,190 days) of education and one exam. Louisiana is also the only state to license florists and is joined by just four other states in licensing non-instructional teacher assistants and by six others in licensing tree trimmers. As one of the two states that license the most occupations studied here, Louisiana could substantially improve its rankings by repealing these and other occupational licenses, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$516	2,555	4 years	3 years	3	0	0
2	Interior Designer	4	\$1,240	2,190	6 years	None	1	12	0
3	Fire Alarm Installer	39	\$1,665	1,827	11 clock hours	5 years	4	0	18
4	Security Alarm Installer	37	\$1,481	1,829	22 clock hours	5 years	4	0	0
5	Athletic Trainer	49	\$466	1,460	4 years	None	1	0	18
6	Pest Control Applicator	51	\$210	1,460	4 years	None	1	0	0
7	Midwife, Direct Entry	28	\$1,488	1,095	3 years	None	2	12	21
8	Veterinary Technician	36	\$405	730	2 years	None	2	12	0
9	Earth Driller, Water Well	51	\$470	730	None	2 years	2	0	18
10	Barber	51	\$72	350	1,500 clock hours	None	3	12	18
11	Cosmetologist	51	\$75	350	1,500 clock hours	None	2	10	16
12	Mobile Home Installer	39	\$251	366	1 day	1 year	1	0	0
13	Skin Care Specialist	50	\$100	175	750 clock hours	None	2	10	16
14	Pharmacy Technician	44	\$270	140	None	600 clock hours	1	12	18
15	Manicurist	50	\$75	117	500 clock hours	None	2	10	16
16	School Bus Driver	51	\$126	9	30 clock hours	14 clock hours	6	0	21
17	Teacher Assistant, Non-Instructional	5	\$0	0	None	None	1	12	20
18	Landscape Contractor (Commercial)	47	\$674	0	None	None	3	0	18
19	Bus Driver, City/Transit	51	\$121	0	None	None	5	0	18
20	Truck Driver, Tractor-Trailer	51	\$116	0	None	None	5	0	18
21	Massage Therapist	44	\$421	117	500 clock hours	None	1	0	0
22	Makeup Artist	41	\$25	9	40 clock hours	None	0	10	16
23	Truck Driver, Other	51	\$116	0	None	None	4	0	18
24	Emergency Medical Technician	51	\$110	26	110 clock hours	None	2	0	18
25	Security Guard, Unarmed	34	\$81	3	16 clock hours	None	2	0	18
26	Auctioneer	30	\$300	7	5 days	None	1	0	18
27	Vegetation Pesticide Applicator	51	\$45	0	None	None	2	0	18
28	Locksmith	14	\$318	0	None	None	1	0	18
29	Landscape Contractor (Residential)	48	\$214	0	None	None	1	0	18
30	Door Repair Contractor (Commercial)	24	\$751	0	None	None	1	0	0
31	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$460	0	None	None	2	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Cement Finishing Contractor (Commercial)	24	\$460	0	None	None	2	0	0
31	Drywall Installation Contractor (Commercial)	25	\$460	0	None	None	2	0	0
31	Floor Sander Contractor (Commercial)	22	\$460	0	None	None	2	0	0
31	Glazier Contractor (Commercial)	26	\$460	0	None	None	2	0	0
31	HVAC Contractor (Commercial)	37	\$460	0	None	None	2	0	0
31	HVAC Contractor (Residential)	35	\$460	0	None	None	2	0	0
31	Insulation Contractor (Commercial)	25	\$460	0	None	None	2	0	0
31	Iron/Steel Contractor (Commercial)	26	\$460	0	None	None	2	0	0
31	Mason Contractor (Commercial)	26	\$460	0	None	None	2	0	0
31	Painting Contractor (Commercial)	22	\$460	0	None	None	2	0	0
31	Paving Contractor (Commercial)	24	\$460	0	None	None	2	0	0
31	Pipelayer Contractor	27	\$460	0	None	None	2	0	0
31	Sheet Metal Contractor, HVAC (Commercial)	37	\$460	0	None	None	2	0	0
31	Terrazzo Contractor (Commercial)	23	\$460	0	None	None	2	0	0
46	Wildlife Control Operator	23	\$40	2	10 clock hours	None	1	0	18
47	Gaming Cage Worker	29	\$200	0	None	None	0	0	21
47	Gaming Dealer	28	\$200	0	None	None	0	0	21
47	Gaming Supervisor	30	\$200	0	None	None	0	0	21
47	Slot Supervisor	28	\$200	0	None	None	0	0	21
51	Taxi Driver/Chauffeur	16	\$55	0	None	None	1	0	17
52	Bartender	13	\$0	0	2 clock hours	None	1	0	18
53	Carpenter/Cabinet Maker Contractor (Residential)	30	\$460	0	None	None	1	0	0
53	Cement Finishing Contractor (Residential)	30	\$460	0	None	None	1	0	0
53	Door Repair Contractor (Residential)	29	\$460	0	None	None	1	0	0
53	Drywall Installation Contractor (Residential)	30	\$460	0	None	None	1	0	0
53	Floor Sander Contractor (Residential)	27	\$460	0	None	None	1	0	0
53	Glazier Contractor (Residential)	30	\$460	0	None	None	1	0	0
53	Insulation Contractor (Residential)	30	\$460	0	None	None	1	0	0
53	Iron/Steel Contractor (Residential)	30	\$460	0	None	None	1	0	0
53	Mason Contractor (Residential)	31	\$460	0	None	None	1	0	0
53	Painting Contractor (Residential)	28	\$460	0	None	None	1	0	0
53	Paving Contractor (Residential)	28	\$460	0	None	None	1	0	0
53	Sheet Metal Contractor, HVAC (Residential)	36	\$460	0	None	None	1	0	0
53	Sheet Metal Contractor, Other (Commercial)	26	\$460	0	None	None	1	0	0
53	Sheet Metal Contractor, Other (Residential)	31	\$460	0	None	None	1	0	0
53	Terrazzo Contractor (Residential)	28	\$460	0	None	None	1	0	0
68	Tree Trimmer	7	\$214	0	None	None	1	0	0
69	Florist	1	\$189	0	None	None	1	0	0
70	Shampooer	37	\$0	9	40 clock hours	None	1	0	0
71	Weigher	25	\$75	0	None	None	1	0	0
72	Milk Sampler	42	\$0	1	1 day	None	1	0	0
73	Travel Guide	37	\$260	0	None	None	0	0	0
74	Fisher, Commercial	43	\$55	0	None	None	0	0	0
75	Bill Collection Agency	31	\$25	0	None	None	0	0	0
76	Animal Breeder	28	\$23	0	None	None	0	0	0
77	Coach, Head (High School Sports)	48	\$0	1	7 clock hours	None	0	0	0
Averages		32.9	\$360	202.0			1.5	1.5	6.9

Maine

45

of 102 lower-income occupations licensed

31st

most burdensome licensing laws

33rd

most broadly and onerously licensed state

Maine licenses 45 of the 102 lower-income occupations studied here. Its laws are the 31st most burdensome, requiring an average of \$188 in fees, 298 days of education and experience, and around one exam. It ranks as the 33rd most broadly and onerously licensed, placing it among the lower half of states but still leaving plenty of room for improvement.

Maine licenses several occupations that are not licensed by other states. For example, three of Maine's licensed occupations are licensed by only one other state each: electrical helpers, dietetic technicians and log scalers. The latter two occupations also face fairly burdensome requirements. Dietetic technicians must pay \$171 in fees, demonstrate about 835 days of education and experience (comprising two years of education and 450 hours of experience), and pass one exam. Meanwhile, log scalers

must pay a \$25 fee, demonstrate 730 days (two years) of experience and pass one exam.

Maine also imposes more onerous burdens on some occupations than on others that may present greater risks to the public. For example, barbers and cosmetologists must complete 1,500 hours (around 350 days) of education to become licensed. That is over 13 times the hours required to obtain Maine's EMT license and begin working as an emergency first responder (111 hours, or about 26 days). Maine could improve employment prospects in the state by reducing or repealing heavy licensing burdens for barbers, cosmetologists and many other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Interpreter, Sign Language	22	\$1,016	1,469	4 years and 40 clock hours	None	2	12	18
2	Preschool Teacher, Public School	50	\$396	1,460	4 years	None	2	0	0
3	Athletic Trainer	49	\$496	1,460	4 years	None	1	0	0
4	Earth Driller, Water Well	51	\$268	1,460	None	4 years	2	0	0
5	Travel Guide	37	\$181	1,095	None	3 years	2	0	18
6	Security Alarm Installer	37	\$221	996	270 clock hours	4,000 clock hours	1	0	0
7	Fire Alarm Installer	39	\$196	996	270 clock hours	4,000 clock hours	1	0	0
8	Dietetic Technician	2	\$171	835	2 years	450 clock hours	1	0	0
9	Mobile Home Installer	39	\$121	731	5 clock hours	2 years	1	0	18
10	Log Scaler	2	\$25	730	None	2 years	1	0	18
11	Veterinary Technician	36	\$366	730	2 years	None	1	0	0
12	Cosmetologist	51	\$148	350	1,500 clock hours	None	2	10	17
13	School Bus Driver	51	\$89	365	1 year	None	6	0	21
14	Barber	51	\$41	350	1,500 clock hours	None	2	10	17
15	Makeup Artist	41	\$148	140	600 clock hours	None	2	10	17
15	Skin Care Specialist	50	\$148	140	600 clock hours	None	2	10	17
17	Manicurist	50	\$148	47	200 clock hours	None	2	10	17
18	Massage Therapist	44	\$281	0	None	None	1	12	18
19	Bus Driver, City/Transit	51	\$79	0	None	None	5	0	21
20	Truck Driver, Tractor-Trailer	51	\$69	0	None	None	5	0	16
21	Emergency Medical Technician	51	\$121	26	111 clock hours	None	2	0	16
22	Vegetation Pesticide Applicator	51	\$195	0	None	None	6	0	0
23	Truck Driver, Other	51	\$69	0	None	None	4	0	16
24	Coach, Head (High School Sports)	48	\$0	1	5 clock hours	None	0	12	0
25	Pest Control Applicator	51	\$280	0	None	None	4	0	0
26	Tree Trimmer	7	\$115	0	None	None	2	0	18
27	Bill Collection Agency	31	\$600	0	None	None	0	0	0
28	Auctioneer	30	\$421	0	None	None	1	0	0
29	Child Care Home, Family	44	\$111	1	None	6 clock hours	0	0	18
30	Electrical Helper	2	\$96	0	None	None	0	0	16
31	Taxidermist	28	\$177	0	None	None	2	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Gaming Cage Worker	29	\$299	0	None	None	0	0	0
32	Gaming Dealer	28	\$299	0	None	None	0	0	0
32	Gaming Supervisor	30	\$299	0	None	None	0	0	0
32	Slot Supervisor	28	\$299	0	None	None	0	0	0
36	Animal Control Officer	7	\$50	11	45 clock hours	None	0	0	0
37	Animal Breeder	28	\$108	0	None	None	0	0	0
38	Funeral Attendant	3	\$101	0	None	None	0	0	0
39	Packer	6	\$50	0	None	None	0	0	0
40	Fisher, Commercial	43	\$48	0	None	None	0	0	0
41	Pharmacy Technician	44	\$41	0	None	None	0	0	0
42	Landscape Contractor (Commercial)	47	\$25	0	None	None	0	0	0
42	Landscape Contractor (Residential)	48	\$25	0	None	None	0	0	0
44	Weigher	25	\$10	0	None	None	0	0	0
45	Milk Sampler	42	\$0	0	None	None	0	0	0
Averages		35.7	\$188	297.6			1.4	1.9	7.0

Maryland

59
of 102 lower-income
occupations licensed

11th
most burdensome
licensing laws

20th
most broadly and
onerously licensed state

Maryland's licensing laws for lower-income occupations are the 11th most burdensome. On average, Maryland's barriers to entry into these occupations are \$288 in fees, 529 days lost to education and experience, and about one exam. Because it licenses slightly fewer occupations than similarly burdensome states—59 of the 102 studied here—Maryland ranks as the nation's 20th most broadly and onerously licensed state.

Maryland licenses several occupations that are rarely licensed elsewhere. For example, few other states license packers (five), tree trimmers (six), animal trainers (eight), upholsterers (nine) or farm labor contractors (nine). Among those, tree trimmers face particularly steep burdens. To obtain a license, they must demonstrate two years of education and one year of experience (1,095 days total), pass an exam, and pay a \$30 fee.

With so few states licensing tree trimmers, it is questionable for Maryland to license them at all, let alone so onerously.

Maryland also imposes high education and experience requirements on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, EMTs are deemed competent to work as first responders after only 165 hours (approximately 39 days) of education. Meanwhile, barbers must complete 1,200 hours (roughly 280 days) of education and cosmetologists 1,500 hours (roughly 350 days) before becoming licensed. To expand opportunity, Maryland should reduce, if not repeal, inconsistent or irrational burdens like these, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$436	2,555	4 years	3 years	3	0	0
2	Earth Driller, Water Well	51	\$750	2,190	None	6 years	3	0	18
3	HVAC Contractor (Commercial)	37	\$405	2,190	None	6 years	2	0	0
3	HVAC Contractor (Residential)	35	\$405	2,190	None	6 years	2	0	0
5	Sheet Metal Contractor, HVAC (Commercial)	37	\$165	2,190	None	6 years	2	0	0
5	Sheet Metal Contractor, HVAC (Residential)	36	\$165	2,190	None	6 years	2	0	0
7	Athletic Trainer	49	\$600	1,460	4 years	None	1	0	18
8	Midwife, Direct Entry	28	\$1,920	1,095	3 years	None	1	12	21
9	Tree Trimmer	7	\$30	1,095	2 years	1 year	1	0	18
10	Coach, Head (High School Sports)	48	\$0	734	21.5 clock hours	2 years	0	12	23
11	Veterinary Technician	36	\$395	730	2 years	None	2	0	18
12	Landscape Contractor (Residential)	48	\$533	730	None	2 years	1	0	18
13	Carpenter/Cabinet Maker Contractor (Residential)	30	\$433	730	None	2 years	1	0	18
13	Cement Finishing Contractor (Residential)	30	\$433	730	None	2 years	1	0	18
13	Door Repair Contractor (Residential)	29	\$433	730	None	2 years	1	0	18
13	Drywall Installation Contractor (Residential)	30	\$433	730	None	2 years	1	0	18
13	Floor Sander Contractor (Residential)	27	\$433	730	None	2 years	1	0	18
13	Glazier Contractor (Residential)	30	\$433	730	None	2 years	1	0	18
13	Insulation Contractor (Residential)	30	\$433	730	None	2 years	1	0	18
13	Iron/Steel Contractor (Residential)	30	\$433	730	None	2 years	1	0	18
13	Mason Contractor (Residential)	31	\$433	730	None	2 years	1	0	18
13	Painting Contractor (Residential)	28	\$433	730	None	2 years	1	0	18
13	Paving Contractor (Residential)	28	\$433	730	None	2 years	1	0	18
13	Sheet Metal Contractor, Other (Residential)	31	\$433	730	None	2 years	1	0	18
13	Terrazzo Contractor (Residential)	28	\$433	730	None	2 years	1	0	18
26	Massage Therapist	44	\$698	560	600 clock hours and 60 credit hours	None	2	0	18
27	Cosmetologist	51	\$104	350	1,500 clock hours	None	2	9	17
28	Vegetation Pesticide Applicator	51	\$75	365	None	1 year	4	0	18
29	Pest Control Applicator	51	\$225	365	None	1 year	2	0	18
30	Skin Care Specialist	50	\$104	140	600 clock hours	None	2	9	17

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Barber	51	\$50	280	1,200 clock hours	None	2	0	0
32	Manicurist	50	\$104	58	250 clock hours	None	2	9	17
33	Child Care Home, Family	44	\$52	5	None	27 clock hours	0	12	18
34	School Bus Driver	51	\$90	3	6 clock hours	9 clock hours	6	0	21
35	Bus Driver, City/Transit	51	\$90	0	None	None	5	0	18
35	Truck Driver, Tractor-Trailer	51	\$90	0	None	None	5	0	18
37	Taxi Driver/Chauffeur	16	\$53	182	None	6 months	0	0	0
38	Truck Driver, Other	51	\$90	0	None	None	4	0	18
39	Emergency Medical Technician	51	\$60	39	165 clock hours	None	2	0	16
40	Crane Operator	18	\$225	0	None	None	2	0	18
41	Pharmacy Technician	44	\$63	37	None	160 clock hours	1	0	17
42	Security Alarm Installer	37	\$133	0	None	None	0	0	18
43	Bill Collection Agency	31	\$700	0	None	None	0	0	0
44	Gaming Cage Worker	29	\$437	0	None	None	0	0	0
44	Gaming Dealer	28	\$437	0	None	None	0	0	0
44	Gaming Supervisor	30	\$437	0	None	None	0	0	0
44	Slot Supervisor	28	\$437	0	None	None	0	0	0
48	Fisher, Commercial	43	\$300	0	None	None	0	0	0
49	Milk Sampler	42	\$50	1	None	1 day	1	0	0
50	Taxidermist	28	\$50	0	None	None	1	0	0
50	Wildlife Control Operator	23	\$50	0	None	None	1	0	0
52	Landscape Contractor (Commercial)	47	\$100	0	None	None	0	0	0
53	Animal Breeder	28	\$62	0	None	None	0	0	0
54	Travel Guide	37	\$56	0	None	None	0	0	0
55	Upholsterer	10	\$50	0	None	None	0	0	0
56	Packer	6	\$30	0	None	None	0	0	0
57	Farm Labor Contractor	10	\$25	0	None	None	0	0	0
58	Security Guard, Unarmed	34	\$15	0	None	None	0	0	0
59	Animal Trainer	9	\$5	0	None	None	0	0	0
Averages		35.1	\$288	529.2			1.3	1.1	10.8

Massachusetts

50
of 102 lower-income
occupations licensed

10th
most burdensome
licensing laws

29th
most broadly and
onerously licensed state

Massachusetts' licensing laws for lower-income occupations are the 10th most burdensome, requiring, on average, \$309 in fees, 513 days lost to education and experience, and roughly one exam. Massachusetts licenses fewer lower-income occupations than most states—50 of 102—making it the 29th most broadly and onerously licensed state.

Massachusetts licenses some occupations much more onerously than other states, including some that are already among the nation's most burdened occupations. For example, both of the state's commercial sheet metal contractor licenses—HVAC and other—require five years (1,825 days) of experience. But the average education and experience requirement across licensed states is 1,215 days for HVAC sheet metal contractors and just 567 days for other sheet metal contractors. These disparities are particularly jarring given that several states do not license these occupations at all.

Massachusetts also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. Cosmetologists, for example, must complete 1,000 hours of education and then demonstrate two years of experience (the equivalent of 963 days)—the heaviest education and experience requirements of their type. But Massachusetts deems EMTs able to administer life-saving aid after having demonstrated only 150 hours (about 35 days) of education. To expand opportunity for lower-income workers, Massachusetts should repeal or reduce irrationally heavy licensing burdens, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$405	2,555	4 years	3 years	2	0	0
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$370	1,825	None	5 years	1	12	17
2	Sheet Metal Contractor, Other (Commercial)	26	\$370	1,825	None	5 years	1	12	17
4	Athletic Trainer	49	\$447	1,460	4 years	None	1	0	0
5	Sheet Metal Contractor, HVAC (Residential)	36	\$370	1,095	None	3 years	1	12	17
5	Sheet Metal Contractor, Other (Residential)	31	\$370	1,095	None	3 years	1	12	17
7	School Bus Driver	51	\$200	1,107	28 clock hours	3 years and 32 clock hours	6	0	18
8	Carpenter/Cabinet Maker Contractor (Residential)	30	\$500	1,095	None	3 years	1	0	18
8	Door Repair Contractor (Residential)	29	\$500	1,095	None	3 years	1	0	18
8	Drywall Installation Contractor (Residential)	30	\$500	1,095	None	3 years	1	0	18
8	Glazier Contractor (Residential)	30	\$500	1,095	None	3 years	1	0	18
8	Iron/Steel Contractor (Residential)	30	\$500	1,095	None	3 years	1	0	18
8	Mason Contractor (Residential)	31	\$500	1,095	None	3 years	1	0	18
14	Earth Driller, Water Well	51	\$275	1,095	None	3 years	1	0	0
15	Cosmetologist	51	\$270	963	1,000 clock hours	2 years	2	0	0
16	Optician	22	\$509	730	2 years	None	3	12	18
17	Fire Alarm Installer	39	\$330	800	300 clock hours	2 years	2	12	0
18	Barber	51	\$164	779	1,000 clock hours	18 months	3	0	18
19	HVAC Contractor (Commercial)	37	\$115	700	1,000 clock hours	2,000 clock hours	1	12	18
20	Pest Control Applicator	51	\$450	730	None	2 years	2	0	18
20	Vegetation Pesticide Applicator	51	\$450	730	None	2 years	2	0	18
22	Security Alarm Installer	37	\$276	800	300 clock hours	2 years	2	0	0
23	Child Care Home, Family	44	\$135	189	None	6 months and 32 clock hours	0	12	18
24	Massage Therapist	44	\$225	152	650 clock hours	None	0	12	18
25	Shampooer	37	\$188	233	1,000 clock hours	None	2	0	0
26	Bus Driver, City/Transit	51	\$150	0	None	None	5	0	18
27	Truck Driver, Tractor-Trailer	51	\$140	0	None	None	5	0	18
28	Gaming Supervisor	30	\$1,000	0	None	None	0	0	18
28	Slot Supervisor	28	\$1,000	0	None	None	0	0	18
30	Truck Driver, Other	51	\$140	0	None	None	4	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Emergency Medical Technician	51	\$150	35	150 clock hours	None	2	0	18
32	Bill Collection Agency	31	\$1,300	0	None	None	0	0	0
33	Pharmacy Technician	44	\$150	56	240 clock hours	None	1	0	18
34	Skin Care Specialist	50	\$188	70	300 clock hours	None	2	0	0
35	Funeral Attendant	3	\$70	7	1 credit hour	None	0	12	0
36	Auctioneer	30	\$100	19	83 clock hours	None	1	0	18
37	Crane Operator	18	\$75	0	None	None	2	0	18
38	Gaming Cage Worker	29	\$300	0	None	None	0	0	18
38	Gaming Dealer	28	\$300	0	None	None	0	0	18
40	Manicurist	50	\$188	23	100 clock hours	None	2	0	0
41	Dental Assistant	9	\$60	1	4 clock hours	None	0	0	18
42	Wildlife Control Operator	23	\$136	1	1 day	None	1	0	0
43	Cement Finishing Contractor (Residential)	30	\$250	0	None	None	0	0	0
43	Insulation Contractor (Residential)	30	\$250	0	None	None	0	0	0
43	Painting Contractor (Residential)	28	\$250	0	None	None	0	0	0
46	Fisher, Commercial	43	\$195	0	None	None	0	0	0
47	Travel Guide	37	\$65	0	None	None	0	0	0
48	Animal Breeder	28	\$32	0	None	None	0	0	0
49	Milk Sampler	42	\$20	0	None	None	0	0	0
50	Coach, Head (High School Sports)	48	\$0	1	6.5 clock hours	None	0	0	0
Averages		36.8	\$309	513.0			1.3	2.4	10.7

Michigan

49

of 102 lower-income occupations licensed

33rd

most burdensome licensing laws

30th

most broadly and onerously licensed state

Michigan licenses 49 of the 102 lower-income occupations studied here, which is fewer than the national average. Its laws are the 33rd most burdensome. On average, Michigan's barriers to entry into lower-income occupations are \$242 in fees, 255 days lost to education and experience, and approximately two exams. It ranks as the 30th most broadly and onerously licensed state.

Michigan licenses some occupations that are not licensed by other states. For example, 15 states do not license veterinary technicians at all, but to work in Michigan they must pay \$350 in fees, complete two years (730 days) of education and pass an exam. Similarly, many states do not license animal control officers (44), taxi drivers and chauffeurs (35), or residential painting contractors (23), among other occupations. Michigan also imposes more onerous requirements than many other states for some occupations. Fire alarm installers, for example, must pay \$1,045 in fees

before becoming licensed. That is nearly twice the \$557 average across states that license the occupation.

Michigan also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, people wishing to start a bill collection agency must demonstrate six months (roughly 182 days) of experience to receive a license. Meanwhile, EMTs must complete only 194 hours (about 45 days) of education. Not only is it illogical to require four times as much training for bill collection agencies as for emergency first responders, but 20 states do not license bill collection agencies at all. Michigan can expand employment opportunities in the state by reducing or repealing irrationally burdensome licensing requirements, or—if government regulation is necessary—by replacing licensing with less restrictive regulatory alternatives such as insurance, inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$445	2,555	4 years	3 years	2	0	18
2	Athletic Trainer	49	\$638	1,460	4 years	None	1	0	0
3	HVAC Contractor (Commercial)	37	\$400	1,095	None	3 years	1	0	0
3	HVAC Contractor (Residential)	35	\$400	1,095	None	3 years	1	0	0
3	Sheet Metal Contractor, HVAC (Commercial)	37	\$400	1,095	None	3 years	1	0	0
3	Sheet Metal Contractor, HVAC (Residential)	36	\$400	1,095	None	3 years	1	0	0
7	Fire Alarm Installer	39	\$1,045	730	None	2 years	4	0	20
8	Earth Driller, Water Well	51	\$40	730	None	2 years	2	12	18
9	Veterinary Technician	36	\$350	730	2 years	None	1	0	0
10	Barber	51	\$30	420	1,800 clock hours	None	2	10	17
11	Cosmetologist	51	\$200	350	1,500 clock hours	None	2	9	17
11	Shampooer	37	\$200	350	1,500 clock hours	None	2	9	17
13	Bill Collection Agency	31	\$300	182	None	6 months	1	12	18
14	Makeup Artist	41	\$200	93	400 clock hours	None	2	9	17
14	Manicurist	50	\$200	93	400 clock hours	None	2	9	17
14	Skin Care Specialist	50	\$200	93	400 clock hours	None	2	9	17
17	Massage Therapist	44	\$290	117	500 clock hours	None	1	12	0
18	Security Alarm Installer	37	\$625	0	None	None	1	12	21
19	School Bus Driver	51	\$70	3	18 clock hours	None	6	0	18
20	Child Care Home, Family	44	\$110	1	None	6 clock hours	0	12	18
21	Bus Driver, City/Transit	51	\$65	0	None	None	5	0	18
22	Truck Driver, Tractor-Trailer	51	\$60	0	None	None	5	0	18
23	Emergency Medical Technician	51	\$120	45	194 clock hours	None	2	0	18
24	Gaming Supervisor	30	\$750	0	None	None	0	0	21
24	Slot Supervisor	28	\$750	0	None	None	0	0	21
26	Pharmacy Technician	44	\$184	0	None	None	1	12	0
27	Carpenter/Cabinet Maker Contractor (Residential)	30	\$286	14	60 clock hours	None	2	0	18
27	Cement Finishing Contractor (Residential)	30	\$286	14	60 clock hours	None	2	0	18
27	Door Repair Contractor (Residential)	29	\$286	14	60 clock hours	None	2	0	18
27	Mason Contractor (Residential)	31	\$286	14	60 clock hours	None	2	0	18
27	Painting Contractor (Residential)	28	\$286	14	60 clock hours	None	2	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
27	Sheet Metal Contractor, Other (Residential)	31	\$286	14	60 clock hours	None	2	0	18
27	Terrazzo Contractor (Residential)	28	\$286	14	60 clock hours	None	2	0	18
34	Truck Driver, Other	51	\$60	0	None	None	4	0	18
35	Vegetation Pesticide Applicator	51	\$75	0	None	None	3	0	18
36	Insulation Contractor (Residential)	30	\$286	14	60 clock hours	None	0	0	18
37	Pest Control Applicator	51	\$75	0	None	None	2	0	18
38	Gaming Cage Worker	29	\$200	0	None	None	0	0	21
38	Gaming Dealer	28	\$200	0	None	None	0	0	21
40	Taxi Driver/Chauffeur	16	\$35	0	None	None	1	0	18
41	Coach, Head (High School Sports)	48	\$0	1	7 clock hours	None	0	0	18
42	Milk Sampler	42	\$50	0	None	None	2	0	0
43	Mobile Home Installer	39	\$150	1	8 clock hours	None	1	0	0
44	Animal Control Officer	7	\$0	23	100 clock hours	None	0	0	0
45	Taxidermist	28	\$100	0	None	None	0	0	0
46	Fisher, Commercial	43	\$66	0	None	None	0	0	0
47	Landscape Contractor (Commercial)	47	\$35	0	None	None	0	0	0
47	Landscape Contractor (Residential)	48	\$35	0	None	None	0	0	0
49	Animal Breeder	28	\$18	0	None	None	0	0	0
Averages		38.9	\$242	254.5			1.5	2.6	12.3

Minnesota

34
of 102 lower-income
occupations licensed

29th
most burdensome
licensing laws

46th
most broadly and
onerously licensed state

Minnesota is one of the better states in the nation for occupational licensing, ranking as only the 46th most broadly and onerously licensed state for lower-income occupations. It licenses 34 of the 102 occupations studied here, which is fewer than most states. Its laws rank as the 29th most burdensome and require, on average, \$238 in fees, 300 days of education and experience, and around two exams.

Despite its better-than-average rankings, Minnesota licenses some occupations that are rarely licensed elsewhere. For example, few other states license electrical helpers (just one), packers (five), title examiners (six) or dental assistants (eight). Workers in these occupations are allowed to operate in most states without state licensure, calling into question why Minnesota deems licensure necessary. Minnesota also licenses dental assistants more stringently than the few other states that license the occupation, requiring \$681 in fees, an estimated 425 days of education and three exams.

By comparison, the average requirements across licensed states are just \$138 in fees, 92 days of education and experience, and one exam.

Minnesota licenses dental assistants so onerously that it is easier to become an EMT than it is to become a dental assistant. EMTs must complete just 150 hours (roughly 35 days) of education, meaning that dental assistants need 12 times as much schooling. Cosmetologists and barbers also face more stringent licensing requirements than EMTs. Cosmetologists must demonstrate 10 times as much education (1,550 hours or roughly 362 days) and barbers almost 18 times as much (1,500 hours each of education and experience, equivalent to 613 days). Minnesota could reduce barriers to employment in lower-income occupations by reducing or repealing such high education and experience requirements, or—if government regulation is necessary—by replacing occupational licenses with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$343	1,460	4 years	None	3	0	0
2	Earth Driller, Water Well	51	\$325	1,460	None	4 years	2	0	0
3	Athletic Trainer	49	\$465	1,460	4 years	None	1	0	0
4	Midwife, Direct Entry	28	\$1,200	1,095	3 years	None	1	12	0
5	Fire Alarm Installer	39	\$261	1,095	None	3 years	1	0	0
5	Security Alarm Installer	37	\$261	1,095	None	3 years	1	0	0
7	Pest Control Applicator	51	\$400	730	None	2 years	2	0	0
8	Barber	51	\$182	613	1,500 clock hours	1,500 clock hours	4	10	0
9	Dental Assistant	9	\$681	425	303.33 days	None	3	0	0
10	Cosmetologist	51	\$285	362	1,550 clock hours	None	3	12	0
11	Makeup Artist	41	\$285	140	600 clock hours	None	3	12	0
11	Skin Care Specialist	50	\$285	140	600 clock hours	None	3	12	0
13	Manicurist	50	\$285	82	350 clock hours	None	3	12	0
14	Emergency Medical Technician	51	\$80	35	150 clock hours	None	2	12	18
15	Pharmacy Technician	44	\$38	0	None	None	0	12	18
16	School Bus Driver	51	\$39	0	None	None	6	0	18
17	Bus Driver, City/Transit	51	\$33	0	None	None	5	0	18
18	Truck Driver, Tractor-Trailer	51	\$24	0	None	None	5	0	18
19	Truck Driver, Other	51	\$36	0	None	None	4	0	18
20	Crane Operator	18	\$225	0	None	None	2	0	18
21	Bill Collection Agency	31	\$1,050	0	None	None	0	0	0
22	Mobile Home Installer	39	\$383	0	None	None	2	0	0
23	Child Care Home, Family	44	\$65	1	None	4 clock hours	0	0	18
24	Auctioneer	30	\$20	0	None	None	0	0	18
25	Electrical Helper	2	\$14	0	None	None	0	0	17
26	Vegetation Pesticide Applicator	51	\$75	0	None	None	2	0	0
27	Title Examiner	7	\$90	0	None	None	1	0	0
28	Animal Breeder	28	\$160	0	None	None	0	0	0
29	Coach, Head (High School Sports)	48	\$0	14	60 clock hours	None	0	0	0
30	Landscape Contractor (Commercial)	47	\$150	0	None	None	0	0	0
30	Landscape Contractor (Residential)	48	\$150	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Fisher, Commercial	43	\$120	0	None	None	0	0	0
33	Taxidermist	28	\$44	0	None	None	0	0	0
34	Packer	6	\$40	0	None	None	0	0	0
Averages		39.0	\$238	300.2			1.7	2.8	5.3

Mississippi

66

of 102 lower-income occupations licensed

46th

most burdensome licensing laws

19th

most broadly and onerously licensed state

Mississippi's licensing laws for lower-income occupations are only the 46th most burdensome in the nation, requiring, on average, \$330 in fees, 160 days of education and experience, and roughly two exams. However, because Mississippi licenses more lower-income occupations than average—66 of the 102 studied here—it is the 19th most broadly and onerously licensed state.

Mississippi's laws are less burdensome than most, but its fees for some licenses are much higher than average. For example, fire and security alarm installers face fees of \$1,090 before they can work in Mississippi. But the average fees across other states that license those occupations are about half that—\$557 and \$487, respectively.

Mississippi also imposes more extensive education requirements on some occupations than on others that may present greater risks to the

public. For example, barbers and cosmetologists must complete roughly 350 days (1,500 hours) of education—nearly a year—to become licensed. Similarly, makeup artists must complete around 140 days (600 hours) of education and manicurists around 82 days (350 hours). EMTs, on the other hand, are deemed capable first responders after just 28 days (120 hours) of education. Mississippi can expand opportunity for workers by easing its barriers to entry for personal care occupations and other lower-income occupations. In keeping with 2017 legislation that enacted a policy favoring less restrictive alternatives to licensing, the state should also review all existing licenses to identify those that can be repealed and—if government regulation is necessary—replaced with less burdensome alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$442	1,460	4 years	None	3	0	0
2	Athletic Trainer	49	\$400	1,460	4 years	None	1	0	0
3	Earth Driller, Water Well	51	\$620	1,095	None	3 years	4	0	21
4	Landscape Contractor (Commercial)	47	\$640	797	2 years	3 jobs	3	0	0
5	Veterinary Technician	36	\$410	730	2 years	None	2	0	18
6	Landscape Contractor (Residential)	48	\$0	730	2 years	None	1	0	0
7	Cosmetologist	51	\$233	350	1,500 clock hours	None	2	12	17
8	Barber	51	\$85	350	1,500 clock hours	None	2	12	0
8	Shampooer	37	\$85	350	1,500 clock hours	None	2	12	0
10	Massage Therapist	44	\$581	163	700 clock hours	None	2	12	18
11	Vegetation Pesticide Applicator	51	\$0	210	30 credit hours	None	3	0	18
12	Child Care Home, Family	44	\$160	170	24 credit hours	13 clock hours	0	12	21
13	Skin Care Specialist	50	\$233	140	600 clock hours	None	2	12	18
14	Makeup Artist	41	\$233	140	600 clock hours	None	2	12	17
15	Manicurist	50	\$233	82	350 clock hours	None	2	12	17
16	Fire Alarm Installer	39	\$1,090	72	28 clock hours	3 jobs	2	0	0
16	Security Alarm Installer	37	\$1,090	72	28 clock hours	3 jobs	2	0	0
18	Pest Control Applicator	51	\$0	105	15 credit hours	None	2	0	18
19	Emergency Medical Technician	51	\$145	28	120 clock hours	None	2	12	18
20	Auctioneer	30	\$300	11	7.5 days	None	1	12	18
21	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$640	67	None	3 jobs	2	0	0
21	Cement Finishing Contractor (Commercial)	24	\$640	67	None	3 jobs	2	0	0
21	Drywall Installation Contractor (Commercial)	25	\$640	67	None	3 jobs	2	0	0
21	Glazier Contractor (Commercial)	26	\$640	67	None	3 jobs	2	0	0
21	HVAC Contractor (Commercial)	37	\$640	67	None	3 jobs	2	0	0
21	Insulation Contractor (Commercial)	25	\$640	67	None	3 jobs	2	0	0
21	Iron/Steel Contractor (Commercial)	26	\$640	67	None	3 jobs	2	0	0
21	Painting Contractor (Commercial)	22	\$640	67	None	3 jobs	2	0	0
21	Paving Contractor (Commercial)	24	\$640	67	None	3 jobs	2	0	0
21	Pipelayer Contractor	27	\$640	67	None	3 jobs	2	0	0
21	Sheet Metal Contractor, HVAC (Commercial)	37	\$640	67	None	3 jobs	2	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
21	Sheet Metal Contractor, Other (Commercial)	26	\$640	67	None	3 jobs	2	0	0
21	Terrazzo Contractor (Commercial)	23	\$640	67	None	3 jobs	2	0	0
34	School Bus Driver	51	\$77	1	8 clock hours	None	6	0	18
35	Door Repair Contractor (Commercial)	24	\$520	67	None	3 jobs	1	0	0
35	Mason Contractor (Commercial)	26	\$520	67	None	3 jobs	1	0	0
37	Carpenter/Cabinet Maker Contractor (Residential)	30	\$290	67	None	3 jobs	2	0	0
37	Cement Finishing Contractor (Residential)	30	\$290	67	None	3 jobs	2	0	0
37	Door Repair Contractor (Residential)	29	\$290	67	None	3 jobs	2	0	0
37	Drywall Installation Contractor (Residential)	30	\$290	67	None	3 jobs	2	0	0
37	Floor Sander Contractor (Residential)	27	\$290	67	None	3 jobs	2	0	0
37	Glazier Contractor (Residential)	30	\$290	67	None	3 jobs	2	0	0
37	HVAC Contractor (Residential)	35	\$290	67	None	3 jobs	2	0	0
37	Insulation Contractor (Residential)	30	\$290	67	None	3 jobs	2	0	0
37	Iron/Steel Contractor (Residential)	30	\$290	67	None	3 jobs	2	0	0
37	Mason Contractor (Residential)	31	\$290	67	None	3 jobs	2	0	0
37	Painting Contractor (Residential)	28	\$290	67	None	3 jobs	2	0	0
37	Paving Contractor (Residential)	28	\$290	67	None	3 jobs	2	0	0
37	Sheet Metal Contractor, HVAC (Residential)	36	\$290	67	None	3 jobs	2	0	0
37	Sheet Metal Contractor, Other (Residential)	31	\$290	67	None	3 jobs	2	0	0
37	Terrazzo Contractor (Residential)	28	\$290	67	None	3 jobs	2	0	0
52	Bus Driver, City/Transit	51	\$90	0	None	None	5	0	18
53	Truck Driver, Tractor-Trailer	51	\$85	0	None	None	5	0	17
54	Pharmacy Technician	44	\$90	0	None	None	0	12	18
55	Truck Driver, Other	51	\$85	0	None	None	4	0	17
56	Gaming Cage Worker	29	\$75	0	None	None	0	0	21
56	Gaming Dealer	28	\$75	0	None	None	0	0	21
56	Gaming Supervisor	30	\$75	0	None	None	0	0	21
56	Slot Supervisor	28	\$75	0	None	None	0	0	21
60	Interpreter, Sign Language	22	\$225	0	None	None	2	0	0
61	Weigher	25	\$25	0	None	None	0	0	21
62	Mobile Home Installer	39	\$100	0	None	None	1	0	0
63	Milk Sampler	42	\$0	0	None	None	1	0	0
64	Fisher, Commercial	43	\$30	0	None	None	0	0	0
65	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0
66	Taxidermist	28	\$12	0	None	None	0	0	0
Averages		35.9	\$330	159.6			1.8	2.0	6.2

Missouri

37
of 102 lower-income
occupations licensed

22nd
most burdensome
licensing laws

43rd
most broadly and
onerously licensed state

Missouri's occupational licensing laws for lower-income occupations are the 22nd most burdensome in the nation. Its laws require, on average, \$179 in fees, 348 days of education and experience, and around one exam. Missouri licenses fewer lower-income occupations than average (37 of the 102 studied here), making it only the 43rd most broadly and onerously licensed state.

Missouri is the only state to license psychiatric aides, who work under the direct supervision of licensed nurses and other medical professionals to assist mentally impaired and emotionally disturbed patients. Missouri is also one of only five states to license psychiatric technicians, who are allowed to perform more skilled work than psychiatric aides. Making matters worse, Missouri licenses these rarely licensed occupations onerously, requiring two years (730 days) of experience for both.

Missouri also imposes education and fee burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, veterinary technicians, who are licensed by only 36 states, must complete two years (730 days) of education and pay \$360 in fees to become licensed in Missouri. Meanwhile, EMTs—who provide emergency first aid to humans—need complete just 100 hours (roughly 23 days) of education and pay just \$80 in fees. Missouri should reduce or repeal its illogically burdensome requirements for vet techs and other occupations, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Coach, Head (High School Sports)	48	\$191	2,920	0.5 clock hours and 4 years	4 years	3	0	0
2	Preschool Teacher, Public School	50	\$191	2,920	4 years	4 years	3	0	0
3	Athletic Trainer	49	\$400	1,460	4 years	None	1	0	0
4	Psychiatric Aide	1	\$0	730	None	2 years	0	12	18
4	Psychiatric Technician	5	\$0	730	None	2 years	0	12	18
6	Pest Control Applicator	51	\$150	730	2 years	None	2	0	18
7	Earth Driller, Water Well	51	\$90	730	None	2 years	2	0	18
8	Veterinary Technician	36	\$360	730	2 years	None	2	0	0
9	Shampooer	37	\$160	350	1,500 clock hours	None	2	10	17
10	Cosmetologist	51	\$150	350	1,500 clock hours	None	2	10	17
11	Interpreter, Sign Language	22	\$438	420	60 credit hours	None	2	0	18
12	Makeup Artist	41	\$150	175	750 clock hours	None	2	10	17
12	Skin Care Specialist	50	\$150	175	750 clock hours	None	2	10	17
14	Manicurist	50	\$150	93	400 clock hours	None	2	10	17
15	Barber	51	\$45	233	1,000 clock hours	None	2	0	17
16	Massage Therapist	44	\$365	117	500 clock hours	None	1	0	18
17	Gaming Supervisor	30	\$1,100	0	None	None	0	0	18
17	Slot Supervisor	28	\$1,100	0	None	None	0	0	18
19	School Bus Driver	51	\$80	1	8 clock hours	None	6	0	18
20	Bus Driver, City/Transit	51	\$80	0	None	None	5	0	18
20	Truck Driver, Tractor-Trailer	51	\$80	0	None	None	5	0	18
22	Truck Driver, Other	51	\$80	0	None	None	4	0	18
23	Emergency Medical Technician	51	\$80	23	100 clock hours	None	2	0	18
24	Vegetation Pesticide Applicator	51	\$150	0	None	None	2	0	18
25	Mobile Home Installer	39	\$150	1	8 clock hours	None	1	0	18
26	Animal Breeder	28	\$125	0	None	None	0	0	18
26	Gaming Cage Worker	29	\$125	0	None	None	0	0	18
26	Gaming Dealer	28	\$125	0	None	None	0	0	18
29	Taxi Driver/Chauffeur	16	\$18	0	None	None	0	0	18
30	Child Care Home, Family	44	\$13	0	None	None	0	0	18
31	Milk Sampler	42	\$25	0	None	None	1	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Pharmacy Technician	44	\$78	0	None	None	0	0	0
33	Auctioneer	30	\$52	0	None	None	0	0	0
34	Landscape Contractor (Commercial)	47	\$50	0	None	None	0	0	0
34	Landscape Contractor (Residential)	48	\$50	0	None	None	0	0	0
36	Taxidermist	28	\$30	0	None	None	0	0	0
37	Fisher, Commercial	43	\$25	0	None	None	0	0	0
Averages		39.6	\$179	348.4			1.5	2.0	12.5

Montana

32

of 102 lower-income occupations licensed

23rd

most burdensome licensing laws

49th

most broadly and onerously licensed state

Montana is one of the least broadly and onerously licensed states in the nation, ranking 49th out of all 50 states and Washington, D.C. Montana licenses 32 of the 102 lower-income occupations studied here, well below the national average. However, Montana's laws for the occupations it does license rank as the 23rd most burdensome because they are slightly more arduous than average, requiring \$261 in fees, 312 days of education and experience, and an estimated two exams.

Montana imposes more onerous requirements than many other states for some occupations. For example, school bus drivers in Montana must demonstrate roughly 1,825 days (five years) of experience. This is six times higher than the national average of just 300 days.

