



A SPECIAL REPORT FROM
THE ALABAMA POLICY INSTITUTE

The Costs of Occupational Licensing in Alabama

BY

DANIEL J. SMITH
COURTNEY MICHALUK
DAVID HALL
ALEX KANODE



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For additional copies, please contact:

Alabama Policy Institute
2213 Morris Avenue, First Floor, Birmingham, Alabama 35203
205.870.9900 · info@alabamapolicy.org

PRINTED IN THE UNITED STATES OF AMERICA

Executive Summary

OCCUPATIONAL LICENSING imposes mandatory professional requirements on individuals seeking entry into an occupation. The purpose of these professional requirements is to protect consumers in situations where they may lack the information necessary to evaluate the quality and safety of a good service. Initially, reasonable professional requirements extended only to occupations that could credibly demonstrate a need for licensure; but over time, licensure requirements have increasingly extended to cover more and more occupations. These licensure requirements now include educational and experience requirements as well as a wide assortment of fees. Rather than to protect consumers, industry practitioners often lobby for licensure to legally restrict entry into their professions, reducing competition, and raising industry wages through higher consumer prices. Thus, occupational licensure often hampers economic mobility and occupational choice by reducing employment opportunities, raising prices on consumers, and restricting consumer choice. The costs of occupational licensing often fall heaviest on the most disadvantaged and vulnerable groups in society, including the poor, minorities, military service members, and rehabilitated criminals.

Given the extensive economic burdens that occupational licensing can impose on vulnerable groups as well as the general population in terms of reduced economic growth and opportunity, it is important to carefully monitor the extent, burden, and expansion of occupational licensing. This is especially true in a state like Alabama, which already faces high unemployment, high property crime rates, and has a high percentage of people belonging to vulnerable segments of the population. In this study we provide a comprehensive detailing of Alabama's occupational licensing regime and an estimate of the burden it places on Alabama workers and consumers.

Alabama licenses a total of 151 occupations, covering over 432,000 Alabama workers, which represents over 21 percent of the state's labor force. We estimate the total initial costs of occupational licensure, excluding the educational costs, to be \$122 million. Annual license renewal costs both workers and consumers (who often pay for these costs in increased prices) \$45 million total. This pales in comparison to the total initial education costs, which we estimate to be \$65 billion, and the estimated \$243 million annual continuing education costs for licensed workers in Alabama.

Given the substantial economic costs imposed by occupational licensing in Alabama,

we offer several recommendations for reforming occupational licensing. These include restricting the unnecessary expansion of occupational licensing to cover even more workers, monitoring costs to ensure that licensure is not abused to restrict competition, and removing licensure in professions with no demonstrated need for licensure, considering the capacity that consumers in a free society have to protect themselves including a robust legal system. We examine successful licensure reforms made in other states and draw implications for potential reforms in Alabama to better protect consumer choice, occupational mobility, and economic prosperity.

TABLE OF CONTENTS

1.	Occupational Licensing in Theory and Practice	3
2.	Occupational Licensing in Alabama	9
3.	The Costs of Occupational Licensing in Alabama	14
4.	Reforming Occupational Licensing	24
5.	Conclusion	29

Occupational Licensing in Theory and Practice

Occupational licensing is the restriction of individual entry into a profession through mandated professional standards. These standards, which are set by occupational licensing laws, may include specific education or training, work experience, examinations, background checks, and professional organization membership requirements. Individuals seeking to enter a licensed occupation must first complete and satisfactorily demonstrate that they meet all the required professional standards before practicing in that profession.

Completing these professional requirements, as well as paying for the associated registration and licensing fees, is often expensive, and thus has the potential to represent a substantial barrier to individuals seeking to enter a licensed industry. Since the professional standards set for occupational licensing are mandated by law, individuals attempting to practice in these professions without a license verifying that they have met these professional standards can be served cease and desist orders, levied fines, or even faced with jail time. For instance, a woman pursuing her dream of being a health coach in Florida now faces potential jail time after licensed dietitians pursued a case against her for offering diet advice, even though there were no consumer complaints levied against her (dietitians are also licensed in Alabama).

In the United States, occupational licensing now extends to over 1,000 different occupations.¹ While in 1950 only one in twenty U.S. workers needed a license to work, now close to one in five U.S. workers require a license to work in their chosen profession.²

The types of occupations licensed, as well as the types of requirements mandated, vary drastically between states.³ For example, an embalmer's education requirements range from 12 months of mortuary school all the way to a bachelor's degree.⁴

Occupational licensing can theoretically serve the public interest by protecting consumers from fraud and malpractice that can emerge in contexts where consumers may lack the information and expertise to properly evaluate a good or service.⁵ In economic terms, this type of problem is called information asymmetry. This usually occurs when the seller of a good is privy to more information than the consumer due to the complexity of the good or service being sold.⁶ Typically, this problem emerges when the seller of a good or service is better informed about the good or service being sold because of their unique education and experience acquired in selling the complex good or service, than the consumer.

When they lack the information necessary to evaluate goods and services appropriately, consumers can be harmed in two primary ways. First, consumers lacking the proper information can be sold goods or services they don't really need when deferring to the expertise of a trained professional. For example, medical professionals, such as physicians, can order medical, medicinal, or other courses of treatment that may be unnecessary. The typical consumer, without medical training and experience,

most likely lacks the ability to question whether a complex medical recommendation is appropriate or necessary. Second, consumers may not be able to properly evaluate the qualifications and safety of someone claiming to be a professional, potentially putting the consumer, and even the practitioner, at risk. Occupational licensing, by screening applicants to a profession and ensuring they adhere to a strict professional code of conduct through monitoring, required ongoing training, and reporting, can help mitigate harm to consumers emerging from their lack of information, thereby supplementing broader fraud, misrepresentation, and false advertising laws.⁷

Occupational licensing laws typically establish a licensing board comprised of industry practitioners and one consumer or public representative.⁸ This licensing board is given the broad power to set and enforce the professional entry standards for their profession. While occupational licensing is often advanced and passed as a measure to protect consumers, it is often advocated for by industry practitioners, not consumers.⁹ That is because, in practice, occupational licensing can



In Alabama, an enrolled student cosmetologist must complete 1,500 clock hours and pay for and pass written and practical exams before being allowed to work.

An apprentice cosmetologist must complete 3,000 clock hours, in addition to paying for and passing exams.

enable industry practitioners to restrict entry to their profession thereby raising prices for consumers and thus industry wages. Industry boards can restrict entry to the profession by increasing the stringency, and thus cost, of licensure to block entrants.¹⁰ This is particularly true in the face of new competition from alternative service providers. For instance, licensed professionals in the dental industry often use occupational licensing laws to restrict competition from teeth whitening firms, even though there is no apparent consumer safety or consumer lack of information to indicate a need for teeth whiteners to have full dental licenses.¹¹ There is substantial evidence suggesting that practitioners experience a wage increase after receiving licensure.¹² A study on massage therapist licensing, currently licensed in Alabama, found that massage therapist licensing can increase wages by as much as 16.2 percent.¹³ On average across all licensed occupations, licensure is estimated to increase practitioner wages by 11 percent.¹⁴

Occupational licensing requirements thus often reduce employment, especially among vulnerable groups that will disproportionately find the costs of licensure prohibitive.¹⁵ In a recent study examining the effects of occupational licensing on unemployment, economist Thomas Snyder found that across the United States an expansion in licensure for just ten low-wage jobs increased the unemployment rate by .36 percent.¹⁶ In addition, Snyder found that licensing ten additional low-wage jobs increased the poverty rate in a state by an estimated 1 percent.¹⁷ The decline in occupational choice and economic mobility due to occupational licensing is an issue in Alabama, which already has relatively high unemployment among the states.¹⁸ One estimate found that removing occupational licensing barriers can increase job growth in the occupation by as much as 20 percent.¹⁹

Occupational licensing is particularly burdensome when it falls on professions with no apparent need for licensure to protect consumer safety. This is because the costs of licensure and the restriction of access to the profession are not offset by any demonstrable benefit to consumers. Licensure of this nature typically falls on professions that, in the absence of licensure, would be low-entry cost occupations. Due to the costs of licensure, however, access to these professions becomes more difficult for those with limited means.

While occupational licensing more predominantly falls on high-skilled occupations, such as physicians and lawyers, an estimated 8.3 percent of workers in the United States

Licensed professionals in the dental industry often use occupational licensing laws to restrict competition from teeth whitening firms, even though there is no apparent consumer safety or consumer lack of information to indicate a need for teeth whiteners to have full dental licenses.

without a high school degree must obtain a license to work.²⁰ This doesn't, of course, capture the individuals who might have entered a low entry cost profession in the absence of occupational licensure. Without occupational licensing, these occupations, such as a barber or a cosmetologist, would represent low-cost avenues for individuals interested in pursuing economic mobility or entrepreneurial self-employment. The negative effect that occupational licensing has on entrepreneurship is concerning in a state like Alabama already facing low rates of entrepreneurship.²¹ Thus, low-to-moderate income professionals are disproportionately affected by burdensome licensing requirements.²² There is also some mixed evidence suggesting that occupational licensing can fall disproportionately on minorities, such as African-Americans and women.²³

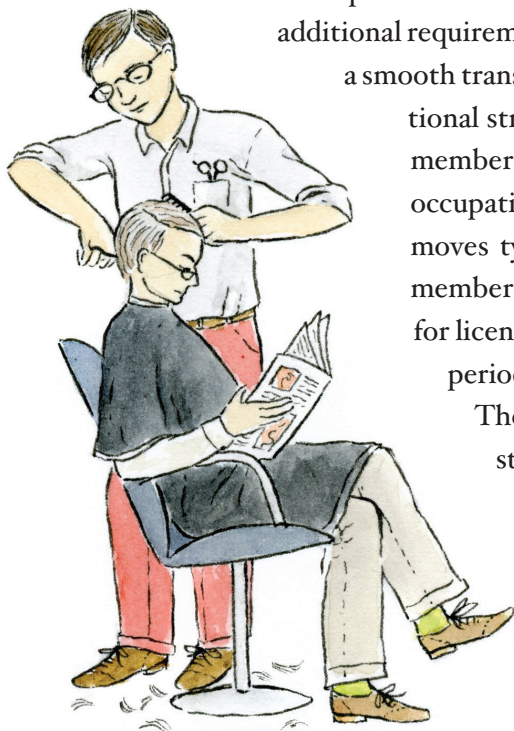
In addition, occupational licensing can also impose substantial burdens on other vulnerable segments of our population. Occupational licensing, for instance, can hamper the economic opportunities available to our military service members and their families. This happens in two ways. First, after their service, former military members can find it difficult to enter the civilian work force due to the costs of licensure. Even if the military

branch they were serving in provided them with specific training and experience for an occupation within the military, occupational licensing boards often impose additional requirements which make it difficult for service members to make a smooth transition into the civilian workforce, compounding the additional stresses, such as PTSD, often faced by our military service members.²⁴

