The Effects of Arkansas’ Occupational Licensure Regulations on the Poor

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Contents:

4 Executive Summary
6 Introduction
7 The Economics of Licensure: Licensure Helps License Holders While It Hurts the Poor
11 Evidence: The Effect of Licensure on Unemployment, Prices, and Poverty
17 Licensure in Arkansas Is Excessive When Compared to Other States
20 An Alternative to Licensure: State Certification
23 References
24 Appendix
The Effects of Arkansas’ Occupational Licensure Regulations on the Poor

Thomas J. Snyder

Executive Summary
Arkansas’ extensive occupational licensure requirements hurt the state’s economy, particularly harming the state’s poor. Governments require some occupations to be licensed, making it illegal to work in one of these trades without a license. In the 1950s, only 5% of the U.S. workforce was employed in jobs that required licensure, but licensure requirements have grown so that 29% of the U.S. workforce was employed in jobs that required licensure by 2006. In Arkansas, 128 professions require a license, which is the fifth-highest number in the United States. Arkansas not only requires many occupations to be licensed, but it also has the second-highest average burden—in terms of time and money—imposed on the licensed occupations, second only to Hawaii. In other words, not only does Arkansas require licensure of more categories of workers than most states do, the difficulty of acquiring each license in Arkansas is especially burdensome when compared to other states.

Although occupational licensure is an increasing trend in Arkansas and in most states, the economic effects of these policies are frequently ignored. There seems to be little public discussion in Arkansas on whether licensure laws are a net help or a net harm to ordinary Arkansans.

It is not difficult to convince someone that workers in some occupations should be required to be knowledgeable and credentialed before providing services. This leads to the seemingly reasonable conclusion is that these workers should be required to have a state license before having the right to offer services. However, by requiring such widespread and strict licensure, Arkansas’ policies create many unintended consequences. Rather than maintaining consumer satisfaction and safety, occupational licensure actually serves as a method by which current professionals restrict new competitors from entering into that line of work. Restricting entry into
a specific field enriches those already working in the occupation, while hurting those attempting to enter the field, frequently the poor and low-skilled. Because licensure effectively prevents these people from entering a particular occupation, they remain unemployed or are forced to work in lower-paying jobs. Furthermore, consumers—especially those with low incomes—also suffer, both because they must pay higher prices for services and because they have fewer options for services in the restricted profession.

The evidence illustrates the harm of Arkansas’ excessive occupational licensure scheme: higher prices, unemployment, and poverty. This paper demonstrates that, for example, if Arkansas were to reduce its licensure requirements in low-wage jobs to the level of Missouri (from 52 occupations to 31 occupations), it could experience an increase of 8,668 jobs, driving the state’s unemployment rate from 7.4% to below 6.8% (as of December, 2013). In Arkansas, licensure for low-wage occupations requires an average of 689 days of education and experience. This paper shows that if Arkansas were to reduce its education and experience requirements of low-wage jobs to that of neighboring Mississippi (from 689 days to 155 days on average, or a 77.5% decrease), prices would fall in Arkansas by five percent. Simply lowering the (average) barrier to get an occupational license in Arkansas could significantly increase the purchasing power of the poor. Furthermore, this paper demonstrates that if Arkansas, whose African American citizens are disproportionately impoverished compared to white citizens, were to reduce the total number of licensed occupations from 128 to that of—for example—Missouri (41 licensed occupations), the 68% reduction in licensure could decrease Arkansas’ African American poverty rate by 15.6% (from 34.1% of the African-American population to 28.8% of the African-American population). This would lift 22,773 African Americans out of poverty.

