

## **Testing the Utility of Licensing: Evidence from a Field Experiment on Occupational Regulation**

**Dick M. Carpenter II**  
**University of Colorado Colorado Springs**

*This study examines hypothesized benefits associated with occupational licensing in one long-regulated industry in Louisiana—floristry—in order to determine to what extent licensing results in theorized benefits that might justify the costs associated with licensure systems. Results indicate the regulation appears not to result in a statistically significant difference in quality of product. Moreover, florist-judges, whether licensed or not, appeared consistent in how they rated 50 floral arrangements from randomly chosen floral retailers.*

### **INTRODUCTION**

This article examines the efficacy of a workplace phenomenon whose presence and importance continues to grow each year—occupational licensing (Timmermans, 2008). It is typically defined by state-granted legal privileges that enable practitioners of the regulated profession to hold competitors at bay, thwart off meddling third parties, and control who qualifies based on training, skill, and examination (Freidson, 1994). Kleiner (2000; 2006b) estimates that occupational licensing affects more workers in the U.S. than minimum wage legislation or unionization. Using a specially designed Gallup poll, Kleiner and Krueger (2010) find that 29% of the U.S. workforce must hold a license to work in their chosen occupation. This is up from 4.5% in the 1950s and about 20% in 2000 (Kleiner, 2006a).

As Potts (2009) and Mester et al. (2009) describe, occupational licensing is typically justified as benefiting the greater society as a “public good” or a “public welfare.” Legislative or state protection is given to occupations to protect the greater society against the possibility of rogue operatives, incompetents, quacks, charlatans, and others who might cause “public harm” through delivery of sub-standard or even dangerous standards of service. Licensing has been achieved principally through cooptation of government by the political activities of professional associations in individual states (Freidson, 1986; Halliday, 1987). Government officials typically accept such arguments with little question (Skarbeck, 2008), as Carpenter (2008) illustrated in a study of the evolution of regulation for interior designers, but does the justification have merit? More specifically, does licensing result in measurable differences in quality of service, product, or producer that might lead to significant benefits for society?

The answers to such questions carry important consequences. First is the relationship between occupations and the state. Freidson (2001) advocates for the legitimacy of licenses because they govern specialized knowledge that society values enough to want advanced and applied in socially useful ways. But occupational regulations also grant protected practitioners extraordinary authority over laypersons

(Abel, 1979) through influence over the social structure that defines and regulates the environment in which that work is accomplished (Peterson, 2001).

Second are the anti-competitive effects of occupational regulation in the market. As discussed below, some evidence indicates licensing results in greater costs to consumers and disproportionately fences out aspiring practitioners who are racial/ethnic minorities, women, and/or older. Moreover, although licensing is commonly associated with health or legal professions, Summers (2007) notes that occupational regulations also abide for a broad range of occupations ideally suited for workers with fewer technical skills, less education, or those just entering or re-entering the job market. Such occupations include, among others, upholsterer, manure applicator, motion picture projectionist, interior designer, casket seller, African hairbraider, and—the subject of this research—florist.

In the face of such effects and costs, evidence of benefits from licensing—particularly those associated with less technical occupations—takes on great importance. Yet, according to Kleiner (2000), such evidence is thin or non-existent in many occupations. Thus, to answer the questions posed above—specifically whether licensing results in measurable differences in quality of service, product, or producer in non-technical occupations—I implemented a randomized experiment designed to measure whether a license for florists created a difference in products and producers that might result in some benefit to consumers.

## LITERATURE REVIEW

Occupational licensing is the monopolization or control of opportunities for income and of status and work privileges in a market of services or labor (Brain, 1991; Johnson, 1972; Larson, 1977; Weisz, 1983). According to Abbott (1988) and others (Abel, 1979; Brain, 1991; Larson, 1977), such control often results from an assertion and/or recognition of a body of abstract or specialized knowledge held by the practitioners of a particular occupation. Commonly, such assertions by those working in an occupation are accompanied by calls for regulation on behalf of the public interest (Peterson, 2001). Sometimes licenses are described as a way to protect public welfare by ensuring those working in a regulated occupation possess a minimum facility with the abstract or specialized knowledge (Carpenter, 2008). Others justify licensing because it governs a special knowledge that society values enough to want advanced and applied in socially useful ways. According to proponents, the carriers of that special knowledge therefore deserve to be sheltered from market laws (Freidson, 2001).

In general, there are two divergent views on the effects of occupational licensing. One view, commonly attributed to Milton Friedman (1962), argues that licensing is primarily a means for professionals to keep wages high by restricting entry into the profession. Adherents to this view believe licensure reduces consumer welfare (Potts, 2009). A second view concedes that occupational licensing increases the wages of professionals, but argues that licensing serves as a means of solving an asymmetric information problem. Consumers have less information than practitioners, and licensing protects consumers from poor service (Leland, 1979; Shapiro, 1986).

Such effects have been studied in different countries across a variety of occupations, such as nurses (Elzinga, 1990), veterinarians (Hellberg, 1990), lawyers (Karpik, 1990), architects, psychologists (Svensson, 1990), and interior designers (Harrington & Treber, 2009). One prominent strand of research focuses on licensing as a barrier to entry. Studies on occupations such as cosmetologists (Adams, Jackson, & Ekelund, 2002), manicurists (Federman, Harrington, & Krynski, 2006), accountants (Carpenter & Stephenson, 2006; Jackson, 2006; Jacob & Murray, 2006), and mortgage brokers (Kleiner & Todd, 2007) conclude that licensing reduces the supply of practitioners, which proponents of regulation support, as it supposedly prevents entry by low-quality producers. A subset of this research finds that licenses often disproportionately exclude those who are less educated, racial/ethnic minorities, or older (Angrist & Guryan, 2008; Dorsey, 1983; Federman, et al., 2006; Harrington & Treber, 2009; Kleiner & Krueger, 2008).