Second, military service members are also affected by occupational licensure due to the fact that the frequent interstate moves typical of military families mean the spouses of service members working outside of the home must frequently reapply for licensure in each state they move to, which may entail waiting periods, additional fees, and even additional examinations.²⁵

There is evidence to suggest that occupational licensing substantially reduces the frequency of interstate migration among the civilian population.²⁶ This effect is even more pronounced for military families. While 1 percent of the adult population made interstate moves between 2007 and 2011, 15 percent of military families made interstate moves over this same time period.²⁷ The top occupations for spouses of military members include several typically licensed professions, including K-12 teachers, child care workers, registered nurses, accountants and auditors, nursing aides, psychiatric aides, health aides, dental assistants, and financial managers.²⁸

Occupational licensing can also inhibit the ability of former prisoners to reintegrate themselves into



Between 1983-2013, barbers were unlicensed in Alabama. A barber's license now requires at least 1,000 hours of training or 2,000 apprenticeship hours, in addition to \$195 in examination fees and an \$80 biennial license renewal fee.

the workforce after serving their sentences.²⁹ This can add to the difficulties faced by rehabilitated prisoners by making it more difficult for them to find honest employment, which can lead one-time rehabilitated prisoners back to a life of crime. This recidivism effect can exacerbate the situation in states such as Alabama already struggling with the costs of high rates of imprisonment and overcrowded prisons.³⁰ In addition, the increased crime committed by criminals unable to integrate themselves back into the labor force caused by occupational licensing burdens imposes additional costs on economic growth and opportunity. A new study, for instance, found a relationship between state occupational licensing and property crime rates.³¹

Despite its potentially burdensome costs outlined above, occupational licensing can, of course, increase the quality and safety of a good or service.³² It is important, however, to note that while occupational licensing can increase the quality of a good or service, in doing so it may also raise the cost of the good or service to consumers. Higher prices can even force consumers to home-production or black markets.³³ This is the so-called “Cadillac” effect, where mandated safety increases improve the quality so drastically that it leaves no cheaper alternatives available, forcing consumers to also pay higher “Cadillac” prices. In a recent study, Thomas Snyder found that the educational and experience requirements of occupational licensure do, in fact, increase consumer prices.³⁴ The costs of quality in excess of what consumers actually want to pay for, as well as the reduction in consumptive choice stemming from occupational licensing, fall heaviest on low-income individuals. In fact, the cost of occupational licensure for all consumers in the United States is estimated to fall between \$127 to \$203 billion.³⁵

Excessive occupational licensing costs can force more financially constrained consumers to home-production or black market provision, reducing the average quality of a service or good and putting consumers at more, not less, risk.³⁶ For instance, occupational licensing on electricians can raise the cost of hiring an electrician so prohibitively that consumers hire black market providers or attempt to do the wiring themselves, putting them at more safety risk.³⁷ Tight restrictions on various occupations can have the adverse effect by limiting consumers’ access to these services, even



There are 14,388 licensed school bus drivers in Alabama. State and Federal law requires background checks and random drug testing for bus drivers. While there are no Department of Education required fees, there is an annual renewal requirement of the Bus Driver Certificate.

when it comes to health services.³⁸

Occupational licensing can also reduce quality by restricting qualified practitioners from entering a profession. Strict K-12 occupational licensing, for example, can discourage individuals with relevant practical experience and even professional degrees from entering the workforce.³⁹ Several empirical studies have found that, on average, occupational licensing had no measurable impact (or even a negative impact) on quality in many licensed occupations including electricians, dentists, medical doctors, optometrists, pharmacists, veterinarians, plumbers, and real estate brokers.⁴⁰

Given that occupational licensing can impose substantial costs on consumers and workers, it is important for states to carefully monitor the extent and burden of occupational licensing. These burdens are of particular interest when they fall on low-income and vulnerable segments of the population, including minorities, criminals,⁴¹ and military service members,⁴² especially if the professional licensing requirements do not provide a worthwhile improvement in quality or safety for consumers. Careful monitoring can ensure that occupational licensing is only extended to additional professions when it can be demonstrated that consumers fundamentally lack the information necessary to evaluate the good or service being sold and that this lack of information poses a significant safety threat to consumers.

This is important since occupational licensing is often not advanced because of legitimate concerns for consumer safety, but because unlicensed professions increasingly have the incentive to organize and lobby for occupational licensure.⁴³ The recent relicensure of barbers in Alabama, for example, appears to have been driven by industry practitioners pursuing the estimated 11 to 22 percent in wages that comes with barber licensing, not consumers fearful of a bad haircut.⁴⁴ Even when consumers lack the information to evaluate a good or service, this lack of information makes it easier for industry practitioners to impose unnecessarily complex or costly licensure requirements in order to restrict entry to their profession.⁴⁵

Occupational Licensing in Alabama

Compared with other states, Alabama falls in the middle with average national licensing burdens. The Institute for Justice recently examined occupational licensure across the United States, ranking Alabama 25th in terms of most broadly and onerously licensing and 47th in terms of having the most burdensome licensing laws (Figure A).⁴⁶

For our study, we identified 151 licensed occupations in Alabama (Figure B).⁴⁷ This list of licensed occupations in Alabama was collected from state and national licensing boards, state statutes, and the 2017 Licensed Occupations Guide produced by the Alabama Department of Labor.⁴⁸ To estimate the number of workers in these licensed industries we utilized state and national licensing boards, the Alabama Department of Labor Registry (2014), and the Bureau of Labor Statistics (2016). We estimate, conservatively, that occupational licensing in Alabama covers over 432,000 Alabamian workers.⁴⁹ This represents over 21% of Alabama's workforce.⁵⁰

Many of these occupational licensing laws fall on low-income occupations. A recent study by the Institute for Justice found that Alabama licensed 63 (of 102) low-income occupations licensed across the United States. The average state licenses 54.1 of these occupations with the lowest being Wyoming, which only licenses 26. Figure C shows how Alabama fared in this study compared to other states in the Southeast. A more recent study of occupational licensing on low-income professions finds that Alabama has some of the most burdensome licensing laws on low-income occupations.⁵¹

In addition to the above licensed occupations, some of these licensed occupations extend licensure requirements to apprentices, interns, and trainees in their profession. Figure D provides a list of the occupations in Alabama that mandate licensure for apprentices, interns, and trainees.

FIGURE A

Comparison of Licensing Laws in the Southeast

	AL	FL	GA	LA	SC	MS	TN	TX
<i>Most burdensome licensing laws</i>	47th	5th	14th	43th	17th	46th	39th	21th
<i>Most broadly and onerously licensed</i>	25th	21st	34th	6th	22nd	19th	13th	42th

One of these low-income occupations licensed in Alabama is barbers. Although barbers were unlicensed in Alabama in 1983, they were recently relicensed in 2013. In a paper presented at the American Economic Association, economists Edward Timmons and Robert Thornton examined the effects of barber licensing in Alabama, finding evidence suggesting that barber licensing restricted competition.⁵³ The new requirements for barber licensure mandate either 1,000 hours of training or 2,000 apprenticeship hours just to be able to cut hair in Alabama, in addition to \$195 in examination fees, and a biennial \$80 license renewal fee.

One of the difficulties inherent in determining the full costs of occupational licensing is carefully parsing out what is and what is not a licensed occupation. In some cases, there are business fees associated with a specific occupation, even if the occupation doesn't have explicit occupational licensing. For example, child day care centers and commercial fishers do not have official occupational licensing, but do have many features of occupational licensing.⁵⁴

Occupational licensing is especially a concern in Alabama given its high percentage of military families, minority groups, and former prisoners, all of whom disproportionately bear the burden of occupational licensure. Alabama has an estimated 8,732 active duty military members, 20,294 reserve members, and 23,303 military civilians.⁵⁵ Training bases, such as Maxwell Air Force Base and Ft. Rucker, see frequent turnover, meaning that occupational licensing can be especially costly to military families in Alabama.

Furthermore, with an estimated 32 percent of Alabama's population falling within a minority race or ethnicity, the costs of occupational licensing in Alabama should be a particular concern.⁵⁶ In addition, with one of the highest rates of imprisonment in the United States (3rd in the nation), many rehabilitated criminals in Alabama will find it difficult to integrate themselves into the workforce because of occupational licensing laws.⁵⁷ Figure E provides a comparison of imprisonment statistics in the Southeast and one indicator, occupational licensing disqualifications for a criminal record, of the extent to which rehabilitated prisoners in each state are affected by occupational licensing laws.

FIGURE B

Licensed Occupations in Alabama

<i>Licensed occupation</i>	<i>Number of practitioners</i>	<i>Licensed occupation</i>	<i>Number of practitioners</i>
Accountant	9,259	General contractor, subcontractor	—
Anesthesiology assistant	22	Geologist	539
Architect	893	Harbor pilot	2
Athletic trainer	784	Hearing instrument dealer	—
Auctioneer	301	Hearing instrument fitter	—
Audiologist	301	Heating & air conditioning contractor	3,522
Bar pilot	13	Heating & air conditioning contractor, refrigeration	—
Barber	—	Home builder	3,760
Barber instructor	—	Home medical equipment service provider	420
Chiropractor	786	Insurance, adjuster	109
Cosmetologist	19,648	Insurance, managing general agent	5,680
Cosmetology instructor	758	Insurance, portable electronics	—
Counselor, licensed professional	2,022	Insurance, producer	—
Counselor, associate licensed	488	Insurance, reinsurance intermediary	—
Counselor, school	1,771	Insurance, sales agent	25,079
Court reporter	330	Insurance, surplus line broker	—
Dental hygienist	4,266	Insurance, temporary producer	—
Dentist	2,547	Insurance, title insurance agent	—
Dietitian	1,183	Interior designer	245
Doctor of medicine	15,671	Investment advisor	156
Electrical contractor	2,719	Investment advisor representative	5,976
Electrical journeyman	885	Landscape architect	296
Elevator contractor	20	Landscape occupations	1,208
Elevator inspector	38	Law enforcement personnel	15,350
Elevator mechanic	270	Lawyer, regular member	14,595
Embalmer	854	Lawyer, special member	2,647
Emergency medical technician	10,823	Limited elevator contractor	—
Engineer, civil	5,126	Limited elevator mechanic	—
Esthetician	992	Liquefied petroleum gas dealer—A, B	62
Esthetician instructor	24	Liquefied petroleum gas dealer—B-1, C-2, F, F-1	—
Eyebrow threader	—	Liquefied petroleum gas dealer—C, C-1, E	—
Fire fighter	7,818	Liquefied petroleum gas dealer—D	—
Forester	981	Manicurist	3,674
Funeral director	1,521	Manicurist instructor	15
General contractor	4,315	Manufactured housing installer	194