Is there an alternative to licensure for Arkansas that addresses the quality and safety issues in these occupations while avoiding the unintended negative consequences? Yes—an alternative policy to occupational licensure is certification, which would protect and benefit the public while avoiding the harms of licensure. Arkansas’ consumers would benefit unambiguously under state certification compared to state occupational licensure. The state government can still define the requirements of certification. The key difference is that the state will not make it illegal for an uncertified interior decorator, barber, massage therapist, etc., to provide his or her service. Just as a consumer benefits unambiguously by having the choice of generic or name-brand cereal, the consumer benefits unambiguously from having a choice of a certified or uncertified barber, door-repair contractor, or other currently licensed occupation.
The Effects of Arkansas’ Occupational Licensure Regulations on the Poor

Introduction

Arkansas’ poverty rate of 18% is higher than the poverty rate in 44 of the other 49 U.S. states. Its poverty rate among African Americans is also among the highest at 34%.\(^1\) Compared to nearby landlocked states, Kansas is 30% richer, Missouri is 16% richer, Tennessee is 16% richer, and Oklahoma is 14% richer per capita than Arkansas.\(^2\) One often-overlooked economic policy that hurts Arkansas’ economy, especially its poor, is the state’s excessive occupational licensure. Governments require some occupations to be licensed, making it illegal to work in one of these trades without a license. In Arkansas, 128 professions require a license, which is the fifth-highest number in the United States (Summers, 2007). Licensure is different from certification. In a certification system, a government may choose to define the requirements for certification, but it does not take the next step and require an individual to be certified in order to have the right to work.

Although occupational licensure is an increasing trend in Arkansas and in most states, the economic effects of these policies are frequently ignored. In the 1950s, only 5% of the U.S. workforce was employed in jobs that required licensure, but licensure requirements have grown so that 29% of the U.S. workforce was employed in jobs that required licensure by 2006. (Kleiner & Krueger, 2010). Occupational licensure is not discussed in U.S. political debates, which tend to focus on other government policies, such as taxes or government spending programs. While Arkansas has extensive licensure requirements compared to most states, there
seems to be little public discussion in Arkansas about whether licensure laws are a net help or a net harm to ordinary Arkansans.

Perhaps the Arkansas public’s attention is not focused on occupational licensing because the benefits of licensure seem obvious to the average person. It is not difficult to convince someone that pest/weed controller or a lead-based paint abatement worker should be required to be knowledgeable and credentialed before providing his or her service. After all, a mistake made by either person can lead to chemical poisoning or lead poisoning. The logical conclusion is that the abatement worker, for example, should be required by the state to have a license before having the right to offer service, if a license would guarantee a certain level of competence. Given this intuition, most Arkansans would have no reason to object to requiring a government license, and politicians would be under no pressure to vote against licensure regulation.

However, Arkansans may reconsider the licensure of lead paint abatement workers if they understood that it creates many unintended consequences. For example, licensure increases the costs of becoming an lead paint abatement worker, thereby 1) discouraging some poor citizens from entering the profession; 2) increasing the price customers pay for their services; 3) discouraging many poor people from hiring lead paint abatement workers; and thus 4) increasing the likelihood of lead poisoning in poor households, either because the householder attempts to fix the lead paint issue herself, or because she never has the abatement work done (Carroll & Gaston, 1981). Given Arkansas’ high number of licensed occupations, we all pay these costs again and again. Is there an alternative to licensure for Arkansas that addresses the quality and safety issues of electricians and other professionals while avoiding these unintended consequences?
The Economics of Licensure: Licensure Helps License Holders While It Hurts the Poor

Economists have studied occupational licensure, and their conclusions go against the common perception of licensing. Nobel Prize–winning economist Milton Friedman considered occupational licensure to be a method that current professionals use to restrict new competitors from entering into that line of work (Friedman, 2002), and that theory is supported almost unanimously in the economics research. Restricting entry into a specific field empowers those already in the field, while hurting those attempting to enter the field, and the harm is concentrated among the poor and those with low skills. Furthermore, consumers—especially those with low incomes—also suffer from this restriction of entry because they must pay higher prices and have fewer options for services in the restricted profession. The conventional wisdom among the public is that licensure is designed to protect the consumer, but both economic theory and practical evidence show that there are numerous unintended consequences that actually harm consumers.