Montana also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For instance, in Montana, manicurists and massage therapists face more stringent requirements than EMTs. To provide their services, these workers must complete between 93 and 117 days of education. EMTs, on the other hand, can become licensed after completing only around 26 days (110 hours) of education. Montana should reduce or repeal its illogical licensing requirements for manicurists, massage therapists and other lower-income occupations, or—if government regulation is necessary—replace them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	School Bus Driver	51	\$26	1,825	None	5 years	6	0	18
2	Midwife, Direct Entry	28	\$1,400	1,295	3 years	10 births	1	12	21
3	Athletic Trainer	49	\$475	1,460	4 years	None	1	0	0
4	Preschool Teacher, Public School	50	\$63	1,460	4 years	None	0	0	0
5	Security Alarm Installer	37	\$472	730	None	2 years	1	0	18
6	Fire Alarm Installer	39	\$605	730	None	2 years	2	0	0
7	Cosmetologist	51	\$254	467	2,000 clock hours	None	2	12	18
8	Barber	51	\$80	350	1,500 clock hours	None	2	12	18
8	Shampooer	37	\$80	350	1,500 clock hours	None	2	12	18
10	Earth Driller, Water Well	51	\$375	365	None	1 year	1	0	0
11	Travel Guide	37	\$1,950	182	None	6 weeks and 100 days	1	0	18
12	Makeup Artist	41	\$254	152	650 clock hours	None	2	12	18
12	Skin Care Specialist	50	\$254	152	650 clock hours	None	2	12	18
14	Crane Operator	18	\$100	233	None	1,000 clock hours	1	0	18
15	Massage Therapist	44	\$335	117	500 clock hours	None	1	12	18
16	Manicurist	50	\$254	93	400 clock hours	None	2	12	18
17	Emergency Medical Technician	51	\$130	26	110 clock hours	None	2	12	18
18	Pharmacy Technician	44	\$189	0	None	None	1	12	18
19	Bus Driver, City/Transit	51	\$26	0	None	None	5	0	18
19	Truck Driver, Tractor-Trailer	51	\$26	0	None	None	5	0	18
21	Truck Driver, Other	51	\$26	0	None	None	4	0	18
22	Security Guard, Unarmed	34	\$127	0	None	None	0	0	18
23	Child Care Home, Family	44	\$37	0	None	None	0	0	18
24	Pest Control Applicator	51	\$55	0	None	None	2	0	0
24	Vegetation Pesticide Applicator	51	\$55	0	None	None	2	0	0
26	Fisher, Commercial	43	\$500	0	None	None	0	0	0
27	Milk Sampler	42	\$5	0	None	None	1	0	0
28	Gaming Dealer	28	\$102	0	None	None	0	0	0
29	Taxidermist	28	\$50	0	None	None	0	0	0
30	Landscape Contractor (Commercial)	47	\$25	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
30	Landscape Contractor (Residential)	48	\$25	0	None	None	0	0	0
32	Coach, Head (High School Sports)	48	\$0	1	4.9 clock hours	None	0	0	0
Averages		43.6	\$261	312.1			1.5	3.8	10.8

Nebraska

63

of 102 lower-income occupations licensed

51st

most burdensome licensing laws

27th

most broadly and onerously licensed state

Nebraska's licensing laws for lower-income occupations are the least burdensome in the nation. They require, on average, \$76 in fees, 118 days of education and experience, and roughly one exam. However, because Nebraska licenses more lower-income occupations than average—63 of the 102 studied here—it is the 27th most broadly and onerously licensed state.

Nebraska licenses several occupations that are rarely licensed elsewhere, and it does so fairly onerously. For example, many states do not license title examiners (44) or bill collection agencies (20). Yet Nebraska title examiners face \$825 in fees and one year of experience, compared to licensed-state averages of \$355 and 104 days. And Nebraskans wishing to open a bill collection agency must demonstrate two years (730 days) of experience, compared to a licensed-state average of 159 days. Given that many states do not license these occupations at all, it is irrational that Nebraska licenses them so onerously.

Nebraska also imposes education requirements on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, barbers and cosmetologists need 2,100 hours (approximately 490 days) of education, while EMTs need only 138 hours (approximately 32 days). In 2017, a bill was introduced that, among other things, would have pared back Nebraska's requirements for barbers, cosmetologists and other occupations. The bill failed, but Nebraska should try again and consider whether such licenses can be repealed altogether or—if government regulation is demonstrably necessary—replaced with less restrictive alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Athletic Trainer	49	\$417	1,460	4 years	None	1	0	19
2	Preschool Teacher, Public School	50	\$351	1,460	4 years	None	2	0	0
3	Veterinary Technician	36	\$410	730	2 years	None	1	0	19
4	Bill Collection Agency	31	\$400	730	None	2 years	0	0	0
5	Fire Alarm Installer	39	\$85	730	None	2 years	1	0	0
6	Barber	51	\$200	490	2,100 clock hours	None	2	12	17
7	Cosmetologist	51	\$78	490	2,100 clock hours	None	1	12	17
7	Shampooer	37	\$78	490	2,100 clock hours	None	1	12	17
9	Title Examiner	7	\$825	365	None	1 year	1	0	19
10	Massage Therapist	44	\$223	233	1,000 clock hours	None	1	0	19
11	Skin Care Specialist	50	\$78	140	600 clock hours	None	1	12	17
12	Manicurist	50	\$78	70	300 clock hours	None	1	12	17
13	Emergency Medical Technician	51	\$80	32	138 clock hours	None	2	12	18
14	Interpreter, Sign Language	22	\$345	0	None	None	2	12	18
15	Pharmacy Technician	44	\$154	0	None	None	1	12	18
16	School Bus Driver	51	\$34	2	11 clock hours	None	6	0	18
17	Child Care Home, Family	44	\$38	0	None	2 clock hours	0	12	19
18	Bus Driver, City/Transit	51	\$26	0	None	None	5	0	18
18	Truck Driver, Tractor-Trailer	51	\$26	0	None	None	5	0	18
20	Truck Driver, Other	51	\$26	0	None	None	4	0	18
21	Pest Control Applicator	51	\$90	0	None	None	2	0	16
21	Vegetation Pesticide Applicator	51	\$90	0	None	None	2	0	16
23	Earth Driller, Water Well	51	\$38	0	None	None	2	0	19
24	Makeup Artist	41	\$10	0	None	None	0	0	19
25	Coach, Head (High School Sports)	48	\$55	22	4 clock hours and 3 credit hours	None	0	0	0
26	Milk Sampler	42	\$25	0	None	None	2	0	0
27	Animal Breeder	28	\$125	0	None	None	0	0	0
28	Landscape Contractor (Commercial)	47	\$115	0	None	None	0	0	0
28	Landscape Contractor (Residential)	48	\$115	0	None	None	0	0	0
30	Fisher, Commercial	43	\$99	0	None	None	0	0	0
31	Farm Labor Contractor	10	\$40	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Locksmith	14	\$5	0	None	None	0	0	0
33	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$0	0	None	None	0	0	0
33	Carpenter/Cabinet Maker Contractor (Residential)	30	\$0	0	None	None	0	0	0
33	Cement Finishing Contractor (Commercial)	24	\$0	0	None	None	0	0	0
33	Cement Finishing Contractor (Residential)	30	\$0	0	None	None	0	0	0
33	Door Repair Contractor (Commercial)	24	\$0	0	None	None	0	0	0
33	Door Repair Contractor (Residential)	29	\$0	0	None	None	0	0	0
33	Drywall Installation Contractor (Commercial)	25	\$0	0	None	None	0	0	0
33	Drywall Installation Contractor (Residential)	30	\$0	0	None	None	0	0	0
33	Floor Sander Contractor (Commercial)	22	\$0	0	None	None	0	0	0
33	Floor Sander Contractor (Residential)	27	\$0	0	None	None	0	0	0
33	Glazier Contractor (Commercial)	26	\$0	0	None	None	0	0	0
33	Glazier Contractor (Residential)	30	\$0	0	None	None	0	0	0
33	HVAC Contractor (Commercial)	37	\$0	0	None	None	0	0	0
33	HVAC Contractor (Residential)	35	\$0	0	None	None	0	0	0
33	Insulation Contractor (Commercial)	25	\$0	0	None	None	0	0	0
33	Insulation Contractor (Residential)	30	\$0	0	None	None	0	0	0
33	Iron/Steel Contractor (Commercial)	26	\$0	0	None	None	0	0	0
33	Iron/Steel Contractor (Residential)	30	\$0	0	None	None	0	0	0
33	Mason Contractor (Commercial)	26	\$0	0	None	None	0	0	0
33	Mason Contractor (Residential)	31	\$0	0	None	None	0	0	0
33	Painting Contractor (Commercial)	22	\$0	0	None	None	0	0	0
33	Painting Contractor (Residential)	28	\$0	0	None	None	0	0	0
33	Paving Contractor (Commercial)	24	\$0	0	None	None	0	0	0
33	Paving Contractor (Residential)	28	\$0	0	None	None	0	0	0
33	Pipelayer Contractor	27	\$0	0	None	None	0	0	0
33	Sheet Metal Contractor, HVAC (Commercial)	37	\$0	0	None	None	0	0	0
33	Sheet Metal Contractor, HVAC (Residential)	36	\$0	0	None	None	0	0	0
33	Sheet Metal Contractor, Other (Commercial)	26	\$0	0	None	None	0	0	0
33	Sheet Metal Contractor, Other (Residential)	31	\$0	0	None	None	0	0	0
33	Terrazzo Contractor (Commercial)	23	\$0	0	None	None	0	0	0
33	Terrazzo Contractor (Residential)	28	\$0	0	None	None	0	0	0
NA	Midwife, Direct Entry	28	Prohibited or appears to be prohibited						
Averages		35.0	\$76	118.2			0.7	1.7	6.0

Nevada

75
of 102 lower-income
occupations licensed

2nd
most burdensome
licensing laws

2nd
most broadly and
onerously licensed state

Nevada is the second worst state in the nation for occupational licensing of lower-income occupations. Licensing 75 of the 102 studied here, Nevada is more broadly and onerously licensed than all but one other state. Nevada also has the second most burdensome licensing laws, requiring, on average, \$704 in fees, 861 days—more than two years—of education and experience, and around two exams.

Nevada licenses some rarely licensed occupations very onerously. For instance, Nevada is one of just four states that license interior designers, its second most onerously licensed occupation. The state requires four years of education and two years of experience (2,190 days total), \$1,215 in fees, and one exam. Nevada is also one of just nine states that license animal trainers. Its fees for this occupation are nearly seven times the average across licensed states (\$1,408 compared to \$209).

Nevada also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, 20 states do not license bill collection agencies at all, yet in Nevada a person wishing to open one must demonstrate 730 days (two years) of experience. By contrast, EMTs need just 26 days (110 hours) of education. And the fees bill collection agencies must pay for licensure are over 10 times the fees for EMTs (\$1,010 versus \$90). Nevada can improve its dismal rankings—and expand opportunity for lower-income workers—by reducing or repealing its irrational licensing burdens for bill collection agencies and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Earth Driller, Water Well	51	\$1,178	2,190	None	6 years	3	0	18
2	Interior Designer	4	\$1,215	2,190	4 years	2 years	1	0	0
3	Interpreter, Sign Language	22	\$675	1,469	4 years and 40 clock hours	None	2	12	18
4	Fire Alarm Installer	39	\$1,545	1,460	None	4 years	2	0	18
5	Landscape Contractor (Residential)	48	\$1,253	1,460	None	4 years	2	0	18
6	Landscape Contractor (Commercial)	47	\$1,253	1,460	None	4 years	2	0	18
7	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$1,078	1,460	None	4 years	2	0	18
7	Carpenter/Cabinet Maker Contractor (Residential)	30	\$1,078	1,460	None	4 years	2	0	18
7	Cement Finishing Contractor (Commercial)	24	\$1,078	1,460	None	4 years	2	0	18
7	Door Repair Contractor (Commercial)	24	\$1,078	1,460	None	4 years	2	0	18
7	Door Repair Contractor (Residential)	29	\$1,078	1,460	None	4 years	2	0	18
7	Floor Sander Contractor (Commercial)	22	\$1,078	1,460	None	4 years	2	0	18
7	Floor Sander Contractor (Residential)	27	\$1,078	1,460	None	4 years	2	0	18
7	HVAC Contractor (Commercial)	37	\$1,078	1,460	None	4 years	2	0	18
7	HVAC Contractor (Residential)	35	\$1,078	1,460	None	4 years	2	0	18
7	Iron/Steel Contractor (Commercial)	26	\$1,078	1,460	None	4 years	2	0	18
7	Iron/Steel Contractor (Residential)	30	\$1,078	1,460	None	4 years	2	0	18
7	Mason Contractor (Commercial)	26	\$1,078	1,460	None	4 years	2	0	18
7	Mason Contractor (Residential)	31	\$1,078	1,460	None	4 years	2	0	18
7	Painting Contractor (Commercial)	22	\$1,078	1,460	None	4 years	2	0	18
7	Painting Contractor (Residential)	28	\$1,078	1,460	None	4 years	2	0	18
7	Paving Contractor (Commercial)	24	\$1,078	1,460	None	4 years	2	0	18
7	Paving Contractor (Residential)	28	\$1,078	1,460	None	4 years	2	0	18
7	Pipelayer Contractor	27	\$1,078	1,460	None	4 years	2	0	18
7	Sheet Metal Contractor, HVAC (Commercial)	37	\$1,078	1,460	None	4 years	2	0	18
7	Sheet Metal Contractor, HVAC (Residential)	36	\$1,078	1,460	None	4 years	2	0	18
7	Sheet Metal Contractor, Other (Commercial)	26	\$1,078	1,460	None	4 years	2	0	18
7	Sheet Metal Contractor, Other (Residential)	31	\$1,078	1,460	None	4 years	2	0	18
29	Cement Finishing Contractor (Residential)	30	\$938	1,460	None	4 years	2	0	18
30	Glazier Contractor (Commercial)	26	\$1,033	1,460	None	4 years	1	0	18
30	Glazier Contractor (Residential)	30	\$1,033	1,460	None	4 years	1	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
30	Insulation Contractor (Commercial)	25	\$1,033	1,460	None	4 years	1	0	18
30	Insulation Contractor (Residential)	30	\$1,033	1,460	None	4 years	1	0	18
30	Terrazzo Contractor (Commercial)	23	\$1,033	1,460	None	4 years	1	0	18
30	Terrazzo Contractor (Residential)	28	\$1,033	1,460	None	4 years	1	0	18
36	Drywall Installation Contractor (Commercial)	25	\$983	1,460	None	4 years	1	0	18
36	Drywall Installation Contractor (Residential)	30	\$983	1,460	None	4 years	1	0	18
38	Preschool Teacher, Public School	50	\$577	1,460	4 years	None	3	0	0
39	Athletic Trainer	49	\$640	1,460	4 years	None	1	0	0
40	Optician	22	\$900	1,118	2 years	1 year and 100 clock hours	3	12	18
41	Barber	51	\$165	896	1,500 clock hours	18 months	4	10	18
42	Bill Collection Agency	31	\$1,010	730	None	2 years	1	0	21
43	Veterinary Technician	36	\$410	730	2 years	None	2	0	0
44	Mobile Home Installer	39	\$553	730	None	2 years	1	0	0
45	Cosmetologist	51	\$145	373	1,600 clock hours	None	2	10	18
46	Child Care Home, Family	44	\$58	235	None	1,011 clock hours	0	12	21
47	Skin Care Specialist	50	\$145	210	900 clock hours	None	2	10	18
48	Pest Control Applicator	51	\$450	294	16 credit hours	6 months	3	0	18
48	Vegetation Pesticide Applicator	51	\$450	294	16 credit hours	6 months	3	0	18
50	Pharmacy Technician	44	\$80	222	600 clock hours	350 clock hours	0	12	18
51	Manicurist	50	\$145	140	600 clock hours	None	2	10	18
52	Emergency Medical Technician	51	\$90	26	110 clock hours	None	2	12	18
53	Travel Guide	37	\$2,250	0	None	None	2	0	21
54	School Bus Driver	51	\$260	3	10 clock hours	10 clock hours	6	0	21
55	Massage Therapist	44	\$575	117	500 clock hours	None	1	0	18
56	Bus Driver, City/Transit	51	\$216	0	None	None	5	0	21
57	Shampooer	37	\$115	12	50 clock hours	None	1	10	16
58	Animal Trainer	9	\$1,408	0	None	None	2	0	21
59	Truck Driver, Tractor-Trailer	51	\$235	0	None	None	5	0	18
60	Makeup Artist	41	\$25	0	None	None	0	10	18
61	Truck Driver, Other	51	\$235	0	None	None	4	0	18
62	Crane Operator	18	\$225	0	None	None	2	0	18
63	Security Guard, Unarmed	34	\$85	0	None	None	1	0	18
64	Gaming Cage Worker	29	\$75	0	None	None	0	0	21
64	Gaming Dealer	28	\$75	0	None	None	0	0	21
64	Gaming Supervisor	30	\$75	0	None	None	0	0	21
64	Slot Supervisor	28	\$75	0	None	None	0	0	21
68	Weigher	25	\$120	0	None	None	1	0	0
69	Fisher, Commercial	43	\$500	0	None	None	0	0	0
70	Milk Sampler	42	\$20	0	None	None	1	0	0
71	Wildlife Control Operator	23	\$250	0	None	None	0	0	0
72	Travel Agency	7	\$125	0	None	None	0	0	0
73	Locksmith	14	\$62	0	None	None	0	0	0
74	Taxidermist	28	\$44	0	None	None	0	0	0
75	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0
NA	Midwife, Direct Entry	28	Prohibited or appears to be prohibited						
Averages		33.6	\$704	860.5			1.7	1.6	15.3

New Hampshire

38
of 102 lower-income
occupations licensed

34th
most burdensome
licensing laws

41st
most broadly and
onerously licensed state

New Hampshire licenses 38 of the 102 lower-income occupations studied here—fewer than average—and its laws rank as the 34th most burdensome. On average, New Hampshire's barriers to entry to lower-income occupations are \$183 in fees, 273 days of education and experience, and roughly two exams. New Hampshire ranks as the 41st most broadly and onerously licensed, placing it among the nation's less burdened states.

New Hampshire licenses several occupations that are rarely licensed elsewhere, such as animal trainers (licensed by eight other states), sign language interpreters (21 others), opticians (21 others) and auctioneers (29 others). Among those, sign language interpreters face particularly steep burdens in New Hampshire: \$875 in fees, about 1,469 days (four years and 40 hours) of education and two exams.

New Hampshire also makes it much more difficult to enter many occupations—such as barbering or cosmetology—than it does to become an EMT, an occupation that arguably has a stronger connection to public safety. Barbers must complete 800 hours (an estimated 187 days) of education, while cosmetologists must complete 1,500 hours (an estimated 350 days). EMTs, on the other hand, need only complete 150 hours (an estimated 35 days) of education. In 2017, New Hampshire exempted hair braiders from the state's cosmetology laws. It could expand opportunities by reducing or repealing its heavy licensing burdens for other lower-income occupations, or—if government regulation is demonstrably necessary—by replacing them with less restrictive alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$556	2,555	4 years	3 years	2	0	0
2	Interpreter, Sign Language	22	\$875	1,469	4 years and 40 clock hours	None	2	0	18
3	Athletic Trainer	49	\$470	1,460	4 years	None	1	0	0
4	Midwife, Direct Entry	28	\$1,210	1,095	3 years	None	2	12	0
5	Earth Driller, Water Well	51	\$185	1,095	None	3 years	1	0	0
6	School Bus Driver	51	\$100	732	10 clock hours	2 years	6	0	18
7	Mobile Home Installer	39	\$75	731	6 clock hours	2 years	0	0	18
8	Cosmetologist	51	\$198	350	1,500 clock hours	None	2	12	0
9	Barber	51	\$129	187	800 clock hours	None	2	12	16
10	Massage Therapist	44	\$305	175	750 clock hours	None	1	12	18
11	Makeup Artist	41	\$198	140	600 clock hours	None	2	12	0
11	Skin Care Specialist	50	\$198	140	600 clock hours	None	2	12	0
13	Manicurist	50	\$198	70	300 clock hours	None	2	12	0
14	Vegetation Pesticide Applicator	51	\$45	4	24 clock hours	None	6	0	18
15	Truck Driver, Tractor-Trailer	51	\$80	0	None	None	6	0	18
16	Bus Driver, City/Transit	51	\$90	0	None	None	5	0	18
17	Truck Driver, Other	51	\$80	0	None	None	5	0	18
18	Emergency Medical Technician	51	\$80	35	150 clock hours	None	2	0	18
19	Pest Control Applicator	51	\$40	1	8 clock hours	None	4	0	18
20	Auctioneer	30	\$275	19	80 clock hours	None	1	0	18
21	Child Care Home, Family	44	\$35	42	6 credit hours	None	0	0	18
22	Travel Guide	37	\$125	0	None	None	2	0	18
23	Shampooer	37	\$25	35	150 clock hours	None	0	0	16
24	Weigher	25	\$116	0	None	None	1	0	18
25	Pharmacy Technician	44	\$50	19	None	80 clock hours	0	0	16
26	Gaming Supervisor	30	\$550	0	None	None	0	0	0
27	Optician	22	\$110	0	None	None	0	0	0
28	Wildlife Control Operator	23	\$101	1	6 clock hours	None	0	0	0
29	Animal Breeder	28	\$100	0	None	None	0	0	0
30	Gaming Dealer	28	\$80	0	None	None	0	0	0
31	Animal Trainer	9	\$39	3	None	15 clock hours	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Fisher, Commercial	43	\$50	0	None	None	0	0	0
32	Taxidermist	28	\$50	0	None	None	0	0	0
34	Security Guard, Unarmed	34	\$40	0	None	None	0	0	0
35	Coach, Head (High School Sports)	48	\$25	1	4.5 clock hours	None	0	0	0
36	Landscape Contractor (Commercial)	47	\$25	0	None	None	0	0	0
36	Landscape Contractor (Residential)	48	\$25	0	None	None	0	0	0
38	Milk Sampler	42	\$5	0	None	None	0	0	0
Averages		40.3	\$183	272.6			1.5	2.2	7.9

New Jersey

54
of 102 lower-income
occupations licensed

16th
most burdensome
licensing laws

28th
most broadly and
onerously licensed state

New Jersey licenses 54 of the 102 lower-income occupations studied here. Its laws rank as the 16th most burdensome and require, on average, \$224 in fees, 422 days of education and experience, and around one exam. New Jersey ranks as the 28th most broadly and onerously licensed state.

New Jersey licenses several occupations rarely licensed elsewhere. For example, few other states license animal control officers (six), locksmiths (13), taxi drivers and chauffeurs (15), or crane operators (17). Among those, locksmiths and crane operators are particularly onerously licensed. Locksmiths face unusually high education and experience requirements—roughly 732 days, comprising two years of experience and 10 hours of education. By comparison, the average across licensed states is just 54 days lost to education and experience. And crane operators pay fees that are more than double the average across licensed states: \$475 versus \$225.

New Jersey also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, its education and experience requirements for barbers and cosmetologists are much higher than those for EMTs. Barbers must study for 900 hours (roughly 210 days) and cosmetologists for 1,200 hours (roughly 280 days), while EMTs need only 110 hours of education and 10 hours of experience (roughly 27 days total). New Jersey could improve job prospects for its lower-income residents by lifting or easing its heavy licensing burdens for barbers, cosmetologists and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Coach, Head (High School Sports)	48	\$535	2,191	4 years and 4 clock hours	2 years	2	12	18
2	Preschool Teacher, Public School	50	\$535	2,190	4 years	2 years	2	12	18
3	HVAC Contractor (Commercial)	37	\$331	1,825	None	5 years	2	0	18
3	HVAC Contractor (Residential)	35	\$331	1,825	None	5 years	2	0	18
3	Sheet Metal Contractor, HVAC (Commercial)	37	\$331	1,825	None	5 years	2	0	18
3	Sheet Metal Contractor, HVAC (Residential)	36	\$331	1,825	None	5 years	2	0	18
7	Athletic Trainer	49	\$440	1,460	4 years	None	1	12	18
8	Security Alarm Installer	37	\$168	1,460	None	4 years	1	12	18
9	Midwife, Direct Entry	28	\$1,210	1,095	3 years	None	1	0	18
10	School Bus Driver	51	\$171	1,095	None	3 years	6	0	21
11	Bus Driver, City/Transit	51	\$169	1,095	None	3 years	5	0	21
12	Earth Driller, Water Well	51	\$350	1,095	None	3 years	1	12	0
13	Optician	22	\$420	851	2 years	4 months	2	12	17
14	Locksmith	14	\$217	732	10 clock hours	2 years	1	12	18
15	Fire Alarm Installer	39	\$555	730	None	2 years	2	0	18
16	Cosmetologist	51	\$119	280	1,200 clock hours	None	2	12	17
17	Barber	51	\$80	210	900 clock hours	None	2	12	17
17	Shampooer	37	\$80	210	900 clock hours	None	2	12	17
19	Crane Operator	18	\$475	233	None	1,000 clock hours	2	0	18
20	Makeup Artist	41	\$119	140	600 clock hours	None	2	12	17
20	Skin Care Specialist	50	\$119	140	600 clock hours	None	2	12	17
22	Manicurist	50	\$169	70	300 clock hours	None	2	12	17
23	Vegetation Pesticide Applicator	51	\$230	29	4 clock hours	120 clock hours	4	0	18
24	Pharmacy Technician	44	\$85	0	None	None	0	12	18
25	Truck Driver, Other	51	\$167	0	None	None	4	0	18
25	Truck Driver, Tractor-Trailer	51	\$167	0	None	None	4	0	18
27	Emergency Medical Technician	51	\$145	27	110 clock hours	10 clock hours	2	0	18
28	Pest Control Applicator	51	\$230	10	4 clock hours	40 clock hours	2	0	18
29	Massage Therapist	44	\$176	117	500 clock hours	None	0	0	0
30	Gaming Supervisor	30	\$750	0	None	None	0	0	0
30	Slot Supervisor	28	\$750	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Security Guard, Unarmed	34	\$116	4	24 clock hours	None	0	0	18
33	Taxi Driver/Chauffeur	16	\$51	0	None	None	0	0	21
34	Animal Control Officer	7	\$0	11	45 clock hours	None	0	0	18
35	Milk Sampler	42	\$0	0	None	None	2	0	0
36	Landscape Contractor (Residential)	48	\$185	0	None	None	0	0	0
37	Carpenter/Cabinet Maker Contractor (Residential)	30	\$110	0	None	None	0	0	0
37	Cement Finishing Contractor (Residential)	30	\$110	0	None	None	0	0	0
37	Door Repair Contractor (Residential)	29	\$110	0	None	None	0	0	0
37	Drywall Installation Contractor (Residential)	30	\$110	0	None	None	0	0	0
37	Floor Sander Contractor (Residential)	27	\$110	0	None	None	0	0	0
37	Glazier Contractor (Residential)	30	\$110	0	None	None	0	0	0
37	Insulation Contractor (Residential)	30	\$110	0	None	None	0	0	0
37	Iron/Steel Contractor (Residential)	30	\$110	0	None	None	0	0	0
37	Mason Contractor (Residential)	31	\$110	0	None	None	0	0	0
37	Painting Contractor (Residential)	28	\$110	0	None	None	0	0	0
37	Paving Contractor (Residential)	28	\$110	0	None	None	0	0	0
37	Sheet Metal Contractor, Other (Residential)	31	\$110	0	None	None	0	0	0
37	Terrazzo Contractor (Residential)	28	\$110	0	None	None	0	0	0
50	Fisher, Commercial	43	\$102	0	None	None	0	0	0
51	Gaming Cage Worker	29	\$95	0	None	None	0	0	0
51	Gaming Dealer	28	\$95	0	None	None	0	0	0
53	Landscape Contractor (Commercial)	47	\$75	0	None	None	0	0	0
54	Animal Breeder	28	\$18	0	None	None	0	0	0
Averages		36.8	\$224	421.7			1.2	3.1	10.0

New Mexico

66

of 102 lower-income occupations licensed

9th

most burdensome licensing laws

11th

most broadly and onerously licensed state

New Mexico's licensing laws for lower-income occupations are some of the most arduous in the nation, ranking as the ninth most burdensome. The laws require, on average, \$266 in fees, 520 days of education and experience, and about two exams. New Mexico also licenses more lower-income occupations than average—66 of the 102 studied here—making it the 11th most broadly and onerously licensed state.

New Mexico frequently licenses occupations that are unlicensed by other states, such as sign language interpreters (licensed by 21 other states), crane operators (17 others), bartenders (12 others), packers (five others), non-instructional teacher assistants (four others) and dietetic technicians (just one other). Dietetic technicians also face particularly steep burdens in New Mexico, where they must pay \$180 in fees, sacrifice 835 days—more than two years—to education and experience, and pass an exam. Dietetic technicians operate nearly everywhere else without needing

state licensure, calling into question whether New Mexico should license them at all—let alone so onerously.

New Mexico also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, the requirements to run a bill collection agency in New Mexico are \$800 in fees, two years (730 days) of experience and one exam. Meanwhile, the requirements to become an EMT are \$218 in fees, 180 hours (roughly 42 days) of education and two exams. It should not require 17 times more education and experience to run a bill collection agency than it does to become an emergency first responder. New Mexico could broaden employment opportunities in the state by reducing or repealing its illogical licensing requirements for bill collection agencies and other occupations, or—if government regulation is necessary—by replacing licenses with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$809	2,555	4 years	3 years	2	0	18
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$531	1,460	None	4 years	4	0	18
2	Sheet Metal Contractor, HVAC (Residential)	36	\$531	1,460	None	4 years	4	0	18
4	Interpreter, Sign Language	22	\$740	1,469	4 years and 40 clock hours	None	2	0	18
5	HVAC Contractor (Commercial)	37	\$318	1,460	None	4 years	2	0	18
5	HVAC Contractor (Residential)	35	\$318	1,460	None	4 years	2	0	18
7	Athletic Trainer	49	\$525	1,460	4 years	None	2	0	0
8	Midwife, Direct Entry	28	\$1,120	1,095	3 years	None	2	12	0
9	Travel Guide	37	\$550	1,095	None	3 years	1	0	21
10	Bill Collection Agency	31	\$800	730	None	2 years	1	12	18
11	Security Alarm Installer	37	\$462	730	None	2 years	3	0	18
12	Fire Alarm Installer	39	\$462	730	None	2 years	3	0	18
13	Pipelayer Contractor	27	\$318	730	None	2 years	3	0	18
14	Dietetic Technician	2	\$180	835	2 years	450 clock hours	1	0	0
15	Cement Finishing Contractor (Commercial)	24	\$318	730	None	2 years	2	0	18
15	Cement Finishing Contractor (Residential)	30	\$318	730	None	2 years	2	0	18
15	Drywall Installation Contractor (Commercial)	25	\$318	730	None	2 years	2	0	18
15	Drywall Installation Contractor (Residential)	30	\$318	730	None	2 years	2	0	18
15	Iron/Steel Contractor (Commercial)	26	\$318	730	None	2 years	2	0	18
15	Iron/Steel Contractor (Residential)	30	\$318	730	None	2 years	2	0	18
15	Mason Contractor (Commercial)	26	\$318	730	None	2 years	2	0	18
15	Mason Contractor (Residential)	31	\$318	730	None	2 years	2	0	18
15	Paving Contractor (Commercial)	24	\$318	730	None	2 years	2	0	18
15	Paving Contractor (Residential)	28	\$318	730	None	2 years	2	0	18
25	Earth Driller, Water Well	51	\$200	730	None	2 years	2	0	20
26	Crane Operator	18	\$194	730	None	2 years	2	0	18
27	Door Repair Contractor (Commercial)	24	\$249	730	None	2 years	1	0	18
27	Door Repair Contractor (Residential)	29	\$249	730	None	2 years	1	0	18
27	Glazier Contractor (Commercial)	26	\$249	730	None	2 years	1	0	18
27	Glazier Contractor (Residential)	30	\$249	730	None	2 years	1	0	18
27	Insulation Contractor (Commercial)	25	\$249	730	None	2 years	1	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
27	Insulation Contractor (Residential)	30	\$249	730	None	2 years	1	0	18
27	Sheet Metal Contractor, Other (Commercial)	26	\$249	730	None	2 years	1	0	18
27	Sheet Metal Contractor, Other (Residential)	31	\$249	730	None	2 years	1	0	18
35	Veterinary Technician	36	\$435	730	2 years	None	2	0	0
36	Cosmetologist	51	\$253	373	1,600 clock hours	None	3	10	17
37	Barber	51	\$160	280	1,200 clock hours	None	3	10	17
37	Shampooer	37	\$160	280	1,200 clock hours	None	3	10	17
39	Massage Therapist	44	\$275	152	650 clock hours	None	2	12	18
40	Makeup Artist	41	\$253	140	600 clock hours	None	3	10	17
40	Skin Care Specialist	50	\$253	140	600 clock hours	None	3	10	17
42	Manicurist	50	\$253	93	400 clock hours	None	3	10	17
43	Pharmacy Technician	44	\$379	140	None	600 clock hours	1	0	0
44	School Bus Driver	51	\$18	8	36 clock hours	None	6	0	18
45	Teacher Assistant, Non-Instructional	5	\$79	0	None	None	0	12	18
46	Emergency Medical Technician	51	\$218	42	180 clock hours	None	2	0	18
47	Bus Driver, City/Transit	51	\$18	0	None	None	5	0	18
47	Truck Driver, Tractor-Trailer	51	\$18	0	None	None	5	0	18
49	Truck Driver, Other	51	\$18	0	None	None	4	0	18
50	Coach, Head (High School Sports)	48	\$54	1	4 clock hours	None	0	12	0
51	Vegetation Pesticide Applicator	51	\$240	28	4 credit hours	None	3	0	0
52	Security Guard, Unarmed	34	\$94	1	8 clock hours	None	1	0	18
53	Bartender	13	\$0	1	4.5 clock hours	None	1	0	21
54	Pest Control Applicator	51	\$185	28	4 credit hours	None	2	0	0
55	Gaming Cage Worker	29	\$75	0	None	None	0	0	21
55	Gaming Dealer	28	\$75	0	None	None	0	0	21
55	Gaming Supervisor	30	\$75	0	None	None	0	0	21
55	Slot Supervisor	28	\$75	0	None	None	0	0	21
59	Child Care Home, Family	44	\$59	0	None	None	0	0	18
60	Mobile Home Installer	39	\$269	0	None	None	1	0	0
61	Milk Sampler	42	\$0	1	1 day	None	1	0	0
62	Weigher	25	\$150	0	None	None	0	0	0
63	Landscape Contractor (Commercial)	47	\$75	0	None	None	0	0	0
63	Landscape Contractor (Residential)	48	\$75	0	None	None	0	0	0
65	Fisher, Commercial	43	\$25	0	None	None	0	0	0
65	Packer	6	\$25	0	None	None	0	0	0
Averages		34.9	\$266	519.8			1.8	1.8	14.1

New York

41

of 102 lower-income occupations licensed

32nd

most burdensome licensing laws

37th

most broadly and onerously licensed state

New York licenses 41 of the 102 lower-income occupations studied here, which is fewer than most other states. Its laws are the 32nd most burdensome, requiring an average of \$279 in fees, 275 days of education and experience, and around two exams. New York ranks as the 37th most broadly and onerously licensed state.

Despite licensing fewer occupations than average, New York licenses some occupations that are rarely licensed elsewhere. For example, few other states license animal trainers (eight), upholsterers (nine), farm labor contractors (nine) or crane operators (17). Not only are crane operators unlicensed by most states, but they also face particularly heavy burdens in New York. Aspiring crane operators in the Empire State must demonstrate three years (1,095 days) of experience before they can work. But the average education and experience required of crane operators across licensed states is only 222 days of education and experience—just one fifth of the time required by New York. New York also requires much higher fees

for some occupations than other states. While the national average fees for pesticide applicator licenses are \$260, New York charges \$3,000 for its vegetation pesticide applicator license and \$2,200 for its pest control applicator one.

New York also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, its education requirements for veterinary technicians are considerably higher than those for EMTs, who provide emergency first aid to humans. Aspiring EMTs study for about a month (118 hours or an estimated 28 days), while would-be vet techs need 26 times more education—two years (730 days)—to become licensed. New York should evaluate whether such onerous licensing requirements can be reduced, repealed or—if government regulation is necessary—replaced with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$914	2,555	4 years	3 years	4	0	0
2	Midwife, Direct Entry	28	\$822	2,190	6 years	None	1	0	21
3	Crane Operator	18	\$150	1,095	None	3 years	2	0	21
4	Coach, Head (High School Sports)	48	\$290	1,125	130 clock hours	3 years	0	0	0
5	Optician	22	\$333	730	2 years	None	2	12	18
6	Mobile Home Installer	39	\$200	733	16 clock hours	2 years	1	12	0
7	Veterinary Technician	36	\$177	730	2 years	None	1	0	0
8	Vegetation Pesticide Applicator	51	\$3,000	380	66 clock hours	1 year	8	0	17
9	Pest Control Applicator	51	\$2,200	375	42 clock hours	1 year	4	0	17
10	Massage Therapist	44	\$368	233	1,000 clock hours	None	1	12	18
11	Child Care Home, Family	44	\$25	369	None	1 year and 26 clock hours	0	0	18
12	Cosmetologist	51	\$70	233	1,000 clock hours	None	2	0	17
13	Makeup Artist	41	\$70	140	600 clock hours	None	2	0	17
13	Skin Care Specialist	50	\$70	140	600 clock hours	None	2	0	17
15	School Bus Driver	51	\$50	0	2 clock hours	None	6	0	21
16	Shampooer	37	\$70	54	231 clock hours	None	3	0	17
17	Barber	51	\$70	54	231 clock hours	None	3	0	17
18	Manicurist	50	\$70	58	250 clock hours	None	2	0	17
19	Truck Driver, Tractor-Trailer	51	\$50	0	None	None	5	0	21
20	Bus Driver, City/Transit	51	\$50	0	None	None	5	0	18
21	Truck Driver, Other	51	\$50	0	None	None	4	0	18
22	Emergency Medical Technician	51	\$20	28	118 clock hours	None	2	0	18
23	Security Alarm Installer	37	\$287	19	81 clock hours	None	1	0	18
24	Fire Alarm Installer	39	\$285	19	81 clock hours	None	1	0	18
25	Security Guard, Unarmed	34	\$135	1	8 clock hours	None	1	0	18
26	Travel Guide	37	\$100	0	None	None	1	0	18
27	Fisher, Commercial	43	\$250	0	None	None	0	0	16
28	Taxi Driver/Chauffeur	16	\$0	0	None	None	0	0	18
29	Earth Driller, Water Well	51	\$150	0	None	None	2	0	0
30	Wildlife Control Operator	23	\$50	0	None	None	1	0	0
31	Upholsterer	10	\$150	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Gaming Cage Worker	29	\$105	0	None	None	0	0	0
32	Gaming Dealer	28	\$105	0	None	None	0	0	0
32	Gaming Supervisor	30	\$105	0	None	None	0	0	0
32	Slot Supervisor	28	\$105	0	None	None	0	0	0
36	Farm Labor Contractor	10	\$103	0	None	None	0	0	0
37	Animal Breeder	28	\$100	0	None	None	0	0	0
37	Landscape Contractor (Commercial)	47	\$100	0	None	None	0	0	0
37	Landscape Contractor (Residential)	48	\$100	0	None	None	0	0	0
40	Animal Trainer	9	\$90	0	None	None	0	0	0
41	Weigher	25	\$15	0	None	None	0	0	0
Averages		37.5	\$279	274.7			1.6	0.9	10.6

North Carolina

67
of 102 lower-income
occupations licensed

41st
most burdensome
licensing laws

17th
most broadly and
onerously licensed state

North Carolina's licensing laws for lower-income occupations are the 41st most burdensome in the nation. They require, on average, \$199 in fees, 234 days of education and experience, and around one exam. Because North Carolina licenses more of the lower-income occupations studied here than most other states—67 of 102—it ranks as the nation's 17th most broadly and onerously licensed state.

North Carolina licenses several occupations that are unlicensed elsewhere, such as opticians and sign language interpreters, who are both licensed by just 21 other states. Despite infrequent licensure in other states, both occupations are fairly onerously licensed in North Carolina. Opticians must demonstrate about 912 days of education and experience (comprising two years of education and six months of experience) before becoming licensed—much more than the average of 714 days across licensed states. And sign language interpreters face \$938 in fees

and 1,469 days (four years and 40 hours) of education in North Carolina—considerably higher than the licensed-state averages of \$661 in fees and 1,088 days of education and experience.

North Carolina also licenses some occupations much more onerously than it does others that may have a stronger connection to public safety. For example, North Carolina has one of the most burdensome barbering licenses in the nation, requiring \$270 in fees, 722 days lost to education and experience (comprising 1,528 hours of schooling and one year of experience), and three exams. But EMTs need just 43 days (166 hours of education and 24 hours of experience) and two exams to become licensed. North Carolina should consider whether its heavy licensing burdens for barbers and other occupations can be reduced, repealed or—if government regulation is necessary—replaced with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$260	2,555	4 years	3 years	1	0	18
2	Interpreter, Sign Language	22	\$938	1,469	4 years and 40 clock hours	None	2	0	18
3	Athletic Trainer	49	\$500	1,460	4 years	None	1	0	0
4	Fire Alarm Installer	39	\$175	1,095	None	3 years	1	0	18
5	Security Alarm Installer	37	\$175	1,095	None	3 years	0	0	18
6	Optician	22	\$225	912	2 years	6 months	1	12	18
7	Pest Control Applicator	51	\$318	731	8 clock hours	2 years	3	0	18
8	Veterinary Technician	36	\$410	730	2 years	None	2	0	18
9	Barber	51	\$270	722	1,528 clock hours	1 year	3	0	0
10	HVAC Contractor (Commercial)	37	\$260	730	None	2 years	2	0	0
10	HVAC Contractor (Residential)	35	\$260	730	None	2 years	2	0	0
10	Sheet Metal Contractor, HVAC (Commercial)	37	\$260	730	None	2 years	2	0	0
10	Sheet Metal Contractor, HVAC (Residential)	36	\$260	730	None	2 years	2	0	0
14	Earth Driller, Water Well	51	\$250	546	None	18 months	1	0	18
15	Child Care Home, Family	44	\$105	401	4 credit hours	1 year and 36 clock hours	0	12	21
16	Cosmetologist	51	\$197	350	1,500 clock hours	None	2	0	0
17	Massage Therapist	44	\$405	117	500 clock hours	None	1	12	18
18	School Bus Driver	51	\$190	185	3 days	6 months	6	0	18
19	Auctioneer	30	\$314	19	80 clock hours	None	1	12	18
20	Makeup Artist	41	\$168	140	600 clock hours	None	2	0	0
20	Skin Care Specialist	50	\$168	140	600 clock hours	None	2	0	0
22	Bus Driver, City/Transit	51	\$175	0	None	None	5	0	18
23	Truck Driver, Tractor-Trailer	51	\$160	0	None	None	5	0	18
24	Truck Driver, Other	51	\$160	0	None	None	4	0	18
25	Bill Collection Agency	31	\$1,050	0	None	None	0	0	0
26	Manicurist	50	\$168	70	300 clock hours	None	2	0	0
27	Emergency Medical Technician	51	\$0	43	166 clock hours	24 clock hours	2	0	18
28	Crane Operator	18	\$225	0	None	None	2	0	18
29	Locksmith	14	\$338	0	None	None	1	0	18
30	Vegetation Pesticide Applicator	51	\$145	0	None	None	2	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age	
31	Landscape Contractor (Commercial)	47	\$75	0	None	None	1	0	18	
31	Landscape Contractor (Residential)	48	\$75	0	None	None	1	0	18	
33	Security Guard, Unarmed	34	\$68	3	16 clock hours	None	0	0	18	
34	Fisher, Commercial	43	\$400	0	None	None	0	0	0	
35	Mobile Home Installer	39	\$250	0	None	None	1	0	0	
36	Weigher	25	\$25	0	None	None	0	0	18	
37	Pharmacy Technician	44	\$159	0	None	None	1	0	0	
38	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$145	0	None	None	1	0	0	
38	Carpenter/Cabinet Maker Contractor (Residential)	30	\$145	0	None	None	1	0	0	
38	Cement Finishing Contractor (Commercial)	24	\$145	0	None	None	1	0	0	
38	Cement Finishing Contractor (Residential)	30	\$145	0	None	None	1	0	0	
38	Door Repair Contractor (Commercial)	24	\$145	0	None	None	1	0	0	
38	Door Repair Contractor (Residential)	29	\$145	0	None	None	1	0	0	
38	Drywall Installation Contractor (Commercial)	25	\$145	0	None	None	1	0	0	
38	Drywall Installation Contractor (Residential)	30	\$145	0	None	None	1	0	0	
38	Floor Sander Contractor (Commercial)	22	\$145	0	None	None	1	0	0	
38	Floor Sander Contractor (Residential)	27	\$145	0	None	None	1	0	0	
38	Glazier Contractor (Commercial)	26	\$145	0	None	None	1	0	0	
38	Glazier Contractor (Residential)	30	\$145	0	None	None	1	0	0	
38	Insulation Contractor (Commercial)	25	\$145	0	None	None	1	0	0	
38	Insulation Contractor (Residential)	30	\$145	0	None	None	1	0	0	
38	Iron/Steel Contractor (Commercial)	26	\$145	0	None	None	1	0	0	
38	Iron/Steel Contractor (Residential)	30	\$145	0	None	None	1	0	0	
38	Mason Contractor (Commercial)	26	\$145	0	None	None	1	0	0	
38	Mason Contractor (Residential)	31	\$145	0	None	None	1	0	0	
38	Paving Contractor (Commercial)	24	\$145	0	None	None	1	0	0	
38	Paving Contractor (Residential)	28	\$145	0	None	None	1	0	0	
38	Pipelayer Contractor	27	\$145	0	None	None	1	0	0	
38	Sheet Metal Contractor, Other (Commercial)	26	\$145	0	None	None	1	0	0	
38	Sheet Metal Contractor, Other (Residential)	31	\$145	0	None	None	1	0	0	
38	Terrazzo Contractor (Commercial)	23	\$145	0	None	None	1	0	0	
38	Terrazzo Contractor (Residential)	28	\$145	0	None	None	1	0	0	
63	Milk Sampler	42	\$5	0	None	None	1	0	0	
64	Animal Breeder	28	\$75	0	None	None	0	0	0	
65	Travel Guide	37	\$17	0	None	None	0	0	0	
66	Taxidermist	28	\$12	0	None	None	0	0	0	
67	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0	
NA	Midwife, Direct Entry	28	Prohibited or appears to be prohibited							
Averages		35.4	\$199	234.4			1.3	0.7	6.2	

North Dakota

65

of 102 lower-income occupations licensed

49th

most burdensome licensing laws

23rd

most broadly and onerously licensed state

North Dakota has some of the least burdensome licensing laws for lower-income occupations in the nation, ranking 49th. Its laws require, on average, \$156 in fees, 122 days of education and experience, and roughly one exam. But North Dakota licenses more lower-income occupations than average (65 of 102), making it the 23rd most broadly and onerously licensed state.

