RESEARCH IN FOCUS

The Center for Growth and Opportunity at Utah State University

Does Occupational Licensing Impact Access to Dental Care?

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Introduction

Occupational licensing laws—entry regulations placed on professions by state and local government agencies—affect broad swaths of the American economy. These regulations require practitioners to obtain state-certified licenses before they can practice their professions legally.[1] Licensing requirements affect all kinds of professional work, from hairdressers and plumbers to doctors and lawyers.[2]

Although the occupations licensed and the stringency of licensing rules vary by location, every state requires that dentists be licensed.[3] Dental licensing is meant to protect consumers and ensure that only qualified practitioners perform technical procedures, but licensing may actually restrict the availability of dental-care services to consumers.[4]

There is a need in the United States for greater access to dental and oral health services. As of 2018, over five thousand three hundred dental Health Professional Shortage Areas had been identified nationwide. Nearly fifty-four million people live in those shortage areas, and the Bureau of Health Workforce estimates that almost ten thousand additional practitioners are needed to meet their needs.[5]

Occupational licensing rules likely are contributing to this shortage as they often prevent mid-level dental-care providers, such as dental therapists and dental hygienists, from performing low-risk, non-invasive procedures without supervision by a licensed dentist.[6] According to occupational licensing research, such restrictions may shrink the available pool of dental-care providers and increase the cost of receiving those procedures.[7] For example, teeth cleaning sometimes is restricted to the practice of dentistry despite its low risk.[8] Not only do independent dental therapists and hygienists have the ability to perform these services, but evidence in occupational licensing literature suggests that the quality of care provided is on par with that of supervised professionals.[9]

This research-in-focus piece examines existing research on occupational licensing with specific emphasis on aspects that relate to dental care. We first highlight the need for accessible dental care. We then examine the effect of occupational licensing on access to dental care, specifically focusing on how it impacts quality, cost, and availability. We explore how mid-level providers may expand access to care, and we end with a conversation about reforming occupational licensing laws. Our key finding is that reforming laws that limit access to mid-level dental-care providers could reduce dental costs and provide more opportunities for Americans to receive dental care.

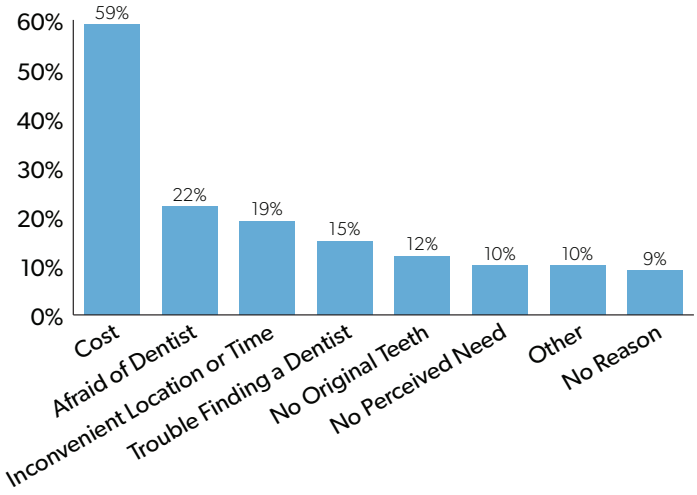
The Importance of Access to Dental Care

The quality of dental care available to Americans has improved dramatically over the past fifty years, yet disparities remain.[10] About 36 percent of children in low-income households suffer from untreated decay in their primary (baby) teeth compared to about 17 percent of children in wealthier households.[11] The Centers for Disease Control and Prevention found that Hispanics and African Americans had rates of untreated tooth decay almost twice that of whites—36 and 42 percent, respectively, versus 22 percent.[12] Minorities also account for a significantly larger fraction of low-income households than whites.[13]

According to a survey conducted by the American Dental Association, one in five low-income adults admit to poor oral health and 39 percent of respondents say that life is "less satisfying due to the condition of [their] mouth and teeth."[14] Despite that evidence, the report states that 80 percent of low-income adults and 63 percent of all adults had not visited a dentist within the last year.[15] A more recent estimate from the Centers for Disease Control and Prevention shows that 35 percent of adults had not seen a dentist within the previous year.[16]