Consider this example: Well-trained, educated, and experienced massage therapists do not want competition from inexperienced massage therapists offering low-price massages. In order to restrict competition, the incumbent massage therapists can lobby the government to create a policy that limits the practice of massage therapy to only those individuals who are well-trained and educated in the field. Such a policy can require each massage therapist to obtain a license only by completing a certain number of hours of schooling, having a certain amount of experience, passing an exam, and/or paying substantial fees. The experienced incumbent massage therapists have already completed those requirements; or they can more easily accomplish those requirements compared to the new entrants; or the licensure law may have a grandfather clause that exempts the current practitioners from the requirements.
Poorer, less-educated people who cannot cross this initial hurdle will never get the opportunity to learn the profession and earn income. Because fewer people are able to sell massage therapy sessions, Arkansans’ choices are limited to “Cadillac services at Cadillac prices,” or doing without. As a result, Arkansans will buy fewer services. Another consequence is that Arkansans pay a uniformly high price for the massages they do receive; no one is available to offer lower-quality services at a steeply discounted price. In the absence of such licensure, it is unlikely that Arkansans would be hoodwinked into paying a premium price for a lower-quality massage. Even in the absence of licensure, a highly qualified masseuse would be able to point to his or her credentials and charge a premium price to those customers willing to pay for top quality. Practitioners who lack those credentials would be unable to charge a premium price, and would reduce their prices in order to attract customers. In short order, an Arkansan would be able to judge a masseuse by price and credentials, and make the choice that best fits his or her needs.

In Arkansas, a massage therapist must graduate with at least 500 in-classroom hours of instruction from a board-accepted massage therapy school or state-approved education institution, pass a board-approved massage therapy examination, pass the Arkansas law examination, be of “good moral character,” and pay fees to obtain a license. Since 1951, Arkansas has regulated massage therapy, and it has added more rules and requirements as time passed. However, many requirements do not apply to the incumbents, as described in the grandfather clause:

In the event the qualifications for a specific license are increased or changed, a person holding a particular license from the Arkansas State Board of Massage Therapy may continue to hold that license or may upgrade from massage therapist to master massage therapist or from master massage therapist to massage therapy instructor, without meeting current requirements for the particular license the person held at the time of the increase or change.
With such laws, the incumbent massage therapists effectively eliminate or severely restrict the practice of massage therapy by newcomers and less-credentialed practitioners. The restriction of competition allows the incumbent massage therapists to have more clients, charge higher prices, and garner more income than they would have if there were no licensure requirements.

The “would-be” massage therapists, most of whom likely have a lower income than the well-credentialed massage therapists, do not benefit from the licensure requirements. The would-be massage therapists must now either find another source of income or attempt to meet the requirements for the licensure, which can be time consuming and unaffordable. Those who are relatively wealthy among the would-be massage therapists may expend their resources to obtain licensure, but the poorest would-be massage therapists may have to seek other employment. Without the licensure requirements, the less-skilled massage therapists could have obtained more training if so desired, and the licensure requirements do not make it easier for them to do so. Therefore, the licensure requirement either eliminates an employment opportunity for the poorer massage therapists, or it creates an unnecessary obstacle. The richer massage therapists may gain from the licensure requirements, while the poorer ones suffer.

Consumers, especially poor consumers, do not benefit from the licensure requirement for massage therapists. If there were no license requirements, consumers could choose between the highly skilled and experienced massage therapists or the low-skilled, less-experienced massage therapists. Wealthy consumers are likely to choose to pay the premium for the high-quality service, so licensure has a trivial effect on them. Without licensure requirements, poor consumers may choose to get a discounted massage instead of no massage at all. Requiring licensure simply eliminates the poor consumer’s option of getting the discounted massage.
If massage therapy were the only occupation that required licensure, then it would hardly be worth writing about. However, the economic logic behind the licensing of the massage therapist is the same logic behind the licensing of plumbers, dentists, carpenters, cosmetologists, opticians, appraisers, athletic trainers, seed dealers, floor sanders, and so on. In each of these examples, the workers earning higher incomes benefit, while the poor workers suffer. In each of these examples, poor consumers are made worse off, with little impact on rich consumers. With an understanding of the economics of licensure, an informed and benevolent politician could help the poor by eliminating or reducing licensure requirements. In Arkansas, given the relatively high poverty rate, such a change in policy would be especially beneficial.