A second line of research examines the relationship between licensure and wages. In general, results from studies of occupations such as radiologic technologists (Timmons & Thornton, 2008), school

teachers (Angrist & Guryan, 2008), clinical lab personnel (White, 1978), nurses (White, 1980), dentists (Kleiner & Kudrle, 2000) and cosmetologists (Adams, et al., 2002) indicate licensing increases the wages of practitioners. Others, however, find no evidence of such a relationship between licensing and wages (Lueck, Olsen, & Ransom, 1995).

To the extent that licenses result in greater costs to consumers as reflected in higher wages or extracted rents (Chevalier & Morton, 2008; Harrington & Krynski, 2002; Kleiner & Kudrle, 2000), a third line of research considers whether such costs are offset by greater benefits in the form of increased quality of product, service, or producer. Many studies find little evidence of the purported benefits. Such conclusions come from research on a diversity of occupations, such as school teachers (Angrist & Guryan, 2008; Buddin & Zamarro, 2008; Kleiner & Petree, 1988), interior designers (Carpenter, 2008), construction trades (Skarbek, 2008), mortgage brokers (Kleiner & Todd, 2007), dentists (Kleiner & Kudrle, 2000), physicians (Paul, 1984), and others (Carroll & Gaston, 1981).

Such findings do not mean, however, that the question of benefits from licensing is settled, particularly in non-technical occupations. Some researchers do, in fact, find a positive relationship between occupational regulation and quality of service (Johnson & Loucks, 1986; Shilling & Sirmans, 1988). Scholarly proponents make the case for benefits from regulation (Freidson, 2001), and the creation of new licenses continues apace (Kleiner & Krueger, 2010). Finally, when advocating for new regulations or defending existing ones, industry leaders emphasize benefits to public health, safety, and welfare as a justification (Carpenter, 2008). Thus, in light of the aforementioned consequences of licensing, the question of purported benefits remains an important research endeavor. To that end, this study uses a field experiment to test the claim of public benefit in an occupation long regulated in Louisiana—florists.

### **Study Context**

The state of Louisiana has regulated the work of florists since 1936. Senate Bill 278 first regulated the industry through the creation of an oversight commission, which was given the authority to create a license, write regulations, and provide penalties for violations of the enabling act (Legislature of the State of Louisiana, 1936). Beginning in 1950, various revisions to the bill continued to increase the regulatory requirements associated with a retail florist license. By the time of the experiment reported herein, aspiring florists in Louisiana were required to pay a series of fees and pass both a written and a practical test. The written test covered basic knowledge of the industry, and the practical test required test takers to create four different types of floral arrangements within a limited period of time given a bundle of floral materials. The arrangements were judged or scored by already-licensed Louisiana florists.

As data released by the Louisiana Horticulture Commission in 2004 indicate, these tests were more than perfunctory hurdles. In 2002, only 42% of test takers passed and were awarded licenses. That number grew to 47% in 2003, but fell to 41% in 2004. Thus, the tests represented significant barriers to those who sought to work as florists in Louisiana. Moreover, data from the state also indicate licensure regulations were strictly enforced. The Horticulture Commission employed inspectors who regularly visited stores to examine, among other things, the licenses of store employees. Violations of the regulation resulted in cease and desist letters, confiscation or destruction of floral materials, and prohibitions against further work or employment.

The original motivation behind the bill's creation and its various revisions are largely undocumented. Newspapers and legislative journals of the time included only the sparsest of information. The introduction to the 1936 enabling legislation provided the clearest justification for the creation of the license: "to prevent fraudulent practices in the professional work herein defined" (Legislature of the State of Louisiana, 1936, p. 404). Apparently legislators agreed; the bill passed unanimously in both chambers (Senate of the State of Louisiana, 1936). However, contemporary proponents of the florist license have spoken often about its public benefits. Turner (2001) notes that the process of justifying a license is not finished at its creation. Rather, proponents continuously legitimate themselves to the public and other audiences. In Louisiana during the past decade, this has often taken the form of defending the license by pointing to the regulation's benefits, particularly the maintenance of quality standards. For example, in

response to a 2004 bill to repeal the florist license (the bill was ultimately unsuccessful), the head of the state florist association argued that the licensure regime protected consumers through upholding high professional standards. The head of the state horticulture commission agreed: “If they [aspiring florists] can’t take the instruction and pass the exam, how can they do an arrangement that you and I want to buy” (Finch, 2004, p. 1).

If such justifications are correct, it should be possible to discern measurable differences between the quality of providers and producers in the Louisiana retail florist industry and those in another state as a result of the license. That is, if the licensure regulation works as intended, retail florists who work in Louisiana should produce floral arrangements of significantly greater quality, and said florists should also possess skills and knowledge at least different from or perhaps superior to practitioners in other states without a license for florists. If true, this might confirm, at least in some part, the justification of florist license proponents. The research reported herein puts such claims to the test. In an even broader context, this article also contributes to the aforementioned literature that attempts to measure the “public benefits” notion behind the idea of occupational licensing. While the study of one occupation in one U.S. state may seem limited, its importance lays in its findings vis-à-vis the collection of extant studies on licensure. Given the scope of occupational regulation, no one study can possibly prove conclusive. But as this small but growing body of literature tests the “public benefits” claims across a diverse collection of occupations, it provides researchers, policy leaders, and decision makers important evidence about the fundamental theories and claims associated with licensure and could provide guidance when policy makers consider the creation of new licensing regulations or the elimination of existing ones. However, because this body of work is small, particularly compared to the large number of licensed occupations in the U.S. (Summers, 2007), more studies like this are necessary to facilitate a fulsome understanding of the effects of licensing.