Manufactured housing manufacturer	33	Podiatrist	156
Manufactured housing retailer	157	Polygraph examiner	107
Manufactured housing salesperson	199	Private investigator	220
Marriage and family therapist	24	Psychologist technician	29
Marriage and family therapist associate	38	Psychologist	1,146
Massage therapist	1,861	Real estate appraiser certified general real property . . .	641
Mastectomy fitter	20	Real estate appraiser certified residential real property ..	644
Mine electrician	829	Real estate appraiser licensed real property	73
Mine fireboss	18	Real estate appraiser state registered real property . . .	1,358
Mine foreman, surface mine	13	Real estate broker	5,564
Mine fireman, underground mine	100	Real estate salesperson	7,973
Modular home installer	57	Respiratory therapy	1,036
Motor vehicle dealer, new	5,054	Restricted agent (securities)	318
Motor vehicle dealer, used	—	Sale of checks	152
Motor vehicle rebuilder	—	School bus driver	14,388
Motor vehicle reconditioner	—	Securities broker/dealer	1,577
Motor vehicle wholesaler	—	Securities broker/dealer agent	1,690
Natural hair stylist	—	Security alarm installer	1,118
Nurse anesthetist	1,682	Security alarm installer, access control/CCTV installer	—
Nurse, clinical specialist	84	Security alarm locksmith	170
Nurse, licensed practical	16,659	Security alarm locksmith, access control/CCTV installer .	—
Nurse, midwife	13	Security alarm installer, salesperson	—
Nurse, practitioner	3,497	Security alarm installer, helper	—
Nurse, registered	77,173	Security alarm installer, monitoring station operator . . .	—
Nursing home administrator	490	Security guard	—
Occupational therapist	1,480	Shampoo assistant	140
Occupational therapist assistant	836	Sign language interpreter and transliterator	121
Onsite wastewater treatment operator, basic	681	Social worker	2,116
Onsite wastewater treatment operator, advanced . . .	368	Advanced generalist or clinical social worker	3,312
Optometrist	838	Soil classifier professional	40
Orthodontics supplier	—	Speech pathologist	80
Pedorthist, prothetist, orthotist	323	Surveyor—engineer, professional	—
Pedorthist, prothetist, orthotist licensed assistant	—	Surveyor—land surveyor professional	1,121
Pest control operator	1,498	Surveyor—professional	570
Pharmacist	8,850	Teacher, classroom	46,349
Primary technician	12,810	Tree surgeon	49
Physical therapist	2,532	Veterinarian	1,675
Physical therapy assistant	2,488	Veterinarian technician	314
Physician assistant	759	Water transportation personal	1,538
Plumber and gas fitter journeyman	829	Water treatment operator	3,964
Plumber and gas fitter master	2,150		

FIGURE C

Comparison of Low-Income Licensing Laws in the Southeast⁵²

	AL	FL	GA	LA	SC	MS	TN	TX
<i>Number of low-income occupations licensed</i>	63	56	41	77	60	66	71	37

FIGURE D

Apprentices, Interns, and Trainees Licensed in Alabama, 2017

<i>Licensed apprentice, intern, or trainee</i>	<i>Number of practitioners</i>	<i>Licensed apprentice, intern, or trainee</i>	<i>Number of practitioners</i>
Auctioneer apprentice	—	Marriage & family therapist intern	6
Emblamer apprentice	157	Plumber & gas fitter apprentice	4,938
Funeral director apprentice	214	Polygraph examiner internship license	—
Geologist in training	13	Real estate appraiser trainee	94
Hearing-instrument dealer apprentice	—	Surveyor, engineer intern	1,810
Insurance, adjuster apprentice	—	Surveyor, land surveyor intern	—

FIGURE E

Prison Statistics and the Effect of Occupational Licensing in the Southeast, 2017⁵⁸

	AL	FL	GA	LA	MS	SC	TN	TX
<i>Prison population</i>	45,342	153,584	93,450	67,297	31,626	31,272	54,802	223,461
<i>Prison incarceration rate</i>	611	496	503	776	609	414	425	568
<i>Jail incarceration rate</i>	410	330	550	870	590	290	530	340
<i>Number of disqualifications for a record in state occupational laws</i>	508	800	546	797	533	452	563	1,033

The Costs of Occupational Licensing in Alabama

In this section, we provide detailed estimates of the full costs of occupational licensing in Alabama. The vast majority of licensed occupations in Alabama require some sort of fee to initially obtain a license. This includes application, board processing, criminal background check, investigative, membership verification, state examination, national examination, fingerprinting, and licensure fees.

Figure F gives a breakdown of the explicit initial licensing fees for licensed occupations in Alabama. These costs were collected from the occupational licensing boards, state statutes, and the Licensed Occupation Guide (2017). The average initial licensing fee in Alabama is \$319. Interior designers in Alabama face the highest costs of initial licensure (\$1,565), followed by architects (\$1,545), landscape architects (\$1,345), and medical doctors (\$1,285). Also notable are veterinarians (\$920), orthotics suppliers (\$500), veterinarian technicians (\$410), chiropractors (\$352), and auctioneers (\$320).

These estimates are considered conservative estimates for several reasons. First, we erred on the side of providing a conservative estimate where possible. For instance, several licensed professions had increasing costs for more advanced practitioners. Pest control operators require additional exams for each of over 20 specialty areas (ranging from aerial to wood treatment).⁵⁹ So while we counted only the base \$75 exam for pest control operators in our calculations, these examination costs can increase \$50 per each specialty area (a mosquito commercial applicator requires three examinations).⁶⁰ Similarly, K-12 teachers have to pass the Praxis exam, which includes a core academic skills exam costing \$150, but also a specialty assessment that ranges from \$50 to \$240. We used the lowest specialty assessment for an exam fee of \$200 in our estimate.

Second, many licensed occupations require additional expenditures we did not include in these estimates, such as surety bonds or liability insurance. This can be seen with massage therapists and limited elevator contractors, who are both required to acquire \$1 million in liability insurance.⁶¹ Likewise, home medical suppliers, in addition to having to have \$300,000 in liability insurance, must also pay \$400 for an oxygen permit (if supplying oxygen), have an elevator contractor license if they are supplying stair or platform lifts, and pay an inspection fee of \$500.⁶²

Third, in addition to occupational licensing, some of these licensed occupations also require company licenses as well, which represent additional costs that entrepreneurial professionals must incur to practice in their chosen profession. Some examples of this include security alarm companies, which are required to pay biannual licensing fees of \$450 to \$550, and cosmetology and barber shops, which must pay \$100 establishment application and renewal fees.⁶³

Fourth, several licensed professions require several years of experience prior to licensure, the costs of which we also excluded from our estimates. In order to become a dietician, even after receiving a bachelor's degree in approved nutrition courses, it is necessary to acquire an additional 900 hours of supervised experience before licensure.⁶⁴ A funeral director must have a minimum of two years of experience as an apprentice prior to licensure.⁶⁵

Fifth, Alabama's tax code also levies additional taxes on specific occupations on top of the costs imposed by occupational licensing. In addition to dentist licensing, the state of Alabama requires dentists to pay between \$5 and \$25 depending on the size of the community they are located in. Attorneys are required to pay a tax of \$300.⁶⁶ These taxes even apply to some unlicensed professions in Alabama, extending at least one aspect of occupational licensing to additional professions in Alabama.⁶⁷ While bill collection agents are unlicensed in Alabama, for instance, they must pay a license tax of \$25 to \$100 depending on the size of the town in which they conduct business.⁶⁸

Lastly, our estimates are conservative in cases where data was contradictory. For example, the Alabama Board of Examiners for Speech-Language Pathology and Audiology (ABESPA) lists the license renewal fee for audiologists at \$100.* However, the Licensed Occupation Guide 2017 lists it at \$75. Similarly, the Alabama State Board



Alabama is one of only twenty-two states that requires licensure of sign-language interpreters.

* See the ABESPA website here: <http://abespa.alabama.gov/fees.htm>.