The harm caused by occupational licensure is not just abstract economic theory. In the next section, the evidence also shows that occupational licensure hurts the poor by increasing unemployment, increasing prices, and entrenching poverty.

Evidence: The Effect of Licensure on Unemployment, Prices, and Poverty

Economic theory suggests that occupational licensing requirements lead to unemployment and higher prices, which can promote poverty. Given that African Americans, in comparison to Caucasians, are disproportionately poor in Arkansas and the United States overall, occupational licensure will disproportionately harm African Americans. Evidence from earlier studies supports these statements, but this paper explicitly tests whether unemployment, prices, and poverty have a connection with occupational licensure.

Figure 1 shows the correlation between licensure and the unemployment rate. The state-level unemployment rate is on the vertical axis, and the number of occupations that require a license is on the horizontal axis. It is important to note that the number of occupations requiring a
license in Figure 1 is limited to only those occupations that pay below the national average salary or wage (licensure data from Carpenter II, et al., 2012). Using data on low-wage jobs allows us to focus on the major hurdles facing poor and moderate-income individuals, rather than on the hurdles high-income individuals face when moving from one high-paying job to another. As discussed earlier, economic theory suggests that occupational licensure can lead to unemployment by creating employment barriers for low-income individuals. Given that some states require workers in a larger number of occupations to obtain a license relative to other states, we would expect high-licensure states to have higher unemployment rates than other states. This is indeed the case, as shown in Figure 1: Unemployment and occupational licensure have a positive relationship, so that states with more (low-paying) occupations that require a license experienced a higher unemployment rate.

**Figure 1**

*Licensure and Unemployment*
Given that many variables can affect the unemployment rate in a state, Figure 1 may give a misleading result because it does not consider these other possible relationships. Variables such as the income per capita, the population, union membership, and minimum-wage legislation can affect the unemployment rate of low-income individuals. To address these concerns, we can perform a more sophisticated sort of statistical analysis called regression, which allows us to control for the influence of these other variables. Table 1 in the Appendix displays the results of a regression that was estimated using the ordinary least-squares method.

The results from Table 1 show that an increase of 10% in the number of low-wage jobs that are licensed is associated with an increase of 2.2% in the unemployment rate, controlling for other factors. In other words, a state such as Arkansas may be able to cut its unemployment rate significantly by eliminating the barrier of licensure for some of its low-paying occupations. In December, 2013, Arkansas had a 7.4% unemployment rate\(^6\), which was higher than that of many of its surrounding states. This is unlikely to be pure coincidence given that Arkansas also has one of the most extensive and burdensome licensure systems. According to the estimate in Table 1, a 10% decrease in licensure of low-wage jobs (from 52 occupations to about 47 occupations) would increase the number of jobs in Arkansas by 2,167.\(^7\) If Arkansas were to reduce its licensure requirements to the level of Missouri (52 occupations to 31 occupations), it could experience an increase of 8,668 jobs, driving the unemployment rate from 7.4% to below 6.8%.

Economic theory suggests that licensure not only affects unemployment, but it also affects prices. High or increasing costs of the resources necessary to create a product are typically (if not fully) passed on to the consumer as higher prices. Widespread, expensive licensure requirements increase a worker’s cost of providing a product or service. Therefore, states with more burdensome licensure requirements could have higher prices in general. Figure
2 shows the connection between the average number of days of education or experience required to get a license in a state and a measure of average prices of products in that state, the state price index. As expected, Figure 2 shows a positive connection between the average education/experience required to obtain a license and average prices for goods and services.