## **METHODS**

This study is guided by two primary questions:

1. Is there a significant difference in the ratings of floral arrangements between those created by licensed florists and those that are not?
2. What is the relationship in ratings assigned to floral arrangements between licensed and unlicensed florists?

The first question tests the theory that licensing results in measurable differences in quality of goods. If true, floral arrangements created by licensed florists should receive higher ratings than those created by unlicensed practitioners. The second question tests the theory that licensing results in measurable distinctions in skill and knowledge among occupational practitioners. Note that this question focuses on the relationship—specifically the consistency—of licensed and unlicensed florists in how they rate a bundle of goods (i.e., floral arrangements). According to the relevant sociology literature, standardization is a distinct element in licensure (Abel, 1979; Larson, 1977; Zukin, 1998). Through training requirements, testing regimes, professional standards, and other regulatory devices, producers (i.e., industry practitioners) purportedly grow more standardized within the regulated occupation and differentiated from those kept out. Applied specifically to this study, the ratings of a group of florists composed of licensed and unlicensed florists would be expected to be inconsistent, as the opinions of what constitutes quality in a product would differ for licensed practitioners adhering to a particular standard as compared to unlicensed (and unstandardized) florists.

### **Design and Sample**

To answer these questions, this research uses an experimental design in which a randomly selected sample of florists from two states (one with a license for florists and one without) rated a sample of floral arrangements created by randomly selected retail florists, half of which were in the state with the license and the other half from the state without licensure. The random sample of florist-judges in the regulated state—Louisiana—was drawn from a list of licensed florists maintained by Louisiana’s Horticulture

Commission. The sample of unlicensed florists came from Texas. These names were drawn from an online directory of retail florist establishments. The total sample size of florists was 18—eight from Texas and 10 from Louisiana. The sample of floral arrangements came from randomly drawn retail floral stores in Texas and Louisiana. The stores were taken from the same lists used to identify the florists. The sample included 50 arrangements—25 from each state. Arrangements and florist-judges did not come from the same retail floral stores.

### **Data**

The primary data used in this analysis represent the ratings assigned by the sample of florists to the floral arrangements. The florist-judges used a rating instrument developed by the researcher. The instrument was based on (a) floral design theory as captured in several prominent floral design texts frequently used in design courses (Belcher, 1993; DelPrince, 2005; Hunter, 2000; Lamancusa, 1990; Pryke, 2006), (b) floral design rating instruments used in national floral design competitions ([http://www.safnow.org/images/stories/About\\_SAF/PFCI/SC\\_2009/2009safsylyviacupentrypacket.pdf](http://www.safnow.org/images/stories/About_SAF/PFCI/SC_2009/2009safsylyviacupentrypacket.pdf), [http://www.newjersey.gov/agriculture/ag\\_ed/ffa/activity/13.003.pdf](http://www.newjersey.gov/agriculture/ag_ed/ffa/activity/13.003.pdf), [http://www.okcareertech.org/skills\\_usa/docs/job\\_readiness\\_contests/FLORAL%20DESIGN%20CONTEST%20GUIDELINES.pdf](http://www.okcareertech.org/skills_usa/docs/job_readiness_contests/FLORAL%20DESIGN%20CONTEST%20GUIDELINES.pdf)), and (c) the design evaluation for certified floral designers created by the American Institute of Floral Designers (n. d.). The instrument used herein prompted judges to rate the arrangements in 10 different design elements, each using a five point scale ranging from poor (1) to excellent (5). Total scores were then calculated for each arrangement by summing across the 10 elements. Thus, each judge rated each of the 50 arrangements, assigning each arrangement a score of something between 10 and 50. These scores were used in the analyses described below.

The analyses also used one control variable: the cost of the arrangements. Cost of arrangement data reflect the number of dollars paid, as indicated on each receipt. As described below, I asked for arrangements within a certain price range, but discovered upon receipt of the flowers that some stores provided arrangements outside of the range. This required that I control for the possible effects created by price disparity.

### **Procedures**

The experiment occurred over a two-day period in January 2010 in Shreveport, Louisiana and Longview, Texas. These locations were chosen because of their geographic proximity to one another across the Louisiana state line (i.e., a one hour drive). All arrangements—25 from Louisiana and 25 from Texas—were purchased from stores in or around the two cities. Likewise, all florist-judges were recruited from in or around the respective cities. The floral retailers from whom the arrangements were purchased had no idea that their designs would be judged by other florists, which means the arrangements represented typical products purchased by consumers on any given day. All retailers were given a “theme” for the arrangements—sympathy—and some general parameters in which to work: Arrangements were to be within \$50 to \$75 and the arrangements were to be in a basket, vase, or bowl. Otherwise they were free to be creative in designing the arrangements, which they preferred. Almost to a person, the florists asked if I wanted arrangements displayed in online catalogues through FTD, Teleflora, or other nationwide services. When I said “no,” they were pleased, since they much preferred to create their own designs using seasonal flowers or materials they had on site or could purchase easily from a local wholesaler. This is important to note, as it ameliorates concerns of lack of variation based on state. The floral judges were recruited by mail, telephone, or email, depending on the contact information provided in the respective lists. They were asked to participate as judges in a floral design experiment similar to a floral competition, but they were not told that the primary intent was to measure differences based on licensure. Judges were each paid \$200 for participation.