FIGURE F

Explicit Initial Licensing Fees

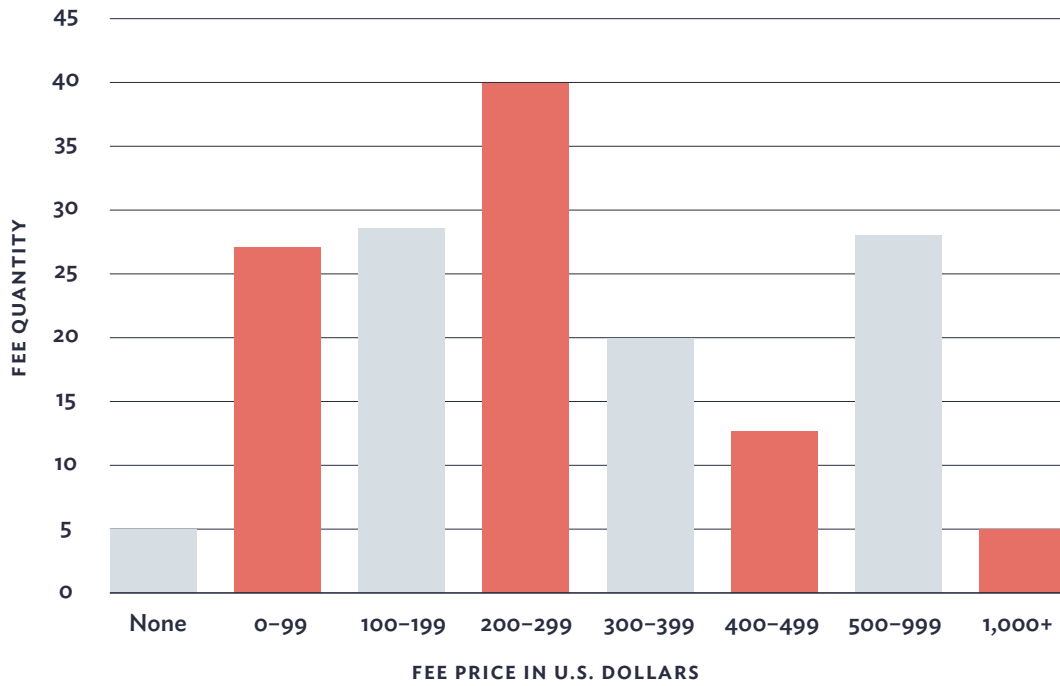
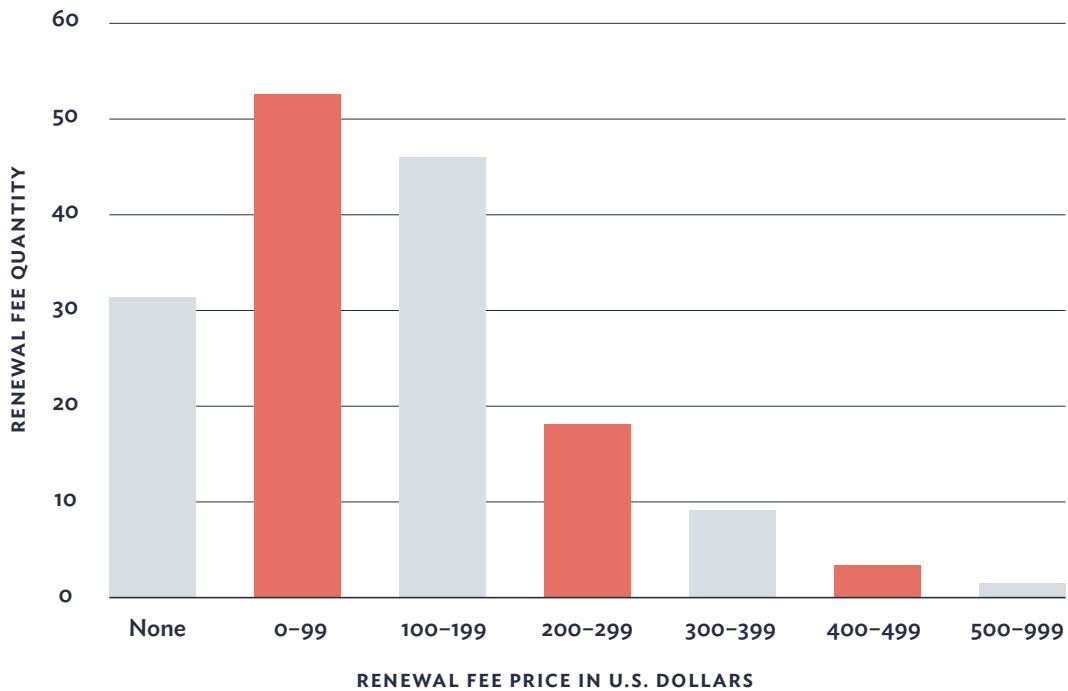


FIGURE G

Annual Renewal Explicit Costs for Licensed Occupations in Alabama



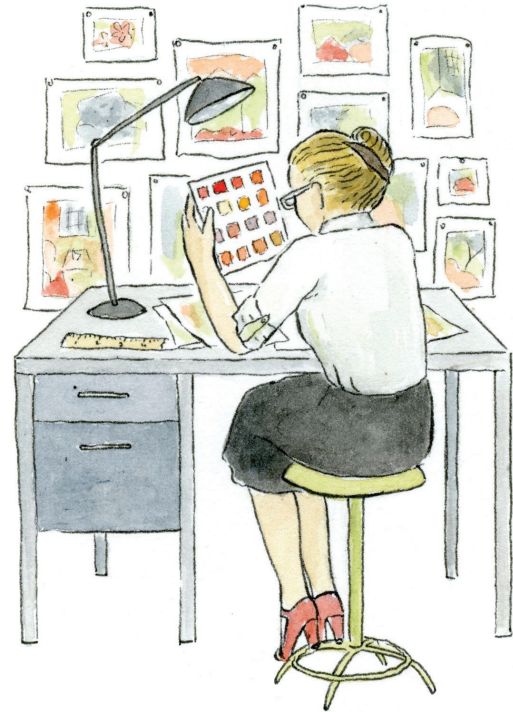
of Public Accountancy (ASBPA) lists the initial application fee for accountants as \$120, while the Licensed Occupation Guide for 2017 says \$100.* In cases like these, we used the lower amounts to maintain a conservative estimate.

Many of the licensed professionals in Alabama must also pay fees for annual or biannual licensure renewal costs. We provide a breakdown of the annual renewal costs in Figure G. These costs were collected from the occupational licensing boards, state statutes, and the Licensed Occupation Guide (2017). The average annual renewal cost for a licensed occupation in Alabama is \$109.13. Home medical equipment service providers have the highest renewal costs (\$500), followed by podiatrists (\$450), pedorthist, prosthetists, and orthotists (\$450), dentists (\$400), and chiropractors (\$300).

With estimates of how many Alabamians are employed in each of these occupations, we can come up with an estimated total for the initial, explicit, licensure costs and annual, explicit renewal costs. To provide the most accurate estimate, we compiled three different datasets for the number of industry practitioners; the registry from the state licensing board where available, the Bureau of Labor Statistics (2016), and the Alabama Department of Labor's 2017 Licensed Occupation Guide.⁶⁹ Individually, these registries were incomplete and often had contradictory data. For the following estimates in our study, we utilized what we judged to be the most reliable source, the Alabama Department of Labor's 2017 Licensed Occupation Guide. We supplemented it, when necessary due to incomplete data, with the lowest available estimate from one of the other sources. Importantly, this is also a conservative estimate since we were unable to collect the number of industry practitioners for several licensed occupations (listed in footnote 2).

We estimate that the initial licensing costs in Alabama come to \$122 million.⁷⁰ That amounts to around \$284 for every licensed Alabama worker. In comparison, a similar, but less comprehensive, study for neighboring Mississippi estimates total costs of initial occupational licensing to be around \$48 million.⁷¹

We can also estimate the total annual explicit costs paid by industry practitioners in these licensed occupations. We estimate, conservatively, that these annual renewal costs



Out of all occupations licensed in Alabama, interior designers face the highest cost of initial licensure at \$1,565.

* See the ASBPA website here: <http://asbpa.alabama.gov/PDF/forms/Exam%20Application%20Package%20-%202017%20November.pdf>

are above \$33 million.⁷² That amounts to over \$77 per licensed worker in Alabama per year. This figure excludes the implicit cost of the time for practitioners to renew their application annually or biannually. Assuming that practitioners spend one hour annually looking up renewal updates, filling out renewal forms, and submitting them, we estimate these costs add up to over \$12 million per year using the mean hourly wage in Alabama for each occupation.⁷³ Adding the costs of paperwork to our estimate of total renewal costs increases thus increases the total renewal costs from \$33 million to over \$45 million.

Combining the data on total initial costs of licensing and annual licensing costs over the span of a 30-year career, the average licensed Alabama worker pays over \$2,600 in licensing costs over their professional career. Cumulatively, current licensed workers in Alabama will pay over an estimated \$1 trillion in explicit licensing costs over the span of their careers.

These estimates, of course, exclude the initial and ongoing education requirements mandated by occupational licensing. While many of these education costs, such as medical and law degrees, would likely be incurred without occupational licensing, it is helpful to also examine the full extent of these costs, especially as they pertain to lower-skilled occupations.

Given the range of education options, in particular continuing education requirements, these estimates required more conjecture than our previous estimates. To estimate the costs of associate and bachelor's degree requirements, we utilized the average cost of attendance, including in-state tuition and fees taken from CollegeTuition.com,

which utilizes data on tuition costs at Alabama universities from the U.S. Department of Education.⁷⁴ We excluded accommodation expenses since these costs would be incurred whether a student was attending college or not. With that in mind, we estimate that in Alabama the average yearly cost of college attendance, including tuition and books, is \$7,528.

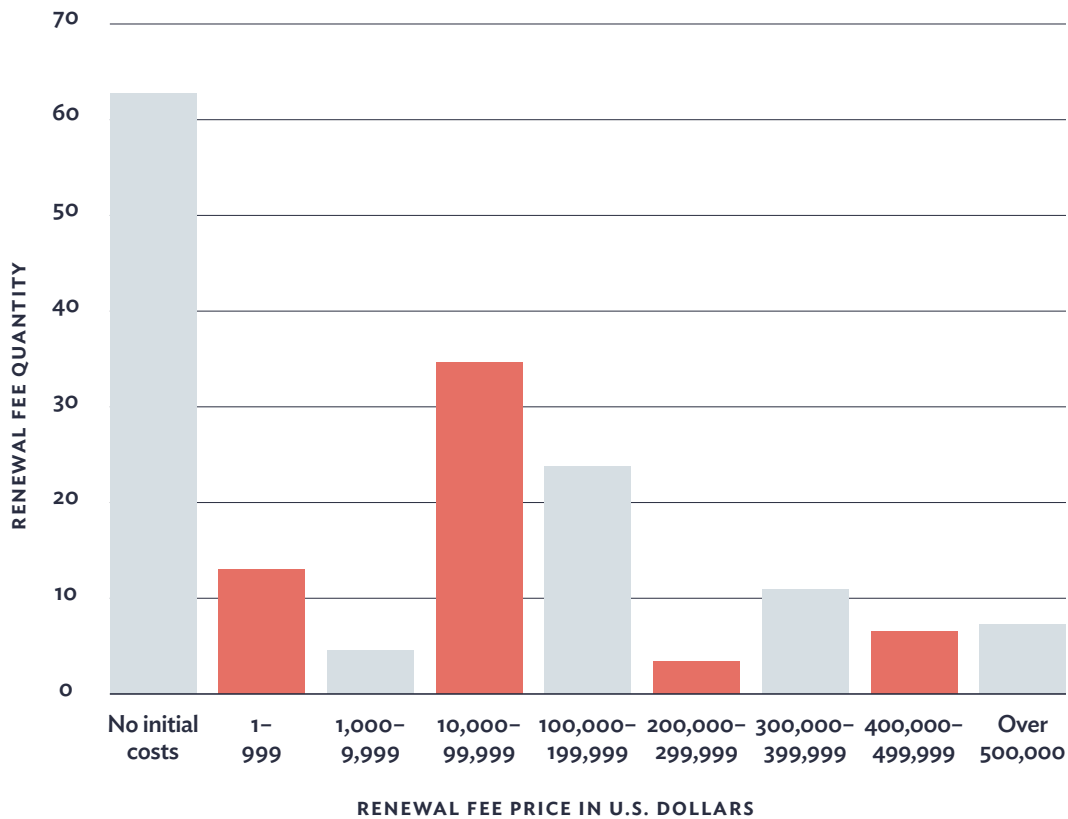
It is also important to include an estimate of the implicit costs of attending college in terms of the opportunity cost of students' time i.e. what they would be earning if they were not attending college. We calculated this for college students by using the median wage for a U.S. worker with a high school degree (\$35,984) for the first year of college, the median wage for a U.S. worker with some college but no degree (\$39,312) for the 2nd year of college, and the median wage for a U.S. worker with an associate's degree (\$42,588) for the 3rd and 4th year of college.⁷⁵ It is important to note that these estimates do not argue that a worker would be making the median wage for their bracket during their time at college, as this is obviously not the case for many new to the workforce. These estimates, instead, detail the opportunity



In Alabama, a manicurist must clock 750 hours, plus take and pass written and practical exams. A manicurist's education is more expensive than that of an emergency medical technician (EMT).