North Dakota licenses several occupations that are rarely licensed elsewhere. For example, the state's most onerously licensed occupation—sign language interpreter—is licensed by just 21 other states. And North Dakota's license is burdensome, requiring \$675 in fees, about 1,469 days (four years and 40 hours) of education and two exams. These steep burdens are questionable given that most states do not deem licensure necessary at all. North Dakota is also one of just seven states that license title examiners and one of nine states that license animal trainers.

North Dakota also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, North Dakota has one of the most burdensome barbering licenses in the nation, requiring 727 days of education and experience (comprising 1,550 hours of education and one year of experience), \$250 in fees, and two exams. By contrast, the state's EMT license requires just 35 days (150 hours) of education, \$80 in fees and two exams. North Dakota can improve employment opportunities in the state by reducing or repealing its heavy burdens for barbers and many other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Interpreter, Sign Language	22	\$675	1,469	4 years and 40 clock hours	None	2	0	18
2	Athletic Trainer	49	\$400	1,460	4 years	None	1	0	0
3	Preschool Teacher, Public School	50	\$686	1,276	2 years	18 months	3	0	0
4	Barber	51	\$250	727	1,550 clock hours	1 year	2	12	18
5	Veterinary Technician	36	\$335	730	2 years	None	1	0	0
6	Cosmetologist	51	\$185	420	1,800 clock hours	None	3	12	0
6	Shampooer	37	\$185	420	1,800 clock hours	None	3	12	0
8	Earth Driller, Water Well	51	\$300	365	None	1 year	1	0	0
9	Security Guard, Unarmed	34	\$92	244	44 clock hours	1,000 clock hours	0	12	18
10	Massage Therapist	44	\$345	175	750 clock hours	None	1	12	18
11	Makeup Artist	41	\$205	140	600 clock hours	None	3	12	0
11	Skin Care Specialist	50	\$205	140	600 clock hours	None	3	12	0
13	Mobile Home Installer	39	\$200	153	6 clock hours	5 jobs	1	0	18
14	Pharmacy Technician	44	\$174	91	None	3 months	1	12	0
15	Manicurist	50	\$205	82	350 clock hours	None	3	0	0
16	School Bus Driver	51	\$41	0	None	None	6	0	18
17	Emergency Medical Technician	51	\$80	35	150 clock hours	None	2	0	18
18	Bus Driver, City/Transit	51	\$33	0	None	None	5	0	18
19	Truck Driver, Tractor-Trailer	51	\$25	0	None	None	5	0	18
20	Truck Driver, Other	51	\$25	0	None	None	4	0	18
21	Bill Collection Agency	31	\$700	0	None	None	0	0	0
22	Vegetation Pesticide Applicator	51	\$65	0	None	None	3	0	18
23	Pest Control Applicator	51	\$65	0	None	None	2	0	18
24	Landscape Contractor (Commercial)	47	\$175	0	None	None	0	0	18
24	Landscape Contractor (Residential)	48	\$175	0	None	None	0	0	18
26	Auctioneer	30	\$35	14	60 clock hours	None	0	0	18
27	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$125	0	None	None	0	0	18
27	Carpenter/Cabinet Maker Contractor (Residential)	30	\$125	0	None	None	0	0	18
27	Cement Finishing Contractor (Commercial)	24	\$125	0	None	None	0	0	18
27	Cement Finishing Contractor (Residential)	30	\$125	0	None	None	0	0	18
27	Door Repair Contractor (Commercial)	24	\$125	0	None	None	0	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age	
27	Door Repair Contractor (Residential)	29	\$125	0	None	None	0	0	18	
27	Drywall Installation Contractor (Commercial)	25	\$125	0	None	None	0	0	18	
27	Drywall Installation Contractor (Residential)	30	\$125	0	None	None	0	0	18	
27	Floor Sander Contractor (Commercial)	22	\$125	0	None	None	0	0	18	
27	Floor Sander Contractor (Residential)	27	\$125	0	None	None	0	0	18	
27	Glazier Contractor (Commercial)	26	\$125	0	None	None	0	0	18	
27	Glazier Contractor (Residential)	30	\$125	0	None	None	0	0	18	
27	HVAC Contractor (Commercial)	37	\$125	0	None	None	0	0	18	
27	HVAC Contractor (Residential)	35	\$125	0	None	None	0	0	18	
27	Insulation Contractor (Commercial)	25	\$125	0	None	None	0	0	18	
27	Insulation Contractor (Residential)	30	\$125	0	None	None	0	0	18	
27	Iron/Steel Contractor (Commercial)	26	\$125	0	None	None	0	0	18	
27	Iron/Steel Contractor (Residential)	30	\$125	0	None	None	0	0	18	
27	Mason Contractor (Commercial)	26	\$125	0	None	None	0	0	18	
27	Mason Contractor (Residential)	31	\$125	0	None	None	0	0	18	
27	Painting Contractor (Commercial)	22	\$125	0	None	None	0	0	18	
27	Painting Contractor (Residential)	28	\$125	0	None	None	0	0	18	
27	Paving Contractor (Commercial)	24	\$125	0	None	None	0	0	18	
27	Paving Contractor (Residential)	28	\$125	0	None	None	0	0	18	
27	Pipelayer Contractor	27	\$125	0	None	None	0	0	18	
27	Sheet Metal Contractor, HVAC (Commercial)	37	\$125	0	None	None	0	0	18	
27	Sheet Metal Contractor, HVAC (Residential)	36	\$125	0	None	None	0	0	18	
27	Sheet Metal Contractor, Other (Commercial)	26	\$125	0	None	None	0	0	18	
27	Sheet Metal Contractor, Other (Residential)	31	\$125	0	None	None	0	0	18	
27	Terrazzo Contractor (Commercial)	23	\$125	0	None	None	0	0	18	
27	Terrazzo Contractor (Residential)	28	\$125	0	None	None	0	0	18	
58	Travel Guide	37	\$100	0	None	None	0	0	18	
59	Child Care Home, Family	44	\$20	0	None	None	0	0	18	
60	Title Examiner	7	\$220	0	None	None	1	0	0	
61	Milk Sampler	42	\$10	1	1 day	None	1	0	0	
62	Taxidermist	28	\$25	0	None	None	0	0	0	
63	Fisher, Commercial	43	\$15	0	None	None	0	0	0	
64	Animal Trainer	9	\$10	0	None	None	0	0	0	
65	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0	
NA	Midwife, Direct Entry	28	Prohibited or appears to be prohibited							
Averages		35.3	\$156	122.2				0.9	1.5	13.3

Ohio

40

of 102 lower-income occupations licensed

20th

most burdensome licensing laws

38th

most broadly and onerously licensed state

Ohio's occupational licensing laws for lower-income occupations are the 20th most burdensome, requiring, on average, \$188 in fees, 350 days of education and experience, and around one exam. Ohio licenses fewer of the occupations studied here—40 of 102—than average, making it the nation's 38th most broadly and onerously licensed state.

Ohio is the only state to license social and human service assistants, and it does so onerously: Its license requires a \$50 fee, two years (730 days) of education, and one exam. As no other state deems licensure of social and human service assistants necessary, Ohio's decision to license the occupation at all, let alone so arduously, is questionable. Ohio also imposes heavy education and experience burdens on would-be auctioneers, requiring an estimated 379 days (comprising one year of experience and 10 days of

education) to become licensed. But the average across licensed states is 94 days—and 21 states do not even license auctioneers at all.

Ohio also imposes burdens on several occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, barbers lose 420 days (1,800 hours) to education, and cosmetologists 350 days (1,500 hours). EMTs, on the other hand, lose only 35 days (150 hours) to education before they are allowed to provide life-saving aid. Ohio could expand employment opportunities in the state by repealing or reducing its arduous licensing requirements for barbers, cosmetologists and other lower-income occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Coach, Head (High School Sports)	48	\$570	2,921	4 years and 4.5 clock hours	4 years	2	0	0
2	HVAC Contractor (Commercial)	37	\$140	1,825	None	5 years	1	0	18
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$140	1,825	None	5 years	1	0	18
4	Athletic Trainer	49	\$446	1,460	4 years	None	2	0	0
5	Optician	22	\$321	730	None	2 years	1	12	18
6	School Bus Driver	51	\$205	735	15 clock hours	2 years and 12 clock hours	6	0	21
7	Veterinary Technician	36	\$335	730	2 years	None	1	0	0
8	Preschool Teacher, Public School	50	\$305	730	2 years	None	1	0	0
9	Social and Human Service Assistant	1	\$50	730	2 years	None	1	0	0
10	Barber	51	\$120	420	1,800 clock hours	None	2	8	18
11	Auctioneer	30	\$340	379	10 days	1 year	3	0	18
12	Cosmetologist	51	\$51	350	1,500 clock hours	None	2	10	16
13	Mobile Home Installer	39	\$350	367	12 clock hours	1 year	1	0	18
14	Shampooer	37	\$51	280	1,200 clock hours	None	2	10	16
15	Massage Therapist	44	\$391	175	750 clock hours	None	1	12	18
16	Makeup Artist	41	\$51	140	600 clock hours	None	2	10	16
16	Skin Care Specialist	50	\$51	140	600 clock hours	None	2	10	16
18	Manicurist	50	\$51	47	200 clock hours	None	2	10	16
19	Child Care Home, Family	44	\$296	1	None	7 clock hours	0	12	18
20	Pharmacy Technician	44	\$46	0	None	None	1	12	18
21	Bus Driver, City/Transit	51	\$162	0	None	None	5	0	18
22	Truck Driver, Tractor-Trailer	51	\$119	0	None	None	5	0	18
23	Gaming Supervisor	30	\$500	0	None	None	0	0	21
23	Slot Supervisor	28	\$500	0	None	None	0	0	21
25	Truck Driver, Other	51	\$119	0	None	None	4	0	18
26	Emergency Medical Technician	51	\$80	35	150 clock hours	None	2	0	18
27	Gaming Cage Worker	29	\$250	0	None	None	0	0	21
27	Gaming Dealer	28	\$250	0	None	None	0	0	21
29	Vegetation Pesticide Applicator	51	\$70	0	None	None	5	0	0
30	Animal Breeder	28	\$410	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Pest Control Applicator	51	\$70	0	None	None	2	0	0
32	Earth Driller, Water Well	51	\$250	0	None	None	0	0	0
33	Wildlife Control Operator	23	\$40	0	None	None	1	0	0
34	Landscape Contractor (Commercial)	47	\$125	0	None	None	0	0	0
34	Landscape Contractor (Residential)	48	\$125	0	None	None	0	0	0
36	Milk Sampler	42	\$15	0	None	None	1	0	0
37	Upholsterer	10	\$50	0	None	None	0	0	0
38	Security Guard, Unarmed	34	\$40	0	None	None	0	0	0
39	Fisher, Commercial	43	\$20	0	None	None	0	0	0
40	Weigher	25	\$10	0	None	None	0	0	0
Averages		39.6	\$188	350.5			1.5	2.7	10.5

Oklahoma

41

of 102 lower-income occupations licensed

18th

most burdensome licensing laws

35th

most broadly and onerously licensed state

Oklahoma licenses 41 of the 102 lower-income occupations studied here. Its laws are the 18th most burdensome, requiring an average of \$234 in fees, 399 days of education and experience, and around two exams. Because of the state's higher than average burdens but lower than average number of occupations licensed, Oklahoma ranks as the 35th most broadly and onerously licensed in the nation.

Oklahoma licenses some occupations that are unlicensed elsewhere, such as packers (licensed by just six states), title examiners (seven), dental assistants (nine), locksmiths (14) and veterinary technicians (36). Among those, vet techs are particularly onerously licensed, facing \$440 in fees, two years (730 days) of education and two exams. Security and fire alarm installers—each licensed in roughly three dozen states—also face particularly heavy burdens in Oklahoma. The state's alarm installer licenses require hundreds of dollars in fees and 1,460 days—four years—of experience. But

the average education or experience requirement across licensed states is 836 days for security alarm installers and 915 days for fire alarm installers.

Oklahoma also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, EMTs must pay \$165 in fees, complete 154 hours (around 36 days) of education and pass two exams. But barbers and cosmetologists face education requirements that are nearly 10 times as high—1,500 hours (roughly 350 days). Oklahoma could improve employment prospects for its lower-income residents by reducing or repealing its arduous requirements for barbers, cosmetologists and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	HVAC Contractor (Commercial)	37	\$615	1,460	None	4 years	2	0	18
1	HVAC Contractor (Residential)	35	\$615	1,460	None	4 years	2	0	18
1	Sheet Metal Contractor, HVAC (Commercial)	37	\$615	1,460	None	4 years	2	0	18
1	Sheet Metal Contractor, HVAC (Residential)	36	\$615	1,460	None	4 years	2	0	18
5	Security Alarm Installer	37	\$518	1,460	None	4 years	2	0	18
6	Fire Alarm Installer	39	\$469	1,460	None	4 years	2	0	18
7	Coach, Head (High School Sports)	48	\$334	1,460	4 years	None	2	0	0
7	Preschool Teacher, Public School	50	\$334	1,460	4 years	None	2	0	0
9	Athletic Trainer	49	\$467	1,460	4 years	None	1	0	0
10	Veterinary Technician	36	\$440	730	2 years	None	2	0	0
11	Earth Driller, Water Well	51	\$550	730	None	2 years	1	0	0
12	Barber	51	\$60	350	1,500 clock hours	None	2	8	16
12	Cosmetologist	51	\$60	350	1,500 clock hours	None	2	8	16
12	Shampooer	37	\$60	350	1,500 clock hours	None	2	8	16
15	Pharmacy Technician	44	\$40	140	None	600 clock hours	1	12	18
16	Makeup Artist	41	\$60	140	600 clock hours	None	2	8	16
16	Manicurist	50	\$60	140	600 clock hours	None	2	8	16
16	Skin Care Specialist	50	\$60	140	600 clock hours	None	2	8	16
19	Child Care Home, Family	44	\$53	84	12 credit hours	None	0	12	21
20	School Bus Driver	51	\$57	4	19 clock hours	5 clock hours	6	0	18
21	Truck Driver, Tractor-Trailer	51	\$153	0	None	None	5	0	18
22	Bus Driver, City/Transit	51	\$57	0	None	None	5	0	18
23	Title Examiner	7	\$550	0	None	None	1	0	18
24	Emergency Medical Technician	51	\$165	36	154 clock hours	None	2	0	18
25	Truck Driver, Other	51	\$133	0	None	None	4	0	18
26	Security Guard, Unarmed	34	\$91	9	40 clock hours	None	2	0	18
27	Vegetation Pesticide Applicator	51	\$200	0	None	None	4	0	0
28	Animal Breeder	28	\$365	0	None	None	0	0	14
29	Wildlife Control Operator	23	\$75	3	16 clock hours	None	1	0	18
30	Pest Control Applicator	51	\$150	0	None	None	3	0	0
31	Fisher, Commercial	43	\$427	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Mobile Home Installer	39	\$200	1	8 clock hours	None	0	0	0
33	Locksmith	14	\$74	0	None	None	1	0	0
34	Gaming Cage Worker	29	\$166	0	None	None	0	0	0
34	Gaming Supervisor	30	\$166	0	None	None	0	0	0
34	Slot Supervisor	28	\$166	0	None	None	0	0	0
37	Landscape Contractor (Commercial)	47	\$100	0	None	None	0	0	0
37	Landscape Contractor (Residential)	48	\$100	0	None	None	0	0	0
39	Travel Guide	37	\$90	0	None	None	0	0	0
40	Dental Assistant	9	\$50	0	None	None	0	0	0
41	Packer	6	\$35	0	None	None	0	0	0
Averages		39.1	\$234	398.7			1.6	1.8	9.8

Oregon

69

of 102 lower-income occupations licensed

8th

most burdensome licensing laws

8th

most broadly and onerously licensed state

Oregon's licensing laws for lower-income occupations are some of the worst in the nation, ranking as the eighth most burdensome. On average, they require \$335 in fees, 537 days of education and experience, and roughly one exam. And because Oregon licenses more occupations than most other states—69 of the 102 studied here—it also ranks as the nation's eighth most broadly and onerously licensed state.

Oregon licenses several occupations that are rarely licensed elsewhere. For example, few other states license dairy equipment still machine setters (two), farm labor contractors (nine), bartenders (12), locksmiths (13), commercial floor sander contractors (21) or commercial painting contractors (21). Among those, the two commercial contractor occupations face particularly steep burdens. In addition to paying hundreds of dollars in fees, both must demonstrate roughly 1,463 days

of education and experience (comprising four years of experience and 16 hours of education). That is triple the average education and experience requirements across licensed states.

Oregon also makes it much more difficult to enter some occupations than others that may present greater risks to the public. For example, EMTs need demonstrate only about a month of education and experience, (an estimated 28 days, comprising 110 hours of education and 16 hours of experience) and pass two exams to become licensed. But cosmetologists must complete more than a year of education (about 397 days or 1,700 hours) and pass three exams. Oregon could improve its rankings by reducing or repealing these and other illogical licensing burdens—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$665	2,920	4 years	4 years	2	0	18
2	Athletic Trainer	49	\$675	1,460	4 years	None	1	0	18
3	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$410	1,463	16 clock hours	4 years	1	0	18
3	Cement Finishing Contractor (Commercial)	24	\$410	1,463	16 clock hours	4 years	1	0	18
3	Door Repair Contractor (Commercial)	24	\$410	1,463	16 clock hours	4 years	1	0	18
3	Drywall Installation Contractor (Commercial)	25	\$410	1,463	16 clock hours	4 years	1	0	18
3	Floor Sander Contractor (Commercial)	22	\$410	1,463	16 clock hours	4 years	1	0	18
3	Glazier Contractor (Commercial)	26	\$410	1,463	16 clock hours	4 years	1	0	18
3	Insulation Contractor (Commercial)	25	\$410	1,463	16 clock hours	4 years	1	0	18
10	HVAC Contractor (Commercial)	37	\$385	1,463	16 clock hours	4 years	1	0	18
10	Iron/Steel Contractor (Commercial)	26	\$385	1,463	16 clock hours	4 years	1	0	18
10	Mason Contractor (Commercial)	26	\$385	1,463	16 clock hours	4 years	1	0	18
10	Painting Contractor (Commercial)	22	\$385	1,463	16 clock hours	4 years	1	0	18
10	Paving Contractor (Commercial)	24	\$385	1,463	16 clock hours	4 years	1	0	18
10	Pipelayer Contractor	27	\$385	1,463	16 clock hours	4 years	1	0	18
10	Sheet Metal Contractor, HVAC (Commercial)	37	\$385	1,463	16 clock hours	4 years	1	0	18
10	Sheet Metal Contractor, Other (Commercial)	26	\$385	1,463	16 clock hours	4 years	1	0	18
10	Terrazzo Contractor (Commercial)	23	\$385	1,463	16 clock hours	4 years	1	0	18
19	Midwife, Direct Entry	28	\$1,650	1,095	3 years	None	2	12	0
20	Fire Alarm Installer	39	\$425	1,095	None	3 years	1	12	18
20	Security Alarm Installer	37	\$425	1,095	None	3 years	1	12	18
22	Landscape Contractor (Commercial)	47	\$730	730	None	2 years	1	0	0
22	Landscape Contractor (Residential)	48	\$730	730	None	2 years	1	0	0
24	Veterinary Technician	36	\$345	730	2 years	None	2	0	0
25	School Bus Driver	51	\$239	368	None	1 year and 15 clock hours	6	0	18
26	Bus Driver, City/Transit	51	\$229	365	None	1 year	5	0	18
27	Truck Driver, Tractor-Trailer	51	\$156	365	None	1 year	5	0	18
28	Truck Driver, Other	51	\$156	365	None	1 year	4	0	18
29	Mobile Home Installer	39	\$440	376	16 clock hours	1,600 clock hours	2	0	18
30	Cosmetologist	51	\$115	397	1,700 clock hours	None	3	0	0
31	Earth Driller, Water Well	51	\$170	365	None	1 year	1	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Barber	51	\$100	315	1,350 clock hours	None	3	0	0
32	Shampooer	37	\$100	315	1,350 clock hours	None	3	0	0
34	Massage Therapist	44	\$401	146	625 clock hours	None	2	0	18
35	Security Guard, Unarmed	34	\$115	2	12 clock hours	None	1	12	18
36	Pharmacy Technician	44	\$231	0	None	None	1	12	0
37	Manicurist	50	\$90	140	600 clock hours	None	3	0	0
38	Makeup Artist	41	\$115	117	500 clock hours	None	3	0	0
38	Skin Care Specialist	50	\$115	117	500 clock hours	None	3	0	0
40	Vegetation Pesticide Applicator	51	\$264	0	None	None	3	0	18
41	Emergency Medical Technician	51	\$235	28	110 clock hours	16 clock hours	2	0	18
42	Carpenter/Cabinet Maker Contractor (Residential)	30	\$410	3	16 clock hours	None	1	0	18
42	Cement Finishing Contractor (Residential)	30	\$410	3	16 clock hours	None	1	0	18
42	Door Repair Contractor (Residential)	29	\$410	3	16 clock hours	None	1	0	18
42	Drywall Installation Contractor (Residential)	30	\$410	3	16 clock hours	None	1	0	18
42	Floor Sander Contractor (Residential)	27	\$410	3	16 clock hours	None	1	0	18
42	Glazier Contractor (Residential)	30	\$410	3	16 clock hours	None	1	0	18
42	HVAC Contractor (Residential)	35	\$410	3	16 clock hours	None	1	0	18
42	Insulation Contractor (Residential)	30	\$410	3	16 clock hours	None	1	0	18
42	Iron/Steel Contractor (Residential)	30	\$410	3	16 clock hours	None	1	0	18
42	Sheet Metal Contractor, HVAC (Residential)	36	\$410	3	16 clock hours	None	1	0	18
52	Mason Contractor (Residential)	31	\$385	3	16 clock hours	None	1	0	18
52	Painting Contractor (Residential)	28	\$385	3	16 clock hours	None	1	0	18
52	Paving Contractor (Residential)	28	\$385	3	16 clock hours	None	1	0	18
52	Sheet Metal Contractor, Other (Residential)	31	\$385	3	16 clock hours	None	1	0	18
52	Terrazzo Contractor (Residential)	28	\$385	3	16 clock hours	None	1	0	18
57	Pest Control Applicator	51	\$206	0	None	None	2	0	18
58	Still Machine Setter, Dairy Equipment	3	\$50	0	None	None	2	0	18
59	Milk Sampler	42	\$25	0	None	None	2	0	18
60	Bartender	13	\$26	1	3.8 clock hours	None	1	0	21
61	Child Care Home, Family	44	\$78	1	None	5 clock hours	0	0	18
62	Fisher, Commercial	43	\$454	0	None	None	0	0	0
63	Locksmith	14	\$180	0	None	None	1	0	0
64	Bill Collection Agency	31	\$350	0	None	None	0	0	0
65	Farm Labor Contractor	10	\$150	0	None	None	1	0	0
66	Wildlife Control Operator	23	\$85	0	None	None	1	0	0
67	Travel Guide	37	\$150	0	None	None	0	0	0
68	Taxidermist	28	\$104	0	None	None	0	0	0
69	Coach, Head (High School Sports)	48	\$0	1	5 clock hours	None	0	0	0
Averages		34.7	\$335	537.4			1.5	0.9	13.1

Pennsylvania

51
of 102 lower-income
occupations licensed

50th
most burdensome
licensing laws

31st
most broadly and
onerously licensed state

Pennsylvania's licensing laws for lower-income occupations are some of the least burdensome in the nation, ranking 50th out of all 50 states and D.C. The laws require, on average, \$138 in fees, 117 days of education and experience, and around one exam. Licensing fewer of the occupations studied here than most states—51 of 102—Pennsylvania ranks as the 31st most broadly and onerously licensed state.

Pennsylvania frequently licenses occupations that are unlicensed by other states, such as upholsterers (licensed by nine other states), weighers (24 others), taxidermists (27 others) and auctioneers (29 others). Of those, auctioneers are particularly onerously licensed, facing \$270 in fees, 140 days of education (20 credit hours) and one exam. Given that so many other states do not require licensure of auctioneers, these requirements are excessive.

Pennsylvania also imposes burdens on some occupations that appear disproportionate compared to those for other occupations that may present greater risks to the public. For example, it is considerably more difficult to become a barber or cosmetologist than it is to become an EMT. While barbers and cosmetologists must complete 292 days (1,250 hours) of education, EMTs need only complete 35 days (150 hours) of education. It should not require eight times more schooling to become a barber or cosmetologist than to become an emergency first responder. Pennsylvania could open up employment opportunities by reducing or repealing these and other illogical occupational licenses, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$528	2,555	4 years	3 years	2	0	18
2	Athletic Trainer	49	\$320	1,461	4 years and 3 clock hours	None	1	0	20
3	Veterinary Technician	36	\$345	730	2 years	None	1	0	0
4	Barber	51	\$150	292	1,250 clock hours	None	2	8	16
5	Cosmetologist	51	\$110	292	1,250 clock hours	None	1	10	16
6	Massage Therapist	44	\$260	140	600 clock hours	None	1	12	0
7	Child Care Home, Family	44	\$41	140	None	600 clock hours	0	12	18
8	Makeup Artist	41	\$110	70	300 clock hours	None	1	10	16
8	Skin Care Specialist	50	\$110	70	300 clock hours	None	1	10	16
10	Manicurist	50	\$110	47	200 clock hours	None	1	10	16
11	Auctioneer	30	\$270	140	20 credit hours	None	1	0	0
12	School Bus Driver	51	\$35	3	14 clock hours	6 clock hours	6	0	18
13	Vegetation Pesticide Applicator	51	\$155	0	None	None	4	0	18
14	Crane Operator	18	\$325	0	None	None	2	0	18
15	Bus Driver, City/Transit	51	\$35	0	None	None	5	0	18
16	Truck Driver, Tractor-Trailer	51	\$30	0	None	None	5	0	18
17	Emergency Medical Technician	51	\$80	35	150 clock hours	None	2	0	16
18	Truck Driver, Other	51	\$30	0	None	None	4	0	18
19	Gaming Cage Worker	29	\$350	0	None	None	0	0	18
19	Gaming Dealer	28	\$350	0	None	None	0	0	18
19	Gaming Supervisor	30	\$350	0	None	None	0	0	18
19	Slot Supervisor	28	\$350	0	None	None	0	0	18
19	Travel Agency	7	\$350	0	None	None	0	0	18
24	Pest Control Applicator	51	\$135	0	None	None	2	0	18
25	Mobile Home Installer	39	\$350	3	15 clock hours	None	1	0	0
26	Animal Breeder	28	\$371	0	None	None	0	0	0
27	Weigher	25	\$60	0	None	None	0	0	18
28	Wildlife Control Operator	23	\$75	0	None	None	1	0	0
29	Milk Sampler	42	\$45	0	None	None	1	0	0
30	Travel Guide	37	\$100	1	8 clock hours	None	0	0	0
31	Taxidermist	28	\$100	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Earth Driller, Water Well	51	\$88	0	None	None	0	0	0
33	Carpenter/Cabinet Maker Contractor (Residential)	30	\$50	0	None	None	0	0	0
33	Cement Finishing Contractor (Residential)	30	\$50	0	None	None	0	0	0
33	Door Repair Contractor (Residential)	29	\$50	0	None	None	0	0	0
33	Drywall Installation Contractor (Residential)	30	\$50	0	None	None	0	0	0
33	Floor Sander Contractor (Residential)	27	\$50	0	None	None	0	0	0
33	Glazier Contractor (Residential)	30	\$50	0	None	None	0	0	0
33	HVAC Contractor (Residential)	35	\$50	0	None	None	0	0	0
33	Insulation Contractor (Residential)	30	\$50	0	None	None	0	0	0
33	Iron/Steel Contractor (Residential)	30	\$50	0	None	None	0	0	0
33	Mason Contractor (Residential)	31	\$50	0	None	None	0	0	0
33	Painting Contractor (Residential)	28	\$50	0	None	None	0	0	0
33	Paving Contractor (Residential)	28	\$50	0	None	None	0	0	0
33	Sheet Metal Contractor, HVAC (Residential)	36	\$50	0	None	None	0	0	0
33	Sheet Metal Contractor, Other (Residential)	31	\$50	0	None	None	0	0	0
33	Terrazzo Contractor (Residential)	28	\$50	0	None	None	0	0	0
33	Upholsterer	10	\$50	0	None	None	0	0	0
49	Landscape Contractor (Commercial)	47	\$40	0	None	None	0	0	0
49	Landscape Contractor (Residential)	48	\$40	0	None	None	0	0	0
51	Farm Labor Contractor	10	\$25	0	None	None	0	0	0
Averages		36.0	\$138	117.2			0.9	1.4	7.6

Rhode Island

72
of 102 lower-income
occupations licensed

27th
most burdensome
licensing laws

10th
most broadly and
onerously licensed state

Rhode Island is one of the worst states in the nation for occupational licensing, ranking as the 10th most broadly and onerously licensed. The state licenses more lower-income occupations than most states—72 of the 102 studied here. Rhode Island's licensing laws rank as the 27th most burdensome, requiring an average of \$223 in fees, 326 days of education and experience, and around one exam.

Rhode Island licenses some occupations that are rarely licensed elsewhere. It is the only state to license conveyor operators. And few other states license non-instructional teacher assistants (four), tree trimmers (six), bartenders (12) or sign language interpreters (21). Among those, sign language interpreters face particularly steep burdens. Rhode Island's license requires \$700 in fees, four years and 40 hours of education (an estimated 1,469 days), and two exams. Given that so few states see fit to license sign language interpreters at all, such heavy requirements are questionable.

Rhode Island also imposes education and experience burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, barbers and cosmetologists must complete nearly one year (roughly 350 days or 1,500 hours) of education before becoming licensed. These burdens are considerably heavier than those for EMTs. These emergency first responders need less than a month (an estimated 26 days or 110 hours) of education, even though they arguably bear more responsibility for public safety. Rhode Island could improve its rankings by reducing or repealing its heavy occupational licensing burdens for barbers, cosmetologists and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	HVAC Contractor (Commercial)	37	\$660	2,920	None	8 years	4	0	18
1	HVAC Contractor (Residential)	35	\$660	2,920	None	8 years	4	0	18
3	Preschool Teacher, Public School	50	\$566	2,555	4 years	3 years	2	0	0
4	Sheet Metal Contractor, HVAC (Residential)	36	\$468	1,825	None	5 years	3	0	18
5	Sheet Metal Contractor, HVAC (Commercial)	37	\$558	1,825	None	5 years	2	0	18
6	Interpreter, Sign Language	22	\$700	1,469	4 years and 40 clock hours	None	2	0	18
7	Athletic Trainer	49	\$360	1,460	4 years	None	1	0	0
8	Optician	22	\$255	1,095	2 years	1 year	2	12	18
9	School Bus Driver	51	\$180	1,097	10 clock hours	3 years	7	0	21
10	Midwife, Direct Entry	28	\$1,080	1,095	3 years	None	1	0	0
11	Security Alarm Installer	37	\$505	1,095	None	3 years	1	0	0
12	Bus Driver, City/Transit	51	\$170	730	None	2 years	5	0	18
12	Truck Driver, Tractor-Trailer	51	\$170	730	None	2 years	5	0	18
14	Truck Driver, Other	51	\$160	730	None	2 years	4	0	18
15	Cosmetologist	51	\$100	350	1,500 clock hours	None	2	12	18
16	Barber	51	\$75	350	1,500 clock hours	None	2	12	18
16	Shampooer	37	\$75	350	1,500 clock hours	None	2	12	18
18	Taxi Driver/Chauffeur	16	\$23	365	None	1 year	0	0	21
19	Skin Care Specialist	50	\$100	140	600 clock hours	None	2	10	18
20	Manicurist	50	\$100	70	300 clock hours	None	2	12	18
21	Emergency Medical Technician	51	\$205	26	110 clock hours	None	2	12	18
22	Child Care Home, Family	44	\$140	4	None	24 clock hours	0	12	21
23	Massage Therapist	44	\$295	117	500 clock hours	None	1	0	18
24	Pharmacy Technician	44	\$25	140	None	600 clock hours	0	0	18
25	Auctioneer	30	\$630	0	None	None	1	0	18
26	Teacher Assistant, Non-Instructional	5	\$0	7	None	30 clock hours	0	12	0
27	Pest Control Applicator	51	\$45	0	None	None	2	0	18
27	Vegetation Pesticide Applicator	51	\$45	0	None	None	2	0	18
29	Fire Alarm Installer	39	\$462	0	None	None	2	0	0
30	Conveyor Operator	1	\$117	0	None	None	1	0	18
30	Crane Operator	18	\$117	0	None	None	1	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$200	1	5 clock hours	None	0	0	18
32	Carpenter/Cabinet Maker Contractor (Residential)	30	\$200	1	5 clock hours	None	0	0	18
32	Cement Finishing Contractor (Commercial)	24	\$200	1	5 clock hours	None	0	0	18
32	Cement Finishing Contractor (Residential)	30	\$200	1	5 clock hours	None	0	0	18
32	Door Repair Contractor (Commercial)	24	\$200	1	5 clock hours	None	0	0	18
32	Door Repair Contractor (Residential)	29	\$200	1	5 clock hours	None	0	0	18
32	Drywall Installation Contractor (Commercial)	25	\$200	1	5 clock hours	None	0	0	18
32	Drywall Installation Contractor (Residential)	30	\$200	1	5 clock hours	None	0	0	18
32	Floor Sander Contractor (Commercial)	22	\$200	1	5 clock hours	None	0	0	18
32	Floor Sander Contractor (Residential)	27	\$200	1	5 clock hours	None	0	0	18
32	Glazier Contractor (Commercial)	26	\$200	1	5 clock hours	None	0	0	18
32	Glazier Contractor (Residential)	30	\$200	1	5 clock hours	None	0	0	18
32	Insulation Contractor (Commercial)	25	\$200	1	5 clock hours	None	0	0	18
32	Insulation Contractor (Residential)	30	\$200	1	5 clock hours	None	0	0	18
32	Iron/Steel Contractor (Commercial)	26	\$200	1	5 clock hours	None	0	0	18
32	Iron/Steel Contractor (Residential)	30	\$200	1	5 clock hours	None	0	0	18
32	Mason Contractor (Commercial)	26	\$200	1	5 clock hours	None	0	0	18
32	Mason Contractor (Residential)	31	\$200	1	5 clock hours	None	0	0	18
32	Painting Contractor (Commercial)	22	\$200	1	5 clock hours	None	0	0	18
32	Painting Contractor (Residential)	28	\$200	1	5 clock hours	None	0	0	18
32	Paving Contractor (Commercial)	24	\$200	1	5 clock hours	None	0	0	18
32	Paving Contractor (Residential)	28	\$200	1	5 clock hours	None	0	0	18
32	Pipelayer Contractor	27	\$200	1	5 clock hours	None	0	0	18
32	Sheet Metal Contractor, Other (Commercial)	26	\$200	1	5 clock hours	None	0	0	18
32	Sheet Metal Contractor, Other (Residential)	31	\$200	1	5 clock hours	None	0	0	18
32	Terrazzo Contractor (Commercial)	23	\$200	1	5 clock hours	None	0	0	18
32	Terrazzo Contractor (Residential)	28	\$200	1	5 clock hours	None	0	0	18
59	Wildlife Control Operator	23	\$10	0	None	None	1	0	18
60	Bartender	13	\$0	0	2 clock hours	None	0	0	18
61	Earth Driller, Water Well	51	\$200	0	None	None	1	0	0
62	Gaming Supervisor	30	\$300	0	None	None	0	0	0
62	Slot Supervisor	28	\$300	0	None	None	0	0	0
64	Gaming Cage Worker	29	\$185	0	None	None	0	0	0
65	Tree Trimmer	7	\$50	0	None	None	1	0	0
66	Upholsterer	10	\$180	0	None	None	0	0	0
67	Coach, Head (High School Sports)	48	\$100	1	4.5 clock hours	None	0	0	0
68	Animal Breeder	28	\$100	0	None	None	0	0	0
68	Bill Collection Agency	31	\$100	0	None	None	0	0	0
70	Fisher, Commercial	43	\$50	0	None	None	0	0	0
71	Travel Guide	37	\$25	0	None	None	0	0	0
72	Security Guard, Unarmed	34	\$5	0	None	None	0	0	0
Averages		32.3	\$223	326.2			0.9	1.5	13.6

South Carolina

60

of 102 lower-income occupations licensed

17th

most burdensome licensing laws

22nd

most broadly and onerously licensed state

South Carolina licenses 60 of the 102 lower-income occupations studied here. Its laws are the 17th most burdensome and require, on average, \$220 in fees, 440 days of education and experience, and around two exams. South Carolina ranks as the 22nd most broadly and onerously licensed state, placing it in the middle of the pack.

South Carolina frequently licenses occupations that are unlicensed elsewhere, such as commercial floor sander and painting contractors, both of whom are licensed by just 21 other states. And both these occupations face particularly steep burdens in South Carolina. The state requires 730 days (two years) of experience before these contractors can work. Meanwhile, the average education and experience requirements across states that license these occupations are under 500 days—50 percent less than South Carolina requires. Given that fewer than half of states

license these occupations at all, it is curious that South Carolina licenses them so onerously.

South Carolina also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, aspiring EMTs must pay \$80 in fees, complete an estimated 34 days (144 hours) of education and pass two exams. But it takes three times longer to become a makeup artist (105 days), 10 times longer to become a residential carpenter or cabinet maker contractor (365 days), and more than 20 times longer to become a veterinary technician (730 days). South Carolina could improve lower-income job prospects by repealing or easing these and other heavy licensing burdens, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$600	2,555	4 years	3 years	3	0	18
2	Athletic Trainer	49	\$350	1,460	4 years	None	1	0	0
3	Midwife, Direct Entry	28	\$1,200	1,095	3 years	None	2	12	0
4	Optician	22	\$545	730	None	2 years	2	12	18
5	Earth Driller, Water Well	51	\$417	730	None	2 years	3	0	18
6	Veterinary Technician	36	\$360	730	2 years	None	2	0	18
7	Pest Control Applicator	51	\$300	730	None	2 years	2	0	18
8	HVAC Contractor (Commercial)	37	\$385	730	None	2 years	3	0	0
9	Mobile Home Installer	39	\$150	731	8 clock hours	2 years	1	0	18
10	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$325	730	None	2 years	2	0	0
10	Cement Finishing Contractor (Commercial)	24	\$325	730	None	2 years	2	0	0
10	Sheet Metal Contractor, Other (Commercial)	26	\$325	730	None	2 years	2	0	0
13	Glazier Contractor (Commercial)	26	\$310	730	None	2 years	2	0	0
13	Iron/Steel Contractor (Commercial)	26	\$310	730	None	2 years	2	0	0
13	Paving Contractor (Commercial)	24	\$310	730	None	2 years	2	0	0
13	Pipelayer Contractor	27	\$310	730	None	2 years	2	0	0
13	Sheet Metal Contractor, HVAC (Commercial)	37	\$310	730	None	2 years	2	0	0
18	Door Repair Contractor (Commercial)	24	\$250	730	None	2 years	1	0	0
18	Drywall Installation Contractor (Commercial)	25	\$250	730	None	2 years	1	0	0
18	Floor Sander Contractor (Commercial)	22	\$250	730	None	2 years	1	0	0
18	Insulation Contractor (Commercial)	25	\$250	730	None	2 years	1	0	0
18	Mason Contractor (Commercial)	26	\$250	730	None	2 years	1	0	0
18	Painting Contractor (Commercial)	22	\$250	730	None	2 years	1	0	0
18	Terrazzo Contractor (Commercial)	23	\$250	730	None	2 years	1	0	0
25	Cosmetologist	51	\$175	350	1,500 clock hours	None	2	10	16
26	Barber	51	\$175	350	1,500 clock hours	None	2	9	17
27	HVAC Contractor (Residential)	35	\$280	365	None	1 year	2	0	0
27	Sheet Metal Contractor, HVAC (Residential)	36	\$280	365	None	1 year	2	0	0
29	Iron/Steel Contractor (Residential)	30	\$270	365	None	1 year	2	0	0
30	Carpenter/Cabinet Maker Contractor (Residential)	30	\$50	365	None	1 year	0	0	0
30	Cement Finishing Contractor (Residential)	30	\$50	365	None	1 year	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
30	Drywall Installation Contractor (Residential)	30	\$50	365	None	1 year	0	0	0
30	Floor Sander Contractor (Residential)	27	\$50	365	None	1 year	0	0	0
30	Insulation Contractor (Residential)	30	\$50	365	None	1 year	0	0	0
30	Mason Contractor (Residential)	31	\$50	365	None	1 year	0	0	0
30	Painting Contractor (Residential)	28	\$50	365	None	1 year	0	0	0
30	Paving Contractor (Residential)	28	\$50	365	None	1 year	0	0	0
30	Sheet Metal Contractor, Other (Residential)	31	\$50	365	None	1 year	0	0	0
30	Terrazzo Contractor (Residential)	28	\$50	365	None	1 year	0	0	0
40	Massage Therapist	44	\$345	117	500 clock hours	None	1	12	18
41	Makeup Artist	41	\$175	105	450 clock hours	None	2	10	16
41	Skin Care Specialist	50	\$175	105	450 clock hours	None	2	10	16
43	Manicurist	50	\$175	70	300 clock hours	None	2	10	16
44	School Bus Driver	51	\$23	5	20 clock hours	10 clock hours	8	0	18
45	Auctioneer	30	\$435	19	80 clock hours	None	1	0	18
46	Bus Driver, City/Transit	51	\$34	0	None	None	5	0	18
46	Truck Driver, Tractor-Trailer	51	\$34	0	None	None	5	0	18
48	Fire Alarm Installer	39	\$345	4	22 clock hours	None	2	0	18
48	Security Alarm Installer	37	\$345	4	22 clock hours	None	2	0	18
50	Emergency Medical Technician	51	\$80	34	144 clock hours	None	2	0	18
51	Truck Driver, Other	51	\$32	0	None	None	4	0	18
52	Shampooer	37	\$90	42	None	6 weeks	1	0	16
53	Vegetation Pesticide Applicator	51	\$100	0	None	None	2	0	18
54	Security Guard, Unarmed	34	\$65	1	6 clock hours	None	1	0	18
55	Glazier Contractor (Residential)	30	\$270	0	None	None	2	0	0
56	Travel Guide	37	\$150	0	None	None	0	0	0
57	Milk Sampler	42	\$0	0	None	None	1	0	0
58	Pharmacy Technician	44	\$40	0	None	None	0	0	0
59	Fisher, Commercial	43	\$25	0	None	None	0	0	0
60	Weigher	25	\$5	0	None	None	0	0	0
Averages		35.5	\$220	439.8			1.6	1.4	6.7

South Dakota

32

of 102 lower-income occupations licensed

19th

most burdensome licensing laws

48th

most broadly and onerously licensed state

South Dakota's licensing laws for lower-income occupations are the 19th most burdensome. On average, its barriers to entry for these occupations are \$198 in fees, 355 days of education and experience, and roughly two exams. Because South Dakota licenses fewer lower-income occupations than most states—32 of the 102 studied here—it ranks as only the 48th most broadly and onerously licensed state.

South Dakota licenses several occupations that are not licensed by other states, such as title examiners (licensed by six other states), sign language interpreters (21 others) and gaming dealers (27 others). Among those, sign language interpreters face particularly steep burdens. In South Dakota, they must complete an estimated 1,469 days of education—over a year more than the licensed-state average (1,088 days). And South Dakota's license for water well earth drillers requires 1,825 days (five years) of experience, more than double the national average (837 days lost to education and experience) for the occupation.