The floral arrangements were rated in three separate sessions. The first session occurred in Longview, and the second and third occurred in Shreveport (one in the morning and one in the afternoon). All sessions were held in hotel conference rooms. The experiment looked much like a floral design competition. The 50 arrangements were randomly ordered on tables with identification numbers. Florist-

judges were given the rating sheets and asked to score all 50 arrangements based on the printed criteria, such as proportion, balance, color, form, and workmanship. Judges did not know any arrangement's state of origin or even that arrangements came from different states. Judges could take as much or as little time as they wished to rate the arrangements, up to three hours. After the completion of the rating period, judges participated in a focus group debrief during which they were asked about their perceptions of the arrangements, opinions of quality based on state of origin, and attitudes about licensure.

### Analyses

For the first research question, data were analyzed in a repeated measures design using hierarchical multivariate linear modeling (HMLM; Stephen Raudenbush, Bryk, & Congdon, 2007). This type of model is typically used when time represents the repeated measure. However, according to Raudenbush, Bryk, Cheong, Congdon, and Toit (2004), this model can also be used when the same subject (a floral arrangement in this case) is exposed to different conditions (different judges herein). Thus, the model takes the following form:

#### FIGURE 1 HMLM EQUATION

##### Level-1 Model

$$\begin{aligned} \text{Rating} = & (\text{Judge 1})(\text{Score 1}) + (\text{Judge 2})(\text{Score 2}) + (\text{Judge 3})(\text{Score 3}) + (\text{Judge 4})(\text{Score 4}) + (\text{Judge 5})(\text{Score 5}) \\ & + (\text{Judge 6})(\text{Score 6}) + (\text{Judge 7})(\text{Score 7}) + (\text{Judge 8})(\text{Score 8}) + (\text{Judge 9})(\text{Score 9}) + (\text{Judge 10})(\text{Score 10}) \\ & + (\text{Judge 11})(\text{Score 11}) + (\text{Judge 12})(\text{Score 12}) + (\text{Judge 13})(\text{Score 13}) + (\text{Judge 14})(\text{Score 14}) \\ & + (\text{Judge 15})(\text{Score 15}) + (\text{Judge 16})(\text{Score 16}) + (\text{Judge 17})(\text{Score 17}) + (\text{Judge 18})(\text{Score 18}) \\ & \text{Rating} = \pi_0 + \varepsilon \end{aligned}$$

##### Level-2 Model

$$\pi_0 = \beta_{00} + \beta_{01}(\text{ArrState}) + \beta_{02}(\text{Cost})$$

where,

rating = The scores assigned to the floral arrangements

Judge 1...Judge 18 = Indicator of the judge assigning a score

Score 1...Score 18 = Score of the respective judge

$\pi_0$  = Intercept at level 1

$\varepsilon$  = Error term at level 1

$\beta_{00}$  = Intercept at level 2

$\beta_{01}$  = Effect of arrangement state of origin

$\beta_{02}$  = Effect of cost

ArrState = Each arrangement's state of origin

Cost = The cost of the arrangement

In this analysis, the ArrState was coded using effects coding: Louisiana = 1, Texas = -1. The cost variable was mean centered. The intercept then takes on the value of the grand mean, and coefficients indicate deviations from the grand mean.

I also compared three different models (an unrestricted model, a homogeneous level-1 variance model, and a heterogeneous level-1 variance model) and concluded that the unrestricted model better fit the data than homogeneous ( $\chi^2 = 466.16$ ,  $p < 0.000$ ) and heterogeneous models ( $\chi^2 = 399.52$ ,  $p < 0.000$ ). For the second research question, data were analyzed using inter-rater reliability. Specifically, the consistency of judges in rating the arrangements was analyzed using intraclass correlation (ICC) with a two-way random effects model. Three sets of ICCs were run. The first examined the consistency of all judges across all arrangements, only Texas arrangements, and only Louisiana arrangements (i.e., those

created by a licensed florist). The second set considered the consistency of Louisiana (i.e., licensed) judges on all arrangements, just Louisiana arrangements, and only Texas arrangements. The third set examined the consistency of Texas judges on all arrangements, only Louisiana arrangements, and then only Texas arrangements.

Finally, focus group data were analyzed using standard qualitative coding procedures (Miles & Huberman, 1994; Straus & Corbin, 1998). Each focus group lasted between 45 and 60 minutes and was facilitated by the author. A research assistant maintained a transcript of the focus groups, and the author took detailed notes. The transcript and notes were compared to provide a reliability check. The analysis of the notes and transcript used a constant-comparative method, which produced an index of codes organized into the themes discussed below.

## RESULTS

### 1. Is there a significant difference in the ratings of floral arrangements between those created by licensed florists and those that are not?

Table 1 includes descriptive statistics. For all arrangements, the mean rating was essentially 29 points (on a 50-point scale). The average arrangement cost almost \$60, which was within the price range I set for the designers. When disaggregated by state, results indicate Louisiana arrangements had slightly higher ratings—30.42 points compared to 27.56 in Texas. Louisiana arrangements also came with greater price tags—\$67.11 on average compared to \$52.84 in Texas. Although the Texas mean was within the specified price range, four arrangements cost less than \$50. Thus, controlling for cost was potentially particularly important.