FIGURE H

Estimated Initial Educational Costs for Licensed Professions in Alabama



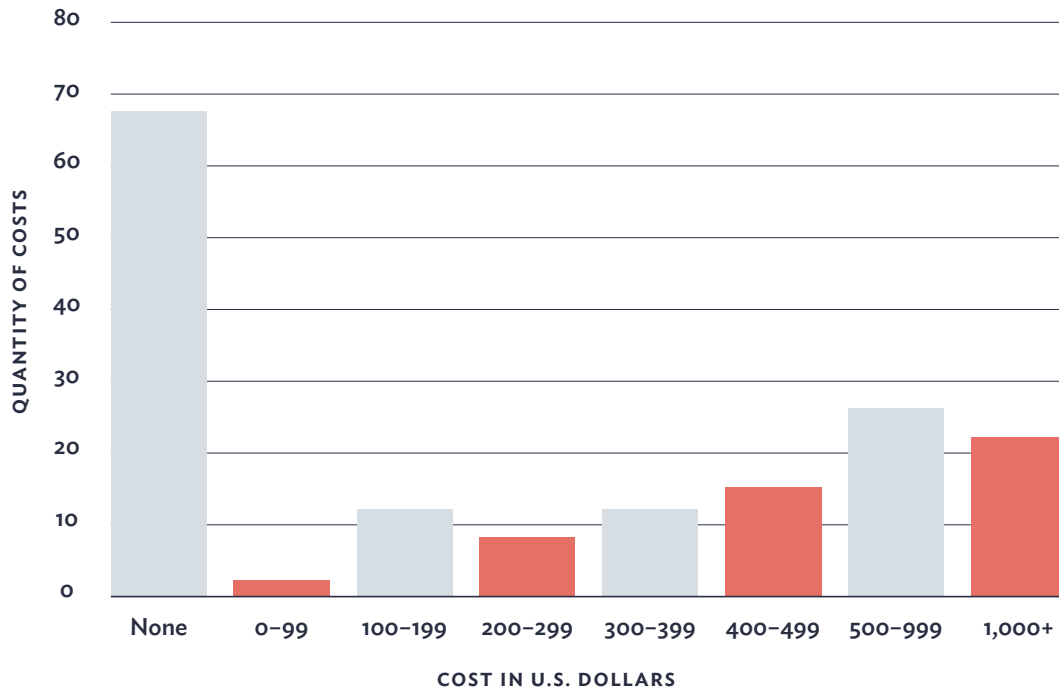
cost of a shortened career, a reality that is often ignored. Thus, we estimate that the total implicit costs of college for a bachelor's degree to be \$160,472. That gives a total estimated cost of a four-year college degree in Alabama, including both implicit and explicit costs, of \$190,584. Our cost estimates, however, do not include other associated costs of college attendance, such as application or SAT or ACT testing costs.

For estimating the cost of graduate degrees, when available, we utilized the cost estimates of specific professional programs, such as architecture, for in-state residents. On occasion, we utilized a nearby cost-efficient program when no Alabama programs offered the degree. To estimate the implicit cost of attending graduate school, we used the BLS median wage for a U.S. worker with a college education (\$60,112) for each year spent in the graduate program. Our cost estimates, however, do not include application costs or entrance examinations such as the GRE or LSAT.

While not requiring an associate or bachelor's degree, there were several programs that still mandated specialized training, such as cosmetology and security guards. These programs often exhibited a wider range of costs. For example, the total estimated tuition, fee, and book cost for cosmetology school at Wallace Community College was

FIGURE I

Estimated Continuing Education Costs for Licensed Occupations in Alabama



\$9,648.45 while the Paul Mitchell Schools Birmingham cosmetology program is a much pricier \$18,500.⁷⁶ In these cases we did our best to locate the cheapest option available in Alabama to provide a conservative estimate. To account for the implicit costs of these programs, we utilized the above-mentioned BLS median wage for workers with only a high school education for each year spent in the program.

In total, we estimate the initial education requirements for licensure to amount to over \$65 billion for all currently licensed practitioners in Alabama.⁷⁷ As mentioned, a large portion of these required educational requirements would likely still be incurred even in the absence of occupational licensing. Most of the professions with the most expensive educational requirements for licensure are professions such as medical doctors, anesthesiologists, optometrists, psychologists, veterinarians, pharmacists, podiatrists, audiologists, where education costs would still be incurred even without licensure.

Expensive educational requirements represent a substantial barrier to economic mobility and occupational choice when these requirements fall on low-income occupations. This is especially true in the presence of excessive or unnecessary educational requirements. For example, in Alabama, cosmetology instructors, estheticians, and esthetician instructors all require more expensive training than a Licensed Practical Nurse. Cosmetologists, natural hair stylists, manicurists, and barbers all require more expensive educa-

tion than an emergency medical technician (EMT), a firefighter, or a mine fireboss. We provide a breakdown of our estimated implicit and explicit education costs for licensed occupations in Alabama in Figure H.⁷⁸ These education cost estimates should also be considered conservative estimates. For instance, while insurance sales agents required 20 hours of classroom training for each specialty area (life, accident, property, personal, and bail bonds), we included only the bare minimum for licensure of one specialty area and thus accounted for only 20 hours of classroom training in our cost estimate.

In addition to continuing education costs, licensed practitioners also incur annual continuing education costs. To estimate the direct costs of continuing education costs, we did our best to locate the cheapest available source of certified CEU credits, which often happened to be online training programs (typically an annual subscription that enabled unlimited continuing education courses).⁷⁹ This provides a conservative estimate. Continuing education costs can, of course, be much higher than the more affordable options available through online training, especially for out-of-state conferences and seminars. Some occupations, such as occupational therapists and occupational therapist assistants, are also required to submit their continuing education through CEBROKER.com, which can add up to \$99 in additional annual costs which we exclude from our estimate.⁸⁰ Many online continuing education providers offered steep discounts to members of professional associations, so we conservatively used this lower rate despite the fact that we do not include the professional membership costs in any of our estimates in this study (unless professional membership is explicitly listed as a requirement for licensure). For example, the Alabama Podiatric Medical Association's Beachside Scientific Seminar 2018 costs only \$250 for an APMA member (early registration) but \$400 for a non-APMA member (early registration).⁸¹ The APMA dues currently run from \$116 (first year in practice) to \$436 (for 5+ years of practice), so the exclusion of these membership costs provides for a conservative estimate.⁸²

To estimate the implicit costs of continuing education training, we used the number of hours of training required and multiplied it by the mean wage in that profession in Alabama. We estimate that total continuing education costs in Alabama for all current licensed practitioners amount to \$243 million per year.⁸³ We provide a breakdown of our estimated costs of continuing education for licensed professions in Alabama in Figure I.

While all occupational licensing ultimately imposes costs on consumers, it is important to examine the costs that fall on the lowest paid professions, as these are the licensing costs that most affect occupational choice and income mobility. We provide a list of the licensed occupations in Alabama that fall below the living wage for one adult and one child (\$21.62) in Figure J.⁸⁴ In total, we estimate that over nearly 142,000 Alabamians are licensed in one of these low-income occupations. We utilized, when available, the 2017 Licensed Occupation Guide from the Alabama Department of Labor for the mean wage of each profession. The average wage of these professions is \$16 per hour with an average initial licensing fee of \$254 and an average licensing renewal fee of \$108. The average initial education costs for these low-income occupations in Alabama amount to \$72,322 and the average annual continuing education costs come to \$203.

FIGURE J

The Costs of Occupational Licensing on the Lowest Paid Professions in Alabama

<i>Licensed occupation</i>	<i>Mean wage</i>	<i>Initial licensing cost estimate</i>	<i>Licensing renewal cost estimate</i>	<i>Initial education cost estimate</i>	<i>Continuing education cost estimate</i>	<i>Alabama practitioners</i>
Shampoo assistant	9.23	75	75	—	—	140
School bus driver	9.27	77	—	93	37	14,388
Eyebrow threader	9.67	235	40	9,648	—	NA
Barber	10.58	235	80	10,500	85	NA
Barber instructor	10.58	—	80	—	169	NA
Natural hair stylist	11.06	235	—	45,632	—	NA
Cosmetologist	11.67	235	40	45,632	—	19,648
Esthetician	11.67	235	40	51,984	—	992
Manicurist	11.67	235	40	18,500	—	3,674
Manicurist instructor	11.67	235	40	18,500	—	15
Landscape occupation	12.33	75	175	—	—	1,208
Security guard	12.50	87	—	—	—	NA
Home medical equipment service provider	12.71	750	500	—	—	420
Pharmacy technician	13.16	60	60	—	114	12,810
Psychological technician	13.56	947	130	214,984	321	29
Veterinarian technician	13.73	410	75	190,584	350	314
Emergency medical technician	13.85	12	12	9,997	327	10,823
Plumber & gas fitter apprentice	14.34	25	25	—	—	4,938
Social worker	14.55	305	100	190,584	468	2,116
Mastectomy fitter	14.64	500	125	90	125	20
Real estate appraiser, licensed real property	14.98	275	375	90,352	797	73
Real estate appraiser state registered real property	14.98	275	335	90,352	797	1,358
Counselor, licensed professional	15.22	550	150	335,208	434	2,022
Counselor, associate licensed	15.22	550	150	190,584	116	488
Massage therapist	16.59	125	100	43,976	253	1,861
Pest control operator	16.71	120	275	190,584	127	1,498
Real estate broker	17.37	310	205	90,352	229	5,564
Nurse, licensed practical	17.53	185	38	47,779	240	16,659