The state also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present greater risks to the public. For example, not only are South Dakota's burdens for cosmetologists and barbers some of the steepest of their type in the nation, they are also much steeper than the state's burdens for EMTs. The latter must complete just 150 hours (roughly 35 days) of education and pass two exams. But cosmetologists must complete 2,100 hours (roughly 490 days) of education and pass three exams, while barbers must demonstrate 1,500 hours of education and one year of experience (roughly 715 days total) and pass three exams. In 2017, South Dakota exempted hair braiders from the state's cosmetology laws. It could expand opportunities by reducing or repealing its heavy licensing burdens for other lower-income occupations, or—if government regulation is necessary—by replacing them with less restrictive alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Earth Driller, Water Well	51	\$200	1,825	None	5 years	1	0	0
2	Interpreter, Sign Language	22	\$725	1,469	4 years and 40 clock hours	None	2	0	18
3	Athletic Trainer	49	\$400	1,460	4 years	None	1	0	0
4	Preschool Teacher, Public School	50	\$51	1,460	4 years	None	2	0	0
5	Midwife, Direct Entry	28	\$1,043	1,095	3 years	None	1	12	0
6	Mobile Home Installer	39	\$405	1,095	None	3 years	2	0	0
7	Barber	51	\$300	715	1,500 clock hours	1 year	3	10	17
8	Veterinary Technician	36	\$330	730	2 years	None	2	12	0
9	Cosmetologist	51	\$80	490	2,100 clock hours	None	3	12	18
9	Shampooer	37	\$80	490	2,100 clock hours	None	3	12	18
11	Makeup Artist	41	\$80	140	600 clock hours	None	3	12	18
11	Skin Care Specialist	50	\$80	140	600 clock hours	None	3	12	18
13	Massage Therapist	44	\$315	117	500 clock hours	None	1	12	18
14	Manicurist	50	\$80	93	400 clock hours	None	3	12	18
15	School Bus Driver	51	\$145	0	None	None	6	0	18
16	Truck Driver, Tractor-Trailer	51	\$123	0	None	None	5	0	18
17	Bus Driver, City/Transit	51	\$125	0	None	None	5	0	16
18	Truck Driver, Other	51	\$123	0	None	None	4	0	18
19	Emergency Medical Technician	51	\$80	35	150 clock hours	None	2	0	18
20	Pharmacy Technician	44	\$154	0	None	None	1	12	0
21	Title Examiner	7	\$600	0	None	None	1	0	0
22	Gaming Cage Worker	29	\$111	0	None	None	0	0	21
22	Gaming Dealer	28	\$111	0	None	None	0	0	21
22	Gaming Supervisor	30	\$111	0	None	None	0	0	21
22	Slot Supervisor	28	\$111	0	None	None	0	0	21
26	Pest Control Applicator	51	\$25	0	None	None	2	0	0
26	Vegetation Pesticide Applicator	51	\$25	0	None	None	2	0	0
28	Milk Sampler	42	\$50	0	None	None	1	0	0
29	Landscape Contractor (Commercial)	47	\$125	0	None	None	0	0	0
29	Landscape Contractor (Residential)	48	\$125	0	None	None	0	0	0
31	Taxidermist	28	\$15	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0
Averages		41.7	\$198	354.8			1.8	3.7	9.8

Tennessee

71
of 102 lower-income
occupations licensed

39th
most burdensome
licensing laws

13th
most broadly and
onerously licensed state

Tennessee's licensing laws for lower-income occupations rank as the 39th most burdensome. On average, they require \$327 in fees, 226 days of education and experience, and approximately one exam. Because Tennessee licenses more lower-income occupations than most states—71 of the 102 studied here—it ranks as the 13th most broadly and onerously licensed.

Tennessee licenses several occupations rarely licensed elsewhere. For example, few other states license dental assistants (eight others), bartenders (12) or locksmiths (13). The state also imposes more onerous requirements than average for some occupations, such as auctioneers. Tennessee forces auctioneers to demonstrate about 756 days of education and experience (110 hours of education and two years of experience), pay \$750 in fees, and pass two exams. But the licensed-state average burdens are just 94 days of education and experience, \$278 in fees, and one exam.

Making Tennessee's burdens even more heavy-handed, 21 states do not deem it necessary to license auctioneers at all.

Tennessee also imposes burdens on some occupations that seem disproportionate compared to those for others that may pose greater risks to the public. Its burdens for fire and security alarm installers—some of the steepest of their type—are steeper than its burdens for all but one other occupation. Opening an alarm installation business requires four years of experience and two years of education (2,190 days total), nearly \$1,000 in fees, and one exam. But EMTs need complete just 110 hours (roughly 26 days) of education, pay \$205 in fees and pass two exams. Tennessee could improve its rankings by reducing or repealing many of its licensing burdens for lower-income occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$775	2,555	4 years	3 years	5	0	18
2	Fire Alarm Installer	39	\$985	2,190	2 years	4 years	1	0	18
3	Security Alarm Installer	37	\$963	2,190	2 years	4 years	1	0	18
4	Athletic Trainer	49	\$548	1,460	4 years	None	2	0	0
5	Midwife, Direct Entry	28	\$2,043	1,095	3 years	None	1	12	0
6	Auctioneer	30	\$750	756	110 clock hours	2 years	2	12	21
7	Optician	22	\$758	730	2 years	None	3	12	18
8	Earth Driller, Water Well	51	\$557	730	None	2 years	3	10	18
9	Vegetation Pesticide Applicator	51	\$325	730	None	2 years	3	0	18
10	Pest Control Applicator	51	\$175	730	None	2 years	2	0	18
11	Taxi Driver/Chauffeur	16	\$5	730	None	2 years	1	0	18
12	Veterinary Technician	36	\$428	730	2 years	None	1	0	0
13	Barber	51	\$215	350	1,500 clock hours	None	2	10	17
14	Cosmetologist	51	\$190	350	1,500 clock hours	None	2	0	16
15	Manicurist	50	\$190	140	600 clock hours	None	2	12	16
16	Makeup Artist	41	\$190	175	750 clock hours	None	2	0	16
16	Skin Care Specialist	50	\$190	175	750 clock hours	None	2	0	16
18	Emergency Medical Technician	51	\$205	26	110 clock hours	None	2	12	18
19	Massage Therapist	44	\$513	117	500 clock hours	None	1	0	18
20	School Bus Driver	51	\$59	0	None	None	6	0	21
21	Dental Assistant	9	\$78	0	None	None	0	12	18
22	Shampooer	37	\$190	70	300 clock hours	None	2	0	16
23	Bus Driver, City/Transit	51	\$57	0	None	None	5	0	21
24	Truck Driver, Tractor-Trailer	51	\$84	0	None	None	5	0	19
25	Truck Driver, Other	51	\$75	0	None	None	4	0	18
26	Locksmith	14	\$338	16	30 clock hours	40 clock hours	1	0	18
27	Security Guard, Unarmed	34	\$108	1	4 clock hours	None	1	0	18
28	Bartender	13	\$20	1	5 clock hours	None	1	0	18
29	HVAC Contractor (Commercial)	37	\$360	0	None	None	2	0	0
29	HVAC Contractor (Residential)	35	\$360	0	None	None	2	0	0
29	Sheet Metal Contractor, HVAC (Commercial)	37	\$360	0	None	None	2	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
29	Sheet Metal Contractor, HVAC (Residential)	36	\$360	0	None	None	2	0	0
33	Bill Collection Agency	31	\$750	0	None	None	0	0	0
34	Landscape Contractor (Commercial)	47	\$505	0	None	None	1	0	0
34	Landscape Contractor (Residential)	48	\$505	0	None	None	1	0	0
36	Child Care Home, Family	44	\$100	1	None	4 clock hours	0	0	18
37	Weigher	25	\$50	0	None	None	0	0	18
38	Terrazzo Contractor (Commercial)	23	\$307	0	None	None	1	0	0
38	Terrazzo Contractor (Residential)	28	\$307	0	None	None	1	0	0
40	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$305	0	None	None	1	0	0
40	Carpenter/Cabinet Maker Contractor (Residential)	30	\$305	0	None	None	1	0	0
40	Cement Finishing Contractor (Commercial)	24	\$305	0	None	None	1	0	0
40	Cement Finishing Contractor (Residential)	30	\$305	0	None	None	1	0	0
40	Door Repair Contractor (Commercial)	24	\$305	0	None	None	1	0	0
40	Door Repair Contractor (Residential)	29	\$305	0	None	None	1	0	0
40	Drywall Installation Contractor (Commercial)	25	\$305	0	None	None	1	0	0
40	Drywall Installation Contractor (Residential)	30	\$305	0	None	None	1	0	0
40	Floor Sander Contractor (Commercial)	22	\$305	0	None	None	1	0	0
40	Floor Sander Contractor (Residential)	27	\$305	0	None	None	1	0	0
40	Glazier Contractor (Commercial)	26	\$305	0	None	None	1	0	0
40	Glazier Contractor (Residential)	30	\$305	0	None	None	1	0	0
40	Insulation Contractor (Commercial)	25	\$305	0	None	None	1	0	0
40	Insulation Contractor (Residential)	30	\$305	0	None	None	1	0	0
40	Iron/Steel Contractor (Commercial)	26	\$305	0	None	None	1	0	0
40	Iron/Steel Contractor (Residential)	30	\$305	0	None	None	1	0	0
40	Mason Contractor (Commercial)	26	\$305	0	None	None	1	0	0
40	Mason Contractor (Residential)	31	\$305	0	None	None	1	0	0
40	Painting Contractor (Commercial)	22	\$305	0	None	None	1	0	0
40	Painting Contractor (Residential)	28	\$305	0	None	None	1	0	0
40	Paving Contractor (Commercial)	24	\$305	0	None	None	1	0	0
40	Paving Contractor (Residential)	28	\$305	0	None	None	1	0	0
40	Pipelayer Contractor	27	\$305	0	None	None	1	0	0
40	Sheet Metal Contractor, Other (Commercial)	26	\$305	0	None	None	1	0	0
40	Sheet Metal Contractor, Other (Residential)	31	\$305	0	None	None	1	0	0
65	Mobile Home Installer	39	\$25	3	15 clock hours	None	1	0	0
66	Milk Sampler	42	\$25	0	None	None	1	0	0
67	Fisher, Commercial	43	\$200	0	None	None	0	0	0
68	Travel Guide	37	\$150	0	None	None	0	0	0
69	Pharmacy Technician	44	\$127	0	None	None	0	0	0
70	Taxidermist	28	\$122	0	None	None	0	0	0
71	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0
Averages		34.6	\$327	226.1			1.4	1.3	6.8

Texas

37

of 102 lower-income occupations licensed

21st

most burdensome licensing laws

42nd

most broadly and onerously licensed state

Texas licenses 37 of the 102 lower-income occupations studied here. Its laws are the 21st most burdensome and require, on average, \$253 in fees, 341 days of education and experience, and around two exams. Licensing fewer lower-income occupations than most states, Texas ranks as the nation's 42nd most broadly and onerously licensed state.

Despite licensing fewer occupations than most states, Texas does license some occupations that are rarely licensed elsewhere. For example, few other states license animal control officers (six), locksmiths (13) or weighers (24). Security alarm installers are not licensed by 14 states, yet Texas requires two years (730 days) of experience, \$462 in fees and one exam before a person can open a security alarm installation business.

Texas imposes burdens on some occupations that seem excessive compared to those for other occupations that may present a greater

risk to public safety. For example, it takes 10 times longer to become a cosmetologist or barber than it does to become an EMT (approximately 350 days or 1,500 hours of education versus approximately 35 days or 150 hours). Practitioners of these occupations should not be required to undergo so much more training than emergency first responders. Texas could expand lower-income employment opportunities by reducing or repealing its licensure burdens for cosmetologists, barbers and many other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$375	1,460	4 years	None	2	0	18
2	HVAC Contractor (Commercial)	37	\$209	1,460	None	4 years	1	0	18
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$209	1,460	None	4 years	1	0	18
4	Athletic Trainer	49	\$544	1,460	4 years	None	2	0	0
5	HVAC Contractor (Residential)	35	\$195	1,460	None	4 years	1	0	18
5	Sheet Metal Contractor, HVAC (Residential)	36	\$195	1,460	None	4 years	1	0	18
7	Security Alarm Installer	37	\$462	730	None	2 years	1	0	18
8	Earth Driller, Water Well	51	\$267	730	None	2 years	1	0	0
9	Midwife, Direct Entry	28	\$1,235	365	1 year	None	2	12	0
10	Cosmetologist	51	\$176	350	1,500 clock hours	None	2	12	17
11	Pest Control Applicator	51	\$678	379	28 clock hours	1 year and 40 clock hours	2	0	0
11	Vegetation Pesticide Applicator	51	\$678	379	28 clock hours	1 year and 40 clock hours	2	0	0
13	Barber	51	\$55	350	1,500 clock hours	None	2	0	16
14	Skin Care Specialist	50	\$176	175	750 clock hours	None	2	12	17
15	Manicurist	50	\$176	140	600 clock hours	None	2	12	17
16	Massage Therapist	44	\$346	117	500 clock hours	None	2	0	18
17	Emergency Medical Technician	51	\$144	35	150 clock hours	None	2	12	18
18	Shampooer	37	\$156	70	300 clock hours	None	2	7	16
19	Auctioneer	30	\$155	19	80 clock hours	None	1	12	18
20	School Bus Driver	51	\$84	3	20 clock hours	None	6	0	18
21	Child Care Home, Family	44	\$76	7	1 clock hour	30 clock hours	0	12	21
22	Truck Driver, Tractor-Trailer	51	\$85	0	None	None	5	0	18
23	Bus Driver, City/Transit	51	\$84	0	None	None	5	0	18
24	Truck Driver, Other	51	\$85	0	None	None	4	0	18
25	Pharmacy Technician	44	\$209	0	None	None	1	12	0
26	Fire Alarm Installer	39	\$700	0	None	None	2	0	0
27	Mobile Home Installer	39	\$591	2	12 clock hours	None	1	0	0
28	Security Guard, Unarmed	34	\$62	1	6 clock hours	None	1	0	18
29	Locksmith	14	\$63	0	None	None	0	0	18
30	Weigher	25	\$500	0	None	None	0	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
31	Animal Control Officer	7	\$75	2	12 clock hours	None	2	0	0
32	Milk Sampler	42	\$0	1	1 day	None	1	0	0
33	Travel Guide	37	\$132	0	None	None	0	0	0
34	Landscape Contractor (Commercial)	47	\$75	0	None	None	0	0	0
34	Landscape Contractor (Residential)	48	\$75	0	None	None	0	0	0
36	Fisher, Commercial	43	\$53	0	None	None	0	0	0
37	Coach, Head (High School Sports)	48	\$0	1	5 clock hours	None	0	0	0
Averages		41.6	\$253	341.0			1.6	2.8	10.1

Utah

64

of 102 lower-income occupations licensed

13th

most burdensome licensing laws

15th

most broadly and onerously licensed state

Utah licenses more lower-income occupations than average—64 of the 102 studied here—and its laws are the 13th most burdensome. On average, Utah law requires \$367 in fees, 504 days of education and experience, and roughly two exams to enter a licensed occupation. Utah ranks as the 15th most broadly and onerously licensed state, leaving much room for improvement.

Utah frequently licenses occupations that are unlicensed by most other states, such as upholsterers (licensed by nine other states), crane operators (17 others), commercial floor sander contractors (21 others) and commercial painting contractors (21 others). The latter two contractor occupations also face particularly steep burdens in Utah: an estimated 733 days lost to education and experience (20 hours of education and two years of experience), \$549 in fees, and two exams. By comparison, the average requirements for these occupations in states that license them comprise fewer than 500 days of education and experience, less than \$400 in fees,

and around one exam. Given that so few states see fit to license commercial floor sander and painting contractors at all, Utah's requirements appear particularly heavy-handed.

Utah also imposes burdens on some occupations that seem excessive compared to those for other occupations that may have a stronger connection to public safety. Fifty of Utah's 64 occupational licenses, including all of its commercial and residential contractor licenses as well as its licenses for barbers, cosmetologists, manicurists and massage therapists, are more difficult to obtain than the state's EMT license. For example, while cosmetologists need more than a year of education (an estimated 373 days or 1,600 hours), EMTs need only about a month (an estimated 28 days or 120 hours). Utah could improve its rankings by reducing or repealing heavy licensing burdens for lower-income occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Athletic Trainer	49	\$370	1,460	4 years	None	1	0	0
2	Midwife, Direct Entry	28	\$1,100	1,095	3 years	None	1	12	0
3	Security Alarm Installer	37	\$599	1,099	22 clock hours	3 years	3	0	0
4	Earth Driller, Water Well	51	\$350	730	None	2 years	5	0	21
5	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$549	733	20 clock hours	2 years	2	0	0
5	Carpenter/Cabinet Maker Contractor (Residential)	30	\$549	733	20 clock hours	2 years	2	0	0
5	Cement Finishing Contractor (Commercial)	24	\$549	733	20 clock hours	2 years	2	0	0
5	Cement Finishing Contractor (Residential)	30	\$549	733	20 clock hours	2 years	2	0	0
5	Door Repair Contractor (Commercial)	24	\$549	733	20 clock hours	2 years	2	0	0
5	Door Repair Contractor (Residential)	29	\$549	733	20 clock hours	2 years	2	0	0
5	Drywall Installation Contractor (Commercial)	25	\$549	733	20 clock hours	2 years	2	0	0
5	Drywall Installation Contractor (Residential)	30	\$549	733	20 clock hours	2 years	2	0	0
5	Floor Sander Contractor (Commercial)	22	\$549	733	20 clock hours	2 years	2	0	0
5	Floor Sander Contractor (Residential)	27	\$549	733	20 clock hours	2 years	2	0	0
5	Glazier Contractor (Commercial)	26	\$549	733	20 clock hours	2 years	2	0	0
5	HVAC Contractor (Commercial)	37	\$549	733	20 clock hours	2 years	2	0	0
5	HVAC Contractor (Residential)	35	\$549	733	20 clock hours	2 years	2	0	0
5	Insulation Contractor (Commercial)	25	\$549	733	20 clock hours	2 years	2	0	0
5	Insulation Contractor (Residential)	30	\$549	733	20 clock hours	2 years	2	0	0
5	Mason Contractor (Commercial)	26	\$549	733	20 clock hours	2 years	2	0	0
5	Mason Contractor (Residential)	31	\$549	733	20 clock hours	2 years	2	0	0
5	Mobile Home Installer	39	\$549	733	20 clock hours	2 years	2	0	0
5	Painting Contractor (Commercial)	22	\$549	733	20 clock hours	2 years	2	0	0
5	Painting Contractor (Residential)	28	\$549	733	20 clock hours	2 years	2	0	0
5	Pipelayer Contractor	27	\$549	733	20 clock hours	2 years	2	0	0
26	Glazier Contractor (Residential)	30	\$549	733	20 clock hours	2 years	1	0	0
27	Iron/Steel Contractor (Commercial)	26	\$354	733	20 clock hours	2 years	2	0	0
27	Iron/Steel Contractor (Residential)	30	\$354	733	20 clock hours	2 years	2	0	0
27	Sheet Metal Contractor, HVAC (Commercial)	37	\$354	733	20 clock hours	2 years	2	0	0
27	Sheet Metal Contractor, HVAC (Residential)	36	\$354	733	20 clock hours	2 years	2	0	0
27	Sheet Metal Contractor, Other (Commercial)	26	\$354	733	20 clock hours	2 years	2	0	0

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
27	Sheet Metal Contractor, Other (Residential)	31	\$354	733	20 clock hours	2 years	2	0	0
33	Paving Contractor (Commercial)	24	\$477	733	20 clock hours	2 years	1	0	0
33	Paving Contractor (Residential)	28	\$477	733	20 clock hours	2 years	1	0	0
33	Terrazzo Contractor (Commercial)	23	\$477	733	20 clock hours	2 years	1	0	0
33	Terrazzo Contractor (Residential)	28	\$477	733	20 clock hours	2 years	1	0	0
37	Landscape Contractor (Commercial)	47	\$589	733	20 clock hours	2 years	0	0	0
37	Landscape Contractor (Residential)	48	\$589	733	20 clock hours	2 years	0	0	0
39	School Bus Driver	51	\$114	365	None	1 year	6	0	21
40	Bus Driver, City/Transit	51	\$107	365	None	1 year	5	0	21
41	Truck Driver, Tractor-Trailer	51	\$100	365	None	1 year	5	0	18
42	Truck Driver, Other	51	\$100	365	None	1 year	4	0	18
43	Cosmetologist	51	\$234	373	1,600 clock hours	None	2	0	0
44	Pharmacy Technician	44	\$229	140	None	600 clock hours	2	12	0
45	Barber	51	\$234	233	1,000 clock hours	None	2	0	0
45	Shampooer	37	\$234	233	1,000 clock hours	None	2	0	0
47	Massage Therapist	44	\$295	140	600 clock hours	None	1	0	18
48	Travel Guide	37	\$237	140	None	100 days	1	0	18
49	Skin Care Specialist	50	\$234	140	600 clock hours	None	2	0	0
50	Manicurist	50	\$234	70	300 clock hours	None	2	0	0
51	Emergency Medical Technician	51	\$195	28	120 clock hours	None	2	0	18
52	Crane Operator	18	\$225	0	None	None	2	0	18
53	Interpreter, Sign Language	22	\$210	0	None	None	2	0	18
54	Pest Control Applicator	51	\$140	0	None	None	2	0	16
54	Vegetation Pesticide Applicator	51	\$140	0	None	None	2	0	16
56	Taxi Driver/Chauffeur	16	\$25	0	None	None	1	0	21
57	Bartender	13	\$0	1	3 clock hours	None	1	0	21
58	Child Care Home, Family	44	\$83	0	None	2.5 clock hours	0	0	18
59	Security Guard, Unarmed	34	\$100	4	24 clock hours	None	1	0	0
60	Fisher, Commercial	43	\$150	0	None	None	0	0	0
61	Upholsterer	10	\$65	0	None	None	0	0	0
62	Coach, Head (High School Sports)	48	\$40	1	4.5 clock hours	None	0	0	0
63	Milk Sampler	42	\$40	0	None	None	0	0	0
64	Bill Collection Agency	31	\$32	0	None	None	0	0	0
Averages		34.6	\$367	504.4			1.8	0.4	4.4

Vermont

31

of 102 lower-income occupations licensed

28th

most burdensome licensing laws

50th

most broadly and onerously licensed state

Vermont licenses 31 of the 102 lower-income occupations studied here—fewer than all but one other state. Its laws rank as the 28th most burdensome, requiring an average of \$193 in fees, 287 days of education and experience, and around two exams. These lower-than-average burdens, combined with a lower-than-average number of occupations licensed, make Vermont the 50th most broadly and onerously licensed state—the second-best in the nation.

Despite licensing relatively few occupations, Vermont licenses several for which many other states deem licensure unnecessary. These occupations include dental assistant (licensed by eight other states), bartender (12 others), optician (21 others), weigher (24 others), animal breeder (27 others) and auctioneer (29 others).

Vermont also imposes burdens on some occupations that seem excessive compared to those for other occupations that arguably have a stronger connection to public health and safety. For example, cosmetologists must study for the better part of a year (roughly 350 days or 1,500 hours), pay \$360 in fees and pass three exams to obtain a license to work. EMTs, on the other hand, must only complete less than a month of education (roughly 26 days or 110 hours) and pass two exams. Vermont could expand lower-income employment opportunities by reducing or repealing its licensing burdens for cosmetologists and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$667	2,555	4 years	3 years	1	0	0
2	Athletic Trainer	49	\$400	1,460	4 years	None	1	0	0
3	Midwife, Direct Entry	28	\$1,100	1,095	3 years	None	1	12	0
4	Earth Driller, Water Well	51	\$290	1,095	None	3 years	3	0	0
5	Optician	22	\$325	730	2 years	None	1	12	18
6	Fire Alarm Installer	39	\$180	730	None	2 years	1	0	0
7	Cosmetologist	51	\$360	350	1,500 clock hours	None	3	12	18
8	Barber	51	\$110	233	1,000 clock hours	None	3	12	18
8	Shampooer	37	\$110	233	1,000 clock hours	None	3	12	18
10	Makeup Artist	41	\$360	140	600 clock hours	None	3	12	18
10	Skin Care Specialist	50	\$360	140	600 clock hours	None	3	12	18
12	Manicurist	50	\$360	93	400 clock hours	None	3	12	18
13	School Bus Driver	51	\$231	0	None	None	6	0	18
14	Bus Driver, City/Transit	51	\$185	0	None	None	5	0	18
15	Truck Driver, Tractor-Trailer	51	\$171	0	None	None	5	0	18
16	Child Care Home, Family	44	\$0	0	None	2 clock hours	0	12	18
17	Truck Driver, Other	51	\$139	0	None	None	4	0	18
18	Emergency Medical Technician	51	\$0	26	110 clock hours	None	2	0	18
19	Security Guard, Unarmed	34	\$60	9	40 clock hours	None	1	0	18
20	Vegetation Pesticide Applicator	51	\$105	0	None	None	3	0	0
21	Weigher	25	\$25	0	None	None	0	0	18
22	Bartender	13	\$0	1	3 clock hours	None	0	0	18
23	Pest Control Applicator	51	\$105	0	None	None	2	0	0
24	Milk Sampler	42	\$50	0	None	None	1	0	0
25	Auctioneer	30	\$100	9	40 clock hours	None	0	0	0
26	Dental Assistant	9	\$60	0	None	None	0	0	0
27	Pharmacy Technician	44	\$50	0	None	None	0	0	0
28	Animal Breeder	28	\$25	0	None	None	0	0	0
29	Landscape Contractor (Commercial)	47	\$20	0	None	None	0	0	0
29	Landscape Contractor (Residential)	48	\$20	0	None	None	0	0	0
31	Coach, Head (High School Sports)	48	\$0	1	4.5 clock hours	None	0	0	0
Averages		41.5	\$193	287.1			1.8	3.5	9.3

Virginia

68

of 102 lower-income occupations licensed

7th

most burdensome licensing laws

7th

most broadly and onerously licensed state

Virginia's licensing laws for lower-income occupations are some of the worst in the nation, ranking as the seventh most burdensome. On average, Virginia law requires \$291 in fees, 620 days of education and experience, and approximately one exam. Licensing more lower-income occupations than average—68 of the 102 studied here—Virginia is also the seventh most broadly and onerously licensed state.

Virginia licenses a number of occupations that most other states do not license, including animal control officers (licensed by six other states), upholsterers (nine others), locksmiths (13 others), commercial floor sander contractors (21 others) and commercial painting contractors (21 others). The latter two contractor occupations face particularly steep training requirements in Virginia, where aspirants must demonstrate an estimated 731 days of education and experience (two years of experience and eight hours of education). By comparison, on average, licensed states

require fewer than 500 days of education and experience (485 for floor sander contractors and 488 days for painting contractors). Given that so few states see fit to license these occupations at all, Virginia's requirements appear excessive.

Virginia also imposes burdens on some occupations that seem disproportionate compared to those for other occupations that may present a greater risk to public safety. For example, it takes roughly 63 days (nine credit hours) and \$80 in fees to become a licensed EMT. Becoming a licensed landscape contractor, on the other hand, requires roughly 731 days (two years of experience and eight hours of education) and \$320 in fees. Virginia could improve its rankings by reducing or repealing such heavy licensing burdens, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Earth Driller, Water Well	51	\$460	2,203	56 clock hours	6 years	1	0	18
2	HVAC Contractor (Commercial)	37	\$720	1,826	8 clock hours	5 years	2	0	18
2	HVAC Contractor (Residential)	35	\$720	1,826	8 clock hours	5 years	2	0	18
2	Sheet Metal Contractor, HVAC (Commercial)	37	\$720	1,826	8 clock hours	5 years	2	0	18
2	Sheet Metal Contractor, HVAC (Residential)	36	\$720	1,826	8 clock hours	5 years	2	0	18
6	Preschool Teacher, Public School	50	\$630	1,460	4 years	None	4	0	18
7	Coach, Head (High School Sports)	48	\$450	1,461	4 years and 4 clock hours	None	3	0	18
8	Athletic Trainer	49	\$430	1,460	4 years	None	1	0	0
9	Midwife, Direct Entry	28	\$1,277	1,095	3 years	None	1	12	0
10	Security Alarm Installer	37	\$650	1,096	8 clock hours	3 years	0	0	0
11	Optician	22	\$350	730	2 years	None	2	12	18
12	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$320	731	8 clock hours	2 years	1	0	18
12	Carpenter/Cabinet Maker Contractor (Residential)	30	\$320	731	8 clock hours	2 years	1	0	18
12	Cement Finishing Contractor (Commercial)	24	\$320	731	8 clock hours	2 years	1	0	18
12	Cement Finishing Contractor (Residential)	30	\$320	731	8 clock hours	2 years	1	0	18
12	Door Repair Contractor (Commercial)	24	\$320	731	8 clock hours	2 years	1	0	18
12	Door Repair Contractor (Residential)	29	\$320	731	8 clock hours	2 years	1	0	18
12	Drywall Installation Contractor (Commercial)	25	\$320	731	8 clock hours	2 years	1	0	18
12	Drywall Installation Contractor (Residential)	30	\$320	731	8 clock hours	2 years	1	0	18
12	Fire Alarm Installer	39	\$320	731	8 clock hours	2 years	1	0	18
12	Floor Sander Contractor (Commercial)	22	\$320	731	8 clock hours	2 years	1	0	18
12	Floor Sander Contractor (Residential)	27	\$320	731	8 clock hours	2 years	1	0	18
12	Glazier Contractor (Commercial)	26	\$320	731	8 clock hours	2 years	1	0	18
12	Glazier Contractor (Residential)	30	\$320	731	8 clock hours	2 years	1	0	18
12	Insulation Contractor (Residential)	30	\$320	731	8 clock hours	2 years	1	0	18
12	Iron/Steel Contractor (Commercial)	26	\$320	731	8 clock hours	2 years	1	0	18
12	Iron/Steel Contractor (Residential)	30	\$320	731	8 clock hours	2 years	1	0	18
12	Landscape Contractor (Commercial)	47	\$320	731	8 clock hours	2 years	1	0	18
12	Landscape Contractor (Residential)	48	\$320	731	8 clock hours	2 years	1	0	18
12	Mason Contractor (Commercial)	26	\$320	731	8 clock hours	2 years	1	0	18
12	Mason Contractor (Residential)	31	\$320	731	8 clock hours	2 years	1	0	18

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
12	Painting Contractor (Commercial)	22	\$320	731	8 clock hours	2 years	1	0	18
12	Painting Contractor (Residential)	28	\$320	731	8 clock hours	2 years	1	0	18
12	Paving Contractor (Commercial)	24	\$320	731	8 clock hours	2 years	1	0	18
12	Paving Contractor (Residential)	28	\$320	731	8 clock hours	2 years	1	0	18
12	Pipelayer Contractor	27	\$320	731	8 clock hours	2 years	1	0	18
12	Sheet Metal Contractor, Other (Commercial)	26	\$320	731	8 clock hours	2 years	1	0	18
12	Sheet Metal Contractor, Other (Residential)	31	\$320	731	8 clock hours	2 years	1	0	18
12	Terrazzo Contractor (Commercial)	23	\$320	731	8 clock hours	2 years	1	0	18
12	Terrazzo Contractor (Residential)	28	\$320	731	8 clock hours	2 years	1	0	18
41	Insulation Contractor (Commercial)	25	\$235	731	8 clock hours	2 years	1	0	18
41	Mobile Home Installer	39	\$235	731	8 clock hours	2 years	1	0	18
43	Veterinary Technician	36	\$375	730	2 years	None	1	0	0
44	Vegetation Pesticide Applicator	51	\$120	365	1 year	None	3	0	18
45	Pest Control Applicator	51	\$120	365	1 year	None	2	0	18
46	Cosmetologist	51	\$280	350	1,500 clock hours	None	2	0	0
47	Barber	51	\$275	350	1,500 clock hours	None	2	0	0
48	Child Care Home, Family	44	\$39	92	None	3 months and 6 clock hours	0	12	18
49	Massage Therapist	44	\$335	117	500 clock hours	None	1	0	18
50	School Bus Driver	51	\$33	8	24 clock hours	24 clock hours	6	0	18
51	Pharmacy Technician	44	\$154	0	None	None	1	12	0
52	Skin Care Specialist	50	\$175	140	600 clock hours	None	2	0	0
53	Emergency Medical Technician	51	\$80	63	9 credit hours	None	2	0	18
54	Bus Driver, City/Transit	51	\$30	0	None	None	5	0	18
55	Truck Driver, Tractor-Trailer	51	\$27	0	None	None	5	0	18
56	Truck Driver, Other	51	\$27	0	None	None	4	0	18
57	Auctioneer	30	\$65	19	80 clock hours	None	1	0	18
58	Manicurist	50	\$175	35	150 clock hours	None	2	0	0
59	Locksmith	14	\$75	3	18 clock hours	None	1	0	18
59	Security Guard, Unarmed	34	\$75	3	18 clock hours	None	1	0	18
61	Weigher	25	\$25	0	None	None	0	0	18
62	Fisher, Commercial	43	\$190	0	None	None	0	0	0
62	Travel Guide	37	\$190	0	None	None	0	0	0
64	Milk Sampler	42	\$0	0	None	None	1	0	0
64	Wildlife Control Operator	23	\$0	0	None	None	1	0	0
66	Animal Control Officer	7	\$0	20	84 clock hours	None	0	0	0
67	Taxidermist	28	\$40	0	None	None	0	0	0
68	Upholsterer	10	\$25	0	None	None	0	0	0
Averages		34.6	\$291	619.7			1.4	0.7	13.8

Washington

77
of 102 lower-income
occupations licensed

48th
most burdensome
licensing laws

9th
most broadly and
onerously licensed state

Washington is tied with Louisiana in licensing the most lower-income occupations in this study—77 of 102. The state's licensing laws, however, are less burdensome than most, ranking 48th in the nation. On average, they require \$209 in fees, 163 days of education and experience, and around one exam. Nevertheless, because Washington licenses so many occupations, it ranks as the ninth most broadly and onerously licensed state.

Washington's long list of licensed occupations includes several that are rarely licensed elsewhere. For example, few other states license dairy equipment still machine setters (two), travel agencies (six), dental assistants (eight) or farm labor contractors (nine). Washington also licenses some more widely licensed occupations more onerously than other states. For example, water well earth drillers must sacrifice an estimated 1,265 days to education and experience (5,400 hours of experience and

32 continuing education units) to become licensed in the state. That is substantially more than the national average requirement of 837 days in this occupation.

Washington also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present a greater risk to public safety. For example, aspiring EMTs are deemed qualified first responders after completing an estimated 26 days (110 hours) of education and paying \$80 in fees. Cosmetologists, on the other hand, face much more stringent requirements: roughly 373 days (1,600 hours) of education and \$230 in fees. Washington could expand employment opportunities in the state by reducing or repealing its illogical licensing burdens for cosmetologists and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$1,004	2,190	4 years	2 years	2	0	0
2	Fire Alarm Installer	39	\$676	1,471	48 clock hours	4 years	4	0	16
3	Security Alarm Installer	37	\$676	1,471	48 clock hours	4 years	4	0	16
4	Athletic Trainer	49	\$475	1,461	7 clock hours, 4 years	None	1	0	0
5	Midwife, Direct Entry	28	\$1,674	1,095	3 years	None	2	12	21
6	Earth Driller, Water Well	51	\$188	1,265	32 continuing education units	5,400 clock hours	1	0	0
7	Optician	22	\$200	731	2 years and 4 clock hours	None	3	12	18
8	Veterinary Technician	36	\$580	731	2 years and 4 clock hours	None	2	0	0
9	School Bus Driver	51	\$170	373	36 clock hours	1 year	6	0	21
10	Cosmetologist	51	\$230	373	1,600 clock hours	None	2	0	17
11	Barber	51	\$25	233	1,000 clock hours	None	2	0	17
11	Shampooer	37	\$25	233	1,000 clock hours	None	2	0	17
13	Pharmacy Technician	44	\$189	140	None	600 clock hours	1	12	0
14	Skin Care Specialist	50	\$210	175	750 clock hours	None	2	0	17
15	Child Care Home, Family	44	\$42	70	10 credit hours	None	0	12	21
16	Manicurist	50	\$210	140	600 clock hours	None	2	0	17
17	Emergency Medical Technician	51	\$80	26	110 clock hours	None	2	12	18
18	Mobile Home Installer	39	\$260	184	10 clock hours	6 months	1	0	0
19	Massage Therapist	44	\$336	117	500 clock hours	None	2	0	18
20	Truck Driver, Tractor-Trailer	51	\$325	37	160 clock hours	None	5	0	18
21	Coach, Head (High School Sports)	48	\$0	1	4 clock hours	None	0	12	21
22	Bus Driver, City/Transit	51	\$335	8	36 clock hours	None	5	0	18
23	Truck Driver, Other	51	\$325	11	48 clock hours	None	4	0	18
24	Bill Collection Agency	31	\$850	0	None	None	0	0	18
25	Crane Operator	18	\$225	4	None	24 clock hours	2	0	18
26	Travel Guide	37	\$515	0	None	None	0	0	16
27	Taxi Driver/Chauffeur	16	\$118	3	None	3 days	1	0	21
28	Security Guard, Unarmed	34	\$91	3	16 clock hours	None	1	0	18
29	Bartender	13	\$0	1	3 clock hours	None	1	0	21

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
30	Wildlife Control Operator	23	\$50	2	10 clock hours	None	1	0	18
31	Fisher, Commercial	43	\$200	0	None	None	0	0	16
32	Pest Control Applicator	51	\$240	0	None	None	2	0	0
32	Vegetation Pesticide Applicator	51	\$240	0	None	None	2	0	0
34	Weigher	25	\$50	0	None	None	0	0	18
35	Taxidermist	28	\$250	0	None	None	0	0	0
36	Gaming Cage Worker	29	\$219	0	None	None	0	0	0
36	Gaming Dealer	28	\$219	0	None	None	0	0	0
36	Gaming Supervisor	30	\$219	0	None	None	0	0	0
39	Travel Agency	7	\$202	0	None	None	0	0	0
40	Landscape Contractor (Residential)	48	\$176	0	None	None	0	0	0
41	Landscape Contractor (Commercial)	47	\$176	0	None	None	0	0	0
42	Auctioneer	30	\$155	0	None	None	0	0	0
43	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$113	0	None	None	0	0	0
43	Carpenter/Cabinet Maker Contractor (Residential)	30	\$113	0	None	None	0	0	0
43	Cement Finishing Contractor (Commercial)	24	\$113	0	None	None	0	0	0
43	Door Repair Contractor (Commercial)	24	\$113	0	None	None	0	0	0
43	Door Repair Contractor (Residential)	29	\$113	0	None	None	0	0	0
43	Drywall Installation Contractor (Commercial)	25	\$113	0	None	None	0	0	0
43	Drywall Installation Contractor (Residential)	30	\$113	0	None	None	0	0	0
43	Floor Sander Contractor (Commercial)	22	\$113	0	None	None	0	0	0
43	Floor Sander Contractor (Residential)	27	\$113	0	None	None	0	0	0
43	Glazier Contractor (Commercial)	26	\$113	0	None	None	0	0	0
43	Glazier Contractor (Residential)	30	\$113	0	None	None	0	0	0
43	HVAC Contractor (Commercial)	37	\$113	0	None	None	0	0	0
43	HVAC Contractor (Residential)	35	\$113	0	None	None	0	0	0
43	Insulation Contractor (Commercial)	25	\$113	0	None	None	0	0	0
43	Insulation Contractor (Residential)	30	\$113	0	None	None	0	0	0
43	Iron/Steel Contractor (Commercial)	26	\$113	0	None	None	0	0	0
43	Iron/Steel Contractor (Residential)	30	\$113	0	None	None	0	0	0
43	Mason Contractor (Commercial)	26	\$113	0	None	None	0	0	0
43	Mason Contractor (Residential)	31	\$113	0	None	None	0	0	0
43	Painting Contractor (Commercial)	22	\$113	0	None	None	0	0	0
43	Painting Contractor (Residential)	28	\$113	0	None	None	0	0	0
43	Paving Contractor (Commercial)	24	\$113	0	None	None	0	0	0
43	Paving Contractor (Residential)	28	\$113	0	None	None	0	0	0
43	Pipelayer Contractor	27	\$113	0	None	None	0	0	0
43	Sheet Metal Contractor, HVAC (Commercial)	37	\$113	0	None	None	0	0	0
43	Sheet Metal Contractor, HVAC (Residential)	36	\$113	0	None	None	0	0	0
43	Sheet Metal Contractor, Other (Commercial)	26	\$113	0	None	None	0	0	0
43	Sheet Metal Contractor, Other (Residential)	31	\$113	0	None	None	0	0	0
43	Terrazzo Contractor (Commercial)	23	\$113	0	None	None	0	0	0
43	Terrazzo Contractor (Residential)	28	\$113	0	None	None	0	0	0
73	Cement Finishing Contractor (Residential)	30	\$113	0	None	None	0	0	0
74	Dental Assistant	9	\$40	1	7 clock hours	None	0	0	0
75	Milk Sampler	42	\$50	0	None	None	0	0	0
75	Still Machine Setter, Dairy Equipment	3	\$50	0	None	None	0	0	0
77	Farm Labor Contractor	10	\$35	0	None	None	0	0	0
Averages		33.1	\$209	163.0			0.8	0.9	6.1

West Virginia

70
of 102 lower-income
occupations licensed

44th
most burdensome
licensing laws

14th
most broadly and
onerously licensed state

West Virginia's licensing laws for lower-income occupations are the nation's 44th most burdensome. They require, on average, \$172 in fees, 210 days of education and experience, and around two exams. But because West Virginia licenses more occupations than most states—70 of the 102 studied here—it ranks as the 14th most broadly and onerously licensed state.

West Virginia licenses several occupations that are not licensed elsewhere, such as upholsterers (licensed by nine other states), crane operators (17 others) and sign language interpreters (21 others). West Virginia also licenses auctioneers—who are unlicensed in 21 states—and does so quite onerously. While the licensed-state average of days lost to education and experience is an estimated 94 days for auctioneers, West Virginia requires more than twice as much: an estimated 201 days, or six months of experience and 80 hours of education.