The primary reason people give for not visiting a dentist is the cost of services.[17] Of adults who had not visited a dentist in the last year, 59 percent pointed to high fees for dental care as the main reason for not seeking oral health services, as shown in Figure 1.[18]

Figure 1: Reasons for Not Visiting the Dentist More Frequently, Among Those Without a Visit in the Last 12 Months



Source: American Dental Association and Health Policy Institute, ***Oral Health and Well-Being in the United States***

The Role of Occupational Licensing in Access to Dental Care

Dentists, attorneys, and physicians were some of the earliest occupations to be licensed by states. As of 1888, 50 percent of states required dentists to be licensed.[19] By 1935, every state required a license to practice dentistry.[20]

Licensing rules are meant to protect consumers from predatory or incompetent professionals in service industries.[21] Occupational licensing works by creating a barrier to entry into a field.[22] By imposing requirements such as educational requirements (or training), tests, and fees, regulators intend to ensure each certified provider is capable of performing the services they advertise.

Economists in recent decades have invested substantial effort in identifying the effects of occupational licensing regulations. The studies generally examine the costs of licensing—both to consumers and to laborers who must become licensed —their impact on quality, their impact on wages, and their impact on the overall size of the licensed workforce. Dentistry occupies a different space from that of many licensed occupations because of the risk and complexity of dental procedures, but economists have found that licensing in dentistry has produced similar outcomes to other industries. Stricter licensing tends to reduce the supply of labor to the affected occupations and raises prices without always increasing the quality as intended.[23]

Effect of Licensing on Quality and Cost

At its core, licensing is meant to ensure high quality of service for consumers. Despite these intentions, it is unclear whether occupational licensing actually leads to better results. The Mercatus Center published a review of the findings of nineteen studies examining occupational licensing and related outcomes. According to the researchers, only three of the studies found that occupational licensing regulations had a positive effect on outcomes for consumers, whereas four of them found negative impacts related to occupational licensing. Most of the studies—63 percent—found that the results were unclear, mixed, or neutral.[24]

One study from that review was a paper by economists Morris Kleiner and Robert Kudrle. Their paper examined the oral health of Air Force recruits from across the country and compared the recruits' health to the difficulty of becoming a licensed dentist in each of the states. Their findings suggest that stricter licensing requirements for dentists did not improve oral health outcomes but did raise prices of dental services.[25] That finding implies that stricter licensing requirements in general could increase costs without raising quality.

Another study, focused on the effects of state licenses for child care providers, finds that licensing did improve the quality of care that children received. However, according to the authors, licensing also "significantly reduces the number of operating child care centers, especially in lower-income markets," meaning that only children in more affluent areas where centers remained benefited from the quality improvements.[26]

A review the Obama administration produced finds that in nine of eleven studies, "significantly higher prices accompanied stricter licensing."[27] Likewise, all nineteen papers reviewed in the study by the Mercatus Center find that licensure increases prices.[28] As mentioned above, the cost of dental services is the single most cited reason why individuals do not visit the dentist. Removing some of these barriers could help lower prices and thus increase access to dental care.

Effect of Licensing on Availability

Because licensing rules act as barriers to entry into licensed occupations, the supply of new professionals is reduced and competition between providers is less vigorous. The main beneficiaries of such barriers to entry are the licensed practitioners already in the market. Using labor-market data from the Census Bureau and data from previous work, economists Peter Blair and Bobby Chung created a model that examined occupations that were licensed in one state but not in a neighboring state. They find that in states with occupational licensing, the number of laborers in that industry was 17–27 percent lower, on average, suggesting that licensing has a negative and significant effect on the supply of labor in licensed occupations.[29]

A study by economists Janna Johnson and Morris Kleiner finds that individuals in occupations with state-specific licensing requirements have an interstate migration rate 16 percent lower than that of similarly licensed individuals who have the option of passing a national exam recognized by state licensing boards.[30] Furthermore, they point out, dentists, dental hygienists, and social workers have very low interstate migration rates compared to the other occupations studied. Although national exams are administered for all three of those occupations, the authors point to state-specific courses for social workers and clinical exams for dental professionals as possible causes of the relatively low rates of interstate migration observed in those occupations.[31] Such barriers to changing practice locations can reduce the flow of dental professionals to areas where they are needed, exacerbating existing accessibility issues.