**Figure 2**
*Licensure and Prices*

As in Figure 1, it is possible that prices and licensure requirements in Figure 2 move together because of the influence of other variables, such as the state’s population or income per capita. Therefore, it is appropriate to test the relationship between prices and educational/experience requirements while controlling for other variables that may affect prices. Table 2 in the Appendix uses the ordinary least-squares method to test the significance of the relationship between prices and occupational licensure requirements, controlling for other factors.
Indeed, Table 2 shows that education and experience requirements have a positive relationship on prices, even when controlling for the effects of other important factors. The positive and statistically significant coefficient means that an increase in education and experience requirements for licensure corresponds to an increase in the price level in that state. In Arkansas, licensure for low-wage jobs requires an average of 689 days of education and experience. The estimated coefficient says that if Arkansas were to reduce its education and experience requirements of low-wage jobs to that of neighboring Mississippi (689 days to 155 days, or a 77.5% decrease), prices would fall in Arkansas by 5%. Simply lowering the (average) barrier to get a license in Arkansas could significantly increase the purchasing power of consumers, especially the poor.

Evidence supports the idea that excessive occupational licensure increases prices and unemployment. These negative effects are likely concentrated on the poor. Wealthier Arkansans are probably already paying a premium for highly credentialed physicians, interior designers, massage therapists, etc., so licensure requirements have a smaller effect on them as consumers. The upper-class and rich are also likely to be more educated and have the ability to obtain licensure more easily than the poor, so licensure requirements may benefit the upper class by protecting their jobs from competition. The poor in the United States are disproportionately harmed by licensure requirements both as consumers and employment-seekers. Figure 3 looks at the relationship between poverty and licensure of low-wage jobs. A positive relationship exists between poverty and occupational licensure. An increase in the licensure of occupations is associated with more poverty.

Figure 3
Licensure and Poverty
Arkansas has a relatively high poverty rate, especially among African Americans.\textsuperscript{9} According to the U.S. census, about one out of every three African Americans in Arkansas is living in poverty. If occupational licensure hurts the poor, it disproportionately hurts African Americans. Of course, many factors may affect poverty. Controlling for other factors, we can see that, indeed, licensure is associated with more poverty. Table 3 in the Appendix focuses on the African-American poverty rate, because it is nearly double the white poverty rate in Arkansas.

Controlling for other factors, including average income, a 10\% increase in the number of occupations licensed is associated with an increase in the African American poverty rate of 2.3\%.\textsuperscript{10} Table 3 suggests that if Arkansas were to reduce its total licensed occupations (128) to that of Missouri (41), the 68\% decrease in licensure could decrease Arkansas’ African American poverty rate by 15.6\% (34.1\% of the African-American population to 28.8\% of the African American population), which would bring 22,773 African Americans out of poverty. Note that this positive relationship exists even when controlling for unemployment. It is possible that
licensure requirements not only cause increased unemployment, but also cause increased poverty levels because many people accept less-desirable, lower-paying jobs than what they would have if the occupations had not been licensed.

**Licensure in Arkansas Is Excessive When Compared to Other States**

Arkansas is in the top five states in terms of the number of occupations that require licensure. Arkansas has more than three times the number of occupations that require licensure than its neighbor Missouri (128 to 41). Even if Arkansas were to halve the number of occupations that required licensure, it would still exceed the number of occupations that require a license in Kansas (56). It may be no coincidence that Arkansas’ per-capita income is below that of those two states. Arkansas has substantially more occupations that require licensure than New York (128 to 77), despite the fact that New York has six times the population of Arkansas.

Figure 4 compares Arkansas to its surrounding states.