West Virginia also imposes requirements on some occupations that seem excessive compared to those for others with a stronger connection to public safety. For example, in West Virginia, manicurists and massage therapists face more stringent requirements than EMTs. To provide their services, these workers must complete between 93 and 117 days of education. EMTs, on the other hand, can become licensed after completing only around 35 days (150 hours) of education. West Virginia could create more economic opportunity by reducing or repealing many of its occupational licenses, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$267	2,190	4 years	2 years	2	0	18
2	Interpreter, Sign Language	22	\$720	1,469	4 years and 40 clock hours	None	2	0	18
3	Earth Driller, Water Well	51	\$565	1,460	None	4 years	4	0	18
4	Athletic Trainer	49	\$425	1,460	4 years	None	1	0	18
5	School Bus Driver	51	\$161	1,106	40 clock hours	3 years and 12 clock hours	7	12	21
6	Fire Alarm Installer	39	\$259	730	None	2 years	4	0	18
6	Security Alarm Installer	37	\$259	730	None	2 years	4	0	18
8	Bus Driver, City/Transit	51	\$151	730	None	2 years	5	0	18
9	Truck Driver, Tractor-Trailer	51	\$142	730	None	2 years	5	0	18
10	Veterinary Technician	36	\$410	730	2 years	None	2	0	18
11	Truck Driver, Other	51	\$142	730	None	2 years	4	0	18
12	Cosmetologist	51	\$134	420	1,800 clock hours	None	3	12	18
13	Barber	51	\$134	280	1,200 clock hours	None	2	12	18
14	Vegetation Pesticide Applicator	51	\$90	365	None	1 year	3	0	0
15	Pest Control Applicator	51	\$90	365	None	1 year	2	0	0
16	Pharmacy Technician	44	\$190	227	20 clock hours	960 clock hours	1	12	0
17	Makeup Artist	41	\$159	140	600 clock hours	None	3	12	18
17	Skin Care Specialist	50	\$159	140	600 clock hours	None	3	12	18
19	Crane Operator	18	\$300	233	None	1,000 clock hours	2	0	18
20	Auctioneer	30	\$300	201	80 clock hours	6 months	3	0	18
21	Manicurist	50	\$159	93	400 clock hours	None	3	12	18
22	Massage Therapist	44	\$545	117	500 clock hours	None	1	0	0
23	Mobile Home Installer	39	\$709	0	None	None	2	0	0
24	Shampooer	37	\$35	1	3 clock hours	None	0	9	16
25	Emergency Medical Technician	51	\$50	35	150 clock hours	None	2	0	18
26	Coach, Head (High School Sports)	48	\$0	2	14 clock hours	None	0	12	0
27	Wildlife Control Operator	23	\$50	0	None	None	1	0	18
28	Gaming Cage Worker	29	\$100	0	None	None	0	0	21
28	Gaming Dealer	28	\$100	0	None	None	0	0	21
28	Gaming Supervisor	30	\$100	0	None	None	0	0	21

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
28	Slot Supervisor	28	\$100	0	None	None	0	0	21
32	Cement Finishing Contractor (Commercial)	24	\$174	0	None	None	2	0	0
32	Cement Finishing Contractor (Residential)	30	\$174	0	None	None	2	0	0
32	HVAC Contractor (Commercial)	37	\$174	0	None	None	2	0	0
32	HVAC Contractor (Residential)	35	\$174	0	None	None	2	0	0
32	Iron/Steel Contractor (Commercial)	26	\$174	0	None	None	2	0	0
32	Iron/Steel Contractor (Residential)	30	\$174	0	None	None	2	0	0
32	Mason Contractor (Commercial)	26	\$174	0	None	None	2	0	0
32	Mason Contractor (Residential)	31	\$174	0	None	None	2	0	0
32	Pipelayer Contractor	27	\$174	0	None	None	2	0	0
32	Sheet Metal Contractor, HVAC (Commercial)	37	\$174	0	None	None	2	0	0
42	Child Care Home, Family	44	\$37	0	None	None	0	0	18
43	Landscape Contractor (Commercial)	47	\$192	0	None	None	1	0	0
43	Landscape Contractor (Residential)	48	\$192	0	None	None	1	0	0
45	Carpenter/Cabinet Maker Contractor (Commercial)	25	\$132	0	None	None	1	0	0
45	Carpenter/Cabinet Maker Contractor (Residential)	30	\$132	0	None	None	1	0	0
45	Door Repair Contractor (Commercial)	24	\$132	0	None	None	1	0	0
45	Door Repair Contractor (Residential)	29	\$132	0	None	None	1	0	0
45	Drywall Installation Contractor (Commercial)	25	\$132	0	None	None	1	0	0
45	Drywall Installation Contractor (Residential)	30	\$132	0	None	None	1	0	0
45	Floor Sander Contractor (Commercial)	22	\$132	0	None	None	1	0	0
45	Floor Sander Contractor (Residential)	27	\$132	0	None	None	1	0	0
45	Glazier Contractor (Commercial)	26	\$132	0	None	None	1	0	0
45	Glazier Contractor (Residential)	30	\$132	0	None	None	1	0	0
45	Insulation Contractor (Commercial)	25	\$132	0	None	None	1	0	0
45	Insulation Contractor (Residential)	30	\$132	0	None	None	1	0	0
45	Painting Contractor (Commercial)	22	\$132	0	None	None	1	0	0
45	Painting Contractor (Residential)	28	\$132	0	None	None	1	0	0
45	Paving Contractor (Commercial)	24	\$132	0	None	None	1	0	0
45	Paving Contractor (Residential)	28	\$132	0	None	None	1	0	0
45	Sheet Metal Contractor, HVAC (Residential)	36	\$132	0	None	None	1	0	0
45	Sheet Metal Contractor, Other (Commercial)	26	\$132	0	None	None	1	0	0
45	Sheet Metal Contractor, Other (Residential)	31	\$132	0	None	None	1	0	0
45	Terrazzo Contractor (Commercial)	23	\$132	0	None	None	1	0	0
45	Terrazzo Contractor (Residential)	28	\$132	0	None	None	1	0	0
66	Milk Sampler	42	\$10	0	None	None	1	0	0
67	Bill Collection Agency	31	\$30	0	None	None	0	0	0
68	Animal Breeder	28	\$10	0	None	None	0	0	0
68	Travel Guide	37	\$10	0	None	None	0	0	0
68	Upholsterer	10	\$10	0	None	None	0	0	0
Averages		34.9	\$172	209.8			1.6	1.5	6.9

Wisconsin

42

of 102 lower-income occupations licensed

42nd

most burdensome licensing laws

36th

most broadly and onerously licensed state

Wisconsin licenses 42 of the 102 lower-income occupations studied here, which is fewer than most states. Ranking as the 42nd most burdensome, Wisconsin's licensing laws require, on average, \$259 in fees, 214 days of education and experience, and around one exam. The state ranks as the nation's 36th most broadly and onerously licensed.

Wisconsin frequently licenses occupations that are unlicensed by other states. For example, few other states license animal trainers (eight), farm labor contractors (nine), bartenders (12) or sign language interpreters (21). Among those, sign language interpreters face particularly steep education and experience requirements: 1,469 days (four years and 40 clock hours) of education. The average in states that license the occupation, meanwhile, is 1,088 days. And bill collection agencies, which are unlicensed in 20 states, face unusually high fees in Wisconsin (\$1,200 versus an average of \$551).

Wisconsin also imposes burdens on some occupations that seem excessive compared to those for other occupations that may present a greater risk to public safety. For example, it takes over 10 times as long to become a cosmetologist in Wisconsin as it does to become an EMT. EMTs must complete roughly 35 days (150 hours) of education, while cosmetologists need an estimated 362 (1,550 hours). Wisconsin could expand lower-income employment opportunities by reducing or repealing its licensing burdens for cosmetologists and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives such as inspections or voluntary certification.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Preschool Teacher, Public School	50	\$520	2,555	4 years	3 years	2	0	0
2	Interpreter, Sign Language	22	\$750	1,469	4 years and 40 clock hours	None	2	0	18
3	Athletic Trainer	49	\$375	1,460	4 years	None	1	0	0
4	Midwife, Direct Entry	28	\$1,085	730	2 years	None	1	12	0
5	Veterinary Technician	36	\$475	730	2 years	None	2	0	18
6	Earth Driller, Water Well	51	\$100	731	6 clock hours	2 years	1	0	20
7	Shampooer	37	\$391	233	1,000 clock hours	None	2	12	18
8	Cosmetologist	51	\$391	362	1,550 clock hours	None	2	0	18
9	Massage Therapist	44	\$345	140	600 clock hours	None	2	12	18
10	Barber	51	\$391	233	1,000 clock hours	None	2	0	18
11	Makeup Artist	41	\$391	105	450 clock hours	None	2	0	18
11	Skin Care Specialist	50	\$391	105	450 clock hours	None	2	0	18
13	Manicurist	50	\$391	70	300 clock hours	None	2	0	18
14	School Bus Driver	51	\$129	0	None	None	6	0	18
15	Bus Driver, City/Transit	51	\$124	0	None	None	5	0	18
15	Truck Driver, Tractor-Trailer	51	\$124	0	None	None	5	0	18
17	Truck Driver, Other	51	\$124	0	None	None	4	0	18
18	Emergency Medical Technician	51	\$80	35	150 clock hours	None	2	0	18
19	Pipelayer Contractor	27	\$540	0	None	None	1	0	18
20	Bill Collection Agency	31	\$1,200	0	None	None	0	0	0
21	Vegetation Pesticide Applicator	51	\$199	2	2 days	None	2	0	16
22	Auctioneer	30	\$201	0	None	None	1	0	18
23	Mobile Home Installer	39	\$115	2	12 clock hours	None	1	0	18
24	Child Care Home, Family	44	\$68	21	3 credit hours	None	0	0	18
25	Pest Control Applicator	51	\$152	1	1 day	None	1	0	16
26	Security Guard, Unarmed	34	\$114	0	None	None	0	0	18
27	Animal Breeder	28	\$625	0	None	None	0	0	0
28	Travel Guide	37	\$40	0	None	None	0	0	18
29	Bartender	13	\$0	1	3 clock hours	None	0	0	18
30	Animal Control Officer	7	\$60	9	40 clock hours	None	1	0	0
31	Animal Trainer	9	\$25	0	None	None	0	0	10

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
32	Milk Sampler	42	\$60	0	None	None	1	0	0
33	HVAC Contractor (Commercial)	37	\$175	0	None	None	0	0	0
33	HVAC Contractor (Residential)	35	\$175	0	None	None	0	0	0
33	Sheet Metal Contractor, HVAC (Commercial)	37	\$175	0	None	None	0	0	0
33	Sheet Metal Contractor, HVAC (Residential)	36	\$175	0	None	None	0	0	0
37	Farm Labor Contractor	10	\$100	0	None	None	0	0	0
38	Taxidermist	28	\$50	0	None	None	0	0	0
39	Landscape Contractor (Commercial)	47	\$30	0	None	None	0	0	0
39	Landscape Contractor (Residential)	48	\$30	0	None	None	0	0	0
41	Coach, Head (High School Sports)	48	\$0	1	4 clock hours	None	0	0	0
42	Fisher, Commercial	43	\$2	0	None	None	0	0	0
Averages		38.7	\$259	214.2			1.3	0.9	10.5

Wyoming

26

of 102 lower-income occupations licensed

25th

most burdensome licensing laws

51st

most broadly and onerously licensed state

Wyoming's licensing laws for lower-income occupations are the 25th most burdensome, requiring, on average, \$345 in fees, 280 days of education and experience, and around two exams. But Wyoming licenses fewer of the 102 occupations studied here than any other state—just 26—making it the least broadly and onerously licensed state.

Although Wyoming licenses relatively few occupations, some of its licenses are more burdensome than average. For example, Wyoming has one of the most burdensome cosmetology licenses in the nation, requiring roughly 467 days (2,000 hours) of education, while the national average for the occupation is 386 days.

Wyoming also licenses some occupations more onerously than others that may present a greater risk to public safety. For example, EMTs can become licensed after completing roughly 42 days (180 hours) of education and paying a \$39 fee. A person wishing to open a bill collection agency, however, must demonstrate a year of experience and pay \$600 in fees. Wyoming could expand lower-income employment opportunities in the state by reducing or repealing its burdens for bill collection agencies and other occupations, or—if government regulation is necessary—by replacing them with less restrictive regulatory alternatives.

Burden Rank	Occupation	States Licensed	Fees	Estimated Calendar Days Lost	Education	Experience	Exams	Min. Grade	Min. Age
1	Athletic Trainer	49	\$500	1,460	4 years	None	2	0	18
2	Preschool Teacher, Public School	50	\$320	1,460	4 years	None	1	0	0
3	Midwife, Direct Entry	28	\$2,600	1,095	3 years	None	1	12	0
4	Cosmetologist	51	\$123	467	2,000 clock hours	None	2	10	16
5	Fire Alarm Installer	39	\$240	548	None	1.5 years	1	0	0
5	Security Alarm Installer	37	\$240	548	None	1.5 years	1	0	0
7	Travel Guide	37	\$2,370	368	12 clock hours	1 year and 1 day	2	0	18
8	Bill Collection Agency	31	\$600	365	None	1 year	1	0	0
9	Barber	51	\$185	233	1,000 clock hours	None	2	10	17
9	Shampooer	37	\$185	233	1,000 clock hours	None	2	10	17
11	Child Care Home, Family	44	\$89	203	16 credit hours	3 months	0	12	18
12	Skin Care Specialist	50	\$123	140	600 clock hours	None	2	10	16
13	Manicurist	50	\$123	93	400 clock hours	None	2	10	16
14	Pharmacy Technician	44	\$229	0	None	None	1	12	18
15	School Bus Driver	51	\$85	0	None	None	6	0	18
16	Emergency Medical Technician	51	\$39	42	180 clock hours	None	2	0	18
17	Bus Driver, City/Transit	51	\$85	0	None	None	5	0	18
17	Truck Driver, Tractor-Trailer	51	\$85	0	None	None	5	0	18
19	Coach, Head (High School Sports)	48	\$50	35	2.5 clock hours and 5 credit hours	None	0	12	0
20	Vegetation Pesticide Applicator	51	\$25	0	None	None	5	0	16
21	Truck Driver, Other	51	\$85	0	None	None	4	0	18
22	Earth Driller, Water Well	51	\$440	0	None	None	3	0	18
23	Pest Control Applicator	51	\$25	0	None	None	2	0	16
24	Taxidermist	28	\$67	0	None	None	0	0	0
25	Landscape Contractor (Commercial)	47	\$25	0	None	None	0	0	0
25	Landscape Contractor (Residential)	48	\$25	0	None	None	0	0	0
Averages		45.3	\$345	280.4			2.0	3.8	11.3

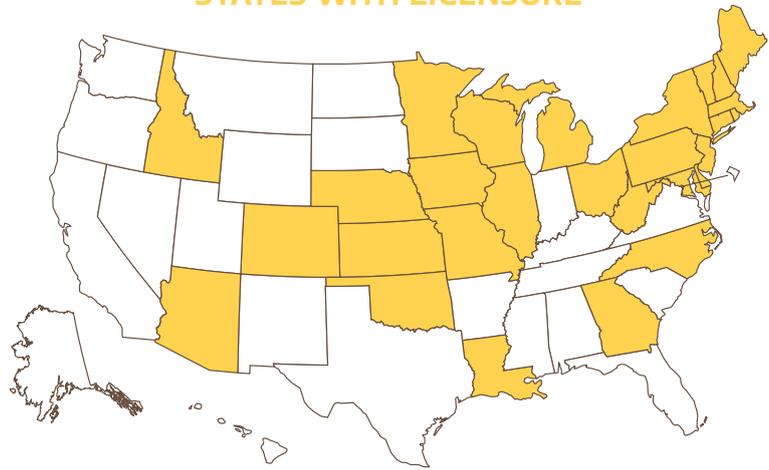
Occupation Profiles

Animal Breeder

- License required by 28 states
- 98th most burdensome licensing requirements
- 68th most widely and onerously licensed occupation

Animal breeders select and breed animals according to their genealogy, characteristics and offspring. This may require knowledge of artificial insemination techniques and equipment use and involve keeping records on heats, birth intervals or pedigrees. This report looks at pet breeder licenses only.

STATES WITH LICENSURE



Twenty-eight states require a license to work as an animal breeder. On average, these laws impose \$148 in fees but require no exams, experience or education, making the occupation one of the least (98th) onerously licensed of the 102 studied. However, because animal breeders are licensed by more than half of states, the occupation is the 68th most widely and onerously licensed.

Fees range from \$10 in West Virginia to \$625 in Wisconsin. Licensing fees also vary within a handful of states based on the type or number of animals being bred. In such cases, the least expensive license or an average fee was used, respectively.

Animal Control Officer

- License required by 7 states
- 93rd most burdensome licensing requirements
- 85th most widely and onerously licensed occupation

Animal control officers handle animals in order to investigate mistreatment or to control abandoned, dangerous or unattended animals.

STATES WITH LICENSURE



Seven states require a license to work as an animal control officer. On average, these laws require \$26 in fees, 12 days of education and about one written exam—the 93rd most burdensome requirements of the 102 occupations studied. Also, because animal control officers are not widely licensed, the occupation ranks as the 85th most widely and onerously licensed.

Fees range from \$0 in four states to \$75 in Texas. And although all seven states require education, the hours range from 12 in Texas to 100 in Michigan. Florida, Texas and Wisconsin also require passage of at least one exam.

Animal Trainer

- License required by 9 states
- 76th most burdensome licensing requirements
- 82nd most widely and onerously licensed occupation

Animal trainers train animals for riding, harness, security, performance, obedience or disability assistance. They accustom animals to human voice and contact and condition animals to respond to commands. They may train animals according to prescribed standards for show or competition or train animals to carry pack loads or work as part of a pack team. This report does not look at animal racing licenses.

STATES WITH LICENSURE



Nine states require a license to work as an animal trainer. On average, these laws require \$209 in fees, 122 days of experience and about one exam, the 76th most burdensome requirements of the 102 occupations studied. Because it is not licensed very widely, animal trainer ranks as the 82nd most widely and onerously licensed occupation.

License requirements vary widely across states, as do the type of licenses recorded here. Most licenses are for training hunting dogs and require only payment of a fee. However, California's license is for training guide dogs for the blind and requires three years (1,095 days) of experience, two exams and \$250 in fees. Similarly, Nevada's license is for training security dogs and requires passage of two exams and more than \$1,400 in fees—more than half of which pays for background checks.

Athletic Trainer

- License required by 49 states
- 3rd most burdensome licensing requirements
- 2nd most widely and onerously licensed occupation

Athletic trainers evaluate and advise athletes to assist them in recovering from injury, avoiding injury or maintaining peak physical fitness.

STATES WITH LICENSURE



Forty-nine states require a license to work as an athletic trainer. On average, these laws require \$472 in fees, four years (1,460 days) of education and about one exam—the third most burdensome requirements of the 102 occupations studied. Because athletic trainers are also licensed by so many states, the occupation is the second most widely and onerously licensed of the 102 studied in this report.

Licensing requirements are quite uniform: Typically, one must hold a bachelor's degree and pass a national certification exam. Only five states (New Mexico, Ohio, Tennessee, Texas and Wyoming) require more than one exam. Fees vary greatly, however, from \$300 in D.C. to \$1,000 in Alaska. California and New York are the only two unlicensed states, though New York requires permission to use the title "certified athletic trainer."

Auctioneer

- License required by 30 states
- 68th most burdensome licensing requirements
- 47th most widely and onerously licensed occupation

Auctioneers appraise and estimate the value of items, such as paintings, antiques, jewelry, cameras, musical instruments, machinery and fixtures for loan, insurance or sale purposes and may sell merchandise at auction.¹

STATES WITH LICENSURE



Thirty states require a license to work as an auctioneer. On average, these laws cost aspiring auctioneers \$278 in fees and 94 days in education and experience and require them to pass an exam—the 68th most burdensome requirements of the 102 occupations studied. However, because auctioneers are licensed by more than half of states, the occupation ranks as the 47th most widely and onerously licensed.

License requirements vary widely across states. Tennessee has the most burdensome requirements at about 756 days lost to education and experience (two years of experience as an apprentice and 110 hours of auction education), two exams, and \$750 in fees. At the other end of the spectrum, Missouri requires only payment of a \$52 fee. Fourteen states require education (between about seven and 140 days) and no experience, while 11 states require no education or experience at all.

¹ Adapted from <http://www.occupationalinfo.org/onet/49999a.html>

Barber

- License required by 51 states
- 34th most burdensome licensing requirements
- 5th most widely and onerously licensed occupation

Barbers or stylists provide barbering services, such as cutting, trimming, shampooing and styling hair, trimming beards, or giving shaves.

STATES WITH LICENSURE



All 50 states and D.C. require a license to work as a barber. On average, these laws require \$154 in fees, over a year (368 days) of education and experience, and about two exams—the 34th most burdensome requirements of the 102 occupations studied. And because barbers are licensed so widely, the occupation ranks as the fifth most widely and onerously licensed.

License requirements vary widely across states. Nevada is the most burdensome state, requiring four exams, \$165 in fees, and nearly 900 days of education and experience (1,500 hours of barber school and an 18-month apprenticeship). At the other end of the spectrum, New York requires three exams, \$70 in fees and about 54 days of education (231 hours of coursework).

Bartender

- License required by 13 states
- 84th most burdensome licensing requirements
- 78th most widely and onerously licensed occupation

Bartenders or mixologists mix and serve drinks to patrons directly or through waitstaff.

STATES WITH LICENSURE



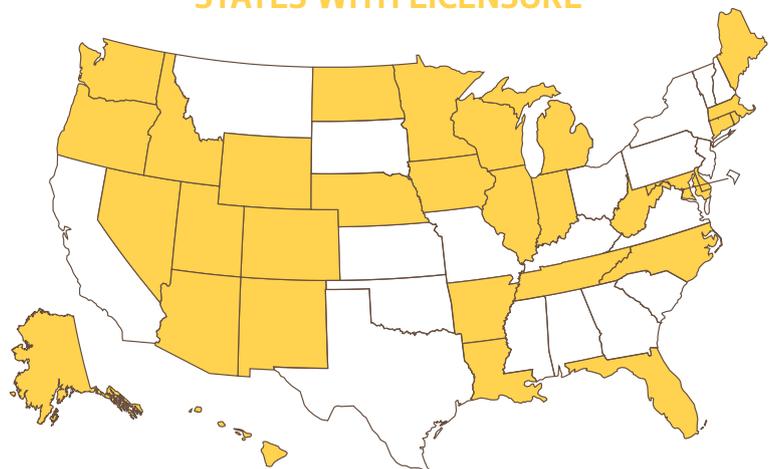
Thirteen states license bartenders. On average, these laws require \$7 in fees, half a day of education and about one exam. Twelve states require a short course lasting between two and five hours, and nine states require an exam. Of the 102 occupations studied, bartender has the 84th most burdensome licensing requirements and ranks as the 78th most widely and onerously licensed occupation.

Bill Collection Agency

- License required by 31 states
- 65th most burdensome licensing requirements
- 43rd most widely and onerously licensed occupation

Bill collection agencies locate and notify customers of delinquent accounts by mail, telephone or personal visit to solicit payment. They receive payment and post amount to a customer's account; prepare statements to a credit department if a customer fails to respond; initiate repossession proceedings or service disconnection; and keep records of collection and status of accounts. This report looks at what is required to run one's own bill collection agency only.

STATES WITH LICENSURE



Thirty-one states license bill collection agencies. On average, these laws impose \$551 in fees and 159 days of experience—the 65th most burdensome requirements of the 102 occupations studied. However, because bill collection agencies are licensed by more than half of states, the occupation ranks as the 43rd most widely and onerously licensed.

License requirements vary widely across states. Idaho is the most burdensome state, requiring three years (1,095 days) of experience in the collections industry as well as \$150 in fees. Seven states (Arizona, Colorado, Massachusetts, Minnesota, Nevada, North Carolina and Wisconsin) require over \$1,000 in fees. However, Iowa, the least burdensome state, requires only a \$10 fee and no experience.

Bus Driver, City/Transit

- License required by 51 states
- 61st most burdensome licensing requirements
- 8th most widely and onerously licensed occupation

Bus drivers, also known as motor coach operators, drive a bus or motor coach on regular route operations, charters and private carriages. They may assist passengers with baggage and collect fares or tickets.

STATES WITH LICENSURE



All 50 states and D.C. require a license to work as a city or transit bus driver. On average, these laws require \$106 in fees, 100 days of education and experience, and five exams. Altogether, these requirements are the 61st most burdensome of the 102 occupations studied. However, because bus drivers are licensed by all states and D.C., the occupation ranks as the eighth most widely and onerously licensed.

Each state requires five exams, fees ranging from \$18 (New Mexico) to \$335 (Washington), and a minimum age of between 16 and 21. Ten states require prior driving experience of one (Alaska, Arizona, Delaware, Idaho, Indiana, Oregon and Utah), two (Rhode Island and West Virginia) or three years (New Jersey). Instead of driving experience, Washington requires completion of an eight-day (36-hour) training course. The other 40 states have no experience or training requirements.

Carpenter/Cabinet Maker Contractor

COMMERCIAL

- License required by 25 states
- 26th most burdensome licensing requirements
- 59th most widely and onerously licensed occupation

Carpenter and cabinet maker contractors contract with clients to construct, erect, install or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding and rafters; and wood stairways, window and door frames, and hardwood floors. They may also install cabinets, siding, drywall, and batt or roll insulation. They include brattice builders, who build doors or brattices (ventilation walls or partitions) in underground passageways to control the proper circulation of air through the passageways and to the working places.

Typically, only contractors require licenses, not the carpenters who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Twenty-five states license carpenter and cabinet maker contractors working on commercial properties. Ten states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Thirteen states require no experience. On average, states require 517 days of education and experience, \$381 in fees (\$1,078 in Nevada), and one exam. These high barriers give commercial carpenter contractors the 26th most burdensome requirements of the 102 occupations studied.

Thirty states license carpenter and cabinet maker contractors working on residential properties. On average, states require over a year (368 days) of education and experience, \$319 in fees, and about one exam. All in all, 17 states require at least one exam (California requires three). These requirements rank as the 40th most burdensome.

RESIDENTIAL

- License required by 30 states
- 40th most burdensome licensing requirements
- 39th most widely and onerously licensed occupation

STATES WITH LICENSURE



Cement Finishing Contractor

COMMERCIAL

- License required by 24 states
- 27th most burdensome licensing requirements
- 65th most widely and onerously licensed occupation

Cement finishing contractors, also known as concrete mason contractors, contract with clients to smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads or curbs, using a variety of hand and power tools; align forms for sidewalks, curbs or gutters; patch voids; and use saws to cut expansion joints.

Typically, only contractors require licenses, not the cement finishers who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Twenty-four states license cement finishing contractors working on commercial properties. Ten states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Twelve states require no experience. On average, states require 508 days of education and experience, \$365 in fees (\$1,078 in Nevada), and about one exam. These high barriers give commercial cement finishing contractors the 27th most burdensome requirements of the 102 occupations studied.

Thirty states license cement finishing contractors working on residential properties. On average, states require 307 days of education and experience, \$300 in fees, and about one exam. All in all, 15 states require at least one exam (California requires three). These requirements rank as the 51st most burdensome.

RESIDENTIAL

- License required by 30 states
- 51st most burdensome licensing requirements
- 42nd most widely and onerously licensed occupation

STATES WITH LICENSURE



Child Care Home, Family

- License required by 44 states
- 70th most burdensome licensing requirements
- 25th most widely and onerously licensed occupation

Family child care homes attend to children at the operator's residence and perform a variety of tasks, such as dressing, feeding, bathing and overseeing play. This report looks at what is required to run a child care business out of one's home only.

STATES WITH LICENSURE



Forty-four states require a license for family child care homes. On average, these licenses require \$79 in fees and 48 days of education and experience, making family child care home the 70th most burdensome occupation of the 102 studied. However, because most states license the occupation, it ranks as the 25th most widely and onerously licensed.

License requirements vary widely across states. North Carolina requires operators of child family care homes to dedicate about 401 days to education and experience (one year of child care experience, 36 hours of training and a four-credit-hour class). However, 21 states require fewer than 10 days of education or experience, and another nine require none at all. Similarly, fees range from \$0 in Vermont to \$300 in D.C.

Coach, Head (High School Sports)

- License required by 48 states
- 46th most burdensome licensing requirements
- 14th most widely and onerously licensed occupation

Head coaches instruct or coach groups or individual high school students in the fundamentals of sports, demonstrate techniques and methods of participation, and may evaluate athletes' strengths and weaknesses as possible recruits or to improve the athletes' technique to prepare them for competition.

STATES WITH LICENSURE



Forty-eight states require a license for head coaches of high school sports. On average, licensing laws for head coaches require \$79 in fees and over a year (367 days) of education and experience—the 46th most burdensome requirements of the 102 occupations studied. Because head coaches are licensed by almost every state, the occupation ranks as the 14th most widely and onerously licensed.

The most burdensome states are those that require all head coaches to be licensed teachers: Arkansas, Georgia, Missouri, New Jersey, Ohio, Oklahoma and Virginia. (See Appendix B under “Public School Teacher” for details on teacher licensing.) Of the remaining states, New York is the most burdensome, requiring \$290 in fees and about 1,125 days of education and experience (three years as a temporary coach and 130 hours of coursework). In contrast, 30 states require only about seven hours or less of education. Also, 28 states impose no fees.

Conveyor Operator

- License required by 1 state
- 81st most burdensome licensing requirements
- 100th most widely and onerously licensed occupation

Conveyor operators control or tend conveyors or conveyor systems that move materials or products to and from stockpiles, processing stations, departments or vehicles. They may also control speed and routing of materials or products.

STATES WITH LICENSURE



Rhode Island is the only state to license conveyor operators. The state mandates that candidates for licensure pay \$117 in fees, pass an exam related to the trade and be at least 18 years of age. These burdens are the 81st most onerous of the 102 occupations studied here. Because only one state licenses the occupation, it ranks as the 100th most widely and onerously licensed.

Cosmetologist

- License required by 51 states
- 30th most burdensome licensing requirements
- 4th most widely and onerously licensed occupation

Cosmetologists and hair stylists provide beauty services, such as shampooing, cutting, coloring and styling hair, and massaging and treating the scalp. They may also apply makeup, dress wigs, perform hair removal, and provide nail and skin care services.

STATES WITH LICENSURE



All 50 states and D.C. require a license to work as a cosmetologist. On average, these laws cost aspiring cosmetologists \$177 in fees and over a year (386 days) in education and experience and require them to pass two exams—the 30th most burdensome requirements of the 102 occupations studied. And because cosmetologists are licensed by every state and D.C., the occupation is the fourth most widely and onerously licensed.

Licensing burdens vary significantly. Fees range from \$51 (Ohio) to \$450 (Alaska). Similarly, education and experience requirements range from about 233 days in New York (1,000 hours of education) to about 963 days in Massachusetts (1,000 hours of education and two years of experience).

Crane Operator

- License required by 18 states
- 57th most burdensome licensing requirements
- 75th most widely and onerously licensed occupation

Crane and heavy machine operators operate mechanical boom and cable equipment to lift and move materials, machines or products in many directions.

STATES WITH LICENSURE



Eighteen states require a license to work as a crane operator. On average, these laws cost aspiring crane operators \$225 in fees and 222 days in experience and require them to pass two exams—the 57th most burdensome requirements of the 102 occupations studied. Because so few states license the occupation, it is only the 75th most widely and onerously licensed.

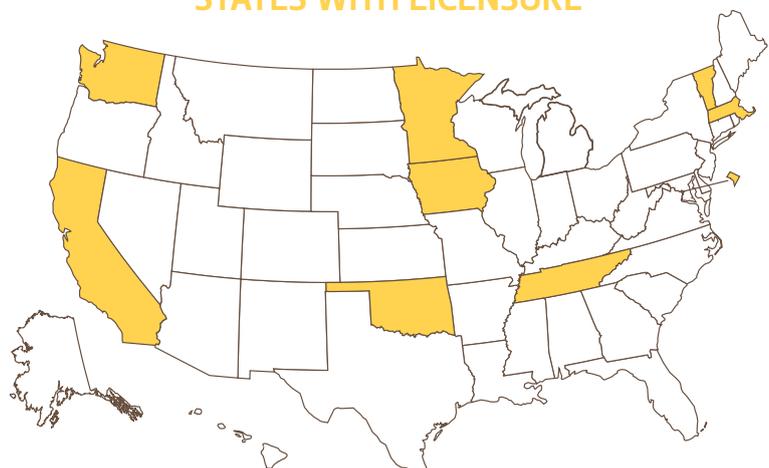
License requirements vary widely across states. New York has the most burdensome requirements at three years (1,095 days) of experience, two exams and \$150 in fees. However, 10 states do not require any experience. Some states have different licenses for operating different types of cranes (which can be measured in terms of hoisting mechanism, weightlifting capability or boom length). In such cases, where license requirements differed, the least burdensome license was used. If license requirements did not differ, the broadest possible license was observed.

Dental Assistant

- License required by 9 states
- 71st most burdensome licensing requirements
- 81st most widely and onerously licensed occupation

Dental assistants assist dentists, set up equipment, prepare patients for treatment and keep records.

STATES WITH LICENSURE



Nine states license dental assistants. On average, these laws cost aspiring workers \$138 in fees and 92 days in education and experience and require them to pass about one exam—the 71st most burdensome requirements of the 102 occupations studied. Because dental assistants are not very widely licensed, the occupation ranks as the 81st most widely and onerously licensed.

License requirements vary across states. Minnesota's license is the most burdensome, requiring \$681 in fees, about 425 days lost to education and three exams. California's, by contrast, requires only about two days (10 hours) of education and no fees or exams.

Dietetic Technician

· License required by 2 states

· 15th most burdensome licensing requirements

· 93rd most widely and onerously licensed occupation

Dietetic technicians assist dietitians in the provision of food service and nutritional programs. Under the supervision of dietitians, they may also plan and produce meals based on established guidelines, teach principles of food and nutrition, or counsel individuals.

STATES WITH LICENSURE



Two states require a license to work as a dietetic technician: Maine and New Mexico. License requirements are almost identical in Maine and New Mexico: Both states require two years of education (an associate's degree) and 450 hours of clinical experience (for a total of about 835 days lost), as well as one exam. Their fees are also comparable (\$171 in Maine and \$180 in New Mexico). Dietetic technicians face the 15th most burdensome requirements of the 102 occupations studied. However, since only two states license them, the occupation ranks as the 93rd most widely and onerously licensed.

Drywall Installation Contractor

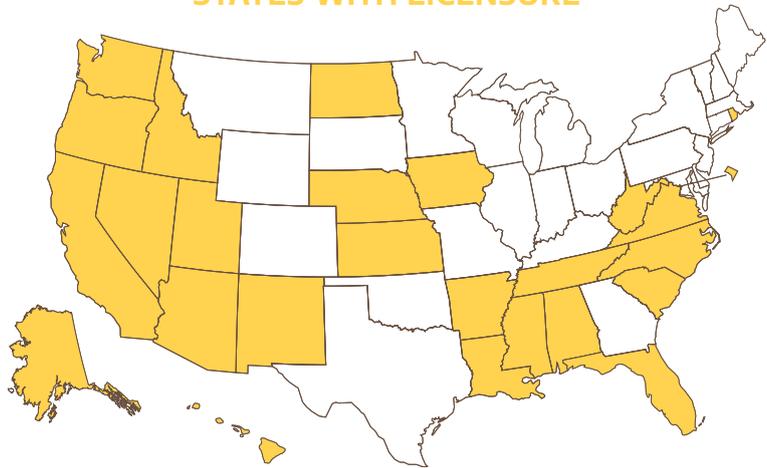
COMMERCIAL

- License required by 25 states
- 25th most burdensome licensing requirements
- 58th most widely and onerously licensed occupation

Drywall installation contractors, also known as hanger contractors, contract with clients to apply plaster-board or other wallboard to ceilings or interior walls of buildings and apply or mount acoustical tiles or blocks, strips or sheets of shock-absorbing materials to ceilings and walls of buildings to reduce or reflect sound. The materials may be of decorative quality. The category includes lathers who fasten wooden, metal or rockboard lath to walls, ceilings or partitions of buildings to provide a support base for plaster, fireproofing or acoustical material.

Typically, only contractors require licenses, not the drywall installers who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Twenty-five states license drywall installation contractors working on commercial properties. Eleven states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Twelve states require no experience. On average, states require 517 days of education and experience, \$365 in fees (\$983 in Nevada), and one exam. These high barriers give commercial drywall installation contractors the 25th most burdensome requirements of the 102 occupations studied.

Thirty states license drywall installation contractors working on residential properties. On average, states require over a year (368 days) of education and experience, \$313 in fees, and about one exam. All in all, 16 states require at least one exam (California requires three). These requirements rank as the 42nd most burdensome.

RESIDENTIAL

- License required by 30 states
- 42nd most burdensome licensing requirements
- 41st most widely and onerously licensed occupation

STATES WITH LICENSURE



Earth Driller, Water Well

- License required by 51 states
- 13th most burdensome licensing requirements
- 3rd most widely and onerously licensed occupation

Earth drillers operate a variety of drills, such as rotary, churn and pneumatic, to tap sub-surface water for the creation of water wells. This report looks at what is required to run one's own business as an earth driller only.

STATES WITH LICENSURE



All 50 states and D.C. require water well earth drillers to obtain licenses. On average, these laws require \$356 in fees, over two years (837 days) of education and experience, and about two exams—the 13th most burdensome requirements of the 102 occupations studied here. And because water well earth drillers are also licensed everywhere, the occupation is the third most widely and onerously licensed.

License requirements vary widely across states. While 41 states require education or experience, the time required ranges from one to over six years. The number of required exams also varies widely, from zero in four states to five in Utah. Fees follow a similar pattern: Arizona and Nevada require over \$1,000, but Illinois, Michigan and Nebraska require \$50 or less.

Electrical Helper

- License required by 2 states
- 86th most burdensome licensing requirements
- 95th most widely and onerously licensed occupation

Electrical helpers help electricians by performing duties of lesser skill, which include using, supplying or holding materials or tools, and cleaning work area and equipment.

STATES WITH LICENSURE



Two states license electrical helpers: Maine and Minnesota. Both states set only fee and minimum age requirements: \$96 in fees and 16 years of age in Maine and \$14 in fees and 17 years of age in Minnesota. These burdens are the 86th most onerous of the 102 occupations studied here. Also, because so few states license electrical helpers, the occupation ranks as the 95th most widely and onerously licensed.

Emergency Medical Technician

- License required by 51 states
- 74th most burdensome licensing requirements
- 15th most widely and onerously licensed occupation

Emergency medical technicians, or EMTs, assess injuries, administer emergency medical care, extricate trapped individuals, and transport injured or sick persons to medical facilities.

STATES WITH LICENSURE



All 50 states and D.C. require emergency medical technicians (EMTs) to obtain licenses. On average, these laws require \$108 in fees, about a month (34 days) of education and experience, and two exams—the 74th most burdensome requirements of the 102 occupations studied here. However, because EMTs are licensed everywhere, the occupation is the 15th most widely and onerously licensed.

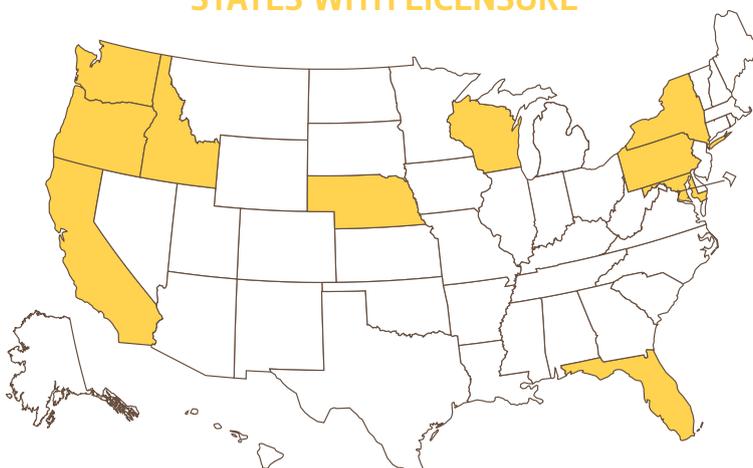
License requirements are somewhat uniform across states. Every state has an age requirement (between 16 and 18 years), one or two exams, and education or experience requirements. (See Appendix B for details on education requirements.) However, fees range from \$0 in North Carolina and Vermont to \$235 in Oregon. Similarly, education and experience requirements can vary, from about 23 days in Missouri to over three times as much (about 81 days) in Kansas.

Farm Labor Contractor

- License required by 10 states
- 95th most burdensome licensing requirements
- 79th most widely and onerously licensed occupation

Farm labor contractors recruit, hire, furnish and supervise seasonal or temporary agricultural laborers for a fee and may transport, house and provide meals for workers.

STATES WITH LICENSURE



Ten states require a license to work as a farm labor contractor. On average, these laws cost farm labor contractors \$173 in fees. Three states require exams, while every state requires a fee. These relatively low barriers give the farm labor contractor occupation the 95th most burdensome requirements of the 102 occupations studied here. The occupation is the 79th most widely and onerously licensed.

Fire Alarm Installer

- License required by 39 states
- 10th most burdensome licensing requirements
- 18th most widely and onerously licensed occupation

Fire alarm installers install, program, maintain or repair fire alarm wiring and equipment, and ensure that work is in accordance with relevant codes. This report looks at what is required to run one's own fire alarm installation business at the commercial level.

STATES WITH LICENSURE



Thirty-nine states require a license to work as a fire alarm installer. On average, these laws require \$557 in fees, about two and a half years (915 days) of education and experience, and around two exams—the 10th most burdensome requirements of the 102 occupations studied here. The occupation is the 18th most widely and onerously licensed.

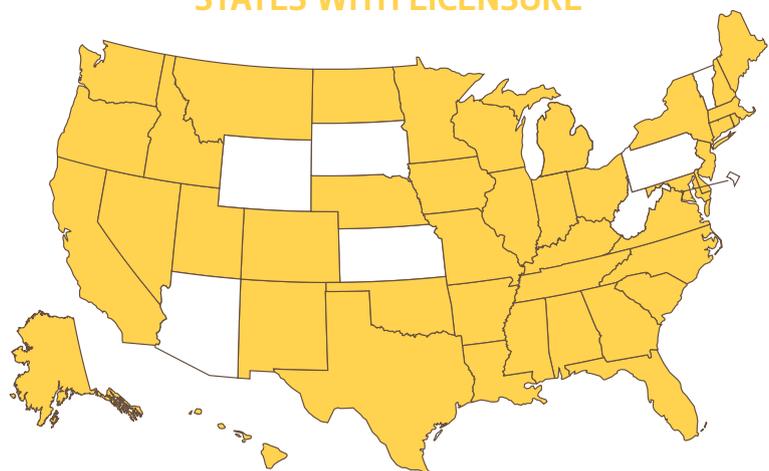
License requirements vary widely across states. For example, Connecticut and Tennessee each require six years (2,190 days) of education or experience, but five states require no education or experience. Similarly, five states require four exams, but two require none. Fees also vary, from \$0 in Kansas to \$1,665 in Louisiana.

Fisher, Commercial

- License required by 43 states
- 97th most burdensome licensing requirements
- 30th most widely and onerously licensed occupation

Commercial fishers use nets, fishing rods, traps or other equipment to catch and gather fish or other aquatic animals from rivers, lakes or oceans for human consumption or other uses. This report looks at what is required to run one's own commercial fishing business.

STATES WITH LICENSURE



Forty-three states require commercial fishers to have a license. A fee is generally the only requirement for a license, except for in a handful of states that set a minimum age. Fees vary quite a bit, from \$2 in Wisconsin to \$500 in Montana and Nevada. In several states, license fees vary according to the type of fish being caught, the type of water being fished on (saltwater versus freshwater), the type of vessel being used, or the number and type of fishing tools being used (nets, traps, etc.). In such cases, when possible, the least restrictive options were observed. The average fee is \$142, giving the occupation the 97th most burdensome requirements of the 102 occupations studied here. However, because it is widely licensed, commercial fisher is the 30th most widely and onerously licensed occupation.

Floor Sander Contractor

COMMERCIAL

- License required by 22 states
- 32nd most burdensome licensing requirements
- 72nd most widely and onerously licensed occupation

Floor sander and finisher contractors contract with clients to scrape and sand wooden floors to smooth surfaces using floor scraper and floor sanding machines and to apply coats of finish.

Typically, only contractors require licenses, not the floor sanders who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Twenty-two states license floor sander contractors working on commercial properties. Nine states require between two and five years of experience working under a licensed contractor. Alabama requires completion of three contracted jobs. Twelve states require no experience. On average, states require 485 days of education and experience, \$359 in fees (\$1,078 in Nevada), and one exam. These high barriers give commercial floor sander contractors the 32nd most burdensome requirements of the 102 occupations studied.

Twenty-seven states license floor sander contractors working on residential properties. On average, states require 287 days of education and experience, \$308 in fees, and about one exam. All in all, 13 states require at least one exam (California requires three). These requirements rank as the 53rd most burdensome.

RESIDENTIAL

- License required by 27 states
- 53rd most burdensome licensing requirements
- 57th most widely and onerously licensed occupation

STATES WITH LICENSURE



Florist

- License required by 1 state
- 92nd most burdensome licensing requirements
- 102nd most widely and onerously licensed occupation

Florists or floral designers design, cut and arrange live, dried or artificial flowers and foliage.

STATES WITH LICENSURE



Only one state, Louisiana, requires a license to work as a florist. Louisiana requires fees totaling \$189 as well as an exam. These requirements rank as the 92nd most burdensome of the 102 occupations studied here. And because florists are licensed by only one state, the occupation ranks as the least widely and onerously licensed.

Forest Worker

- License required by 1 state
- 90th most burdensome licensing requirements
- 101st most widely and onerously licensed occupation

Forest and conservation workers perform manual labor necessary to develop, maintain or protect forests, forested areas and woodlands through such activities as raising and transporting tree seedlings; combating insects, pests and diseases harmful to trees; and building structures to control water, erosion and leaching of soil. They include forester aides, seedling pullers and tree planters.

STATES WITH LICENSURE



Only one state, Connecticut, requires a license to work as a forest worker. Connecticut requires \$300 in fees and one exam. These requirements rank as the 90th most burdensome of the 102 occupations studied here. And because forest workers are licensed by only one state, the occupation ranks as the second least widely and onerously licensed.

Funeral Attendant

- License required by 3 states
- 78th most burdensome licensing requirements
- 91st most widely and onerously licensed occupation

Funeral attendants or funeral home assistants perform a variety of tasks during a funeral, such as placing the casket in the parlor or chapel prior to service; arranging floral offerings or lights around the casket; directing or escorting mourners; closing the casket; and issuing and storing funeral equipment.

STATES WITH LICENSURE



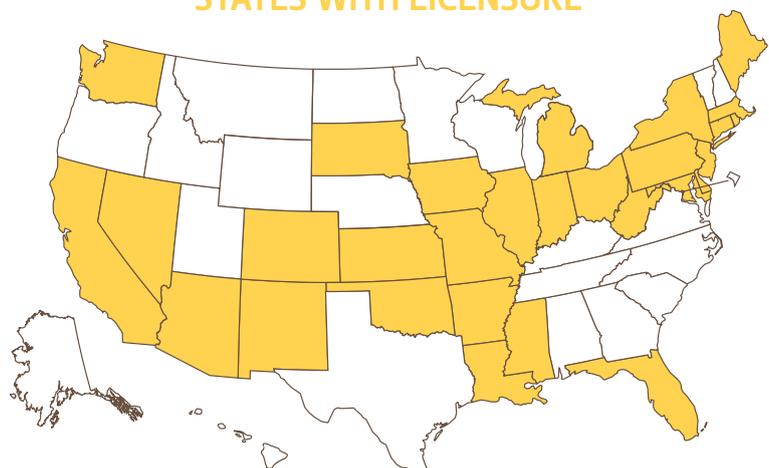
Three states require a license to work as a funeral attendant: Kansas, Maine and Massachusetts. Only Massachusetts requires any education or experience (a one-credit-hour course), while only Kansas requires an exam. The three states require an average of \$124 in fees. These requirements are 78th most burdensome of the 102 occupations studied here. Because so few states license funeral attendants, the occupation ranks as the 91st most widely and onerously licensed.