<i>Licensed occupation</i>	<i>Mean wage</i>	<i>Initial licensing cost estimate</i>	<i>Licensing renewal cost estimate</i>	<i>Initial education cost estimate</i>	<i>Continuing education cost estimate</i>	<i>Alabama practitioners</i>
Pedorthist, prosthetist, and orthotist licensed assistant	18.07	425	250	—	333	NA
Marriage and family therapist	18.53	670	300	335,208	501	24
Marriage and family therapist associate	18.53	350	200	—	315	38
Court reporter	18.59	250	—	86,696	192	330
Heating & air conditioning contractor	19.20	315	165	86,248	116	3,522
Heating & air conditioning contractor, refrigeration	19.20	315	165	86,248	116	NA
Fire fighter	19.75	—	—	7,128	—	7,818
Advanced generalist or clinical social worker	19.75	335	100	345,224	546	3,312
Security alarm installer	19.80	90	25	250	408	1,118
Security alarm locksmith	19.80	90	25	250	408	170
Security alarm installer, salesperson	19.80	90	25	250	—	NA
Security alarm installer, monitoring station operator	19.80	65	13	—	—	NA
Plumber and gas fitter journeyman	20.15	258	50	—	—	829
Tree surgeon	20.21	250	175	190,584	—	49
Cosmetology instructor	20.48	235	40	52,932	—	758
Embalmer	20.75	440	100	85,212	216	854
Sign language interpreter and transliterator	20.90	405	175	15	121	121
Law enforcement personnel	21.12	—	—	—	—	15,350
Athletic trainer	21.16	175	75	190,584	861	784
Funeral director	21.47	100	100	444	86	1,521
Dental hygienist	21.62	250	65	190,584	649	4,266
Average	16.12	254	108	72,322	203	3,548

* Costs listed in U.S. dollars

Reforming Occupational Licensing

Even in the absence of the need for licensure, it is often politically difficult to reform or remove occupational licensing requirements.⁸⁵ This reflects the political power of organized industry groups. Occupational licensing reforms are often introduced by state legislators who recognize the economic harm done to consumers and workers. Since poor and disenfranchised groups often have less political sway than organized groups of professionals, however, these measures tend not to be passed.⁸⁶

Fortunately, due to the broader recognition of occupational licensing abuse, licensing reform has increasingly gained traction at the state and federal level across the political spectrum. In 2015, the Obama Administration issued a comprehensive report detailing the economic harms stemming from occupational licensing.⁸⁷ Both the Institute for Justice and the American Legislative Exchange Council have drafted model occupational reform legislation to help state governments.⁸⁸ The National Employment Labor Project has also drafted model legislation to help state governments reform occupational licensing laws in order to better facilitate rehabilitated prisoners entering the workforce.⁸⁹ The U.S. Department of the Treasury and the U.S. Department of Defense also detail the strategies taken in some states to reduce the burden of occupational licensing on military families.⁹⁰ The Mercatus Center at George Mason University has outlined several potential reforms to reduce the burden of occupational licensing.⁹¹

In February 2017, Federal Trade Commission Acting Chairman, Maureen K. Ohlhausen, announced the Economic Liberty Task Force, a new initiative with a focus on oc-

cupational licensing reform in the states.⁹² Ohlhausen noted that “state legislators and boards often ask the FTC for input on changes to existing occupational regulations,” and that the FTC “has issued hundreds of comments and amicus briefs to states, state boards, and self-regulatory entities addressing professional licensure across a wide-range of industries.”⁹³ Ohlhausen recognized that varying licensing requirements from state to state “strongly suggests that many occupational licenses do not advance public health, safety, or other legitimate public protections.”⁹⁴

Several states have recently reformed occupational licensing or successfully stopped licensing expansion. For instance, in the past few years, states, sometimes under orders from courts, have delicensed occupations with no demonstrable consumer safety or health concern, such as florists, casket sellers, auctioneers, and hair braiders.⁹⁵ In Iowa, Governor Branstad deregulated natural hair braiding in 2016 (which was previously subject to the same extensive training requirements as cosmetology), citing that licenses are only necessary in cases where they “serve public health or safety.”⁹⁶ In 2016, Kentucky also did away with licensure for hair braiding.⁹⁷

States have also stopped the unnecessary expansion of occupational licensing to additional occupations. For example, in 2013, Iowa Governor Terry Branstad vetoed a bill that would have required four currently unregulated health care occupations to fall under state licensure.⁹⁸ In 2013, Indiana Governor Mike Pence vetoed legislation requiring music therapists, diabetes educators, dietitians, and anesthesiologist assistants to be licensed by the state.⁹⁹

Policy makers looking to reform occupational licensing in Alabama can similarly review existing occupational licensing laws and remove licensure where there is no apparent need for it. One way to do this is to see if an occupation is unlicensed in another state without realistic and documented severe threats to consumer safety. Many states, for instance, do not license several occupations currently licensed in Alabama, including locksmiths, interpreters, and dieticians (see Figure K). Orthotics, prosthetics, and pedorthics are unlicensed in 35 states, including nearby Louisiana, and have less stringent certification requirements in three additional states, including Mississippi.¹⁰⁰

While considering new occupational licensing laws and reviewing existing licensing laws, it is important that policymakers recognize that occupational licensing was often introduced prior to the tremendous amount of information available on the internet. Consumers now have unprecedented-

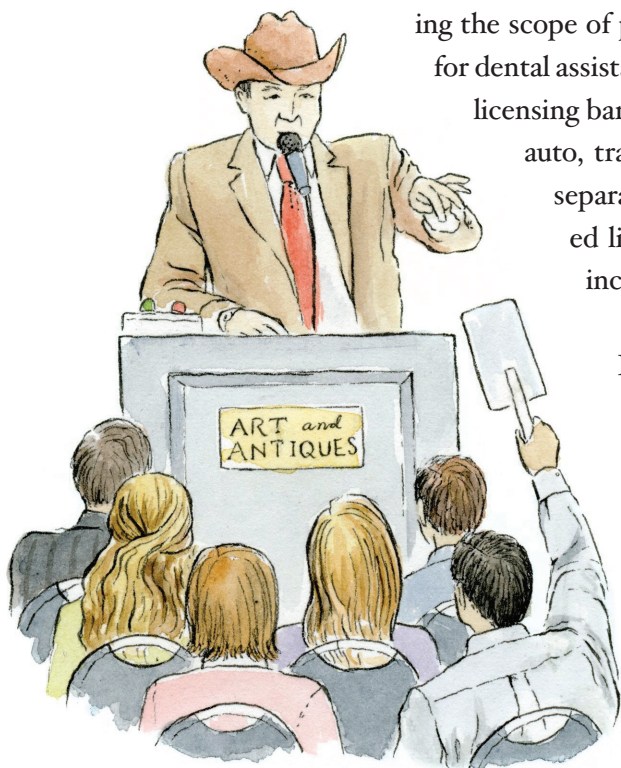


Landscaping has no formal education requirements, but applicants must demonstrate knowledge and experience, pass an examination, and acquire a Professional Services Permit and Nursery Dealer Permit. While mowing lawns in Alabama does not require a license, if an individual wants to plant a tree and get paid for it, they must be licensed.

ed access to independent reviewers—such as the Insurance Institute for Highway Safety or Underwriters Laboratories, warnings from investigative journalists, court dockets showing past instances of malpractice and fraud, consumer reviews (such as Amazon reviews or Yelp), and social media pressure. These technological forms of information supplement more traditional venues of consumer protection including courts, reputation, advertising, contracting, liability clauses, insurance, brand names, chain stores, leasing, warranties and guarantees, pre-purchase inspections, second opinions, and performance of maintenance history reports. These all operate in market economies to protect consumers from fraud, malpractice, and injury even when consumers lack information necessary for properly evaluating goods and services.¹⁰¹ The above-mentioned mechanisms have the capacity to weed rogue interior designers, bad haircutters, or poorly performing auctioneers out of the market. In addition, we have seen an emergence of private certifications in other states for some occupations licensed in Alabama. EMTs, paramedics, EMT drivers, nurse aides, orthotists, and prosthetists, for example, all have certification, not licensing, in nearby Mississippi.¹⁰² Alabama itself has private certificates in some occupations, such as animal trainers, bartenders, and cathodic protection testers, which are currently licensed in some other states.¹⁰³

States have also done more systemic reforms of occupational licensure laws. In 2017, the Nebraska legislature passed reform measures that achieved several things, including streamlining the license application process for real estate agents, expanding the scope of practice for dental hygienists, and giving reciprocity for dental assistants moving to Nebraska. The measures also reduced licensing barriers for audiologists and eliminated the licensing of auto, trailer, and motorcycle salespeople, who were already separately licensed by the state.¹⁰⁴ Similarly, Florida granted license-fee waivers to all individuals under a specific income threshold in order to spur job growth.¹⁰⁵

An executive order in 2017 from Arizona Governor Doug Ducey prompted 28 state licensing boards and commissions to review all requirements for every license issued and report them to the Governor's Office, stating that, "If the licensing requirements are found to be excessive (compared to the national average for that license), the board will have to justify the regulation in question, specifically citing potential harm to individuals in our state."¹⁰⁶ Missouri Governor Eric Greitens also introduced significant licensing reform in 2017. An executive order from Governor Greitens established the Boards and Commissions Task Force, which is set to analyze the purpose and



Although Alabama licenses auctioneers, they are not licensed in twenty other states.

FIGURE K

Occupations Licensed in Alabama Not Widely Licensed in Other States, 2017¹⁰⁷

<i>Licensed occupation</i>	<i>Number of states that do not license</i>	<i>Licensed occupation</i>	<i>Number of states that do not license</i>
Locksmith	36	Floor sander contractor*	23
Orthotics, prosthetics, pedorthics	35	Pipelayer contractor	23
Interpreter, sign language	28	Midwife	22
Painting contractor (commercial)*	28	Painting contractor (residential)*	22
Terrazzo contractor (commercial)*	27	Paving contractor (residential)*	22
Cement finishing contractor (commercial)*	26	Terrazzo contractor (residential)*	22
Door repair contractor (commercial)*	26	Door repair contractor (residential)*	21
Paving contractor (commercial)*	26	Auctioneer	20
Dietician	26	Carpenter (residential)*	20
Carpenter (commercial)*	25	Cement finishing contractor (residential)*	20
Glazier contractor	24	Insulation contractor (residential)*	20
Insulation contractor (commercial)*	24	Iron/steel contractor (residential)*	20
Iron/steel contractor (commercial)*	24	Mason contractor (residential)*	19
Mason contractor (commercial)*	24	Sheet metal contractor (residential)*	19
Sheet metal contractor (commercial)*	24	Veterinary technician	14
Interior designer	24		