**Figure 4**

*Licensure in Arkansas and Nearby States*
Arkansas not only has many occupations that require a license, but it also has the second-highest average burden imposed on the licensed occupations, second only to Hawaii. In other words, not only does Arkansas require licensure of more categories of workers than most states do, the difficulty of acquiring each license in Arkansas is especially burdensome when compared to other states. New York’s economy is substantially more diverse and developed than Arkansas’, one does not have to be nearly as qualified to get a licensed job in New York. In fact, to get a licensed job in Arkansas, on average one needs more than double the amount of experience and education than what one would need for a licensed job in New York. On a more local level, one would need to have an average of more than three times as much education and experience to get a licensed job in Arkansas (689 days) than to get a licensed job in Missouri (220 days) or Kansas (166 days). Figure 5 illustrates the differences in education and experience requirements.

**Figure 5**

*Education and Experience Required for Licensure in Arkansas and Nearby States*

One area in which Arkansas is especially restrictive is in the construction trades. For example, to be a door-repair contractor in Arkansas, one must first have five years of
education/experience, pass an exam, and pay fees to obtain a license. No other state is more restrictive. Most states require no experience/education, or do not even require a license, to be a door-repair contractor. It seems illogical for the state of Arkansas to have such special requirements for a person to be able to repair doors, especially in light of the lack of licensure in other states. An almost identical situation exists for floor sanders and other construction trades. If licensure of the construction trades were for the public’s health and safety, one would think that the more densely populated states would have greater requirements, since an error in an apartment building in a densely populated city center would be of greater concern than a relatively isolated building in Arkansas.

Furthermore, Arkansas’ governmental licensing bureaucracies do not operate for free. The 2013 Arkansas state budget for Professional Regulatory Boards & Commissions was $45,862,317.13 These include expenditures on the “Embalmers & Funeral Directors Board,” “Hearing Instrument Dispensers Board,” “Massage Therapy Board,” “Dietetics Licensing Board,” “Dispensing Opticians Board,” and many others. Simply put, each adult in Arkansas paid an average of $20 to the state in 2013 for the administration costs of licensing and similar regulations.14

An Alternative to Licensure: State Certification

Given the relatively large number of occupational licensure regulations in Arkansas compared to other states, it is time for Arkansans to evaluate whether these regulations are doing more harm than good. Very little evidence exists that suggests that licensure has improved the average quality or safety of goods or services received by consumers. However, the evidence does demonstrate the harm of excessive licensure: higher prices, unemployment, and poverty. An
alternative policy to occupational licensure is certification, which would protect and benefit the public while avoiding the harms of licensure.

Arkansas’ consumers would benefit unambiguously under state certification compared to state occupational licensure. The state government can still define, if it so wishes, the requirements of certification, just as it defines the requirements of licensure. The key difference is that the state will not make it illegal for an uncertified interior decorator, barber, massage therapist, etc., to provide his or her service. With a change to certification instead of licensure, if an individual does not want a haircut from a certified barber, then the individual is not forced to get a haircut from one. If an individual prefers a discounted haircut from an uncertified barber, then he or she is not forced to pay a premium for the certified barber. If the state is concerned that the consumer can be easily tricked into getting service from an uncertified barber, the state can require that the barber clearly state whether he or she is certified. Just as a consumer benefits unambiguously by having the choice of generic or name-brand cereal, the consumer benefits unambiguously from having the choice of a certified or uncertified barber, door-repair contractor, etc.

Arkansas consumers would also enjoy lower prices, as the certified practitioners would have to compete with the uncertified practitioners, just as brand-name cereals must have competitive prices when there is a low-priced generic cereal. Poor consumers would especially benefit, since the rich consumers would likely continue to choose certified practitioners, just as they would continue to choose brand-name cereals. The prices of many services would decrease in Arkansas if consumers were allowed to choose to obtain services from uncertified workers. While prices in Arkansas are not as high as prices in some states, when considering Arkansas’ high poverty rate and low average wages, any decrease in prices would be especially beneficial.
Inexperienced and low-skilled workers in Arkansas would benefit from the state’s adoption of certification requirements instead of licensing laws. The uncertified barber or massage therapist can gain experience by offering discounted services, and he or she can decide whether certification is worth the costs. Just as successful business leaders such as Bill Gates and Steve Jobs found that they did not need to complete a college degree in their field to be successful, other practitioners may find that their natural abilities and reputation may make certification requirements unnecessary.