**TABLE 1  
DESCRIPTIVE STATISTICS FOR RATINGS AND ARRANGEMENT COSTS**

	<i>N</i>	<i>M</i>	<i>SD</i>
All Arrangements			
Rating	900	28.99	9.61
Cost	50	59.98	8.27
TX Arrangements			
Rating	450	27.56	9.40
Cost	25	52.84	5.11
LA Arrangements			
Rating	450	30.42	9.61
Cost	25	67.11	2.96

The HMLM results in Table 2 show that although cost included some variability outside the requested range, its effect is not significant. The variable of primary interest—arrangement state of origin—was also not statistically significant. After controlling for cost, there appears to be no difference in ratings between arrangements that come from Louisiana, where the floral license has been in existence in some form since 1936, and Texas, with no license.

**TABLE 2  
HMLM RESULTS**

	$\beta$	<i>se</i>	<i>t</i>	<i>p</i>
Intercept	27.60	1.99	13.85	0.00
Arrangement state of origin	-0.02	0.96	-0.03	0.98
Cost	0.13	0.12	1.14	0.26

## 2. What is the relationship in ratings assigned to floral arrangements between licensed and unlicensed florists?

The HMLM analysis examined differences in ratings based on state of origin, but the inter-rater reliability analysis provides a different perspective—the consistency of licensed versus unlicensed judges. As Table 3 illustrates, whether it was all judges or judges grouped by state, inter-rater reliability was strong or quite strong across the different arrangements, indicating strong consistency among judges in how they rated the arrangements. More specifically, whether the judges were licensed or not, they gave the arrangements similar scores; thus, it appears that Louisiana’s licensing law does not produce more discriminating florists.

**TABLE 3**  
**INTRACLASS CORRELATION COEFFICIENTS**

	ICC Coefficient	<i>F</i>	<i>p</i>
All Judges, All Arrangements	0.91	11.72	0.00
All Judges, Louisiana Arrangements	0.88	8.45	0.00
All Judges, Texas Arrangements	0.93	14.89	0.00
Louisiana Judges, All Arrangements	0.87	7.80	0.00
Louisiana Judges, Louisiana Arrangements	0.85	6.46	0.00
Louisiana Judges, Texas Arrangements	0.89	9.48	0.00
Texas Judges, All Arrangements	0.83	5.91	0.00
Texas Judges, Louisiana Arrangements	0.75	3.99	0.00
Texas Judges, Texas Arrangements	0.86	7.17	0.00

### Focus Group Results

In the focus groups, florists were first asked a few questions about the specific arrangements they rated, with the intention of “warming up” the participants and also masking the questions of primary interest—those related to licensure. When the focus group discussion turned to the latter topic, the judges’ comments were consonant with the quantitative findings presented above. As a reminder, the judges had no idea which arrangements came from which state or that the arrangements even came from different states. And before each focus group, I calculated the mean difference in ratings based on state as a way to present the participants with some tentative results and frame a question about licensing.

When I revealed the fact that the arrangements came from different states and the differences in ratings based on state were small, the judges did not appear at all surprised. The first dominant theme from the focus groups was that good florists could be found anywhere, not just in a particular location. The judges overwhelmingly agreed that quality of floral design depends on the person rather than the state or region. This view held even after it was pointed out that Louisiana requires a license and Texas does not. Again, almost all of the judges—including the licensed florists from Louisiana—expected no difference in the quality of arrangements because of Louisiana’s regulation. They noted that quality of work was a function of the standards set by individual businesses rather than a licensing regime, and those standards themselves were a function of consumer demand and market competition. As one florist commented, “If you don’t do good work, you’re not going to have any business.”

The second dominant theme was the low esteem in which the florist license is held among Louisiana florists. Most thought it provided little of value. All of them derided the practical test as outdated and irrelevant, since aspiring florists were tested on skills and knowledge that bear no resemblance to contemporary floristry. Instead, the practical test required test-takers to demonstrate proficiency with techniques that were abandoned decades ago. Moreover, the Louisiana florists dismissed the floral designs required on the test as “old school” and “ugly”—nothing a contemporary consumer would ever demand or want.



A third theme was the purposes florists ascribe to licensure. Many in the focus groups thought that instead of producing quality florists, the licensing requirement served two purposes—raising money for the state and shutting out competition. The license generates revenue from florists or aspirants through testing fees and annual licensure renewal. At the time of this data collection, test-takers paid the state of Louisiana \$150 each time they took the full test and \$100 each time they re-took the design portion. Annual licensure renewals cost \$75.

The second purpose, shutting out competition, was frequently mentioned by focus group participants. Most referred to it negatively, but a few supported the idea of excluding competition from “amateurs”—those who work out of their homes—or “freelancers”—people who buy flowers from the same wholesalers but create and sell arrangements through means other than a traditional florist shop or store. Despite these few, however, most disparaged the anti-competitive effects of licenses. One even shared how a competing floral shop across the street from her store repeatedly called the Louisiana Horticulture Commission, the agency responsible for administering the license, with trumped up complaints as a way to damage her business.

Because participants at no time ascribed any of the purported purposes to the license, I represented the views of licensing proponents by suggesting licensure was a beneficial way to protect the public from poor quality or unsafe florists or floral products. This was an idea representatives of the Louisiana Horticulture Commission and the state’s Agriculture Department repeatedly have asserted in defense of their license (Notes and quotes, 2007; United States District Court, 2004a, 2004b). The florist-judges were not convinced, however. They maintained that licensure served the aforementioned two purposes. In fact, the public health and safety suggestion drew skeptical laughter. As one Louisiana judge concluded, “You really can’t hurt anybody with a flower.”