** Licensed under home builders.*

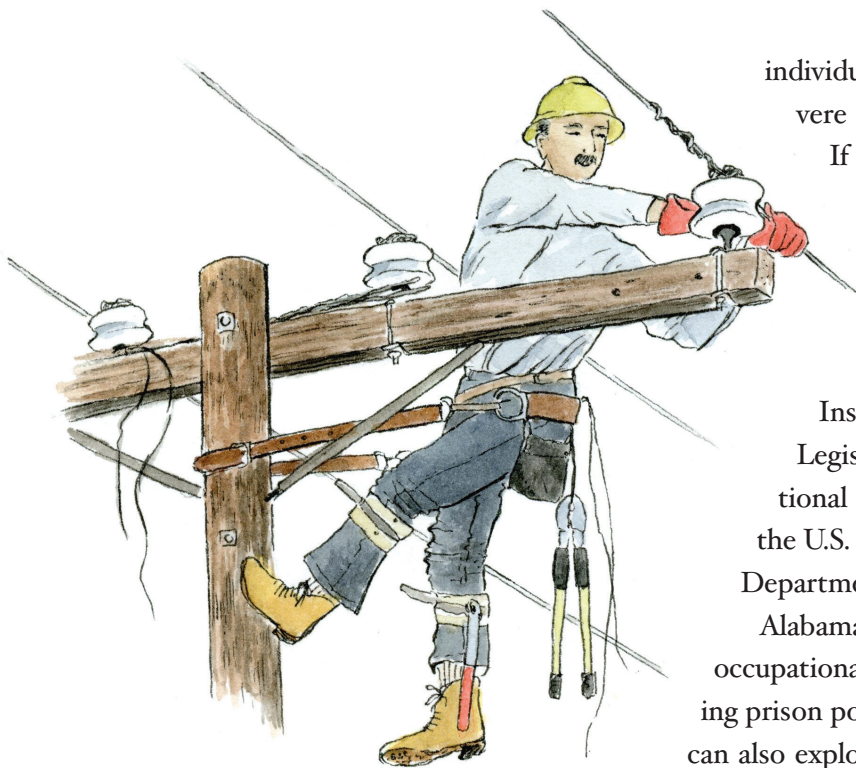
necessity of each state board or commission, including determining “the cost-effectiveness of each board and commission by considering their governmental, economic, and societal costs and benefits.”¹⁰⁸ The Task Force provided policy recommendations to the Governor in October 2017, emphasizing that if all recommendations were undertaken, “close to 450 gubernatorial appointments will be eliminated.”¹⁰⁹

Alabama policymakers interested in broader reforms of occupational licensing laws can follow these examples and pursue three reforms.

First, they can reform current procedures for extending occupational licensing to new occupations and mandate thorough review processes to ensure that licensing is not extended to new occupations without a demonstrable and severe threat to consumer safety that cannot be overcome with the market mechanisms, such as consumer or expert reviews, reputation, guarantees, or private certification, or the already existing government laws, such as those dealing with liability, fraud, misrepresentation, and false advertising.

Second, they can establish procedures to systematically review all licensure requirements for currently licensed occupations to ensure that they do not require unnecessary or excessive requirements or costs for licensure.

Third, they can systematically review all currently licensed occupations to determine,



Electrical contractors must document 8,000 hours of current or past experience before getting their license.

individually, whether a demonstrable severe threat to consumer safety exists. If not, they can remove occupation licensing entirely for these occupations. To accomplish these reforms, they can also look to the model legislation mentioned earlier, prepared by the Institute for Justice, the American Legislative Exchange Council, the National Employment Law Project, and the U.S. Department of Treasury and U.S. Department of Defense (2012).¹¹⁰

Alabama policymakers concerned about occupational licensing as well as with a growing prison population and criminal recidivism can also explore licensure reforms that specifically target ex-offenders. States sharing these concerns are already finding ways to reform occupational licensing to ease the burden of criminal offenders in the process of transitioning to honest employment.¹¹¹ A

recent study suggests that states review their occupational licensing laws to ensure that all licensure requirements meet the bona fide occupational qualification in employment discrimination law to prevent unnecessary, overtly burdensome, and, especially, illegal, occupational licensing requirements on ex-offenders.¹¹²

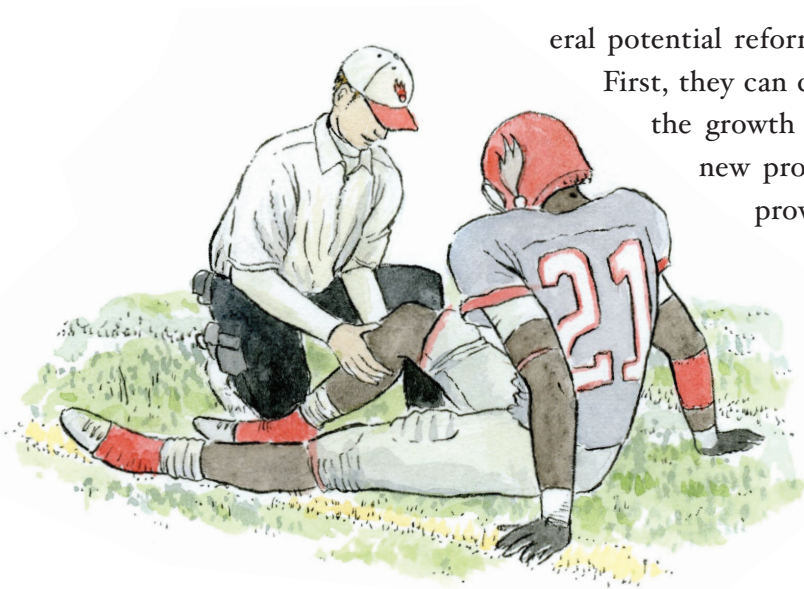
Alabama policymakers can also explore occupational licensing reform with military members and their families in mind. States interested in retaining and expanding military bases and attracting retired military members have already been carefully reviewing their occupational licensing laws with military families in mind. To create more economic opportunity for service members and their families, Alabama can take measures to lessen occupational licensing's impact, following recent reforms enacted in other states such as Florida and Nebraska. By passing a licensing fee waiver for military members, spouses, and widows, Florida substantially reduced the burden of their occupational licensing laws on military service members.¹¹³ Similarly, Nebraska reduced occupational licensing requirements for military spouses with nursing licenses. A 2012 report from the U.S. Department of Treasury and the U.S. Department of Defense offers state policymakers additional options for protecting military families from the excessive burdens of licensure.¹¹⁴ These reform measures include a greater facilitation of endorsement for licensure, providing a temporary or provisional license, and expediting the application procedure for military members and their families.

Conclusion

Occupational licensing imposes substantial costs on Alabamians in terms of reduced occupational mobility, reduced entrepreneurship, higher unemployment, and higher consumer prices. These costs, which fall primarily on consumers and vulnerable groups, such as minorities, rehabilitated prisoners, and military service families, are a particular concern in Alabama. The demonstrated negative effect of occupational licensing on employment and entrepreneurial opportunities suggests that licensure may also be, in part, responsible for the high unemployment rate and relatively low rate of entrepreneurship in Alabama.

In this study we have provided a comprehensive estimate of the full costs of occupational licensure in Alabama. In total, Alabama licenses 151 occupations, covering over 432,000 workers. These workers paid in \$122 million in initial licensure costs and annually pay in an additional \$45 million annually for licensure renewal. We estimate that the educational costs of licensure are \$65 billion for all currently licensed workers in Alabama with an additional \$243 million spent annually to meet continuing education costs. We identified 49 low-income occupations with licensure, covering nearly 142,000 Alabamians. These licensed workers, earning an average of \$16 per hour, pay in an estimated average of \$254 in initial, explicit licensing costs and \$108 in explicit licensing renewal costs. The costs of licensure education requirements for these low-income occupations, on average, in Alabama is over \$72,000, with required annual continuing education costs reaching an average of over \$200.

Given the substantial costs of licensure, policymakers in Alabama can consider sev-



Athletic trainers in Alabama are required to have a baccalaureate degree, as well as pass a national certification exam and pay a \$175 initial license fee. Annual license renewal costs \$75.

eral potential reforms to occupational licensing.

First, they can carefully evaluate and restrict the growth of occupational licensure to new professions in the absence of a proven substantial threat to consumers (unable to be cur-

tailed through reviews, reputation, private certification, courts, or general fraud and liability laws). Second, they can carefully review the requirements and costs of licensure for currently licensed occupations to ensure that these costs are not unreasonable or unnecessary, especially in comparison to other states. Finally, they can systematically repeal occupational licensing in occupations with no

demonstrable need for licensure. These reforms could help reduce the costs of occupation licensing on Alabamians, especially for vulnerable segments of Alabama's population, by lowering prices, increasing competition, giving consumers more choice, and increasing occupational choice and economic opportunity.

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END NOTES

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- 3 Carpenter, Knepper, Erickson, and Ross (2012) and Carpenter, Knepper, Sweetland, and McDonald (2017).
- 4 Smith and Trudeau (2017).
- 5 Dranove (1988) and Dulleck and Kerschbamer (2006).
- 6 Dulleck and Kerschbamer (2006).
- 7 Stigler (1971) and Leland (1979).
- 8 For example, the Alabama State Board of Occupational Therapy is required by law to have one public member serve on the board, while the rest of the board is comprised of occupational therapists.
- 9 Kleiner (2006a, 10).
- 10 Kleiner (2006b).
- 11 Block (2015), Prins and Tamayo (2015), and Mellor, Berliner, and Sherman (2014).
- 12 Adams et al. (2003), Carroll and Gatson (1983), Hogan (1983), Gross (1986), Morris (2000), and Kleiner (2006).
- 13 Thorton and Timmons (2013).
- 14 Kleiner and Vorotnikov (2017).
- 15 Flanders and Roth (2017).
- 16 Snyder (2016).
- 17 Snyder (2016).
- 18 Bureau of Labor Statistics (2017c).
- 19 Kleiner (2006b).
- 20 Bureau of Labor Statistics (2017b).
- 21 Dove and Smith (2016) and Wiens and Jackson (2015).
- 22 Horwitz (2015), Mitchell (2017), and The White House (2015).
- 23 Chamberlain (1983), Dorsey (1983), Freeman (1980), Klein, Powell, and Vorotnikov (2012), Law and Marks (2009 and 2012), Mitchell (2017), Wheellock (2005), Williams (1983, and 2011), and Young (1985).
- 24 Kleiner (2015).
- 25 U.S. Department of Treasury and U.S. Department of Defense (2012).

26 Johnson and Kleiner (2017).

27 U.S. Department of Treasury and U.S. Department of Defense (2012, 11).

28 U.S. Department of Treasury and U.S. Department of Defense (2012, p. 10).

29 Bromberger (1971-2), Dale (1976), Lucken and Ponte (2008), May (1995), Pager (2006), Rodriguez and Avery (2015 & 2016), Schmitt and Warner (2010), and Smith (2017a).