If the state government of Arkansas chooses to focus on certification instead of licensure, it may still initially face a similar budget of about $45 million to administer and enforce the certification rules, just as it does to enforce licensing rules. However, the state may find that it does not need to provide certification standards in many areas, as private organizations will shoulder the burden. For example, if there is an area in which customers want certification and the state does not provide it, an entrepreneur will undoubtedly take advantage of the opportunity and create a private certification business. Unlike the state government, private certification companies have a very strong interest to be reputable, since their business is on the line. For instance, if consumers struggle to find a quality air-conditioning repair person, a company may form to provide a certification or reputation verification service in that area. In fact, many private companies already provide these services. Companies such as Angie’s List, Yelp, TripAdvisor, and others provide ways to check on the quality of the person, place, or company. With private certification companies providing this service, the state can focus its efforts on fraud instead of administering and enforcing certification.

All of the quality and public health concerns that give rise to the public perception of licensure can be addressed with certification. Taxpayers can save money because the state will
no longer administer and enforce licensing rules. More importantly, the unintended harm of excessive licensure would be avoided. The main barriers to reducing licensure are the current professionals and the public perception. The current professionals are a formidable opponent, as they are already politically organized, have more power, and have powerful incentives to push for restrictive legislation. However, the general public outnumbers these current professionals, and the public can be persuaded if they are given the facts.
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Appendix

Table 1: Unemployment and Licensure

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<td>No. of Occupations Licensed</td>
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<td>GDP per Capita</td>
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R Squared | 0.47
No. of Observations | 50
F Stat    | 7.49

Note: Robust standard errors are in italics. *10%, **5%, and ***1% significance level
Table 2: Licensure and Prices

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R Squared: 0.64
No. of Observations: 50
F Stat: 16.50

Note: All variables are logged. Robust Standard errors are in italics.
*10%, **5%, and ***1% significance level
Table 3: African-American Poverty and Licensure

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R Squared: 0.65
No. of Observations: 50
F Stat: 21.11

Note: All variables are logged. Robust Standard errors are in italics.
*10%, **5%, and ***1% significance level.

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2 2012 State GDP per capita was measured by taking the 2012 State GDP from the Bureau of Economic Analysis and dividing it by the state population from the U.S. Census.
3 Requirements obtained from the 2013 Directory of Licensed, Certified, and Registered Occupations in Arkansas. Preparred by Arkansas' Department of Workforce Services.
5 The unemployment rate was taken from the Bureau of Labor Statistics (BLS).
6 The unemployment rate was taken from the U.S. Bureau of Labor Statistics.
7 From the BLS data, the number of unemployed would go from 98,500 to 96,333.
8 For Figure 2, price data was taken from the BEA. Retrieved from http://bea.gov/newsreleases/regional/rpp/2013/rpp0613.htm. Licensure data was taken from Carpenter II, et al. (2012).
10 Licensure data in Table 3 is from Summers, A. (2007).
11 The licensure data discussed here is from Summers (2007).
12 The licensure burdens are from Carpenter II, et al. (2012)
13 Budget numbers were taken from the Arkansas Department of Finance and Administration: http://www.dfa.arkansas.gov/offices/budget/Documents/fy2013_funded_budget_schedule.pdf
14 Estimated by dividing the budget by the adult population of Arkansas (U.S. Census).
For Table 1, all variables are logged. The Licensure data was taken from Carpenter II, et al. (2012). The other data is from the Bureau of Economic Analysis, the Census, Bureau of Labor Statistics, and the Department of Labor.