## **DISCUSSION AND CONCLUSION**

This study examined some hypothesized benefits associated with an occupational license in one long-regulated industry in Louisiana—floristry. In so doing, this article adds to the small but growing literature that has considered a number of occupations with licenses as a way to determine to what extent licensing regulations result in theorized benefits that might justify the effects and costs associated with licensure systems. Results indicate the license appears not to result in a statistically significant difference in quality of product, nor do licensed practitioners appear to differ from unlicensed practitioners in how they rate a sample of products in their industry. Instead, florist-judges, whether or not they worked under a license, appeared quite consistent in how they rated 50 floral arrangements from randomly chosen floral retailers.

Such results add further support to earlier studies that find little evidence of purported benefits from licensing (Angrist & Guryan, 2008; Buddin & Zamarro, 2008; Carpenter, 2008; Carroll & Gaston, 1981; Kleiner & Kudrle, 2000; Kleiner & Petree, 1988; Kleiner & Todd, 2007; Paul, 1984; Skarbek, 2008). Given recent estimates that licenses increase wages as much as 15% (Kleiner & Krueger, 2010), which are typically borne by consumers in higher costs, this body of research calls into question whether society truly benefits from licenses in light of real costs. The costs are not limited only to the consuming public; they can also be borne by potential workers. By design, licenses fence out would-be practitioners who fail testing regimes or lack the wherewithal to complete the training, educational, or apprenticeship requirements (Kleiner, 2006b). Although using the power of the state to fence out unqualified aspirants may seem reasonable in some professions (physicians, for example) where important knowledge is abstract and asymmetric (Akerlof, 1970; Elliott, 1972) and in which a consumer’s choices are higher stakes, it seems less so in non-technical occupations, like floristry, where abstract or asymmetric knowledge is not prevalent, where consumers’ choices are lower stakes, and/or where there is little to no evidence of significant public benefit from the license, such as this article demonstrates. As a result, non-technical occupations that would be ideal for those entering or re-entering the employment or entrepreneurial sector are fenced off through regulation. Using the “economic ladder” metaphor discussed by Williams (1982), licenses eliminate the first rungs, making it unnecessarily more difficult to mount the economic ladder.

This is not to say that society receives no benefit or finds no value in “signals” of quality and competence commonly associated with licensing (Spence, 1973). Rather, the question is whether such signaling requires state sanctioned licenses that come with real costs instead of other forms of signaling that come without such costs. The latter is commonly referred to as “market transparency” (Friedman, 1962; Haas, 2008; Stigler, 1971) where consumers receive signals through traditional vehicles like warranties or brand names (Akerlof, 1970). Other signaling occurs through third party consumer organizations, such as the Better Business Bureau (Klein, 2001; Skarbek, 2008), and more contemporary versions built on new information and communication technologies (Potts, 2009), such as Angies list ([www.angieslist.com](http://www.angieslist.com)).

There is also credentialing through private or nonprofit professional associations that grant credentials to practitioners who successfully demonstrate the requisite knowledge, skills, and/or education (Freidson, 1986). Examples include ASE certification for automobile mechanics, CTC designation for travel agents, or CFP appellation for financial planners. In this scheme, a private non-profit industry body oversees the process and grants the certificate. Certification is not mandatory; therefore a non-certified practitioner also may provide similar services. However, given that certification indicates the achievement of a certain level of skill, some consumers might pay a premium for using a certified practitioner as opposed to a non-certified one as a way to receive some assurance of higher quality products or services.

Specific to florists, multiple designations currently exist. At the national level, the American Institute of Floral Designers offers certification that requires a prescribed educational background, a written test, and a practical test to earn the title of Certified Floral Designer (American Institute of Floral Designers, n. d.). State floral associations also offer similar designations. For example, Texas—one of the states included in the experiment reported herein—has a professional association that offers a “master florist” title. This certification requires the completion of a series of training workshops and a multi-stage testing regime before certification (<http://www.tsfa.org/default.aspx?p=TMFInformation>). Interestingly, the Louisiana State Florist Association offers its own “master florist” designation. This certification could serve the same signaling function to prospective florist employers and consumers without the aforementioned costs associated with licensure.

In a postscript to this research, that certification program may become more active. Despite the assertion by Potts (2009) that occupational deregulation almost never occurs, in June 2010 (six months after the data in this article were gathered), Governor Jindal signed a law stripping the florist license of its practical test, leaving in place the fees associated with the license and the written test (Scott, 2010a). Louisiana’s legislature passed the bill after a lawsuit, claiming an unconstitutional infringement upon the right to work, was filed against the state (Scott, 2010b). Because of that legislation, the lawsuit was dropped, and Louisiana continues to license florists.

## REFERENCES

- Abbott, A. (1988). *The system of professions*. Chicago: University of Chicago Press.
- Abel, R. L. (1979). The rise of professionalism. *British Journal of Law and Society*, 6(1), 82-98.
- Adams, A. F., Jackson, J. D., & Ekelund, R. B. (2002). Occupational licensing of a credence good: The regulation of midwifery. *Southern Economic Journal*, 69(3), 659-675.
- Akerlof, G. A. (1970). The market for lemons: Qualitative uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84(3), 488-500.
- American Institute of Floral Designers. (n. d.). Certified floral designer. Retrieved February 5, 2010, from <http://www.aifd.org/NewMembership/Accreditation.htm>.