30 Chandler (2017).

31 Slivinski (2016).

32 Cox and Foster (1990, 24).

33 Shilling and Sirmann (1988) and Young (1986).

34 Snyder (2016).

35 Furth (2015, November 23) and Kleiner (2011).

36 More broadly, regulation itself does not seem to measurably improve safety and quality for consumers (Djankov et al. 2002).

37 Carroll and Gaston (1981).

38 Lindsey and Teles (2017).

39 Boyd, Goldhaber, Lankford, and Wyckoff (2007) and Larson (2015).

40 Adams, Ekelund, Jr., and Jackson (2003), Anderson (2000), Angrist and Guryan (2008), Carroll and Gatson (1978, 1981, & 1983), Cox and Foster (1990), Bond et al. (1980), Friedman (2002), Goldhaber and Anthony (2007), Gross (1986), Hogan (1983), Kleiner (2000), Kleiner and Kudrle (2000), Levine, Oshel, and Wolfe (2011), Svorny (2004 and 2008), and Wolfe (2000).

41 Criminals themselves, as a minority group in society, has a higher population of minorities than the general population. See Alexander (2012).

42 U.S. Department of Treasury and U.S. Department of Defense (2012).

43 Maurizi (1974) and McMichael (2017).

44 Timmons and Thornton (2010 and 2017) and Muller (2014).

45 Gellhorn (1976) and Kleiner (2006b).

46 Carpenter, Knepper, Sweetland, and McDonald (2017).

47 We exclude federally licensed occupations such as aircraft pilots and aircraft mechanics.

48 Licensed Occupation Guide (2017).

49 Using the most conservative and least conservative data from each of our three labor force datasets puts the estimated range between 371,000 and 615,000 workers.

50 Due to incomplete and inconsistent data on the number of workers in these licensed occupations in Alabama, we collected this data from three sources, board registry websites where available, the Bureau of Labor Statistics (2017), and the Licensed Occupation Guide (2017). The calculation presented here utilized what we judged to be the most reliable source, the Alabama Department of Labor's 2017 Licensed Occupation Guide supplemented with the most conservative data available from one of the other datasets when data was unavailable. Combined together, these datasets run from the most conservative estimate of 371,577 (18

percent of Alabama’s workforce) to nearly 617,000 (30 percent of Alabama’s workforce). This estimate is also conservative because it includes several occupations due to the lack of data for the following occupations: auctioneer apprentices, barbers, eyebrow threader, hearing instrument dealers, hearing instrument dealer apprentices, hearing instrument fitters, heating and air conditioning contractor – refrigeration, insurance adjuster apprentice, insurance portable electronics, insurance producer, insurance reinsurance intermediary, insurance surplus line broker, insurance temporary producer, insurance title insurance agent, limited elevator contractor, limited elevator mechanic, liquefied petroleum gas dealers (B-1, C-2, F, F-1, C, C-1, E, & D), motor vehicle dealers (used, rebuilders, and wholesalers), natural hair stylist, orthotics suppliers, pedorthist, prosthetists, and orthotists licensed assistants, polygraph examiner interns, survey engineers, security alarm installer (access control/CCTV, salesperson, helper, and monitoring station operator), and land surveyor interns. In addition, where possible, we exclude out-of-state licensees from this calculation. Using the most conservative and least conservative data from each of our three labor force datasets puts the estimated range between 18 and 30 percent of Alabama’s labor force.

- 51 Flanders and Roth (2017).
- 52 Carpenter, Knepper, Sweetland, and McDonald (2017).
- 53 Timmons and Thornton (2017, January 8th).
- 54 Alabama Department of Human Resources (2017), Alabama Department of Conservation & Natural Resources (2017a & 2017b).
- 55 Governing.com (2016).
- 56 State Health Facts (2016).
- 57 The Sentencing Project (2017).
- 58 National Employment Law Project (2017, Appendix E) & The Sentencing Project (2017).
- 59 Alabama Cooperative Extension System (2017).
- 60 Thomas (2017).
- 61 Other licensed professions requiring liability insurance include, but are not limited to, general contractors, home medical suppliers, manufactured housing installers, and polygraph examiners.
- 62 Alabama Board of Home Medical Equipment (2017) and Alabama State Board of Pharmacy (2017).
- 63 Alabama Electronic Security Board of Licensure (2017) and Alabama Board of Cosmetology and Barbering (2017).
- 64 Licensed Occupation Guide (2017).
- 65 Licensed Occupation Guide (2017). Other licensed professions requiring experience include, but are not limited to, general contractors, geologists, home builder, interior designers, land surveyor, landscape architect, landscape occupations, marriage and family therapists, mine electrician, mine fireboss, mine foreman, nursing home administrators, pedorthists, prosthetists, and orthotists, pest control operator, plumber and gas fitter, real estate appraiser, real estate broker, real estate salesperson, social worker, soil classifier, speech pathologist, tree surgeon, water transportation personnel, and water treatment operators.

- 66 Other licensed occupations requiring a specific tax are accountants, architects, auctioneers, automobile dealers, barbers, beauty parlors (cosmetologists, natural hair stylists, etc.), construction contractors, private investigators, embalmers, engineers, chiropractors, optometrists, real estate brokers, real estate agents, and veterinarians.
- 67 For instance, circuses, fortunetellers, junk dealers, fruit dealers, tombstone dealers, ticket scalpers, and transient venders and peddlers, are also required to pay a specific tax.
- 68 Public Records (2017).
- 69 Board registry websites where available, the Bureau of Labor Statistics (2017), and the Licensed Occupation Guide (2017)
- 70 Using the most conservative and least conservative data from each of our three labor force datasets puts the estimated range between \$100 and \$158 million. These estimates, however, still exclude several occupations with no available labor force data.
- 71 Smith (2017b).
- 72 Using the most conservative and least conservative data from each of our three labor force size datasets puts the estimated range between \$24 and \$39 million. These estimates, however, still exclude several occupations with no available labor force data.
- 73 Using the most conservative and least conservative data from each of our three labor force datasets puts the estimated range between \$10 and \$13 million. These estimates, however, still exclude several occupations with no available labor force data.
- 74 CollegeTuitionCompare.com (2017).
- 75 Bureau of Labor Statistics (2017d).
- 76 Paul Mitchell Schools Birmingham (2017) and Wallace Community College (2017).
- 77 Using the most conservative and least conservative data from each of our three labor force size datasets puts the estimated range between \$55 and \$67 billion. These estimates, however, still exclude several occupations without no available labor force data.
- 78 Please note, there is wide variance in price between schools, so we did our best to use conservative estimates.
- 79 These estimates must be interpreted with some modesty since it is difficult for a researcher outside of a specialized profession to find and locate all the available continuing education options.
- 80 Alabama State Board of Occupational Therapy (2017) and CEBROKER.com (2017).
- 81 Beachsidecme.com (2018).
- 82 American Podiatric Medical Association (2017).
- 83 Using the most conservative and least conservative data from each of our three labor force size datasets puts the estimated range between \$207 and \$254 million. These estimates, however, still exclude several occupations without no available labor force data.
- 84 Living Wage Calculator (2017).
- 85 Bureau of Labor Statistics (2017b) & Thornton and Timmons (2015).
- 86 Bureau of Labor Statistics (2017b) & Thornton and Timmons (2015).
- 87 The White House (2015).

- 88 Occupational Licensing Review Act (2017) and Occupational Board Reform Act (2016).
- 89 National Employment Law Project (2017) and Rodriguez and Avery (2016).
- 90 U.S. Department of Treasury and U.S. Department of Defense (2012).
- 91 McLaughlin, Mitchell, and Philpot (2017).
- 92 Ohlhausen (2017).
- 93 Ibid, page 7.
- 94 Meyer (2017).
- 95 Hilgemann and Lation (2017, April 28th), Krame (2004, March 9th), and Smith and Trudeau (2016).
- 96 Rodriguez (2016) and Branstad (2013).
- 97 Powers (2016).
- 98 Branstad (2013).
- 99 Indiana (2013).
- 100 American Board for Certification in Orthotics, Prosthetics & Pedorthics (2017).
- 101 See Akerlof (1970), Bond, Kwoka, Jr., Phelan, and Whitten (1980), Bonray, Lemarie, and Tropeano (2013), Dulleck, Kerschbamer, and Sutter (2011), Emons (1997), Hahn (2004), Hey and McKenna (1981), Holcombe and Holcombe (1986), Kihlstrom and Riordan (1984), Klein and Leffler (1981), Klein (1998 & 2002), MacLeod (2007), Milgrom and Roberts (1986), Sanford (2013), Schmalensee (1978), and Sultan (2010).
- 102 Smith (2017b).
- 103 Catch Canine Trainers Academy (2017), Alabama Petroleum Equipment Contractors Association (2017), Carpenter, Knepper, Erickson, and Ross (2012), Carpenter, Knepper, Sweetland, and McDonald (2017), and Professional Server Certification Corporation (2017).
- 104 Curry (2017).
- 105 Meyer (2017).
- 106 Office of the Governor Doug Ducey (2017).
- 107 AllArtSchools.com (2014), ALOA Security Professionals Association (2017), American Board for Certification in Orthotics, Prosthetics & Pedorthics (2017), Carpenter, Knepper, Sweetland, and McDonald (2017), and NutritionED.org (2017).
- 108 Greitens (2017).
- 109 The Boards and Commissions Task Force Report (2017).
- 110 Occupational Licensing Review Act (2017), Occupational Board Reform Act (2016), U.S. Department of Treasury and U.S. Department of Defense (2012).
- 111 Rodriguez and Avery (2015 & 2016).
- 112 Lucken and Ponte (2008).
- 113 See Meyer (2017).
- 114 U.S. Department of Treasury and U.S. Department of Defense (2012).

ABOUT THE AUTHORS

DR. DANIEL J. SMITH, Associate Professor of Economics, Troy University and the Associate Director of the Manuel H. Johnson Center for Political Economics (Email: djsmith@troy.edu). He is the principal investigator and corresponding author of this report.

COURTNEY MICHALUK is a Policy Analyst in the Manuel H. Johnson Center for Political Economy at Troy University.

DAVID HALL is a graduate of the M.A. in economics program at Troy University.

ALEX KANODE is a M.A. in economics student at George Mason University and a M.A. fellow with the Mercatus Center at George Mason University.

The authors thank the Alabama Policy Institute for helpful feedback and edits. Author affiliations listed above are solely for identification purposes. The views and opinions expressed do not imply endorsement by Troy University or the Manuel H. Johnson Center for Political Economy.



2213 Morris Avenue, First Floor, Birmingham, AL 35203 | 205.870.9900

alabamapolicy.org | info@alabamapolicy.org

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