Gaming Cage Worker

- License required by 29 states
- 85th most burdensome licensing requirements
- 60th most widely and onerously licensed occupation

Gaming cage workers, also known as casino cashiers or cage supervisors, conduct financial transactions for patrons in gaming establishments. They may reconcile daily summaries of transactions to balance books; accept patrons' credit applications and verify credit references to provide check-cashing authorization or to establish house credit accounts; sell gambling chips, tokens or tickets to patrons or to other workers for resale to patrons; and convert gaming chips, tokens or tickets to currency upon a patron's request.

STATES WITH LICENSURE



Twenty-nine states require a license to work as a gaming cage worker. Every state except Connecticut requires a fee, which averages \$174, and about two-thirds of states (19) set a minimum age of either 18 or 21. No state requires any education or experience or exams. These requirements make the gaming cage worker occupation the 85th most burdensome of the 102 occupations studied here. However, because gaming cage workers are licensed by over half of states, the occupation ranks as the 60th most widely and onerously licensed.

Glazier Contractor

COMMERCIAL

- License required by 26 states
- 20th most burdensome licensing requirements
- 49th most widely and onerously licensed occupation

Glazier contractors contract with clients to install glass in windows, skylights, store fronts and display cases, or on surfaces, such as building fronts, interior walls, ceilings and tabletops.

Typically, only contractors require licenses, not the glaziers who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Twenty-six states license glazier contractors working on commercial properties. Twelve states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Twelve states require no experience. On average, states require 581 days of education and experience, \$366 in fees (\$1,033 in Nevada), and about one exam. These high barriers give commercial glazier contractors the 20th most burdensome requirements of the 102 occupations studied.

Thirty states license glazier contractors working on residential properties. On average, states require over a year (368 days) of education and experience, \$322 in fees, and about one exam. All in all, 17 states require at least one exam (California requires three). These requirements rank as the 41st most burdensome.

RESIDENTIAL

- License required by 30 states
- 41st most burdensome licensing requirements
- 40th most widely and onerously licensed occupation

STATES WITH LICENSURE



Home Entertainment Installer

· License required by 1 state

· 18th most burdensome licensing requirements

· 99th most widely and onerously licensed occupation

Home entertainment installers repair, adjust or install audio or television receivers, stereo systems, camcorders, video systems or other electronic home entertainment equipment.

STATES WITH LICENSURE



Only one state, Connecticut, requires a license to work as a home entertainment installer. Connecticut requires \$185 in fees, about 575 days of education and experience (900 hours of technical education and one year of experience as an apprentice), and an exam, in addition to a high school diploma. These requirements are the 18th most burdensome of the 102 occupations studied here. However, because only one state licenses home entertainment installers, the occupation ranks as only the 99th most widely and onerously licensed.

Insulation Contractor

COMMERCIAL

- License required by 25 states
- 35th most burdensome licensing requirements
- 61st most widely and onerously licensed occupation

Insulation contractors contract with clients to line and cover structures with insulating materials. They may work with batt, roll or blown insulation materials.

Typically, only contractors require licenses, not the insulators who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Twenty-five states license insulation contractors working on commercial properties. Ten states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Thirteen states require no experience. On average, states require 458 days of education and experience, \$366 in fees (\$1,033 in Nevada), and around one exam. These high barriers give commercial insulation contractors the 35th most burdensome requirements of the 102 occupations studied.

Thirty states license insulation contractors working on residential properties. On average, states require 283 days of education and experience, \$302 in fees, and about one exam. All in all, 14 states require at least one exam (California requires three). These requirements rank as the 54th most burdensome.

RESIDENTIAL

- License required by 30 states
- 54th most burdensome licensing requirements
- 44th most widely and onerously licensed occupation

STATES WITH LICENSURE



Interior Designer

- License required by 4 states
- Most burdensome licensing requirements
- 87th most widely and onerously licensed occupation

Interior designers plan, design and furnish interiors of residential, commercial or industrial buildings. They formulate design that is practical, aesthetic and conducive to intended purposes, such as raising productivity, selling merchandise or improving life style.

STATES WITH LICENSURE



Three states and D.C. license the practice of interior design. License requirements are highly uniform: All three states and D.C. require six years (2,190 days) of education or experience, between \$1,120 and \$1,485 in fees, and one exam. These requirements are the most burdensome of all 102 occupations studied here. However, because so few states license the practice of interior design, the occupation ranks as only the 87th most widely and onerously licensed.

Interpreter, Sign Language

- License required by 22 states
- 7th most burdensome licensing requirements
- 55th most widely and onerously licensed occupation

Sign language interpreters translate or transliterate sign language into another language or vice versa.²

STATES WITH LICENSURE



Twenty-two states license sign language interpreters. On average, these laws require aspiring sign language interpreters to pay \$661 in fees, demonstrate almost three years (1,088 days) of education and experience, and pass two exams—the seventh most burdensome requirements of the 102 occupations studied here. However, because sign language interpreters are licensed by less than half of states, the occupation ranks as the 55th most widely and onerously licensed.

License requirements are somewhat consistent across states. All licensed states require two exams, and nearly all (20) set a minimum age of 18. Sixteen also require a bachelor's degree and 40 hours of interpreter education. Arkansas and Mississippi, however, require only payment of a fee (\$170 and \$225, respectively) in addition to the two exams.

² Adapted from Ky. Rev. Stat. Ann. § 309.300.

Iron/Steel Contractor

COMMERCIAL

- License required by 26 states
- 23rd most burdensome licensing requirements
- 53rd most widely and onerously licensed occupation

Iron and steel contractors contract with clients to raise, place and unite iron or steel girders, columns and other structural members to form completed structures or structural frameworks. They may also erect metal storage tanks and assemble prefabricated metal buildings.

Typically, only contractors require licenses, not the steel fabricators or welders who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Twenty-six states license iron and steel contractors working on commercial properties. Eleven states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Thirteen states require no experience. On average, states require 525 days of education and experience, \$368 in fees (\$1,078 in Nevada), and about one exam. These high barriers give commercial iron/steel contractors the 23rd most burdensome requirements of the 102 occupations studied.

Thirty states license iron and steel contractors working on residential properties. On average, states require over a year (392 days) of education and experience, \$318 in fees, and about one exam. All in all, 18 states require at least one exam (California requires three). These requirements rank as the 38th most burdensome.

RESIDENTIAL

- License required by 30 states
- 38th most burdensome licensing requirements
- 38th most widely and onerously licensed occupation

STATES WITH LICENSURE



Landscape Contractor

COMMERCIAL

- License required by 47 states
- 62nd most burdensome licensing requirements
- 20th most widely and onerously licensed occupation

Landscape contractors contract with clients to landscape or maintain grounds of property using hand or power tools or equipment. Work may involve any of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, and installing sprinklers or mortarless segmental concrete masonry wall units.

Typically, only contractors require licenses, not the landscapers who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Forty-seven states license landscape contractors working on commercial properties. Eight states require between two and five years of experience working under a licensed contractor, while Alabama and Mississippi require completion of three contracted jobs. Mississippi also requires two years of college. Thirty-seven require no education or experience. On average, states require 228 days of education and experience, \$235 in fees, and about one exam—the 62nd most burdensome of the 102 occupations studied.

Forty-eight states license landscape contractors working on residential properties. On average, states require 198 days in education and experience and \$203 in fees. Thirteen states also require at least one exam (California requires three). These requirements rank as the 66th most burdensome.

RESIDENTIAL

- License required by 48 states
- 66th most burdensome licensing requirements
- 19th most widely and onerously licensed occupation

STATES WITH LICENSURE

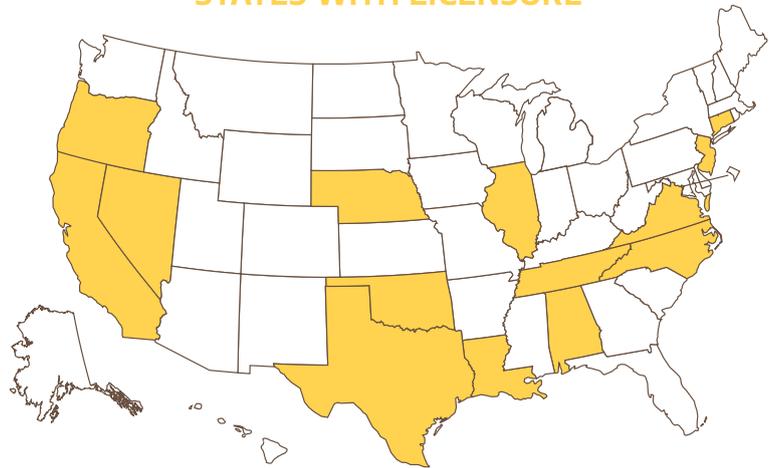


Locksmith

- License required by 14 states
- 79th most burdensome licensing requirements
- 77th most widely and onerously licensed occupation

Locksmiths repair and open locks; make keys; change locks and safe combinations; and install and repair safes.

STATES WITH LICENSURE



Fourteen states require locksmiths to obtain licenses. On average, these laws require aspiring locksmiths to pay \$167 in fees, demonstrate 54 days of education and experience, and pass about one exam—the 79th most burdensome requirements of the 102 occupations studied here. The occupation is the 77th most widely and onerously licensed.

License requirements vary across states. The most burdensome state, New Jersey, requires locksmiths to prove about 732 days of education and experience (two years of experience as an apprentice and 10 hours of education), pay \$217 in fees, pass an exam, be 18 years of age, and have graduated from high school. In contrast, Nebraska, the least burdensome state, requires only payment of a \$5 fee.

Log Scaler

- License required by 2 states
- 44th most burdensome licensing requirements
- 94th most widely and onerously licensed occupation

Log scalers grade logs or estimate the marketable content or value of logs or pulpwood in sorting yards, millponds, log decks or similar locations. They also inspect logs for defects or measure logs to determine volume.

STATES WITH LICENSURE



Two states require a license to work as a log scaler: Idaho and Maine. Maine requires two years (730 days) of experience, a \$25 fee, an exam and a minimum age of 18. Idaho, on the other hand, requires only a \$25 fee and two exams. The average requirements for log scaler rank as the 44th most burdensome of the 102 occupations studied here. However, because only two states license the occupation, it is only the 94th most widely and onerously licensed.

Makeup Artist

- License required by 41 states
- 58th most burdensome licensing requirements
- 28th most widely and onerously licensed occupation

Makeup artists apply cosmetics to face or exposed body areas to improve or otherwise alter people's appearances.³

STATES WITH LICENSURE



Forty-one states license makeup artistry. Two of these states, Louisiana and Nevada, issue a license specific to makeup artists. In the other 39 states, makeup application is interpreted as falling under the scope of other licenses administered by cosmetology boards (see Appendix B for details). On average, aspiring makeup artists must pay \$169 in fees, complete 134 days of education and pass about two exams—the 58th most burdensome requirements of the 102 occupations studied here. Because most states license makeup artists, the occupation ranks as the 28th most widely and onerously licensed.

³ Adapted from http://www.occupationalinfo.org/defset5_3582.html

Manicurist

- License required by 50 states
- 60th most burdensome licensing requirements
- 13th most widely and onerously licensed occupation

Manicurists and pedicurists, also known as nail technicians, clean and shape customers' fingernails and toenails and may polish or decorate nails.

STATES WITH LICENSURE



Forty-nine states and D.C. require a license to work as a manicurist; Connecticut is the only state that does not. On average, these laws force aspiring manicurists to pay \$172 in fees, complete 91 days of education and pass two exams—the 60th most burdensome requirements of the 102 occupations studied. However, because manicurists are licensed so widely, the occupation ranks as the 13th most widely and onerously licensed.

License requirements vary widely across states. For example, the most burdensome state, Alabama, requires about 175 days (750 hours) of education, while the least burdensome state, Massachusetts, requires only about 23 days (100 hours). Exam requirements also vary, from zero exams in Florida to three in seven other states. Similarly, three states (Alaska, Vermont and Wisconsin) require over \$350 in fees, but nine states require less than \$100.

Milk Sampler

- License required by 42 states
- 96th most burdensome licensing requirements
- 31st most widely and onerously licensed occupation

Milk samplers collect milk samples from farms, dairy plants, and tank cars and trucks for laboratory analysis. They remove samples from bulk tanks, tankers or milking machines, using a dipper or pipette, and pour samples into sterile bottles. They weigh samples, label bottles with origin of sample, pack samples in dry ice, and transport samples to laboratory for bacteriological and butterfat content analysis. They also contact potential customers to explain the benefits of a testing program to sell milk-testing services and may assist customers in interpreting sample test results to maximize benefits to customers. They may also maintain individual milk production records for each cow in a customer's herd.⁴

⁴ Adapted from <http://www.occupationalinfo.org/41/410357010.html>

STATES WITH LICENSURE



Forty-two states license milk samplers. While most states (33) require no education or experience, nine states require between one and two days of education or experience. (See Appendix B for details on education and experience requirements.) In contrast, almost all states (36) require one or two exams, while six states require none. Fees range from \$0 in 11 states to \$75 in California. On average, licensed states require aspiring milk samplers to pay \$22 in fees and pass one exam—the 96th most burdensome requirements of the 102 occupations studied. However, because the occupation is licensed by most states, it ranks as the 31st most widely and onerously licensed.

Mobile Home Installer

- License required by 39 states
- 48th most burdensome licensing requirements
- 29th most widely and onerously licensed occupation

Mobile home installers move or install manufactured (mobile) homes.

STATES WITH LICENSURE



Thirty-nine states require mobile home installers to obtain licenses.⁵ On average, these laws require \$344 in fees, 309 days of education and experience, and around one exam—the 48th most burdensome requirements of the 102 occupations studied. And because the occupation is licensed by most states, it ranks as the 29th most widely and onerously licensed.

License requirements vary greatly. While Arizona, California and South Dakota all require three years or more of education and experience, six states require none at all. Similarly, six states require two exams, but Indiana, New Hampshire and Oklahoma require none. Fees also vary widely, from \$25 in Tennessee to \$2,790 in Arkansas. Arkansas' fees are so high because the state requires a \$2,500 recovery fund fee.

⁵ Federal law requires states to have minimum standards for mobile home installation and an operating installation program to train and license installers. States that do not have their own program fall under a federal program administered by the U.S. Department of Housing and Urban Development's Manufactured Home Installation Program (see https://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/mhs/mhipr and https://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/mhs/mhipr).

Nursery Worker

- License required by 2 states
- 101st most burdensome licensing requirements
- 96th most widely and onerously licensed occupation

Nursery workers work in nursery facilities or at customer locations planting, cultivating, harvesting and transplanting trees, shrubs or plants.

STATES WITH LICENSURE



Two states license nursery workers: Arkansas and Idaho. Both states require only payment of a fee: \$10 in Arkansas and \$100 in Idaho. These requirements are the 101st most onerous of the 102 occupations studied. Because so few states license nursery workers, the occupation ranks as the 96th most widely and onerously licensed occupation in the study.

Optician

- License required by 22 states
- 11th most burdensome licensing requirements
- 63rd most widely and onerously licensed occupation

Opticians, also known as dispensing opticians, design, measure, fit and adapt lenses and frames for clients according to written optical prescriptions or specifications; assist clients with selecting frames; and measure customers for size of eyeglasses and coordinate frames with facial and eye measurements and optical prescription. They also prepare work orders for optical laboratories containing instructions for grinding and mounting lenses in frames; verify the exactness of finished lens spectacles; adjust frame and lens position to fit clients; and may shape or reshape frames.

STATES WITH LICENSURE



Twenty two states require a license to work as an optician. On average, these laws force aspiring opticians to pay \$449 in fees, demonstrate nearly two years (714 days) of education and experience, and pass around two exams—the 11th most burdensome requirements of the 102 occupations studied. However, because less than half of states license opticians, the occupation ranks as the 63rd most widely and onerously licensed.

While almost every state requires a minimum age of 18 years and at least a high school diploma, other license requirements vary greatly. (Duties also vary by state—see Appendix B for details.) Education and experience requirements vary from none in California and New Hampshire to more than three years (about 1,118 days) in Nevada. Similarly, exam requirements vary from none in New Hampshire to four in Connecticut, and fees range from \$110 in New Hampshire to \$943 in Florida.

- License required by 6 states
- 102nd most burdensome licensing requirements
- 88th most widely and onerously licensed occupation

Packers pack or package by hand a wide variety of products and materials. This report looks at what is required to run one's own packing or packaging business only.

STATES WITH LICENSURE



Six states require packers to obtain licenses. Each requires only payment of a fee, ranging from \$20 in Kentucky to \$50 in Maine—\$33 on average. These requirements make packer the least burdensome of the 102 occupations studied. However, because a few states license packers, the occupation ranks as the 88th most widely and onerously licensed.

Painting Contractor

COMMERCIAL

- License required by 22 states
- 31st most burdensome licensing requirements
- 71st most widely and onerously licensed occupation

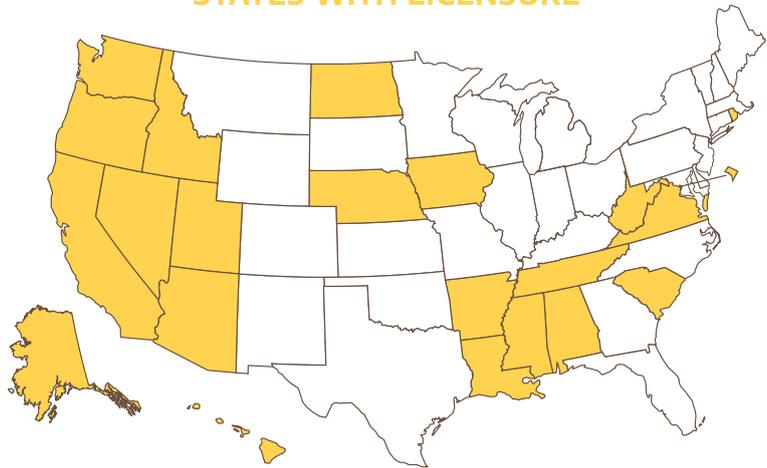
Painting contractors contract with clients to paint walls, equipment, buildings, bridges and other structural surfaces using brushes, rollers and spray guns. They may also remove old paint to prepare a surface prior to painting or mix colors or oils to obtain desired color or consistency.

Typically, only contractors require licenses, not the painters who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

RESIDENTIAL

- License required by 28 states
- 55th most burdensome licensing requirements
- 52nd most widely and onerously licensed occupation

STATES WITH LICENSURE



Twenty-two states license painting contractors working on commercial properties. Nine states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Eleven states require no experience. On average, states require 488 days of education and experience, \$382 in fees (\$1,078 in Nevada), and one exam. These high barriers give commercial painting contractors the 31st most burdensome requirements of the 102 occupations studied.

Twenty-eight states license painting contractors working on residential properties. On average, states require 277 days of education and experience, \$312 in fees, and about one exam. All in all, 13 states require at least one exam (California requires three). These requirements rank as the 55th most burdensome.

STATES WITH LICENSURE



Paving Contractor

COMMERCIAL

- License required by 24 states
- 28th most burdensome licensing requirements
- 66th most widely and onerously licensed occupation

Paving contractors contract with clients to apply concrete, asphalt or other materials to road beds, parking lots, or airport runways and taxiways, or to tamp gravel, dirt or other materials.

Typically, only contractors require licenses, not the paving equipment operators who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Twenty-four states license paving contractors working on commercial properties. Ten states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Twelve states require no experience. On average, states require 508 days of education and experience, \$365 in fees (\$1,078 in Nevada), and one exam. These high barriers give commercial paving contractors the 28th most burdensome requirements of the 102 occupations studied.

Twenty-eight states license paving contractors working on residential properties. On average, states require 329 days of education and experience, \$295 in fees, and about one exam. All in all, 14 states require at least one exam (California requires three). These requirements rank as the 49th most burdensome.

RESIDENTIAL

- License required by 28 states
- 49th most burdensome licensing requirements
- 48th most widely and onerously licensed occupation

STATES WITH LICENSURE



Pest Control Applicator

- License required by 51 states
- 50th most burdensome licensing requirements
- 7th most widely and onerously licensed occupation

Pest control applicators apply or release chemical solutions or toxic gases and set traps to kill or remove pests and vermin, such as mice, termites and roaches, that infest buildings and surrounding areas. This report looks at what is required to run one's own pest control business only.

STATES WITH LICENSURE



All 50 states and D.C. license pest control applicators. On average, these laws cost aspiring pest control applicators \$260 in fees and 274 days in education and experience and require them to pass about two exams—the 50th most burdensome requirements of the 102 occupations studied. However, because pest control applicators are licensed everywhere, the occupation ranks as the seventh most widely and onerously licensed.

License requirements vary widely. For example, while Louisiana requires four years (1,460 days) of education and another 11 states require two or more years of education or experience, 22 states require no education or experience. Similarly, while Arizona, Maine, New Hampshire and New York require four exams, six states require only one. Fees also vary greatly, from \$0 in Mississippi to \$2,200 in New York.

Pharmacy Technician

- License required by 44 states
- 73rd most burdensome licensing requirements
- 26th most widely and onerously licensed occupation

Pharmacy technicians prepare medications under the direction of a pharmacist. They may measure, mix, count out, label and record amounts and dosages of medications.

STATES WITH LICENSURE



Forty-four states require pharmacy technicians to obtain licenses. On average, these laws require \$136 in fees, 46 days of education and experience, and about one exam—the 73rd most burdensome requirements of the 102 occupations studied. However, because pharmacy technicians are licensed by most states, the occupation ranks as the 26th most widely and onerously licensed.

License requirements vary greatly across states. While most states (29) require no education or experience, Florida, Nevada and West Virginia require over 220 days—more than seven months—of education and experience. (See Appendix B for details on education and experience requirements.) Similarly, while Utah requires two exams, 19 states require none. Fees also vary, from \$25 in Kentucky and Rhode Island to \$379 in New Mexico.

Pipelayer Contractor

- License required by 27 states
- 22nd most burdensome licensing requirements
- 46th most widely and onerously licensed occupation

Pipelayer contractors contract with clients to lay pipe for storm or sanitation sewers, drains and water mains. Work may involve any of the following: grading trenches or culverts, positioning pipe, or sealing joints.

This report looks only at contractors, not the pipelayer workers who work for them, though they may also be licensed. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

STATES WITH LICENSURE



Twenty-seven states license pipelayer contractors. On average, these laws impose \$377 in fees, 546 days in education and experience, and around one exam—the 22nd most burdensome requirements of the 102 occupations studied. However, because pipelayers are licensed by only slightly more than half the states, the occupation ranks as the 46th most widely and onerously licensed.

License requirements vary widely across states. Twelve states require between two and five years of experience working under a licensed contractor, while another two (Alabama and Mississippi) require completion of three contracted jobs. Twelve states require no education or experience. Similarly, California and New Mexico require three exams, while eight states require none.

Preschool Teacher, Public School

- License required by 50 states
- 2nd most burdensome licensing requirements
- **Most** widely and onerously licensed occupation

Preschool teachers instruct children (normally up to five years of age) in activities designed to promote social, physical and intellectual growth needed for primary school in preschools, day care centers or other child development facilities. This report looks at requirements for teachers working in public preschools only.

STATES WITH LICENSURE



Forty-nine states and D.C. require licenses of preschool teachers working in public schools; Utah is the only state that does not. On average, these laws require \$492 in fees, over five and a half years (2,050 days) of education and experience, and around two exams—the second most burdensome requirements of the 102 occupations studied. Because almost every state licenses the occupation, it ranks as the most widely and onerously licensed.

License requirements vary, as do the ways in which states license the occupation. Missouri and Oregon require a bachelor's degree for their preliminary teaching licenses and four years of teaching experience for their continuously renewable professional teaching licenses (2,920 days total). Ohio, on the other hand, has no preliminary license and requires only an associate's degree (730 days) for its continuously renewable one. (See Appendix B under "Public School Teacher" for details on how the occupation was observed.) Similarly, exam requirements range from none in Montana to five in Tennessee. Fees are over \$1,000 in Connecticut and Washington but under \$200 in Missouri, Montana and South Dakota.

Psychiatric Aide

- License required by 1 state
- 14th most burdensome licensing requirements
- 97th most widely and onerously licensed occupation

Psychiatric aides assist mentally impaired or emotionally disturbed patients and work under the direction of nursing and medical staff.

STATES WITH LICENSURE



Only one state, Missouri, requires a license to work as a psychiatric aide. Missouri requires two years (730 days) of experience in mental health, a high school diploma and a minimum age of 18 years. These requirements rank as the 14th most burdensome of the 102 occupations studied here. However, because only one state licenses psychiatric aides, the occupation ranks as the 97th most widely and onerously licensed.

Psychiatric Technician

- License required by 5 states
- 36th most burdensome licensing requirements
- 89th most widely and onerously licensed occupation

Psychiatric technicians care for mentally impaired or emotionally disturbed individuals, following physician instructions and hospital procedures. They monitor patients' physical and emotional well-being and report to medical staff. They may participate in rehabilitation and treatment programs, help with personal hygiene, and administer oral medications and hypodermic injections.

STATES WITH LICENSURE



Five states license psychiatric technicians: Arkansas, California, Colorado, Kansas and Missouri. All five require a high school diploma, and four of the five require an exam (only Missouri does not). There is significant variation in education and experience requirements, however: While Missouri requires 730 days (two years) of experience, Arkansas and Kansas require only about 210 days (900 hours) of education. Fees range from \$0 in Missouri to \$349 in California (\$119 on average). These requirements are the 36th most burdensome of the 102 occupations studied here. However, because so few states license psychiatric technicians, the occupation ranks as only the 89th most widely and onerously licensed.

School Bus Driver

- License required by 51 states
- 37th most burdensome licensing requirements
- 6th most widely and onerously licensed occupation

School bus drivers transport students to and from school and on school activities. They ensure adherence to safety rules and may assist passengers in boarding or exiting.

STATES WITH LICENSURE



All 50 states and D.C. license school bus drivers. On average, these laws require \$112 in fees, 300 days of education and experience, and around six exams—the 37th most burdensome requirements of the 102 occupations studied. However, because school bus drivers are licensed everywhere, the occupation ranks as the sixth most widely and onerously licensed.

While every state requires between six and eight exams and sets a minimum age of 18, 19 or 21 years, other requirements vary. For example, Florida requires five years of driving experience and 40 hours of pre-service coursework (about 1,834 days), but 10 states require no education or experience. Fees range from \$18 in New Mexico to \$260 in Nevada.

Security Alarm Installer

- License required by 37 states
- 12th most burdensome licensing requirements
- 23rd most widely and onerously licensed occupation

Security alarm installers install, program, maintain or repair security alarm wiring and equipment, and ensure that work is in accordance with relevant codes. This report looks at what is required to run one's own security alarm installation business only.

STATES WITH LICENSURE



Thirty-seven states license security alarm installers. On average, these laws require \$487 in fees, more than two years (836 days) of education and experience, and about two exams—the 12th most burdensome requirements of the 102 occupations studied. The occupation ranks as the 23rd most widely and onerously licensed.

License requirements vary greatly across states. While Connecticut and Tennessee require six years (2,190 days) of education and experience, six states require none. Similarly, Louisiana, Washington and West Virginia require four exams, but seven states require none. Fees range from \$133 in Maryland to \$1,481 in Louisiana.

Security Guard, Unarmed

- License required by 34 states
- 80th most burdensome licensing requirements
- 37th most widely and onerously licensed occupation

Security guards guard, patrol or monitor premises to prevent theft, violence or infractions of rules.

STATES WITH LICENSURE



Thirty-four states license unarmed security guards. On average, aspirants must pay \$89, demonstrate 10 days of education and experience, and pass about one exam to become licensed—the 80th most burdensome requirements. However, because many states license the occupation, it ranks as the 37th most widely and onerously licensed.

Some license requirements vary significantly across states. For example, most states (28) require between zero and about four days of education or experience, but North Dakota requires about 244 (44 hours of classroom instruction and 1,000 hours of field service training). Similarly, while 15 states require no exams, Florida, Louisiana and Oklahoma each require two. And fees range from \$5 in Rhode Island to \$201 in Connecticut, though most states' (23) fees are between \$60 and \$116.

Shampooer

- License required by 37 states
- 45th most burdensome licensing requirements
- 32nd most widely and onerously licensed occupation

Shampooers shampoo and rinse customers' hair.

STATES WITH LICENSURE



Thirty-seven states license shampooers. Seven of these states—Alabama, Louisiana, Nevada, New Hampshire, South Carolina, Tennessee and West Virginia—issue a license specific to shampooers. In the other 30 states, shampooing is interpreted as falling under the scope of other licenses administered by barbering and cosmetology boards (see Appendix B for details). On average, aspiring shampooers must pay \$130 in fees, complete 248 days of education and experience, and pass about two exams—the 45th most burdensome requirements of the 102 occupations studied here. Because many states license shampooers, the occupation ranks as the 32nd most widely and onerously licensed.

Sheet Metal Contractor, Other

COMMERCIAL

- License required by 26 states
- 21st most burdensome licensing requirements
- 50th most widely and onerously licensed occupation

Non-HVAC sheet metal contractors contract with clients to fabricate, assemble, install and repair sheet metal products and equipment, such as kitchen equipment, drainpipes, gutters, cornices and flashings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend and straighten sheet metal; shaping metal over anvils, blocks or forms using a hammer; operating soldering and welding equipment to join sheet metal parts; and inspecting, assembling and smoothing seams and joints of burred surfaces.⁶

Typically, only contractors require licenses, not sheet metal workers who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

RESIDENTIAL

- License required by 31 states
- 43rd most burdensome licensing requirements
- 36th most widely and onerously licensed occupation

⁶ Adapted from <https://www.onetonline.org/link/summary/47-2211.00> and Nev. Admin. Code § 624.300.

STATES WITH LICENSURE



Twenty-six states license non-HVAC sheet metal contractors working on commercial properties. Twelve states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Twelve states require no experience. On average, states require 567 days of education and experience, \$360 in fees (\$1,078 in Nevada), and one exam. These high barriers give commercial non-HVAC sheet metal contractors the 21st most burdensome requirements of the 102 occupations studied.

Thirty-one states license non-HVAC sheet metal contractors working on residential properties. On average, states require nearly a year (356 days) of education and experience, \$302 in fees, and about one exam. All in all, 17 states require at least one exam (California requires three). These requirements rank as the 43rd most burdensome.

STATES WITH LICENSURE



Skin Care Specialist

- License required by 50 states
- 56th most burdensome licensing requirements
- 9th most widely and onerously licensed occupation

Skin care specialists, also known as estheticians, aestheticians, spa technicians and facialists, among other titles, provide skin care treatments to face and body to enhance an individual's appearance.

STATES WITH LICENSURE



Forty-nine states and D.C. license skin care specialists; Connecticut is the only state that does not. On average, these laws require \$175 in fees, 145 days of education and two exams—the 56th most burdensome requirements of the 102 occupations studied here. However, because almost all states license the occupation, it ranks as the ninth most widely and onerously licensed.

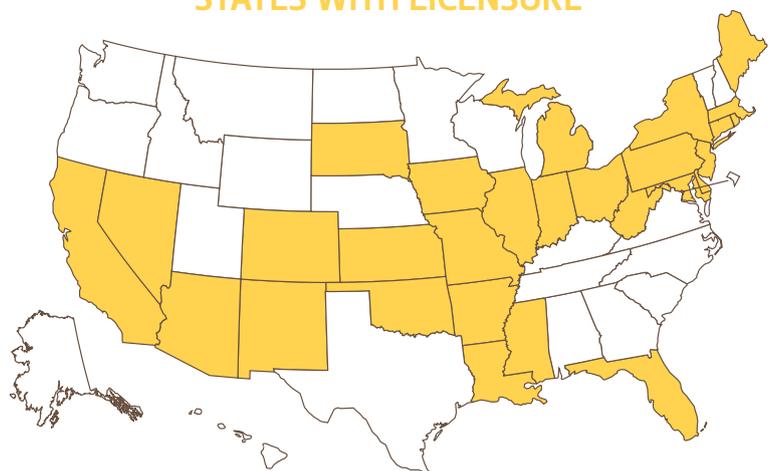
License requirements are somewhat uniform: 37 states require about 140 to 175 days (600 to 750 hours) of education, 36 require two exams, 38 require a minimum grade level, and 40 require a minimum age of between 16 and 18 years. However, there are some outliers. For example, four states require about 233 days (1,000 hours) of education, while Florida requires only about 61 (260 hours). Similarly, seven states require three exams, but Florida requires none. Fees also vary greatly, from \$51 in Ohio to \$450 in Alaska.

Slot Supervisor

- License required by 28 states
- 82nd most burdensome licensing requirements
- 62nd most widely and onerously licensed occupation

Slot supervisors or slot key persons supervise and coordinate activities of slot machine workers to provide service to patrons, handle and settle players' complaints, and verify and report payoff jackpots. This report looks at the requirements for supervisors or key employees only, not those for the slot machine technicians working under them.

STATES WITH LICENSURE



Twenty-eight states require a license to work as a slot supervisor. On average, these laws require a fee of \$467. In addition, about two-thirds of states (19) set a minimum age of either 18 or 21. These requirements make the slot supervisor occupation the 82nd most burdensome of the 102 occupations studied here. However, because slot supervisors are licensed by over half of states, the occupation ranks as the 62nd most widely and onerously licensed.

License fees vary greatly across states, from \$0 in Connecticut to \$3,150 in California. Nine states have fees totaling \$500 or more (five states have fees totaling \$1,000 or more). Fees are so high because some states—including California, Colorado and Massachusetts—require large initial deposits (\$2,400, \$1,000 and \$1,000, respectively) for background checks. After completing the background check, the state returns anything remaining of the deposit.

Social and Human Service Assistant

- License required by 1 state
- 17th most burdensome licensing requirements
- 98th most widely and onerously licensed occupation

Social and human service assistants assist professionals from a wide variety of fields, such as psychology, rehabilitation or social work, in providing client services, including support for families. They may assist clients in identifying and obtaining available benefits and social and community services.

STATES WITH LICENSURE



Only one state, Ohio, requires a license to work as a social and human service assistant. Ohio requires \$50 in fees, an associate's degree (two years, or 730 days of education) in social service technology and an exam. These requirements are the 17th most burdensome of the 102 occupations studied here. However, because only one state licenses social and human service assistants, the occupation ranks as the 98th most widely and onerously licensed.

Still Machine Setter, Dairy Equipment

- License required by 3 states
- 89th most burdensome licensing requirements
- 92nd most widely and onerously licensed occupation

Still machine setters set up, operate or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting or evaporating tanks; scrubbing towers; or batch stills. These machines extract, sort or separate liquids, gases or solids from other materials to recover a refined product. Within this category, this report looks at dairy processing equipment operators only.

STATES WITH LICENSURE



Three states require a license to work as a dairy equipment still machine setter: California, Oregon and Washington. California and Oregon both require two exams, while Washington requires none. Oregon also sets a minimum age of 18 years. None of the states requires any education or experience. The three states require an average of \$67 in fees. These requirements are the 89th most burdensome of the 102 occupations studied here. Also, because so few states license the occupation, it ranks as the 92nd most widely and onerously licensed.

Teacher Assistant, Non-Instructional

· License required by 5 states

· 75th most burdensome licensing requirements

· 90th most widely and onerously licensed occupation

Non-instructional teacher assistants, also known as teacher aides, assist teachers in nonteaching duties, such as managing records, materials and equipment; attending to the physical needs of children; and supervising students and performing such other services as support teaching duties when such services are determined and supervised by a teacher. They serve in a position for which a teacher or another professional has ultimate responsibility for the services.¹⁰ This report looks at requirements for teacher assistants working at non-Title I-funded schools only.

STATES WITH LICENSURE



Five states license non-instructional teacher assistants who work in non-Title I-funded schools.¹¹ All states require high school graduation. Rhode Island is the only state that requires any education or experience (30 hours, or about 7 days), Louisiana is the only state that requires an exam and New Mexico is the only state that charges a fee (\$79). Two states have an age requirement: 20 years in Louisiana and 18 years in New Mexico. The average requirements for this occupation are the 75th most burdensome of the 102 occupations studied here. However, because only five states license the occupation, it ranks as the 90th most widely and onerously licensed.

¹⁰ Adapted from N.Y. Comp. Codes R. & Regs. tit. 8, § 80-5.6 and <https://www.onetonline.org/link/summary/25-9041.00>

¹¹ Title I-funded schools are those that receive a certain type of federal funding.

Terrazzo Contractor

COMMERCIAL

- License required by 23 states
- 33rd most burdensome licensing requirements
- 70th most widely and onerously licensed occupation

Terrazzo contractors contract with clients to apply a mixture of cement, sand, pigment or marble chips to floors, stairways and cabinet fixtures to fashion durable and decorative surfaces.

Typically, only contractors require licenses, not the terrazzo workers and finishers who work for them. In some states, licensing requirements differ based on the setting. Those with a residential license may work only on residential properties, while those with a commercial license may work on commercial properties. Other states require the same license regardless of the setting, and this report records that license in both settings. Many states have contract minimums before the contractor's license applies. See Appendix B for details.

RESIDENTIAL

- License required by 28 states
- 52nd most burdensome licensing requirements
- 51st most widely and onerously licensed occupation

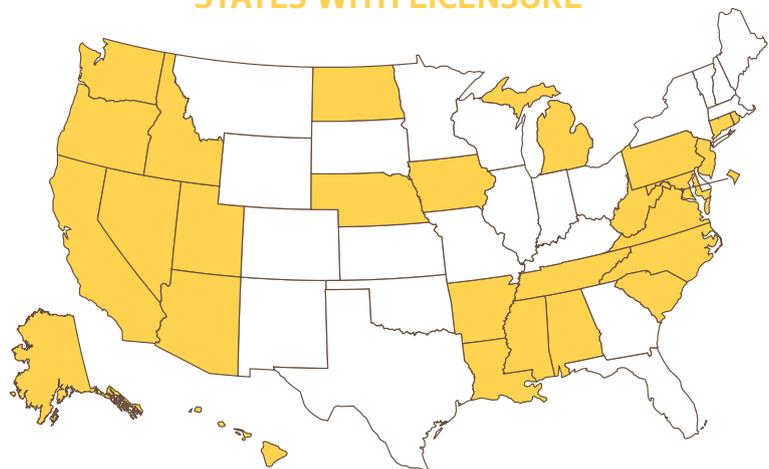
STATES WITH LICENSURE



Twenty-three states license terrazzo contractors working on commercial properties. Nine states require between two and five years of experience working under a licensed contractor. Alabama and Mississippi require completion of three contracted jobs. Twelve states require no experience. On average, states require 482 days of education and experience, \$364 in fees (\$1,033 in Nevada), and around one exam. These high barriers give commercial terrazzo contractors the 33rd most burdensome requirements of the 102 occupations studied.

Twenty-eight states license terrazzo contractors working on residential properties. On average, states require 290 days of education and experience, \$301 in fees, and about one exam. All in all, 14 states require at least one exam (California requires three). These requirements rank as the 52nd most burdensome.

STATES WITH LICENSURE



Title Examiner

- License required by 7 states
- 72nd most burdensome licensing requirements
- 84th most widely and onerously licensed occupation

Title examiners search real estate records, examine titles or summarize pertinent legal or insurance documents or details for a variety of purposes. They may compile lists of mortgages, contracts and other instruments pertaining to titles by searching public and private records for law firms, real estate agencies or title insurance companies. This report looks at what is required to run one's own title examining business only.

STATES WITH LICENSURE



Seven states license title examiners. All states require one exam, two require one year of experience (Arkansas and Nebraska), and three set an age requirement (18 years for Arkansas and Oklahoma, and 19 years for Nebraska). Fees range from \$50 in Arkansas to \$825 in Nebraska. On average, these laws require \$355 in fees, 104 days of experience and one exam, making title examiner the 72nd most burdensome of the 102 occupations studied here. Because so few states license title examiners, the occupation ranks as the 84th most widely and onerously licensed.

Travel Agency

- License required by 7 states
- 94th most burdensome licensing requirements
- 86th most widely and onerously licensed occupation

Travel agencies plan and sell transportation and accommodations to customers. They determine destination, modes of transportation, travel dates, costs and accommodations required. This report looks at what is required to run one's own travel agency only.

STATES WITH LICENSURE

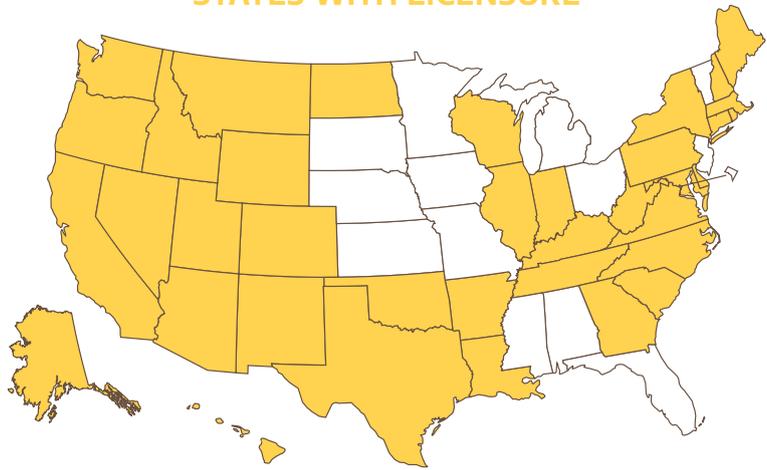


Seven states license travel agencies that do business within their borders. All states require a fee, ranging from \$15 in Iowa to \$375 in California, for an average of \$211. California's fees are relatively high because the state requires agencies to pay into a consumer restitution fund. Pennsylvania also sets a minimum age of 18 years. These requirements are the 94th most burdensome of the 102 occupations studied here. Because so few states license travel agencies, the occupation ranks as the 86th most widely and onerously licensed.

- License required by 37 states
- 77th most burdensome licensing requirements
- 34th most widely and onerously licensed occupation

Travel guides plan, organize and conduct long distance cruises, tours and expeditions for individuals and groups. This report looks at what is required to run one's own business as a travel guide.

STATES WITH LICENSURE



Thirty-seven states license travel guides. On average, these laws require \$323 in fees and 78 days of education and experience—the 77th most burdensome requirements of the 102 occupations studied. However, because many states license travel guides, the occupation ranks as the 34th most widely and onerously licensed.

License requirements vary widely across states, as do the types of licenses recorded here (see Appendix B for details). For example, most licenses are for fishing guides and require only payment of a fee, but Maine's license, which is the most burdensome, is for leading outdoor recreation expeditions (boating, camping, etc.). Maine's license requires a minimum age of 18 years, three years (1,095 days) of experience, two exams and \$181 in fees. Similarly, Wyoming's license is for leading deer hunting expeditions and requires a minimum age of 18, over a year (about 368 days) of education and experience, two exams, and \$2,370 in fees.

Tree Trimmer

- License required by 7 states
- 19th most burdensome licensing requirements
- 83rd most widely and onerously licensed occupation

Tree trimmers cut away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks or utilities, or to improve appearance, health and value of trees. This report looks at what is required to run one's own tree trimming business.

STATES WITH LICENSURE



Seven states require tree trimmers to obtain licenses. On average, these laws require \$325 in fees, over one and a half years (574 days) of education and experience, and around two exams—the 19th most burdensome requirements of the 102 occupations studied here. However, because so few states license tree trimmers, the occupation only ranks as the 83rd most widely and onerously licensed.

Two of the licenses—California's and Hawaii's—are much more burdensome than the rest, requiring four years (1,460 days) of experience. These are contractor licenses that apply only to tree trimming jobs at or above \$500 and \$1,000, respectively. (See Appendix B under "Contractor Occupations – Commercial and Residential" for details on contractor licensing.) Maryland is the only other state that requires any education or experience. In addition, every state requires at least one exam and all but two set a minimum age of 18 years. Finally, fees vary greatly, from \$30 in Maryland to \$725 in Connecticut.

Truck Driver

TRACTOR-TRAILER

- License required by 51 states
- 64th most burdensome licensing requirements
- 11th most widely and onerously licensed occupation

Truck drivers drive tractor-trailers (e.g., semis, tankers or trucks with a towing vehicle attachment weighing more than 10,000 pounds) or other large-capacity trucks (e.g., straight or box trucks or trucks with a towing vehicle attachment weighing 10,000 pounds or less) to transport and deliver goods, live-stock or materials in liquid, loose or packaged form. They may be required to unload trucks.¹²

OTHER

- License required by 51 states
- 67th most burdensome licensing requirements
- 12th most widely and onerously licensed occupation

¹² Adapted from <https://www.onetonline.org/link/summary/53-3032.00> and <http://www.dmv.org/commercial-drivers/cdl-class-types.php>

¹³ Maine's minimum age, for instance, is 16 years. However, individuals younger than 18 wishing to apply for the state's tractor-trailer or other large-capacity truck driver license must have passed driver's education (see <http://www.maine.gov/sos/bmv/forms/MVE-64T.pdf>).