- Angrist, J. D., & Guryan, J. (2008). Does teacher testing raise teacher quality? Evidence from state certification requirements. *Economics of Education Review*, 27, 483–503.
- Belcher, B. (1993). *Creative flower arranging: Floral design for home and flower show*. Portland, OR: Timber Press.
- Brain, D. (1991). Practical knowledge and occupational control: The professionalization of architecture in the United States. *Sociological Forum*, 6, 239-268.
- Buddin, R., & Zamarro, G. (2008). Teacher qualifications and student achievement in urban elementary schools. *Journal of Urban Economics*, 66, 103–115.
- Carpenter, C. G., & Stephenson, E. F. (2006). The 150-hour rule as a barrier to entering public accountancy. *Journal of Labor Research*, 27(1), 115-126.
- Carpenter, D. M. (2008). Regulation through titling laws: A case study of occupational regulation. *Regulation and Governance*, 2(3), 340-359.
- Carroll, S. L., & Gaston, R. J. (1981). Occupational restrictions and the quality of service received: Some evidence. *Southern Economic Journal*, 47(4), 959-976.
- Chevalier, J. A., & Morton, F. M. S. (2008). State casket sales restrictions: A pointless undertaking? *Journal of Law and Economics*, 51, 1-23.
- DelPrince, J. M. (2005). *AIFD Guide to Floral Design terms, techniques, and traditions*. Baltimore, MD: American Institute of Floral Designers.
- Dorsey, S. (1983). Occupational licensing and minorities. *Law and Human Behavior*, 7(2-3), 171-181.
- Elliott, P. (1972). *The sociology of the professions*. London: Macmillan.
- Elzinga, A. (1990). The knowledge aspect of professionalization: The case of science-based nursing education in Sweden. In R. Torstendahl & M. Burrage (Eds.), *The formation of professions* (pp. 151-173). London: Sage.
- Federman, M. N., Harrington, D. E., & Krynski, K. J. (2006). The impact of state licensing regulations on low-skilled immigrants: The case of Vietnamese manicurists. *American Economic Review*, 96(2), 237-241.
- Finch, S. (2004, January 5). Florist licensing under attack; Lawsuit says test is unconstitutional, *New Orleans Times-Picayune*, p. 1.
- Freidson, E. (1986). *Professional powers*. Chicago: University of Chicago Press.
- Freidson, E. (1994). *Professionalism reborn: Theory, prophecy, and policy*. Chicago: University of Chicago Press.
- Freidson, E. (2001). *Professionalism: The third logic*. Chicago: University of Chicago Press.
- Friedman, M. (1962). *Capitalism and freedom*. Chicago: University of Chicago Press.

- Haas, J. (2008). Occupational licensing versus company-led training: The controversy over the competence assurance system for European aircraft technicians. *European Societies*, 10(4), 597-617.
- Halliday, T. C. (1987). *Beyond monopoly*. Chicago: University of Chicago Press.
- Harrington, D. E., & Krynski, K. J. (2002). The effect of state funeral regulations on cremation rates: Testing for demand inducement in funeral markets. *Journal of Law & Economics*, 45, 199-223.
- Harrington, D. E., & Treber, J. (2009). *Designed to exclude*. Arlington, VA: Institute for Justice.
- Hellberg, I. (1990). The Swedish veterinary profession and the Swedish state. In R. Torstendahl & M. Burrage (Eds.), *The formation of professions* (pp. 174-185). London: Sage.
- Hunter, N. T. (2000). *Art of Floral Design* (2nd ed.). Albany, NY: Delmar.
- Jackson, R. E. (2006). Post-graduate educational requirements and entry into the CPA profession. *Journal of Labor Research*, 27(1), 101-114.
- Jacob, J., & Murray, D. (2006). Supply-side effects of the 150-hour educational requirement to CPA licensure. *Journal of Regulatory Economics*, 30(2), 159-178.
- Johnson, L. L., & Loucks, C. (1986). The effects of state licensing regulations on the real estate brokerage industry. *Real Estate Economics*, 14(4), 567-582.
- Johnson, T. (1972). *Professions and power*. London: MacMillan.
- Karpik, L. (1990). Technical and political knowledge: The relationship of lawyers and other legal professions to the market and the state. In R. Torstendahl & M. Burrage (Eds.), *The formation of professions* (pp. 186-197). London: Sage.
- Klein, D. B. (2001). The demand for and supply of assurance. *Economic Affairs*, 21(1), 4-11.
- Kleiner, M. M. (2000). Occupational licensing. *Journal of Economic Perspectives*, 14(4), 189-202.
- Kleiner, M. M. (2006a). A license for protection. *Regulation*, 29(3), 17-21.
- Kleiner, M. M. (2006b). *Licensing occupations: Ensuring quality or restricting competition*. Kalamazoo, MI: Upjohn Institute.
- Kleiner, M. M., & Krueger, A. B. (2008). *The prevalence and effects of occupational licensing*. Cambridge, MA: National Bureau of Economic Research.
- Kleiner, M. M., & Krueger, A. B. (2010). The prevalence and effects of occupational licensing. *British Journal of Industrial Relations*, 48(4), 676-687.
- Kleiner, M. M., & Kudrle, R. T. (2000). Does regulation affect economic outcomes: The case of dentistry. *Journal of Law and Economics*, 43(2), 547-582.
- Kleiner, M. M., & Petree, D. L. (1988). Unionizing and licensing of public school teachers: Impact on wages and educational output. In R. B. Freeman & C. Ichniowski (Eds.), *When public sector workers unionize* (pp. 305-319). Chicago: University of Chicago Press.

Kleiner, M. M., & Todd, R. M. (2007). Mortgage broker regulations that matter: Analyzing earnings, employment, and outcomes for consumers. Cambridge, MA: National Bureau of Economic Research.

Lamancusa, K. (1990). *Floral design*. Blue Ridge Summit, PA: Tab.

Larson, M. S. (1977). *The rise of professionalism: A sociological analysis*. Berkeley, CA: University of California Press.

Legislature of the State of Louisiana. (1936). *Acts passed by the legislature of the state of Louisiana at the regular session*. Baton Rouge, LA: State of Louisiana.

Leland, H. E. (1979). Quacks, lemons, and licensing: A theory of minimum quality standards. *Journal of Political Economy*, 87(6), 1328-1346.

Lueck, D., Olsen, R., & Ransom, M. (1995). Market and regulatory forces in the pricing of legal services. *Journal of Regulatory Economics*, 7(1), 63-83.

Mester, J. L., Trepanier, A. M., Harper, C. E., Rozek, L. S., Yashar, B. M., & Uhlmann, W. R. (2009). Perceptions of licensure: A survey of Michigan genetic counselors. *Journal of Genetic Counseling*, 18, 357-365.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.

Notes and quotes. (2007, June 6). Notes and quotes from the Louisiana Legislature, *Associated Press State & Local Wire*, npn.

Paul, C. (1984). Physician licensure legislation and the quality of medical care. *Atlantic Economic Journal*, 12(4), 18-30.

Peterson, M. A. (2001). From trust to political power: Interest groups, public choice, and health care. *Journal of Health Politics, Policy, and Law*, 26(5), 1146-1163.

Potts, J. (2009). Open occupations--why work should be free. *Economic Affairs* 29(1), 71-76.

Pryke, P. (2006). *Flower school: Mastering the art of floral design*. New York: Rizzoli.

Raudenbush, S., Bryk, A., Cheong, Y. F., Congdon, R., & Toit, M. (2004). *HLM 6*. Lincolnwood, IL: Scientific Software International.

Raudenbush, S., Bryk, A., & Congdon, R. (2007). *HLM for windows* (Version 6.04). Lincolnwood, IL: SSI Scientific Software International.

Scott, R. T. (2010a, June 16). Governor poised to pluck out florists' flower-arranging test, *New Orleans Times-Picayune* p. A01.

Scott, R. T. (2010b, March 4). Lawsuit attempts to kill state's florist licensing law; La. is only one with the requirement, *New Orleans Times-Picayune*, p. A03.

Senate of the State of Louisiana. (1936). *Official journal of the Senate of Louisiana*. Baton Rouge, LA: State of Louisiana.

- Shapiro, C. (1986). Investment, moral hazard, and occupational licensing. *Review of Economic Studies*, 53(5), 843-862.
- Shilling, J. D., & Sirmans, C. F. (1988). The effects of occupational licensing in complaints against real estate agents. *Journal of Real Estate Research*, 3(2), 1-9.
- Skarbek, D. (2008). Occupational licensing and asymmetric information: Post-hurricane evidence from Florida. *Cato Journal*, 28(1), 73-82.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355-374.
- Stigler, G. (1971). The theory of economic regulation. *Bell Journal of Economics and Management Science*, 2(1), 3-21.
- Straus, A., & Corbin, J. (1998). *Basics of qualitative research*. Thousand Oaks, CA: Sage.
- Summers, A. (2007). Occupational licensing: Ranking the states and exploring alternatives. Los Angeles: Reason Foundation.
- Svensson, L. G. (1990). Knowledge as a professional resource: Case studies of architects and psychologists at work. In R. Torstendahl & M. Burrage (Eds.), *The formation of professions* (pp. 51-70). London: Sage.
- Timmermans, S. (2008). Professions and their work: Do market shelters protect professional interests? *Work and Occupations*, 35(2), 164-188.
- Timmons, E. J., & Thornton, R. J. (2008). The effects of licensing on the wages of radiologic technologists. *Journal of Labor Research*, 29, 333-346.
- Turner, S. (2001). What is the problem with experts? *Social Studies of Science*, 31, 123-149.
- United States District Court. (2004a). Sandy Meadows et al., v. Bob Odom et al.; Answers to Interrogatories. Baton Rouge, LA: Middle District Court of Louisiana.
- United States District Court. (2004b). Sandy Meadows, Shamille Peters, and Barbara Peacock v. Bob Odom et al.; Testimony of Ben Knight Baton Rouge, LA: Middle District Court of Louisiana.
- Weisz, G. (1983). *The emergence of modern universities in France, 1863-1914*. Princeton, NJ: Princeton University Press.
- White, W. (1978). The impact of occupational licensure of clinical laboratory personnel. *Journal of Human Resources*, 13, 91-102.
- White, W. (1980). Mandatory licensing of registered nurses: Introduction and impact. In S. Rottenberg (Ed.), *Occupational licensure and regulation* (pp. 47-72). Washington, DC: American Enterprise Institute.
- Williams, W. E. (1982). *The state against blacks*. New York: McGraw-Hill.
- Zukin, S. (1998). Urban lifestyles: Diversity and standardization of spaces of consumption. *Urban Studies*, 35(5-6), 825-840.