STATES WITH LICENSURE



All 50 states and D.C. license drivers of tractor-trailers and other large-capacity trucks. For both occupations, Rhode Island and West Virginia require two years (730 days) of driving experience, while seven other states require one year. Washington requires 160 hours (about 37 days) of commercial driving education for tractor-trailer drivers and 48 hours (about 11 days) for other truck drivers. The other 41 states require no education or experience. Every state requires at least four exams for both occupations and sets an age minimum for both occupations, usually of 18 years, though a few states set theirs higher or lower.¹³ Fees for both occupations range from \$18 in New Mexico to \$325 in Washington.

Tractor-trailer and other truck drivers rank as the 64th and 67th most burdensome occupations, respectively. And because they are both licensed by every state and D.C., they rank as the 11th and 12th most widely and onerously licensed occupations.

STATES WITH LICENSURE



Upholsterer

- License required by 10 states
- 99th most burdensome licensing requirements
- 80th most widely and onerously licensed occupation

Upholsterers make, repair or replace upholstery for household furniture or transportation vehicles. This report looks at what is required to run one's own upholstery business only.

STATES WITH LICENSURE



Ten states require upholsterers to obtain a license to work. The only requirement is payment of a fee, which ranges from \$10 in West Virginia to \$360 in California. On average, states charge \$102—the 99th most burdensome requirements. However, because 10 states license upholsterers, upholsterer ranks as the 80th most widely and onerously licensed occupation.

Vegetation Pesticide Applicator

- License required by 51 states
- 63rd most burdensome licensing requirements
- 10th most widely and onerously licensed occupation

Vegetation pesticide applicators mix or apply pesticides, herbicides, fungicides or insecticides through sprays, dusts, vapors, soil incorporation or chemical application on trees, shrubs, lawns or botanical crops. This report looks at what is required to run one's own vegetation pesticide business only.

STATES WITH LICENSURE



All 50 states and D.C. license vegetation pesticide applicators. On average, these laws require \$259 in fees, 134 days of education and experience, and three exams—the 63rd most burdensome requirements of the 102 occupations studied here. However, because vegetation pesticide applicators are licensed everywhere, the occupation ranks as the 10th most widely and onerously licensed.

License requirements vary across states. For example, while 31 states require no education or experience, four states—Delaware, Hawaii, Massachusetts and Tennessee—require two years (730 days) of experience. Maine, New Hampshire and New York require between six and eight exams, while Alabama and Florida require only one each. Fees also vary greatly, from \$0 in Mississippi to \$3,000 in New York.

Veterinary Technician

- License required by 36 states
- 16th most burdensome licensing requirements
- 27th most widely and onerously licensed occupation

Veterinary technicians generally work in private clinical practices under the guidance of a licensed veterinarian. They may perform laboratory tests, such as a urinalysis, and help veterinarians conduct a variety of other diagnostic tests. They may also talk with animal owners about a pet's condition or how to administer medication prescribed by a veterinarian.¹⁴

STATES WITH LICENSURE



Thirty-six states require veterinary technicians to obtain licenses. On average, these laws require \$380 in fees, two years (730 days) of education and experience, and around two exams—the 16th most burdensome requirements of the 102 occupations studied here. However, because veterinary technicians are not licensed everywhere, the occupation ranks as the 27th most widely and onerously licensed.

License requirements are mostly uniform. Every state requires two years (730 days) of veterinary technician education (Washington also requires a four-hour HIV/AIDS course) and one or two exams. In addition, 32 states require fees of \$330 to \$477. However, there is some variability: Alaska and Washington require fees over \$500, while Arizona and New York require fees under \$200. Also, only Indiana, Louisiana and South Dakota require a high school diploma.

¹⁴ Adapted from <https://www.bls.gov/ooh/healthcare/veterinary-technologists-and-technicians.htm#tab-2>

Weigher

- License required by 25 states
- 91st most burdensome licensing requirements
- 73rd most widely and onerously licensed occupation

Weighers, weighmasters or public weighers weigh or measure bulk commodities and issue certificates of accuracy.¹⁵

STATES WITH LICENSURE



Twenty-five states require a license of those who weigh bulk commodities for a living. Licensing requirements are somewhat consistent across states, with no states requiring any education or experience. In addition, most states (21) require fees of \$75 or less, though Texas requires \$500. On average, aspiring weighers must pay a fee of \$62—the 91st most burdensome requirements of the 102 occupations studied here. However, because half of states license it, the occupation ranks as the 73rd most widely and onerously licensed.

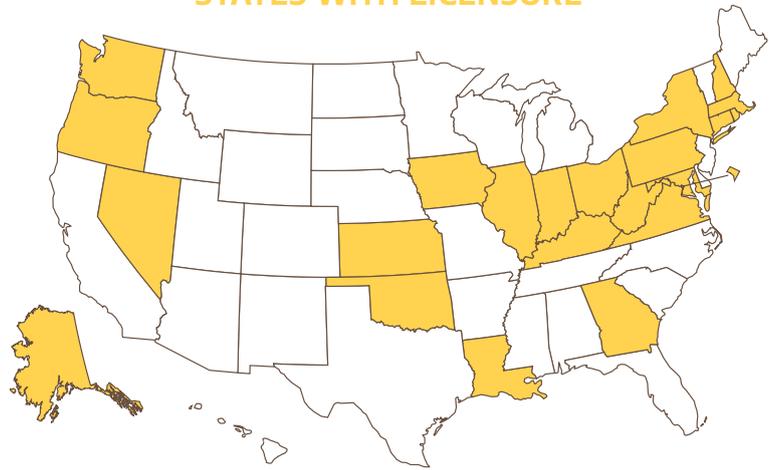
¹⁵ Adapted from <http://www.cdfa.ca.gov/dms/programs/wm/wm.html>

Wildlife Control Operator

- License required by 23 states
- 88th most burdensome licensing requirements
- 74th most widely and onerously licensed occupation

Wildlife control operators take or trap, transport, and release wildlife when it becomes a nuisance, destroys property or threatens public safety.¹⁶

STATES WITH LICENSURE



Twenty-three states require a license to work as a wildlife control operator. On average, these laws require \$68 in fees and about one exam—the 88th most burdensome requirements of the 102 occupations studied here. Because about half of states license wildlife control operators, the occupation ranks as the 74th most widely and onerously licensed.

While most states (19) require one written exam, Iowa requires two: a written exam and an in-person interview with a representative of the Iowa Department of Natural Resources. Alaska, Nevada and New Hampshire require no exams. Additionally, while 15 states require no education or experience, eight require anywhere from one to 16 hours of education. Fees range from \$0 in Illinois, Indiana, Kansas and Virginia to \$250 in Connecticut and Nevada.

¹⁶ Adapted from <http://www.dec.ny.gov/permits/28635.html>

Appendix A: General Methods

Sample Collection and Second Edition Revisions

The 102 occupations sampled in the first edition of *License to Work*, released in 2012, were identified by first downloading a list of licensed occupations from CareerOneStop (www.careeronestop.org/), a career website sponsored by the U.S. Department of Labor. That list was then cross tabulated against occupational lists maintained by the Bureau of Labor Statistics (BLS). Any occupation that did not appear in the BLS lists was excluded to create a list of “recognized” occupations. Finally, the BLS-referenced list was rank ordered by average income. Any occupation that fell above the national average income was excluded, resulting in the list of 102 low- and middle-income occupations observed for the original *License to Work* report.

For this second edition of *License to Work*, several revisions were made to the original list of occupations to achieve greater clarity and consistency in licenses observed across states. By coincidence, both editions record licensing burdens for 102 occupations, though the mix of occupations changed slightly. These revisions limit the comparability between editions.

First and most expansive, the second edition takes an improved approach to recording contractor licenses. While both editions of *License to Work* cover contracting work in both commercial and residential settings, the first edition includes contractor licenses that are not specific to a particular setting, sometimes called a “general contractor license,” only in commercial contractor occupations, labeling those occupations “General/Commercial.” Even though such general licenses often apply to residential contracting work, the first edition excluded them from residential contractor occupations to avoid double counting. By contrast, the second edition records such licenses in both commercial and residential contractor occupations. While this results in counting some licenses twice, it gives a more robust and accurate description of the residential contracting landscape. The contractor occupations are now labeled “Commercial” and “Residential.” See Appendix B for further details on contractor licensing.

Second, several occupations from the first edition have been split into two separate occupations for this new edition. This was done to more fully capture the scope of work within the occupations. The occupations affected are:

- Three contractor occupations: door repair contractor, landscape contractor and paving equipment operator contractor, each of which has been separated into commercial and residential in the second edition.
- Truck driver, which has been separated into “Tractor-Trailer” and “Other.” The first edition looked at licenses for smaller large-capacity trucks, such as box trucks used for furniture delivery (now labeled “Other”), but excluded licenses for larger trucks, such as semis and other tractor-trailers (now labeled “Tractor-Trailer”).
- Animal control officer, which has been separated into “Animal Control Officer” and “Wildlife Control Operator” to better

capture two closely related fields. Animal control officers generally work for the government and handle neglected or abused animals, while wildlife control operators work in the private sector and deal with nuisance wild animals.

- HVAC contractor, which has been separated into “HVAC Contractor” and “HVAC Sheet Metal Contractor” to better capture two closely related fields. When recording HVAC contractor licenses, the first edition focused on licenses to install sheet metal attached to an HVAC system, such as ducts. This occupation is now labeled HVAC sheet metal contractor, and HVAC contractor has been added to capture licenses to install HVAC systems. Both occupations have commercial and residential categories.

Third, within the broad category of child care workers, different licenses may apply depending on the setting and other factors, making it difficult to record burdens consistently. In the interest of consistency and in keeping with a preference for recording sole-proprietor licenses (see the “Data Collection section” below), this second edition observes licenses required to run a day care facility out of one’s home (“Child Care Family Home”).

Fourth and finally, the second edition eliminates several occupations from the original sample:

- Five tester or inspector occupations: backflow prevention assembly tester, cathodic protection tester, cross-connection survey inspector, fire sprinkler system tester and tank tester. Regulations governing testers and inspectors vary widely across states, making it unusually difficult to achieve consistency in license observation. As a result, these occupations have been eliminated from the second edition.
- Court clerk. Court clerks work in courts of law. However, the first edition observed municipal clerk licenses, which are required to work in city or town councils, not courts of law. Since no state issues a license to work as a court clerk, the occupation has been eliminated from this second edition.
- Non-contractor pipelayer. The first edition recorded licenses required for those who work for pipelayer contractors. The second edition observes instead licenses required to work as a sole proprietor in the field (“Pipelayer Contractor”).

Data Collection

During data collection for this report, several principles were used to determine which regulations should be counted as occupational licenses. First, this report counts as a license any state (not federal or municipal) permission slip required to legally work in an occupation. This includes licenses that require personal credentials and simple registrations that require only notification of name and address and payment of a fee to the state, as long as such registration is mandatory.

Second, licenses are included even if states call them something else, such as a “permit” or “certification.” For example, South Carolina issues a certificate for athletic trainers. Although it is not called a license, it is included in this report because it is necessary to legally practice as an athletic trainer in South Carolina and thus functions as

a license. For simplicity, throughout this report, any state-mandated permission slip is referred to as a license.

Third, because this report is concerned with state requirements to practice an occupation, it does not include laws that only restrict the use of an occupational title (e.g., “interior designer,” “registered interior designer” or “certified interior designer”), even where such laws are called “licenses.” This is because such “titling” laws (which may take the form of certification schemes) do not restrict freedom of occupational practice.

Fourth, this report excludes laws that set standards for an occupation but do not explicitly require government permission to practice it. For example, some states require only that bartenders be of a minimum age or that they be trained by their employers. This report does not consider such states as licensing bartenders.

In addition to these principles, several others guided the selection of which license or licenses to record in cases where more than one could apply to a given occupation. First, when possible, this report records licenses for sole proprietors in order to show the burdens entrepreneurs face when trying to enter an occupation. However, for occupations in which sole proprietorship is not a realistic option, this report records licenses for workers. For example, dietetic technicians—one of the occupations observed in this report—assist in the provision of nutrition programs under the supervision of dietitians and thus, by definition, cannot work on their own as a sole proprietor.

Second, in cases where multiple licenses are required to practice an occupation, this report records the requirements for all of those licenses. This approach more completely captures the requirements associated with earning a license to practice fully and independently. For example, because most states require aspiring barbers to obtain an apprentice’s license before obtaining a full barber’s license, this report records both licenses.

Third, where a state issues multiple licenses for the practice of an occupation, this report generally records the least restrictive one to avoid overstating burdens. However, in some cases, a more restrictive license is recorded in keeping with an occupation’s definition or in the interest of properly stating the burdens for continuous practice of an occupation. For example, in Utah, mason contractors can choose between two license classifications: general masonry or stone masonry. While the general masonry classification requires one more exam than the stone masonry classification, it better fits the mason contractor occupation’s definition. The general masonry classification is therefore observed in this report, even though it is more burdensome. In another example, many states issue both a continuously renewable professional teaching license for public preschool teachers and a preliminary one. Licenses of the latter type are less burdensome, but they are also only temporary. For this reason, this report observes states’ continuously renewable licenses.

Following these principles, the main requirements to secure a license were recorded across five categories for all 102 occupations across all 50 states and the District of Columbia: fees, education/experience, exams, minimum age and minimum grade. Other common state requirements, such as surety bonds, character references and CPR training, were noted during the data collection process but excluded from the data. Tuition for required third-party schooling was excluded as well, as it is an indirect cost that is often variable and impractical to record.

In those occasional cases where a state allows occupational aspirants to choose from a list of options to meet certain licensure requirements, this report observes the option that would reflect the

lowest burden in the data. For example, to obtain a cosmetology license in Michigan, aspirants must complete either 1,500 hours of cosmetology school or a two-year apprenticeship. Under this report’s conversion metrics (see the “Measuring Burden” section below), the cosmetology school route results in an estimated 350 days lost, while the apprenticeship route results in 730 days lost. Because it results in fewer days lost to education/experience, the cosmetology school route is used in the data.

For this second edition of *License to Work*, all licenses and requirements were researched from scratch. To collect licensure requirements, the following resources were consulted:

- State statutes and administrative codes.
- State licensing board websites.
- State agency websites (e.g., departments of education, departments of public safety, departments of human services).
- Professional association websites.
- CareerOneStop.
- Direct correspondence with licensing authorities.

Measuring Burden

To derive a measure of burden across occupations and states, the five licensure requirements collected were combined in a multi-step process.

Occupations

Step 1: Each requirement’s subrequirements were combined. Three of the requirement types (fees, education/experience and exams) had subrequirements that needed combining. For fees, applicants are often required to pay fees of various types: application fees, processing fees, licensing fees, etc. These were summed to create an overall fee. The final metric was dollars. Likewise, discrete exams were summed across exam types, which commonly included written, oral and practical exams. Some states also require multi-part exams, which were considered as one exam. The final metric was number of exams.

Combining education/experience subrequirements itself required a multi-step process. Some of the education/experience subrequirements are reported in days, some in hours, some in years, some in degree completion and so forth. These subrequirements were therefore converted into a common measurement of days, representing an estimate of calendar days lost while meeting licensing requirements. The conversions are as follows:

- Education/experience clock or contact hours were converted to days by first dividing hour requirements by six, which is about how much time a person might spend per day in full-time education (such as trade school or courses) or gaining on-the-job experience (such as working as a technician for an employer). If the total number of hours was equal to or more than 30, this was converted to weeks by dividing by five, to represent a five-day work week. Weeks were then converted back to days by multiplying by seven. The final

number represents the total number of calendar days a person is shut out of their chosen occupation as a result of education/experience requirements.

- Apprenticeship clock or contact hours were converted to days by first dividing hour requirements by eight, which is about how much time a person might spend per day in an apprenticeship. This was converted to weeks by dividing by five, to represent a five-day work week. Weeks were then converted back to days by multiplying by seven. The final number represents the total number of calendar days a person is shut out of their chosen occupation as a result of apprenticeship requirements.
- Days at or over five were divided by five, to represent a five-day work week, then multiplied by seven to convert them into estimated calendar days lost.
- Weeks were multiplied by seven.
- Months were multiplied by 30.33.
- Years were multiplied by 365.
- Jobs (contractor occupations) were multiplied by 16, which is the approximate average number of days a contracting project takes.¹⁰⁵ This was converted to weeks by dividing by five, to represent a five-day work week. Weeks were then converted into estimated calendar days lost by multiplying by seven.
- Jobs (mobile home installer occupation) were multiplied by 30.33, because, on average, a mobile home installation project takes about a month's time.¹⁰⁶
- Births (direct entry midwife occupation) were multiplied by 20, which is the average number of days a midwife will go between attending births.¹⁰⁷
- Continuing education units were divided by seven, which is the number of units that can be completed in one day.¹⁰⁸
- Credit/semester hours were multiplied by seven, which assumes that one credit hour can be completed in a seven-day week.
- Degrees were converted to years, which were then multiplied by 365. Although completion times of degree programs vary, this report uses standard completion times (i.e., associate's=2 years, bachelor's=4 years, master's=2 years).

For minimum grade level, the final metric was a number representing the minimum grade (i.e., 10th grade=10, high school completion=12, etc.). For minimum age, it was years.

Not every license comes with every type of requirement. For example, a school bus driver's license in Illinois requires fees, exams and a minimum age, but no education/experience or minimum grade. In such cases, a zero value was assigned to absent requirements. For states with no license for a given occupation, no value was assigned.

Step 2: Requirements were averaged across states.

Step 3: Because the different requirement types are measured in different units—dollars, days, exams, grades and ages—they could not simply be added or averaged to produce a single measure of burden for each occupation. Instead, requirements were converted into a common metric—known as standard scores—to facilitate combining. Specifically, requirements were converted into T-scores.

Step 4: Because some requirements are more burdensome than others, weights were applied to the requirements. This approach acknowledges that education/experience, for example, represents more of a barrier to entering an occupation than fees or age requirements. Specifically, a weight of 20 was applied to the education/experience requirement, while a weight of 1.5 was applied to the minimum grade requirement.

Step 5: The weighted T-scores for each requirement were summed. This score was used for the ranking in Table 2 on pages 16–17.

Step 6: Each occupation's weighted T-score was multiplied by the number of states that license the occupation. This score was used for the ranking in Table 3 on pages 18–19.

States

Step 1: The final requirement metrics created in Occupations–Step 1 above were averaged across all occupations for each state. This resulted in an average fee, education/experience, exam, minimum grade and minimum age requirement for each state.

Step 2: Requirements were converted into T-scores.

Step 3: Requirements were weighted as described in Occupations–Step 4 above.

Step 4: The weighted T-scores for each requirement were summed. This score was used for the ranking in Table 5 on page 22.

Step 5: Each state's weighted T-scores were multiplied by the number of occupations licensed by the state. This score was used for the ranking in Table 6 on page 23.

Appendix B: Explanation of Specific Occupations

Several occupations warrant greater explanation than space in the Occupation Profiles permits. Following below are further details of these occupations and how they were observed.

Contractor Occupations – Commercial and Residential

Contractor licensing schemes vary from state to state. Some states issue different licenses for work performed in commercial and residential settings, while other states require the same license regardless of setting. (Such non-specific licenses are sometimes called general contractor licenses.) In addition, states usually set a minimum contract size (often expressed in dollars of revenue) that contracted jobs must meet before the contractor license is required, and these minimums vary by state.

Table B1 on page 205 shows state regulation of settings (commercial, residential or both) for contractor licensing. It also lists the titles or types of licenses observed, as well as any minimum contract sizes (in dollars).

Table B1 covers licenses for all of the contractor occupations observed in this report, except for those related to HVAC systems (see Table B2 on pages 206–207), with an important caveat: It only covers the specific contractor occupations licensed by each state. For example, terrazzo contractors are not licensed by New Mexico, while other types of contractors, such as masonry and insulation, are. The State Profiles indicate which contractor occupations are licensed by each state.

In Table B1, a “specialty classification” is a state-specified contractor license category that covers the type of work the contractor will perform. In this report, it varies by contractor occupation because the type of work varies. For example, in California, a glazier contractor needs a “C-17 – Glazing Contractor” specialty classification, while a drywall contractor needs a “C-9 – Drywall Contractor” specialty classification.

Landscape contractors often face special requirements in addition to or instead of those listed in Table B1. *In addition to* any contractor licenses listed in the table, landscape contractors in 14 states also need one of the following types of nursery or landscaping-related licenses in both commercial and residential settings, unless otherwise noted:

- Horticulturist license: Louisiana (commercial only) and Mississippi (commercial only).
- Landscape contractor license: Arkansas and Idaho.
- Landscaper license: Tennessee.
- Nursery license: North Dakota.

- Nursery outlet license: Utah.
- Nursery/plant dealer license: Iowa, Maryland, Nevada, New Jersey, Washington and West Virginia.
- Setting of landscape plants and turf/pest control licenses: Alabama (commercial only).

In 28 states, *instead of* any contractor licenses listed in Table B1, landscape contractors need one of the following nursery or landscaping-related licenses in both commercial and residential settings, unless otherwise noted:

- Horticulturist license: Louisiana (residential only) and Mississippi (residential only).
- Landscape contractor business and landscape construction professional licenses: Oregon.
- Nursery license: Colorado and Delaware.
- Nursery-floral license: Texas.
- Nursery dealer license: Missouri.
- Nursery landscaper license: Oklahoma.
- Nursery/plant dealer license: Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Michigan, Minnesota, Montana, New Hampshire, New Mexico, New York, Ohio, Pennsylvania, South Dakota, Vermont, Wisconsin and Wyoming.
- Setting of landscape plants and turf/pest control licenses: Alabama (residential only).

Licenses for the HVAC contractor and HVAC sheet metal contractor occupations are excluded from Table B1 because many of them are completely different licenses issued by different boards and subject to different contract size minimums.

Table B2 on pages 206–207 shows state regulation of settings (commercial, residential or both) for the HVAC contractor and HVAC sheet metal contractor occupations. The table also lists the titles of licenses observed, as well as any minimum contract sizes (in dollars).

Table B1: Contractor Licensing (Excluding HVAC and HVAC Sheet Metal)

State	Setting	Title or Type of License(s)	Min. Contract Size (\$)
Alabama	Commercial	Prime contractor – specialty classification*	\$50,000
	Residential	Residential home builder	\$10,000
Alaska	Both	Construction contractor – specialty classification*	\$10,000
Arizona	Commercial	Contractor – specialty classification*	\$1,000
	Residential	Contractor – specialty classification*	
Arkansas	Commercial	Contractor – specialty classification*	\$50,000
	Residential	Home improvement contractor – specialty classification*	\$2,000
California	Both	Contractor – specialty classification*	\$500
Connecticut**	Commercial	Major contractor	None
	Residential	Home improvement contractor	\$200
District of Columbia	Commercial	Class E contractor*	None
	Residential	Home improvement contractor and salesperson licenses*	\$300
Florida	Both	Certified contractor – specialty classification	\$1,000
Georgia***	Both	Utility contractor, manager and foreman licenses	None
Hawaii	Both	Contractor – specialty classification*	\$1,000
Idaho	Both	Contractor registration*	\$2,000
Iowa	Both	Construction contractor registration*	None
Louisiana****	Commercial	Contractor – specialty classification*	\$50,000
	Residential	Home improvement contractor	\$7,500
Maryland	Residential	Home improvement contractor*	None
Massachusetts*****	Residential	Home improvement contractor and construction supervisor licenses*	\$500
Michigan	Residential	Maintenance and alteration contractor – specialty classification	\$600
Mississippi	Commercial	Contractor – specialty classification*	\$50,000
	Residential	Residential remodeler	\$10,000
Nebraska	Both	Contractor registration*	None
Nevada	Both	Contractor – specialty classification*	\$1,000
New Jersey	Residential	Home improvement contractor*	None
New Mexico	Both	General construction contractor – specialty classification	\$7,200
North Carolina	Both	General contractor – specialty classification*	\$30,000
North Dakota	Both	General contractor – class D*	\$4,000
Oregon	Commercial	Commercial specialty contractor – level 2	\$1,000
	Residential	Residential specialty contractor	
Pennsylvania	Residential	Home improvement contractor	\$500
Rhode Island	Both	Contractor registration	None
South Carolina	Commercial	Contractor – specialty classification	\$5,000
	Residential	Residential contractor – specialty classification	\$200
Tennessee	Both	General contractor – specialty classification*	\$25,000
Utah	Both	Contractor – specialty classification*	\$3,000
Virginia	Both	Class C contractor – specialty classification*	\$1,000
Washington	Both	Contractor – specialty classification*	\$500
West Virginia	Both	Contractor – specialty classification*	\$2,500
Wisconsin***	Both	Utility contractor registration	None

*License applies to landscape contractors.

**In lieu of the major contractor license, commercial glazier contractors in Connecticut require specialized flat glass contractor and journeyman licenses. The contractor license applies for jobs involving panes of glass of 30 square feet or larger.

***These states' licenses are required only for the pipelayer contractor occupation. Otherwise, with the exception of Connecticut, all of the licenses in the table that apply in commercial or both settings are required for that occupation.

****In addition to the contractor's license, commercial door repair contractors in Louisiana require a door hardware certificate from the state fire marshal.

*****In Massachusetts, residential cement finishing, insulation and painting contractors require only the home improvement contractor license. Also, the home improvement and construction supervisor licenses do not apply to residential non-HVAC sheet metal contractors. Instead, these contractors must have the following two licenses, regardless of setting: unlimited sheet metal journeyman and apprentice. There is no minimum contract size.

Table B2: HVAC and HVAC Sheet Metal Contractor Licensing

State	Setting	Title of HVAC Contractor License(s)	Title of HVAC Sheet Metal Contractor License(s)	Min. Contract Size (\$)
Alabama	Commercial	HVAC contractor certification and mechanical contractor license – HVAC subclassification	(Same)	Certification: None License: \$50,000
Alaska	Commercial	Mechanical administrator – unlimited HVAC/sheet metal category	(Same)	None
	Residential	Mechanical administrator – residential HVAC category	(Same)	
Arizona	Commercial	Comfort heating, ventilating, evaporative cooling specialty commercial contractor	(Same)	\$1,000
	Residential	Comfort heating, ventilating, evaporative cooling specialty dual contractor	(Same)	
Arkansas	Commercial	HVACR specialty building contractor and HVACR class A trade licenses	Duct sheet metal specialty building contractor and HVACR class D trade licenses	\$50,000
	Residential	HVACR class B trade	HVACR class D trade	None
California	Both	Warm-air heating, ventilating and air-conditioning contractor	Sheet metal contractor	\$500
Connecticut	Both	Limited air conditioning, refrigeration and warm air contractor and journeyman licenses	Limited sheet metal contractor and journeyman licenses (commercial); Limited residential/light commercial sheet metal contractor and journeyman licenses (residential)	None
District of Columbia	Both	Refrigeration and air conditioning contractor and limited master mechanic licenses	(Same)	None
Delaware	Both	Master HVACR	(Same)	None
Florida	Both	Mechanical contractor certification	Sheet metal contractor certification	\$1,000
Georgia	Commercial	Conditioned air contractor, class II	(Same)	None
	Residential	Conditioned air contractor, class I	(Same)	
Hawaii	Both	Ventilating and air conditioning specialty contractor	Sheet metal specialty contractor	\$1,000
Idaho	Both	HVAC contractor, journeyman and apprentice licenses	(Same)	None
Iowa	Both	HVAC/R contractor, master, journeyman and apprentice licenses as well as construction contractor registration	(Same)	None
Kentucky	Both	Master HVAC contractor, journeyman mechanic and apprentice licenses	(Same)	None
Louisiana	Both	Mechanical contractor – HVAC, duct work and refrigeration specialty	Sheet metal duct work specialty contractor (commercial); Home improvement contractor (residential)	HVAC: \$10,000 HVAC Sheet Metal: \$50,000 (commercial), \$7,500 (residential)
Maryland	Both	Master HVACR contractor, journeyman and apprentice licenses	(Same)	None
Massachusetts	Commercial	Refrigeration contractor, technician and apprentice licenses	Unlimited sheet metal journeyman and apprentice licenses (commercial); Limited sheet metal journeyman and apprentice licenses (residential)	None
Michigan	Both	Mechanical contractor – HVAC equipment specialty	Mechanical contractor – ductwork specialty	None
Mississippi	Commercial	HVAC contractor	(Same)	\$50,000
	Residential	Residential remodeler	(Same)	\$10,000
Nebraska	Both	Contractor registration	(Same)	None

Table B2 continued on next page

Table B2 continued from previous page

State	Setting	Title of HVAC Contractor License(s)	Title of HVAC Sheet Metal Contractor License(s)	Min. Contract Size (\$)
Nevada	Both	Heating, cooling and circulating air specialty contractor	Using sheet metal specialty contractor	HVAC: None HVAC Sheet Metal: \$1,000
New Jersey	Both	Master HVACR contractor, journey person and apprentice licenses	(Same)	None
New Mexico	Both	Mechanical contractor – HVAC specialty classification	Mechanical contractor – HVAC specialty classification and journeyman sheet metal licenses	\$7,200
North Carolina	Commercial	Heating – group 3, class I	(Same)	None
	Residential	Heating – group 3, class II	(Same)	
North Dakota	Both	General contractor – class D	(Same)	\$4,000
Ohio	Commercial	HVAC contractor	(Same)	None
Oklahoma	Both	HVAC/R mechanical contractor and apprentice licenses	Sheet metal mechanical contractor and apprentice licenses	None
Oregon	Commercial	Commercial specialty contractor – level 2	(Same)	\$1,000
	Residential	Residential specialty contractor	(Same)	
Pennsylvania	Residential	Home improvement contractor	(Same)	\$500
Rhode Island	Both	Class II pipefitter/refrigeration master, journey person and apprentice licenses	Class I sheet metal master, journey person and apprentice licenses (commercial); Class II sheet metal master, journey person and apprentice licenses (residential)	None
South Carolina	Commercial	Mechanical contractor – air conditioning and heating specialties	Mechanical contractor – packaged equipment specialty	\$5,000
	Residential	Residential contractor – heating and air specialty	(Same)	\$200
Tennessee	Both	Mechanical contractor – HVAC, refrigeration and gas piping specialty	(Same)	\$25,000
Texas	Commercial	Class A environmental air conditioning contractor and ACR technician licenses	(Same)	None
	Residential	Class B environmental air conditioning contractor and ACR technician licenses	(Same)	
Utah	Both	HVAC specialty contractor	Sheet metal specialty contractor	HVAC: None HVAC Sheet Metal: \$3,000
Virginia	Both	Class C contractor – HVAC specialty and HVAC master and journeyman tradesmen licenses	(Same)	\$1,000
Washington	Both	HVAC/R specialty contractor	(Same)	\$500
West Virginia	Both	HVAC specialty contractor	Contractor	\$2,500
Wisconsin	Both	HVAC contractor credentials	(Same)	None

Emergency Medical Technician

Often, states only set topics that must be covered in education requirements for emergency medical technician licenses. In such cases, education length had to be found by randomly sampling state-approved private providers or, if the state aligns its education requirements with such, national standards.

Makeup Artist

Two states (Louisiana and Nevada) issue a license specific to makeup artists. However, in 39 other states, makeup application is interpreted as falling under the scope of other licenses administered by cosmetology boards. While some of the 39 states exempt from licensure makeup application performed in certain settings (e.g., theatrical productions, television or retail demonstrations), this report considers the broad occupation of makeup artist to be licensed in all of those states.

To give a better understanding of which licenses are observed in each state for the makeup artist occupation, the type of license (cosmetician, esthetician/aesthetician, facials specialist, makeup artist or skin care specialist) and the state(s) that observe that license type are listed in Table B3 below.

Table B3: Makeup Artist Licensing

Type of License	State(s)
Cosmetician	Nebraska and Oklahoma
Esthetician/Aesthetician	Alabama, Alaska, Arkansas, California, Colorado, Delaware, District of Columbia, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Michigan, Minnesota, Mississippi, Missouri, Montana, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, West Virginia and Wisconsin
Facials Specialist	Florida
Makeup Artist	Louisiana and Nevada
Skin Care Specialist	New Jersey

Milk Sampler

In four states (Louisiana, New Mexico, North Dakota and Texas), education length was not stated and therefore had to be approximated based on the education length given in Indiana and Kentucky. Experience (usually, this is on-the-job training provided by another licensed sampler) was similarly estimated in Indiana, Iowa, Kansas and Maryland.

Optician

In line with principles detailed in Appendix A, this report generally observes the least restrictive possible license for a given occupation in each state. In the case of the optician occupation, this approach resulted in observation of licenses allowing the performance of significantly different duties. Fourteen states have only one option for licensure: a license that allows licensees to fit or dispense both regular eyeglass lenses and contact lenses. However, eight other states (Alaska, Arkansas, California, New York, Ohio, Rhode Island, South Carolina and Virginia) offer an option that allows licensees to fit or dispense regular eyeglass lenses only (in Arkansas and Rhode Island, this is the only option for licensure). As this is the least restrictive (or only) option in those states, this is the license observed.

Pharmacy Technician

In seven states (Arizona, Illinois, New Mexico, Oklahoma, Rhode Island, Utah and Washington), pharmacy technicians must receive experience via on-the-job training with the employing pharmacy, during which certain topics must be covered. The states do not, however, specify how long pharmacy technicians must spend in this training. As it happens, most of the topics required to be covered in this training closely align with the entry-level pharmacy technician curriculum goals of the American Society of Health-System Pharmacists (ASHP). Because of this similarity, ASHP’s training program length (600 hours) is used where training hours are not specified.

Public School Teacher

Some states offer preliminary licenses for public school teachers, including two teaching occupations studied in this report: public preschool teachers, who must be licensed teachers in every state that licenses them, and head coaches, who must be licensed teachers in seven of the 48 states that license them. These licenses are less burdensome than those states’ continuously renewable professional teaching licenses, but they are also only temporary: In order to continue teaching, teachers must eventually convert them to a continuously renewable license by logging teaching experience on the preliminary license and completing a mentoring or teacher induction program. In keeping with principles outlined in Appendix A, this report therefore observes the requirements for states’ continuously renewable licenses, which include the requirements for a preliminary license where one must be obtained first.

In the public preschool teacher occupation, 17 states have only the continuously renewable professional teaching license: Alabama, Arkansas, D.C., Florida, Illinois, Maine, Minnesota, Mississippi, Montana, Nebraska, Nevada, Ohio, Oklahoma, South Dakota, Texas, Virginia and Wyoming. The remaining 33 states require a preliminary license before they will issue the continuously renewable one.

In the head coach occupation, three states (Arkansas, Oklahoma and Virginia) have only the continuously renewable professional teaching license. The other four states that require coaches to be teachers (Georgia, Missouri, New Jersey and Ohio) require a preliminary license before they will issue the continuously renewable one.

Shampooer

Seven states (Alabama, Louisiana, Nevada, New Hampshire, South Carolina, Tennessee and West Virginia) issue a license specific to shampooers. However, in 30 states, shampooing is interpreted as falling under the scope of other licenses administered by barbering and cosmetology boards. And, because those 30 states do not exempt shampooing from licensure, this report considers them to license the broad occupation of shampooer.

To give a better understanding of which licenses are observed in each state for the shampooer occupation, the type of license (barber, barber assistant/technician, cosmetologist, hairstylist/dresser/cutter/designer or shampoo assistant/technician/technologist) and the states that observe that license type are listed in Table B4 below.

Table B4: Shampooer Licensing

Type of License	States
Barber	California, Kansas, Kentucky, Mississippi, Montana, New Jersey, New Mexico, New York, Oklahoma, Oregon, Rhode Island, Utah, Vermont, Washington, Wisconsin and Wyoming
Barber Assistant/Technician	Arkansas, South Carolina and Texas
Cosmetologist	Delaware, Iowa, Massachusetts, Michigan, Nebraska, North Dakota and South Dakota
Hairstylist/Dresser/Cutter/Designer	Colorado, Hawaii, Idaho, Missouri and Ohio
Shampoo Assistant/Technician/Technologist	Alabama, Louisiana, Nevada, New Hampshire, Tennessee and West Virginia

Travel Guide

Travel guides work in a variety of settings, including fishing, hunting and rafting, to name only a few. Some states only license travel guides working in a single setting. For example, a state might license hunting guides but no other types of travel guides. In cases of states that license more than one setting, the setting requiring the least burdensome license is used. This approach creates variability in the type of license observed across states. The type of travel guide license observed in each state is listed in Table B5 below.

Table B5: Travel Guide Licensing

Type of License	State(s)
Hunting	Arizona, Delaware, Hawaii, Kentucky, Montana, New Mexico, Utah and Wyoming (deer/antelope only)
Fishing	Alaska (freshwater), Georgia (saltwater), Idaho, Illinois, Indiana, Louisiana, Maryland (freshwater), Massachusetts (saltwater), Nevada, New Hampshire, North Dakota, Oklahoma, Pennsylvania, Rhode Island (saltwater), South Carolina (saltwater), Texas (freshwater), Virginia (saltwater) and Washington (freshwater)
Hunting or Fishing	Arkansas
Hunting and Fishing	Connecticut, North Carolina, Tennessee (and trapping) and Wisconsin (and trapping)
River Rafting	Colorado
Recreation (Hiking, Camping, etc.)	Maine, New York and Oregon
General Guide (Any of the Above)	California and West Virginia

Appendix C: Research on Occupational Licensing

- Carpenter, D. M. (2012). Testing the utility of licensing: Evidence from a field experiment on occupational regulation. *Journal of Applied Business and Economics*, 13(2), 28–41. http://www.na-businesspress.com/JABE/CarpenterDM_Web13_2_.pdf
- Carpenter, D. M., & McGrath, L. (2014). The balance between public protection and the right to earn a living [Resource brief]. Lexington, KY: Council on Licensure, Enforcement and Regulation. <http://ij.org/report/the-balance-between-public-protection-and-the-right-to-earn-a-living/>
- Department of the Treasury Office of Economic Policy, Council of Economic Advisers, & Department of Labor. (2015). *Occupational licensing: A framework for policymakers*. Washington, DC: White House. https://obamawhitehouse.archives.gov/sites/default/files/docs/licensing_report_final_nonembargo.pdf
- Erickson, A. C. (2013). *White out: How dental industry insiders thwart competition from teeth-whitening entrepreneurs*. Arlington, VA: Institute for Justice. <http://ij.org/report/white-out/>
- Erickson, A. C. (2016a). *Barriers to braiding: How job-killing licensing laws tangle natural hair care in needless red tape*. Arlington, VA: Institute for Justice. <http://ij.org/report/barriers-to-braiding/>
- Erickson, A. C. (2016b). *Putting licensing to the test: How licenses for tour guides fail consumers—and guides*. Arlington, VA: Institute for Justice. <http://ij.org/report/putting-licensing-test/>
- Fetsch, E. (2016). *No bars: Unlocking the economic power of the formerly incarcerated*. Kansas City, MO: Ewing Marion Kauffman Foundation. http://www.kauffman.org/~media/kauffman_org/microsites/mayors2016/occupational%20licensing%20and%20the%20formerly%20incarcerated_final.pdf
- Flanders, W., & Roth, C. (2017). *Fencing out opportunity: The effect of licensing regulations on employment*. Milwaukee, WI: Wisconsin Institute for Law and Liberty. <http://www.will-law.org/wp-content/uploads/2017/03/F002-FINAL-v3.pdf>
- Fontinelle, A., Mitchell, D., & Snyder, T. (2016). *Unnatural rights in the natural state: Occupational licensing in Arkansas*. Conway, AR: Arkansas Center for Research in Economics, University of Central Arkansas. http://uca.edu/acre/files/2014/07/ACRE_OccupationalLicensing_InteractiveWeb.pdf
- Gius, M. (2016). *Waiting to work: The effects of occupational licensing on wages and employment*. Hartford, CT: Yankee Institute for Public Policy. http://www.yankeeinstitute.org/wp-content/uploads/2016/11/16-312-YI_CCW_OccupationalLicensing_Study_web-1.pdf
- Hall, J. C., & Pokharel, S. B. (2016). Barber licensure and the supply of barber shops: Evidence from U.S. states. *Cato Journal*, 36(3), 647–657.
- Hemphill, T. A., & Carpenter, D. M. (2016). Occupations: A hierarchy of regulatory options. *Regulation*, 39(3), 20–24. https://object.cato.org/sites/cato.org/files/serials/files/regulation/2016/9/regulation-v39n3-5_0.pdf
- Indiana Professional Licensing Agency. (2014). *SEA 421 Report: Establishing a process for self-certification registration: A playbook for future occupational regulation in Indiana*. Indianapolis, IN. https://www.in.gov/pla/files/IPLA_Legislative_Report_-_Self-Certification_Registration.pdf
- Johnson, E., Aggarwal, S., Beznak, S., Butitova, D., Islam, M. M., & Poudel, H. (2016). *Occupational licensing and women entrepreneurs in Missouri: A report to the Women's Foundation* (IPP Research Report). The Women's Foundation. <https://static1.squarespace.com/static/545815dce4b0d75692c341a8/t/582b2125e4fcb54bebf651e/1479221544420/OL+and+Women+Entrepreneurs+in+MO+-+Final+11.14.16.pdf>
- Kleiner, M. M. (2015a). *Guild-ridden labor markets: The curious case of occupational licensing*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. http://research.upjohn.org/cgi/viewcontent.cgi?article=1254&context=up_press
- Kleiner, M. M. (2015b). *Reforming occupational licensing policies* (Discussion Paper 2015–01). Washington, DC: The Hamilton Project, Brookings Institution. https://www.brookings.edu/wp-content/uploads/2016/06/THP_KleinerDiscPaper_final.pdf
- Kleiner, M. M., & Vorotnikov, E. (2017). Analyzing occupational licensing among the states. *Journal of Regulatory Economics*. <https://link.springer.com/article/10.1007/s11149-017-9333-y>
- Kleiner, M. M., Marier, A., Park, K. W., & Wing, C. (2016). Relaxing occupational licensing requirements: Analyzing wages and prices for a medical service. *Journal of Law and Economics*, 59(2), 261–291.
- Laird, M., Moore, A., & Staley, S. (2016). *Occupational licensing in Florida: Unnecessary licenses are killing jobs* (Policy Brief No. 131). Los Angeles, CA: Reason Foundation. http://reason.org/files/occupational_licensing_florida.pdf
- Little Hoover Commission. (2016). *Jobs for Californians: Strategies to ease occupational licensing barriers* (Report #234). Sacramento, CA. <http://www.lhc.ca.gov/sites/lhc.ca.gov/files/Reports/234/Report234.pdf>
- Meehan, B., & Benson, B. L. (2015). The occupations of regulators influence occupational regulation: Evidence from the US private security industry. *Public Choice*, 162(1), 97–117.

- Mellor, W., & Carpenter, D. M. (2016). *Bottlenecks: Gaming the government for power and private profit*. New York, NY: Encounter Books.
- Nunn, R. (2016). *Occupational licensing and American workers*. Washington, DC: The Hamilton Project, Brookings Institution. https://www.brookings.edu/wp-content/uploads/2016/07/occupational_licensing_and_the_american_worker.pdf
- Pizzola, B., & Tabarrok, A. (2017). Occupational licensing causes a wage premium: Evidence from a natural experiment in Colorado's funeral services industry. *International Review of Law and Economics*, 50, 50–59.
- Rodriguez, M. N., & Avery, B. (2016). *Unlicensed and untapped: Removing barriers to state occupational licenses for people with records*. New York, NY: National Employment Law Project. <http://nelp.org/content/uploads/Unlicensed-Untapped-Removing-Barriers-State-Occupational-Licenses.pdf>
- Roth, C., & Ramlow, E. (2016). *Fencing out opportunity: Occupational licensing in the Badger State*. Milwaukee, WI: Wisconsin Institute for Law and Liberty. <http://www.will-law.org/wp-content/uploads/2016/11/Licensure-FINAL.pdf>
- Skorup, J. (2017). *This isn't working: How Michigan's licensing laws hurt workers and consumers*. Midland, MI: Mackinac Center for Public Policy. <https://www.mackinac.org/archives/2017/s2017-02.pdf>
- Slivinski, S. (2015). *Bootstraps tangled in red tape: How state occupational licensing hinders low-income entrepreneurship* (Policy Report No. 272). Phoenix, AZ: Goldwater Institute. https://goldwater-media.s3.amazonaws.com/cms_page_media/2015/4/15/OcclicensingKauffman.pdf
- Slivinski, S. (2016). *Turning shackles into bootstraps: Why occupational licensing reform is the missing piece of criminal justice reform* (Policy Report No. 2016-01). Tempe, AZ: Center for the Study of Economic Liberty, Arizona State University. <https://research.wpcarey.asu.edu/economic-liberty/wp-content/uploads/2016/11/CSEL-Policy-Report-2016-01-Turning-Shackles-into-Bootstraps.pdf>
- Smith, D. J. (2014). *Reforming occupational licensing in Alabama*. Troy, AL: Manuel H. Johnson Center for Political Economy, Troy University. <https://nebula.wsimg.com/f298ad4627c3d5c72150a568437623a8?AccessKeyId=F0B126F45D4E1A4094F7&disposition=0&alloworigin=1>
- Snyder, T. J. (2016). *The effects of Arkansas' occupational licensure regulations*. Conway, AR: Arkansas Center for Research in Economics, University of Central Arkansas. <http://uca.edu/acre/files/2016/06/The-Effects-of-Arkansas-Occupational-Licensure-Regulations-by-Dr.-Thomas-Snyder.pdf>
- Svorny, S. V. (2015). Asymmetric information and medical licensure. *Cato Unbound*. <https://www.cato-unbound.org/2015/04/10/shirley-v-svorny/asymmetric-information-medical-licensure>
- Tabarrok, A., & Cowen, T. (2015). The end of asymmetric information. *Cato Unbound*. <https://www.cato-unbound.org/2015/04/06/alex-tabarrok-tyler-cowen/end-asymmetric-information>
- Thierer, A., Koopman, C., Hobson, A., & Kuiper, C. (2015). *How the internet, the sharing economy, and reputational feedback mechanisms solve the "lemons problem"* (Mercatus Working Paper). Arlington, VA: Mercatus Center, George Mason University. <https://www.mercatus.org/system/files/Thierer-Lemons-Problem.pdf>
- Timmons, E. J., & Mills, A. (2015). *Bringing the effects of occupational licensing into focus: Optician licensing in the United States* (Mercatus Working Paper). Arlington, VA: Mercatus Center, George Mason University. <https://www.mercatus.org/system/files/Timmons-OpticianLicensing.pdf>

Endnotes

- 1 Kleiner, M. M., & Krueger, A. B. (2013). Analyzing the extent and influence of occupational licensing on the labor market. *Journal of Labor Economics*, 31(S1, pt. 2), S173–S202; U.S. Department of Labor, Bureau of Labor Statistics. (2016). *2016 data on certifications and licenses*. <https://www.bls.gov/cps/certifications-and-licenses.htm>
- 2 Department of the Treasury Office of Economic Policy, Council of Economic Advisers, & Department of Labor. (2015). *Occupational licensing: A framework for policymakers*. Washington, DC: White House. https://obamawhitehouse.archives.gov/sites/default/files/docs/licensing_report_final_nonembargo.pdf
- 3 Little Hoover Commission. (2016). *Jobs for Californians: Strategies to ease occupational licensing barriers* (Report #234). Sacramento, CA. <http://www.lhc.ca.gov/sites/lhc.ca.gov/files/Reports/234/Report234.pdf>
- 4 Dorsey, S. (1983). Occupational licensing and minorities. *Law and Human Behavior*, 7(2–3), 171–181; Federman, M. N., Harrington, D. E., & Krynski, K. J. (2006). The impact of state licensing regulations on low-skilled immigrants: The case of Vietnamese manicurists. *American Economic Review*, 96(2), 237–241; Hazlett, T. W., & Fearing, J. L. (1998). Occupational licensing and the transition from welfare to work. *Journal of Labor Research*, 19(2), 277–294; Harrington, D. E., & Treber, J. (2009). *Designed to exclude: How interior design insiders use government power to exclude minorities and burden consumers*. Arlington, VA: Institute for Justice. https://www.ij.org/images/pdf_folder/economic_liberty/Designed-to-exclude.pdf; Erickson, A. C. (2016a). *Barriers to braiding: How job-killing licensing laws tangle natural hair care in needless red tape*. Arlington, VA: Institute for Justice. http://ij.org/wp-content/uploads/2016/07/Barriers_To_Braiding-2.pdf
- 5 U.S. Department of Labor. (n.d.). *Licensing and certification for veterans: State strategies for successfully removing barriers*. <https://www.dol.gov/vets/media/licensingcertifications.pdf>
- 6 Little Hoover Commission, 2016.
- 7 Slivinski, S. (2016). *Turning shackles into bootstraps: Why occupational licensing reform is the missing piece of criminal justice reform* (Policy Report No. 2016–01). Tempe, AZ: Center for the Study of Economic Liberty, Arizona State University. <https://research.wpcarey.asu.edu/economic-liberty/wp-content/uploads/2016/11/CSEL-Policy-Report-2016-01-Turning-Shackles-into-Bootstraps.pdf>; Rodriguez, M. N., & Avery, B. (2016). *Unlicensed and untapped: Removing barriers to state occupational licenses for people with records*. New York, NY: National Employment Law Project. <http://nelp.org/content/uploads/Unlicensed-Untapped-Removing-Barriers-State-Occupational-Licenses.pdf>; Fetsch, E. (2016). *No bars: Unlocking the economic power of the formerly incarcerated*. Kansas City, MO: Ewing Marion Kauffman Foundation. http://www.kauffman.org/-/media/kauffman_org/microsites/mayors2016/occupational%20licensing%20and%20the%20formerly%20incarcerated_final.pdf
- 8 Kleiner, M. M. (2006b). *Licensing occupations: Ensuring quality or restricting competition?* Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- 9 Flanders, W., & Roth, C. (2017). *Fencing out opportunity: The effect of licensing regulations on employment*. Milwaukee, WI: Wisconsin Institute for Law and Liberty. <http://www.will-law.org/wp-content/uploads/2017/03/FOO2-FINAL-v3.pdf>; Federman et al., 2006; Harrington and Treber, 2009; Erickson, 2016a; Slivinski, S. (2015). *Bootstraps tangled in red tape: How state occupational licensing hinders low-income entrepreneurship* (Policy Report No. 272). Phoenix, AZ: Goldwater Institute. https://goldwater-media.s3.amazonaws.com/cms_page_media/2015/4/15/OcclLicensingKauffman.pdf
- 10 Kleiner, M. M. (2015). *Reforming occupational licensing policies* (Discussion Paper 2015–01). Washington, DC: The Hamilton Project, Brookings Institution. https://www.brookings.edu/wp-content/uploads/2016/06/THP_KleinerDiscPaper_final.pdf
- 11 Department of the Treasury Office of Economic Policy et al., 2015; Nunn, R. (2016). *Occupational licensing and American workers*. Washington, DC: The Hamilton Project, Brookings Institution. https://www.brookings.edu/wp-content/uploads/2016/07/occupational_licensing_and_the_american_worker.pdf; Furman, J., & Giuliano, L. (2016, June 17). New data show that roughly one-quarter of U.S. workers hold an occupational license [Blog post]. <https://obamawhitehouse.archives.gov/blog/2016/06/17/new-data-show-roughly-one-quarter-us-workers-hold-occupational-license>
- 12 Cox, C., & Foster, S. (1990). *The costs and benefits of occupational regulation*. Washington, DC: Bureau of Economics, Federal Trade Commission. https://www.ftc.gov/system/files/documents/reports/costs-benefits-occupational-regulation/cox_foster_-_occupational_licensing.pdf; Kleiner, M. M., & Kudrle, R. T. (2000). Does regulation affect economic outcomes? The case of dentistry. *Journal of Law and Economics*, 43(2), 547–582; Shepard, L. (1978). Licensing restrictions and the cost of dental care. *Journal of Law and Economics*, 21(1), 187–201; Chevalier, J. A., & Morton, F. M. S. (2008). State casket sales restrictions: A pointless undertaking? *Journal of Law and Economics*, 51(1), 1–23; Haas-Wilson, D. (1986). The effect of commercial practice restrictions: The case of optometry. *Journal of Law and Economics*, 29(1), 165–186; Harrington, D. E., & Krynski, K. J. (2002). The effect of state funeral regulations on cremation rates: Testing for demand inducement in funeral markets. *Journal of Law and Economics*, 45(1), 199–225; Friedman, M., & Kuznets, S. (1954). *Income from independent professional practice*. New York, NY: National Bureau of Economic Research; Kleiner, M. M. (2006a). A license for protection. *Regulation*,

- 29(3), 17–21. <https://object.cato.org/sites/cato.org/files/serials/files/regulation/2006/10/v29n3-2.pdf>; Timmons, E. J., & Mills, A. (2015). *Bringing the effects of occupational licensing into focus: Optician licensing in the United States* (Mercatus Working Paper). Arlington, VA: Mercatus Center, George Mason University. <https://www.mercatus.org/system/files/Timmons-OpticianLicensing.pdf>; Thornton, R. J., & Timmons, E. J. (2013). Licensing one of the world's oldest professions: Massage. *Journal of Law and Economics*, 56(2), 371–388; Kleiner, M. M., Marier, A., Park, K. W., & Wing, C. (2016). Relaxing occupational licensing requirements: Analyzing wages and prices for a medical service. *Journal of Law and Economics*, 59(2), 261–291; Pizzola, B., & Tabarrok, A. (2017). Occupational licensing causes a wage premium: Evidence from a natural experiment in Colorado's funeral services industry. *International Review of Law and Economics*, 50, 50–59.
- 13** Kleiner, 2015.
- 14** Cox & Foster, 1990; Kleiner, 2015. Not everyone loses from licensing, however. In many fields, those able to jump the hurdles often enjoy economic gains—higher wages, better employment prospects and even more generous benefits. Nunn, 2016; Furman and Giuliano, 2016; Department of the Treasury Office of Economic Policy et al., 2015; Kleiner, 2015; Pizzola and Tabarrok, 2017. But those gains for some come at the expense of others, namely consumers, who face higher prices, and unlicensed workers, who face lower wages and reduced employment. Kleiner, 2015; Nunn, 2016.
- 15** Erickson, 2016a.
- 16** For recent summaries of research on licensing and quality, see Department of the Treasury Office of Economic Policy et al., 2015 and McLaughlin, P. A., Ellig, J., & Shamoun, D. Y. (2014). *Regulatory reform in Florida: An opportunity for greater competitiveness and economic efficiency* (Working Paper No. 14–09). Arlington, VA: Mercatus Center, George Mason University. https://www.mercatus.org/system/files/McLaughlin_RegulatoryReformFlorida_v1.pdf. See also Carpenter, D. M. (2008). Regulation through titling laws: A case study of occupational regulation. *Regulation and Governance*, 2(3), 340–359; Erickson, A. C. (2013). *White out: How dental industry insiders thwart competition from teeth-whitening entrepreneurs*. Arlington, VA: Institute for Justice. <http://ij.org/wp-content/uploads/2015/03/white-out1.pdf>; Kleiner, M. M., & Todd, R. M. (2007). *Mortgage broker regulations that matter: Analyzing earnings, employment, and outcomes for consumers*. Cambridge, MA: National Bureau of Economic Research; Paul, C. (1984). Physician licensure legislation and the quality of medical care. *Atlantic Economic Journal*, 12(4), 18–30; Skarbek, D. (2008). Occupational licensing and asymmetric information: Post-hurricane evidence from Florida. *Cato Journal*, 28(1), 73–82; Carroll, S. L., & Gaston, R. J. (1981). Occupational restrictions and the quality of service received: Some evidence. *Southern Economic Journal*, 47(4), 959–976.
- 17** Carpenter, D. M. (2012). Testing the utility of licensing: Evidence from a field experiment on occupational regulation. *Journal of Applied Business and Economics*, 13(2), 28–41; Erickson, A. C. (2016b). *Putting licensing to the test: How licenses for tour guides fail consumers—and guides*. Arlington, VA: Institute for Justice. <http://ij.org/wp-content/uploads/2016/10/Putting-Licensing-to-the-Test-3.pdf>; Erickson, 2016a; Simpson, K. M., Hendrickson, C., Norris, D., Vander Molen, R. J., Vestal, D., Kavanagh, K. ... Smith, D.–M. (2016). *Examination of cosmetology licensing issues: Data report*. Washington, DC: American Institutes for Research. http://futurebeautyindustrycoalition.com/wp-content/uploads/2016/10/PBA_Examination_of_Cosmetology_Licensing_Issues_2016_0912.pdf
- 18** Liang, J. N., & Ogur, J. D. (1987). *Restrictions on dental auxiliaries: An economic policy analysis*. Washington, DC: Bureau of Economics, Federal Trade Commission. <https://www.ftc.gov/sites/default/files/documents/reports/restrictions-dental-auxiliaries/232032.pdf>; Kleiner et al., 2016; Haas–Wilson, 1986; Timmons and Mills, 2015.
- 19** Department of the Treasury Office of Economic Policy et al., 2015.
- 20** The White House. (2015). *Remarks by the President to the National Governors Association, February 23, 2015*. <https://obamawhitehouse.archives.gov/the-press-office/2015/02/23/remarks-president-national-governors-association-february-23-2015>; The Hamilton Project. (2015, March 11). *Expanding employment opportunities: Opening & Vice President Joe Biden's remarks* [Video file]. http://www.hamiltonproject.org/videos/expanding_employment_opportunities_u.s._vice_president_biden_remarks_v/; Merica, D. (2012, February 15). Report highlights employment burdens on military spouses. *CNN*. <http://www.cnn.com/2012/02/15/politics/military-jobs/>
- 21** U.S. Department of Labor, Bureau of Labor Statistics, 2016; U.S. Federal Trade Commission. (2017). *Remarks of Acting Chairman Maureen K. Ohlhausen, Advancing Economic Liberty, February 23, 2017*. https://www.ftc.gov/system/files/documents/public_statements/1098513/ohlhausen_-_advancing_economic_liberty_2-23-17.pdf; U.S. Department of Labor. (2017b, July 21). U.S. Secretary of Labor Acosta addresses occupational licensing reform [News release]. <https://www.dol.gov/newsroom/releases/opa/opa20170721>
- 22** Kleiner, 2015; Nunn, 2016; Lindsey, B. (2015). *Low-hanging fruit guarded by dragons: Reforming regressive regulation to boost U.S. economic growth*. Washington, DC: Cato Institute. <https://object.cato.org/sites/cato.org/files/pubs/pdf/brink-lindsey-low-hanging-fruit-wp.pdf>; Furth, S. (2015). *Costly mistakes: How bad policies raise the cost of living* (Backgrounder No. 3081). Washington, DC: The Heritage Foundation. <http://www.heritage.org/government-regulation/report/costly-mistakes-how-bad-policies-raise-the-cost-living>; Ewing Marion Kauffman Foundation. (2015). *Occupational licensing: A barrier to entrepreneurship* (Entrepreneurship Policy Digest). Kansas City, MO. <http://www.kauffman.org/what-we-do/resources/entrepreneurship-policy-digest/occupational-licensing-a-barrier-to-entrepreneurship>; De Rugy, V., Horwitz, S., Koopman, C., McLaughlin, P., Mitchell, M. D., Thierer, A., & Timmons, E. J. (2015). *Mercatus scholars on barriers to entry and occupational licensing* [Bibliography]. Arlington, VA: Mercatus Center, George Mason University. https://www.mercatus.org/expert_commentary/mercatus-barriers-entry-and-occupational-licensing; U.S. Department of Labor. (2017a, January 12). US Labor Department awards \$7.5M to fund research for improving geographic mobility for workers in licensed occupations [News release].

<https://www.dol.gov/newsroom/releases/eta/eta20170112-0>;
American Legislative Exchange Council. (2016). *Occupational board reform act* [Model policy]. www.alec.org/model-policy/occupational-board-reform-act

- 23** Office of the Governor Doug Ducey. (2017, March 29). Governor Ducey takes new step towards reducing licensing in Arizona [News release]. <http://azgovernor.gov/governor/news/2017/03/governor-ducey-takes-new-step-towards-reducing-licensing-arizona>; Brown, E. G. (2015, October 11). Message vetoing AB 1279 (Music Therapy Act). http://www.leginfo.ca.gov/pub/15-16/bill/asm/ab_1251-1300/ab_1279_vt_20151011.html; Dellimore, C. (2016, October 17). Rauner signs executive order designed to cut red tape burdening small businesses. *CBS Chicago*. <http://chicago.cbslocal.com/2016/10/17/rauner-signs-executive-order-designed-to-cut-red-tape-burdening-small-businesses/>; Carden, D. (2013, May 8). Pence vetoes two bills requiring licensing for health jobs. *nwi.com*. http://www.nwitimes.com/news/local/govt-and-politics/pence-vetoes-two-bills-requiring-licensing-for-health-jobs/article_2bcf7aa2-eeb5-5e23-9a70-ad3d33804e78.html; Pfannenstiel, B. (2017, March 6). Branstad urges reform to professional licensing requirements despite legislative pushback. *The Des Moines Register*. <http://www.desmoinesregister.com/story/news/politics/2017/03/06/branstad-urges-reform-professional-licensing-requirements-despite-legislative-pushback/98802600/>
- 24** Little Hoover Commission, 2016.
- 25** Indiana Professional Licensing Agency. (2014). *SEA 421 Report: Establishing a process for self-certification registration: A playbook for future occupational regulation in Indiana*. Indianapolis, IN. https://www.in.gov/pla/files/IPLA_Legislative_Report_-_Self-Certification_Registration.pdf
- 26** Smith, D. J. (2014). *Reforming occupational licensing in Alabama*. Troy, AL: Manuel H. Johnson Center for Political Economy, Troy University. <https://nebula.wsimg.com/f298ad4627c3d5c72150a568437623a8?AccessKeyId=F0B126F45D4E1A4094F7&disposition=0&alloworigin=1>; Fontinelle, A., Mitchell, D., & Snyder, T. (2016). *Unnatural rights in the natural state: Occupational licensing in Arkansas*. Conway, AR: Arkansas Center for Research in Economics, University of Central Arkansas. http://uca.edu/acre/files/2014/07/ACRE_OccupationalLicensing_InteractiveWeb.pdf; Skorup, J. (2017). *This isn't working: How Michigan's licensing laws hurt workers and consumers*. Midland, MI: Mackinac Center for Public Policy. <https://www.mackinac.org/archives/2017/s2017-02.pdf>; Gius, M. (2016). *Waiting to work: The effects of occupational licensing on wages and employment*. Hartford, CT: Yankee Institute for Public Policy. http://www.yankeeinstitute.org/wp-content/uploads/2016/11/16-312-YI_CCW_OccupationalLicensing_Study_web-1.pdf; Johnson, E., Aggarwal, S., Bezjak, S., Butitova, D., Islam, M. M., & Poudel, H. (2016). *Occupational licensing and women entrepreneurs in Missouri: A report to the Women's Foundation* (IPP Research Report). The Women's Foundation. <https://static1.squarespace.com/static/545815dce4b0d75692c341a8/t/582b2125e4fcb54bebf651e/1479221544420/OL+and+Women+Entrepreneurs+in+MO+-+Final+11.14.16.pdf>; Roth, C., & Ramlow, E. (2016). *Fencing out opportunity: Occupational licensing in the Badger State*. Milwaukee, WI: Wisconsin Institute for Law and Liberty. <http://www.will-law.org/wp-content/uploads/2016/11/Licensure-FINAL.pdf>
- 27** McQuillan, L. J., Maloney, M. T., Daniels, E., & Eastwood, B. M. (2008). *U.S. economic freedom index: 2008 report*. San Francisco, CA: Pacific Research Institute; Ruger, W. P., & Sorens, J. (2009). *Freedom in the 50 states: An index of personal and economic freedom*. Arlington, VA: Mercatus Center, George Mason University; Summers, A. B. (2007). *Occupational licensing: Ranking the states and exploring alternatives*. Los Angeles, CA: Reason Foundation; Pahl, C. J. (2007). *A compilation of state mortgage broker laws and regulations, 1996-2006*. Minneapolis, MN: Federal Reserve Bank of Minneapolis. <https://www.minneapolisfed.org/community/community-development-papers/a-compilation-of-state-mortgage-broker-laws-and-regulations-19962006>. See also Ruger, W. P., & Sorens, J. (2016). *Freedom in the 50 states: An index of personal and economic freedom* (4th ed.). Washington, DC: Cato Institute. <https://www.freedominthe50states.org/download/print-edition-2016.pdf>
- 28** Indiana Professional Licensing Agency, 2014.
- 29** Skorup, 2017.
- 30** For example, the Indiana Professional Licensing Agency (2014) notes that some municipalities in Indiana license electrical, refrigeration, wrecking, and heating and air conditioning work.
- 31** Skorup, 2017.
- 32** *Patel v. Tex. Dep't of Licensing & Regulation*, 469 S.W.3d 69, 90 (Tex. 2015).
- 33** *Id.* at 108 (Willett, J., concurring).
- 34** Vermont Secretary of State Office of Professional Regulation. (2016). *Preliminary sunrise assessment: Massage therapy (2015/16)*. Montpelier, VT.
- 35** Grant, K. E. (2003). Massage safety: Injuries reported in Medline relating to the practice of therapeutic massage—1965–2003. *Journal of Bodywork and Movement Therapies*, 7(4), 207–212; Vermont Secretary of State Office of Professional Regulation, 2016.
- 36** O*NET OnLine. (n.d.). *Summary report for: 45-4023.00 – Log graders and scalers*. <https://www.onetonline.org/link/summary/45-4023.00>
- 37** Dictionary of Occupational Titles. (2003). *079.374-010: Emergency medical technician (medical ser.)*. <http://www.occupationalinfo.org/07/079374010.html>
- 38** Mellor, W., & Carpenter, D. M. (2016). *Bottlenecks: Gaming the government for power and private profit*. New York, NY: Encounter Books.

- 39** Chevalier and Morton, 2008; Friedman and Kuznets, 1954; Kleiner, M. M. (2000). Occupational licensing. *Journal of Economic Perspectives*, 14(4), 189–202; Kleiner, 2006a; Pfeffer, J. (1974). Some evidence on occupation licensing and occupational incomes. *Social Forces*, 53(1), 102–111.
- 40** Smith, A. (1937). *The wealth of nations*. New York, NY: Modern Library. (Original work published 1776).
- 41** Abel, R. L. (1979). The rise of professionalism. *British Journal of Law and Society*, 6(1), 82–98; Freidson, E. (2001). *Professionalism: The third logic*. Chicago, IL: University of Chicago Press; Larson, M. S. (1977). *The rise of professionalism: A sociological analysis*. Berkeley, CA: University of California Press.
- 42** Martin, C. (2008). Rebuttal of the report by the Institute for Justice entitled *Designing cartels: How industry insiders cut out competition*. *Journal of Interior Design*, 33(3), 1–49, p. 5.
- 43** Carpenter, D. M. (2007). *Designing cartels: How industry insiders cut out competition*. Arlington, VA: Institute for Justice. <http://ij.org/wp-content/uploads/2015/03/Interior-Design-Study.pdf>; Carpenter, D. M. (2008). Regulation through titling laws: A case study of occupational regulation. *Regulation and Governance*, 2(3), 340–359.
- 44** The ADA has since been rebranded as the Academy of Nutrition and Dietetics.
- 45** Cassell, J. A. (1990). *Carry the flame: The history of the American Dietetic Association*. Chicago, IL: American Dietetic Association, p.141.
- 46** Cassell, 1990.
- 47** Commission on Dietetic Registration. (n.d.). *State licensure*. <https://www.cdrnet.org/state-licensure>
- 48** Register, D. (2013). Professional recognition of music therapy: Past, present, and future. *Music Therapy Perspectives*, 31(2), 159–165.
- 49** See Mellor and Carpenter (2016) for detailed descriptions of such activities in various occupations.
- 50** Mellor and Carpenter, 2016.
- 51** *Occupational licensing: Regulation and competition: Hearing before the Subcommittee on Regulatory Reform, Commercial, and Antitrust Law of the Committee on the Judiciary, House of Representatives*, 115th Cong. (2017) (written testimony of Rebecca Haw Allensworth). <https://judiciary.house.gov/wp-content/uploads/2017/09/Allensworth-Testimony.pdf>; Edlin, A., & Haw, R. (2014). Cartels by another name: Should licensed occupations face antitrust scrutiny? *University of Pennsylvania Law Review*, 162, 1093–1164.
- 52** *Patel*, 469 S.W.3d 69; La. R.S. §§ 37:563(6), 37:581; Compl., *Gutierrez v. Aune*, No. CV2011–095986 (Ariz. Super. Ct., Maricopa Cty. filed June 29, 2011), available at http://ij.org/wp-content/uploads/2011/06/az-threading_complaint_filed-stamped.pdf; Erickson, 2016a; Avelar, P., & Sibilla, N. (2014). *Untangling regulations: Natural hair braiders fight against irrational licensing*. Arlington, VA: Institute for Justice. <http://ij.org/wp-content/uploads/2015/03/untangling-regulations.pdf>; Bayham, V. (2005). *A dream deferred: Legal barriers to African hairbraiding nationwide*. Arlington, VA: Institute for Justice. <http://www.ij.org/report/a-dream-deferred/>
- 53** Payne, A. (2017, April 5). [Lawsuit settled] Arizona animal massage therapists win right to practice. *Massage Magazine*. <https://www.massagemag.com/lawsuit-settled-arizona-animal-massage-therapists-win-right-to-practice-44700-44700/>; Ciletti, N. (2017, February 8). Women win case over right to run dog massage business. *ABC 15*. <http://www.abc15.com/news/region-phoenix-metro/central-phoenix/women-win-case-over-right-to-run-dog-massage-business>; Cohen, P. (2016, June 17). Moving to Arizona soon? You might need a license. *The New York Times*. <https://www.nytimes.com/2016/06/18/business/economy/job-licenses.html>; Simon, S. (2010, November 13). Equine dentists shine in court. *The Wall Street Journal*; Wilson, J. J. (2010, November 10). Victory for Texas entrepreneurs and horse owners: Ruling ends three-year legal challenge against veterinary cartel [Press release]. Arlington, VA: Institute for Justice. <http://ij.org/press-release/texas-equine-dentistry-release-11-10-10/>
- 54** Erickson, 2013.
- 55** *N.C. State Bd. of Dental Exam'rs v. FTC*, 135 S. Ct. 1101, 1108 (2015).
- 56** *Id.* at 1116–17.
- 57** Bo, E. D. (2006). Regulatory capture: A review. *Oxford Review of Economic Policy*, 22(2), 203–225.
- 58** *Dental Exam'rs*, 135 S. Ct. at 1116.
- 59** See generally American Optometric Association Strategy Webinar (on file with the Institute for Justice).
- 60** S.C. Code §§ 40–24–10(9), 40–24–20(C)–(D).
- 61** Haley, N. R. (2016, May 16). Message vetoing R.178, S.1016 (Eye Care Consumer Protection Law). http://dc.statelibrary.sc.gov/bitstream/handle/10827/21260/GOV_Veto_S_1016_2016-05-16.pdf?sequence=1&isAllowed=y
- 62** Open States. (n.d.). *S 1016: South Carolina Senate Bill*. <http://openstates.org/sc/bills/2015-2016/S1016/>
- 63** Mellor and Carpenter, 2016. Colorado repealed its licensing law in 1983. Pizzola and Tabarrok, 2017.

- 64** The funeral industry has a history of unscrupulous practices, which led the FTC to adopt the “Funeral Rule.” Among other things, this prohibited the practice of “bundling,” which required customers to buy a casket as a condition of providing services that only a licensed funeral establishment could legally provide, such as body handling. Mellor and Carpenter, 2016. As the 5th U.S. Circuit Court of Appeals described the situation, “[t]he FTC determined that it could not rely on state funeral licensing boards to curb such practices because the state boards were ‘dominated by funeral directors.’” *St. Joseph Abbey v. Castille*, 712 F.3d 215, 218 (5th Cir. 2013). It has since helped to strike down or repeal casket monopolies in Alabama, Louisiana and Tennessee. Berry, L. (2016, May 5). Alabama cemetery owner can now sell caskets, funeral supplies without a license. *AL.com*. http://www.al.com/business/index.ssf/2016/05/post_345.html; Savage, D. G. (2013, October 19). Monks in Louisiana win right to sell handcrafted caskets. *Los Angeles Times*. <http://articles.latimes.com/2013/oct/19/nation/la-na-court-caskets-20131020>; *Craig Miles v. Giles*, 312 F.3d 220 (6th Cir. 2002). At the time of this writing, only a handful of states still enforce their casket laws.
- 65** Compl., *Rosemond v. Conway*, No. 3:13-cv-00042 (E.D. Ky. filed July 16, 2013), available at <http://ij.org/wp-content/uploads/2013/07/ky-psych-complaint.pdf>
- 66** Letter from Office of the Ky. Att’y Gen. to John Rosemond, May 7, 2013, available at <http://ij.org/wp-content/uploads/2013/07/cease-and-desist-letter-rosemond.pdf>
- 67** *Rosemond v. Markham*, 135 F. Supp. 3d 574 (E.D. Ky. 2015).
- 68** See Compl. Exs. 1 & 4, *Cooksey v. Futrell*, 3:12-cv-00336 (W.D.N.C. filed May 29, 2012).
- 69** Wilson, J. J. (2015, February 18). Victory for ‘caveman’ blogger in free speech fight [Press release]. Arlington, VA: Institute for Justice. <http://ij.org/press-release/north-carolina-free-speech-release-2-18-2015/>
- 70** Minn. Stat. § 155A.27; W. Va. Code § 30-27-8; see Minn. R. 2105.0145; W. Va. Code R. § 3-1-5.
- 71** La. Stat. Ann. § 37:1212; N.H. Rev. Stat. Ann. § 311-B:5; see La. Admin. Code tit. 46, pt. LIII, § 903.
- 72** *Occupational licensing: Regulation and competition*, 2017; Edlin and Haw, 2014; Larkin, P. (2016). Public choice theory and occupational licensing. *Harvard Journal of Law and Public Policy*, 39, 210–331.
- 73** According to Morris Kleiner, with an entry examination, “the regulatory board can raise the test scores required to pass the exam thus reducing the number of new entrants” (2006b, p. 8). The same effect can be achieved with other entry requirements. For example, following a decline in demand for dental services in the 1980s, the American Dental Association dealt with the oversupply situation by restricting entry to professional education. Kleiner, 2006b, p. 69. For further empirical evidence, see also Pagliero, M. (2011). What is the objective of professional licensing? Evidence from the US market for lawyers. *International Journal of Industrial Organization*, 29(4), 473–483.
- 74** Hemphill, T. A., & Carpenter, D. M. (2016). Occupations: A hierarchy of regulatory options. *Regulation*, 39(3), 20–24. https://object.cato.org/sites/cato.org/files/serials/files/regulation/2016/9/regulation-v39n3-5_0.pdf
- 75** Friedman, M., & Friedman, R. (1980). *Free to choose*. New York, NY: Harcourt Brace Jovanovich.
- 76** Akerlof, G. A. (1970). The market for lemons: qualitative uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84(3), 488–500.
- 77** Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355–374.
- 78** Thierer, A., Koopman, C., Hobson, A., & Kuiper, C. (2015). *How the internet, the sharing economy, and reputational feedback mechanisms solve the “lemons problem”* (Mercatus Working Paper). Arlington, VA: Mercatus Center, George Mason University. <https://www.mercatus.org/system/files/Thierer-Lemons-Problem.pdf>; Tabarrok, A., & Cowen, T. (2015). The end of asymmetric information. *Cato Unbound*. <https://www.cato-unbound.org/2015/04/06/alex-tabarrok-tyler-cowen/end-asymmetric-information>; Svorny, S. V. (2015). Asymmetric information and medical licensure. *Cato Unbound*. <https://www.cato-unbound.org/2015/04/10/shirley-v-svorny/asymmetric-information-medical-licensure>; Erickson, 2016b.
- 79** Deceptive trade practice acts generally allow attorneys general and consumers to sue for return of payments, damages and injunctions and to seek reimbursement of attorneys’ fees. Carter, C. L. (2009). *Consumer protection in the states: A 50-state report on unfair and deceptive acts and practices statutes*. Boston, MA: National Consumer Law Center; Gilleran, M. C. (2011). *The rise of unfair and deceptive trade practice act claims*. <http://apps.americanbar.org/litigation/committees/businessstorts/articles/fall2011-unfair-deceptive-trade-practice-act-claims.html>; Sovern, J. (1991). Private actions under the deceptive trade practices acts: Reconsidering the FTC Act as rule model. *Ohio State Law Journal*, 52(2), 437–467.
- 80** Minn. Stat. § 326B.197 (bond required); Minn. Stat. § 326B.33, subd. 21(d) (no license required); Minnesota Department of Labor and Industry. (n.d.). *Heating, ventilating and air conditioning – Minnesota Mechanical Code*. <http://www.dli.mn.gov/cclld/hvac.asp>
- 81** Focusing on the regulatory options, the Department of the Treasury Office of Economic Policy et al. (2015), Little Hoover Commission (2016) and Kleiner (2015) have all recommended versions of the inverted pyramid as a reform strategy.
- 82** As California’s Little Hoover Commission noted, “[b]ecause every occupational regulation creates a barrier to entry into the occupation,

there is one question that must be asked every time a new occupation is considered: Does that particular barrier provide the most appropriate level of consumer protection?” (2016, p. 14).

- 83** One method of examining harm to public health and safety from an occupation is to collect and review consumer complaints filed with state agencies or third-party ratings services, such as the Better Business Bureau or Angie’s List, to see how common complaints are and whether they implicate health and safety or other concerns, such as fraud, that are best addressed by means other than licensing. Interviews with providers and consumers can also provide insight into the safety of the occupation and any specific harms. See, e.g., Erickson, 2013, 2016a, 2016b.
- 84** Department of the Treasury Office of Economic Policy et al., 2015, pp. 46–47; Kleiner et al., 2016.
- 85** Neily, C. M. (2013). *Terms of engagement: How our courts should enforce the Constitution’s promise of limited government*. New York, NY: Encounter Books.
- 86** See *Williamson v. Lee Optical of Okla.*, 348 U.S. 483 (1955).
- 87** Neily, 2013.
- 88** Thirteen states have a sunrise process to evaluate proposals for new occupational regulations. Council on Licensure, Enforcement and Regulation. (n.d.). *Sunrise, sunset and state agency audits*. <http://www.clearhq.org/page-486181>. Typically in sunrise processes, representatives from occupations seeking regulation submit an application to a government body, such as a legislative committee, an executive agency, or a special board or council. The designated body evaluates the application, collects additional information and prepares a report recommending a particular regulation—or none at all. Johnson et al., 2016. Usually, sunrise laws establish a policy of favoring the least restrictive regulation needed to address a proven harm. And some states conduct a searching inquiry to establish a proven harm. Sugano, D. (2002). *Sunrise reviews: Regulatory structures and criteria* (Report No. 6). Honolulu, HI: Legislative Reference Bureau. <http://lrhawaii.org/reports/legrpts/lrb/rpts02/sunview.pdf>. More than 30 states have some form of sunset review, but their scope and procedures vary widely. Council of State Governments. (2016). Table 3.27: Summary of sunset legislation. In *Book of the States 2016*, <http://knowledgecenter.csg.org/kc/system/files/3.27%202016.pdf>. With sunset provisions, laws or entire agencies typically expire—“sunset”—after a set period unless renewed by the legislature. A legislative committee or executive agency such as the state auditor conducts a review and recommends maintaining, modifying or terminating the law or agency. Kearney, R. C. (1990). *Sunset: A survey and analysis of the state experience*. *Public Administration Review*, 50(1), 49–57. Baugus, B., & Bose, F. (2015). *Sunset legislation in the states: Balancing the legislature and the executive*. Arlington, VA: Mercatus Center, George Mason University. <https://www.mercatus.org/system/files/Baugus-Sunset-Legislation.pdf>
- 89** There is little research on sunrise or sunset systems’ effects on licensing, but there are some indications that sunrise reviews are more effective than sunset reviews. For example, between 1985 and 2005, Colorado’s sunrise review agency examined 109 proposals and favored regulation only 12 times; the Legislature adopted new regulations 19 times. In at least some of those cases, recommendations were for less restrictive forms of regulation than licensing. Harrelson, B. (2006/2007). Colorado’s sunrise review [Letter to the editor]. *Regulation*, 29(4), 2. <https://object.cato.org/sites/cato.org/files/serials/files/regulation/2006/12/v29n4-record.pdf>. Regulators in Maine, where sunrise review is used, told the authors of the White House report in 2015 that the state had licensed only one new occupation in 15 years. Department of the Treasury Office of Economic Policy et al., 2015, p. 49. In recent years, sunrise reviews have prevented the regulation of, among other occupations, paid tax preparers and sign language interpreters (Colorado); herbal therapists (Hawaii); behavior analysts and massage therapists (Vermont); perfusionists (Virginia); and lactation consultants (Washington). Colorado Department of Regulatory Agencies, Office of Policy, Research and Regulatory Reform. (2015). *2015 sunrise review: Paid tax preparers*. Denver, CO; Colorado Department of Regulatory Agencies, Office of Policy, Research and Regulatory Reform. (2006). *2006 sunrise review: Interpreters for the deaf*. Denver, CO; Colorado Department of Regulatory Agencies, Office of Policy, Research and Regulatory Reform. (2009). *2009 sunrise review: Sign language interpreters*. Denver, CO. <https://drive.google.com/file/d/0B8bNvcf083ydYONZSU1tZHdEX3c/view>; Hawaii, Office of the Auditor. (2014). *Sunrise analysis: Regulation of herbal therapists* (Report No. 14–14). Honolulu, HI; Vermont Secretary of State Office of Professional Regulation. (2015). *Behavior analysts: Sunrise application review*. Montpelier, VT; Vermont Secretary of State Office of Professional Regulation, 2016; Virginia Department of Health Professions. (2012). *Study into the need to regulate perfusionists in the Commonwealth of Virginia*. Richmond, VA; Washington State Department of Health. (2016). *Information summary and recommendations: Lactation consultant sunrise review*. Olympia, WA. The record on sunset reviews, however, is more disappointing. In 1983, a Colorado sunset review led to the repeal of licensing for funeral services. Pizzola and Tabarrok, 2017. And in a 1988–1989 survey, 14 states reported the “[d]eregulation of an occupation or industry” through sunset. Kearney, 1990. But a more recent analysis concluded that sunset reviews “rarely recommend” the elimination of licensing, and when they do, the legislature fails to adopt the recommendation. The authors identified two instances of “de-licensing” in 40 years resulting from sunset review, funeral directors and egg handlers, both in Colorado. Thornton, R. J., & Timmons, E. J. (2015). The de-licensing of occupations in the United States. *Monthly Labor Review*. <https://www.bls.gov/opub/mlr/2015/article/the-de-licensing-of-occupations-in-the-united-states.htm>. Modifications of regulations or agency procedures are more common than the sunset of entire agencies or regulatory schemes. Kearney, 1990; Baugus and Bose, 2015.
- 90** Office of the Legislative Auditor, State of Minnesota. (1999). Appendix A: Occupational regulation in other states. In *Occupational regulation: A program evaluation report*, <http://www.auditor.leg.state.mn.us/ped/pedrep/9905APA.PDF>; Sugano, 2002; Lyons, W., & Freeman, P. K. (1984). Sunset legislation and the legislative process in Tennessee. *Legislative Studies Quarterly*, 9(1), 151–159; Thornton and

Timmons, 2015; Kearney, 1990; Ophem, C., Curry, L., & Shields, P. M. (1994). Sunset as oversight: Establishing realistic objectives. *American Review of Public Administration*, 24(3), 253–268; Colbert, G., & Murray, D. (2003). The economic theory of regulation and sunset reviews of public accountancy laws: The role of political ideology. *Research in Accounting Regulation*, 16, 105–119; Department of the Treasury Office of Economic Policy et al., 2015; Little Hoover Commission, 2016. In addition to these problems, sunrise and sunset reviews do not always apply to all occupations—or even to occupational regulation at all, in the case of some sunset processes. Sugano, 2002; Council of State Governments, 2016. One state, Minnesota, allows proponents of the regulation to write sunrise reports, rather than an independent agency. Sugano, 2002.

- 91** Ophem, Curry and Shields, 1994; Kearney, 1990.
- 92** The Institute for Justice’s model legislation provides an example of how to implement sunrise and sunset review: <http://ij.org/activism/legislation/model-legislation/model-economic-liberty-law-1/>. Although sunset and sunrise reviews should carefully weigh evidence on potential costs and benefits of licensing and other forms of occupational regulation, legislators should not require formal “cost-benefit analysis” (sometimes known as “benefit-cost analysis”). In its most sophisticated forms, cost-benefit analysis demands technical expertise and potentially expansive (if not impossible) data collection to estimate price, employment and other effects that would likely be too costly and time-consuming for many government agencies. Moreover, by favoring the least restrictive regulatory option, the inverted pyramid approach takes into account the costs to consumers, workers and market competition that come with establishing steeper barriers to entry.
- 93** Lack of adequate resources is a common concern for sunrise and sunset review. Little Hoover Commission, 2016; Department of the Treasury Office of Economic Policy et al., 2015.
- 94** As two scholars observed during their own experience with sunset review of certified public accountants in Colorado, “[g]iven that the public’s view is often not expressed in occupational licensing situations, the existence of a governmental organization such as DORA [Colorado’s Department of Regulatory Agencies] can be helpful in presenting a balanced case to regulators.” Colbert and Murray, 2003, p. 116. DORA, which conducts sunset and sunrise reviews, favored repeal of lengthier training requirements, in opposition to industry interests. Colbert and Murray, 2003.
- 95** For example, Thornton and Timmons (2015) note several examples of sunset agencies recommending deregulation that the legislature failed to adopt. Hawaii’s sunset agency has recommended eliminating barbering and beauty licenses three times since the 1980s, as well as deregulating mechanics, bail bond agents, dispensing opticians, and sanitarians; none of these have been deregulated. In Colorado, regulations governing manicurists, estheticians and respiratory therapists were recommended for elimination, but none were cut. And in Maryland, sunset review called for deregulation of foresters (multiple times), interior designers and environmental sanitarians, but the recommendations were not followed.
- 96** Limiting antitrust liability also limits board members’ exposure to treble damages from antitrust violations.
- 97** The Institute for Justice’s model legislation provides an example of how to implement licensing board oversight: <http://ij.org/activism/legislation/model-legislation/model-economic-liberty-law-1/>
- 98** U.S. Federal Trade Commission, Bureau of Competition. (2015). *FTC staff guidance on active supervision of state regulatory boards controlled by market participants*. https://www.ftc.gov/system/files/attachments/competition-policy-guidance/active_supervision_of_state_boards.pdf; Johnson, R. E. (2015). *Boards behaving badly: How states can prevent licensing boards from restraining competition, harming consumers, and generating legal liability under North Carolina State Board of Dental Examiners v. FTC*. Arlington, VA: Institute for Justice. <http://ij.org/wp-content/uploads/2015/08/boards-behaving-badly-policy-primer-on-north-carolina-dental-examiners1.pdf>
- 99** Slivinski, 2016; Fetsch, 2016.
- 100** The Little Hoover Commission’s 2016 report *Jobs for Californians* describes the problem of occupational aspirants investing in required education and training for licenses they may later be denied.
- 101** The Institute for Justice’s model legislation provides an example of how to implement such a petition process and define proper criteria for denials. It recommends that boards should be allowed to deny a license only if the petitioner was found guilty of a felony expressly barred by the licensing statute and the board determines by clear and convincing evidence that 1) the specific offense is substantially related to the state’s interest in protecting consumers in the specific occupation, 2) the specific petitioner is more likely to reoffend with a license than without, and 3) a re-offense will cause greater harm if the petitioner is licensed. See <http://ij.org/activism/legislation/model-legislation/model-economic-liberty-law-1/>. State legislators could enact such a petition process in two ways. They could amend every licensing statute to incorporate this process. Or they could create a master process that supersedes blanket exclusions, as well as exclusions based on misdemeanors and arrests, and apply this new process across all licensing regimes.
- 102** Department of the Treasury Office of Economic Policy et al., 2015; Kleiner, 2015.
- 103** For example, to promote interstate mobility, California adopted the national standard for physician assistants. But when that standard was raised to require a master’s degree, an alternative pathway of community college programs was effectively shut down in the state. Little Hoover Commission, 2016. Similarly, in the early 2000s, Colorado considered raising the hours requirement for certified public accountants to meet national standards and thereby make licenses more portable, but the additional hours would have burdened in-state aspiring accountants. Colbert and Murray, 2003.
- 104** Madison, J. (1999). *James Madison: Writings: 1772–1836*. J. N. Rakove (Ed.). New York, NY: Library of America, p. 516.

105 Average total number of days per project were approximated for buildings with one unit and two units or more using data from the U.S. Census Bureau's 2016 estimates of project completion and then divided by 15, which represents the relevant number of broad contractor categories represented in this report. U.S. Census Bureau. (2016). Percent distribution of new privately owned residential buildings completed in permit-issuing places in 2016 by number of months from start [Table]. https://www.census.gov/construction/nrc/pdf/pct_start_to_comp_2016.pdf

106 Champion. (n.d.). FAQs. <https://www.championhomes.com/faqs>

107 According to midwife certification application data maintained by the North American Registry of Midwives, applicants typically take at least three years to gain the experience (observation of or participation in 55 births) necessary for certification when following the portfolio evaluation process route. North American Registry of Midwives. (n.d.). *Updates to CPM eligibility requirements*. <http://narm.org/req-updates/>. The days-per-birth metric used for this report was derived by dividing the number of days in three years (1,095) by the number of births (55) and rounding it to the nearest whole number.

108 This metric applies only to Washington in the water well earth driller occupation. The state's water well construction operator's license requires 32 continuing education units (CEUs). According to a list of approved continuing education courses maintained by the Washington Department of Ecology, all of the day-long courses for 2017 for which a CEU count is provided are worth seven CEUs. Washington State Department of Ecology. (n.d.). *Continuing education – Approved courses: 2017 courses*. http://www.ecy.wa.gov/programs/wr/wells/ceu_approved.html. As a result, this became the CEU conversion metric used in this report.

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