How Mid-level Providers Can Improve Access to Dental Care

Mid-level providers are professionals in health care fields that can perform many of the same functions performed by doctors and dentists, but they require less training and therefore offer services at lower costs.[32]

Table 1: Provider Education Costs

Type of Provider	Years of Education and Training	Tuition and Fees	Room and Board	Total Out-of-Pocket Costs (Tuition, Fees, Room, and Board)	Opportunity Costs (Foregone Income)	Total Cost (Out-of-Pocket & Opportunity Costs)
Dentist	8	$322,000	$80,000	$402,000	$272,000	$674,000
Registered Dental Hygienist 2-year program	2	$36,000	$20,000	$56,000	$68,000	$124,000
Registered Dental Hygienist 3-year program (1 year of pre-requisite courses & 2 year program)	3	$54,000	$30,000	$84,000	$102,000	$186,000
Registered Dental Hygienist/Advanced Dental Therapist	5	$90,000	$30,000	$120,000	$136,000	$276,000
Registered Dental Hygienist + Dental Therapist Program (Student is an Registered Dental Hygienist and completes an additional year to become a Dental Therapist)	1	$18,000	$10,000	$28,000	$55,000	$83,000
Dental Health Aide Therapist (Alaska only)	2	$36,000	$20,000	$56,000	$68,000	$124,000

Source: Jay W. Mathu-Muju and Kavita R. Mathu-Muju, "Dental Therapists: Improving Access to Oral Health Care for Underserved Children," ***American Journal of Public Health*** (June 2014), https://doi.org/10.2105/AJPH.2014.301895.

Reforms that allowed for mid-level providers in the healthcare industry and subsequent policy changes that have widened their scope of practice—the number of procedures they are licensed to perform—have led to better outcomes for both consumers and service providers. Research suggests that laws expanding the scope of practice for physician assistants and nurse practitioners have led to higher wages for mid-level practitioners, less expensive procedures for consumers, and an overall increase in access to health care.[33]

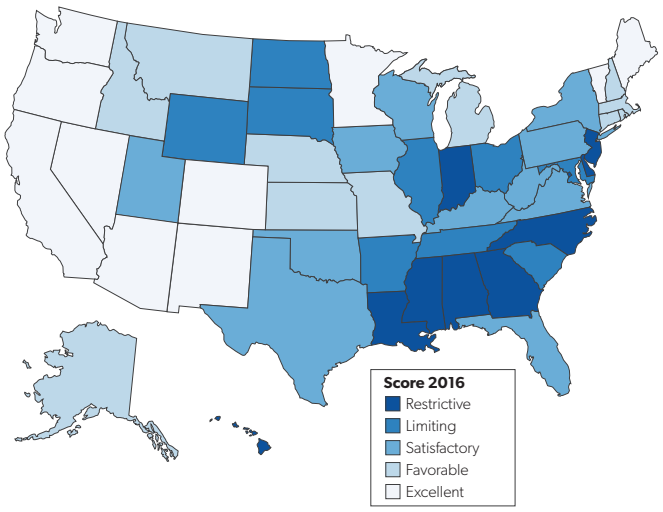
Dentistry has seen similar reforms with the incorporation of mid-level providers, but a number of opportunities still remain for lowering occupational licensing barriers and increasing consumer access.

Table 1 provides a breakdown of the average cost and length of schooling for dentists and related mid-level dental care providers. The latter's lower level of required training means mid-level service providers often are not qualified to perform complex and in-depth procedures performed by specialists. They can, however, provide less complicated procedures at a lower cost.[34] Many of those procedures include preventative care, such as teeth cleanings and sealants, which can protect consumers from more expensive emergency procedures such as tooth extractions and root canals.[35]

Dental hygienists, whose role typically includes performing routine teeth cleanings and other preventative-care procedures, are the most common mid-level providers of dental care.[36] They are limited by scope-of-practice laws that dictate the number of hours required to receive and maintain certification, what procedures hygienists are allowed to perform, and the type of supervision required.[37] Over the past few decades, states have begun to reduce those restrictions to make dental-hygienist care more accessible to consumers by allowing patients to have direct access to dental hygienists.[38] Those reforms mean that dental hygienists can treat patients without the authorization or supervision of a licensed dentist.[39] As of April 2018, forty-two states allowed patients direct access to dental hygienists in some form.[40]

The types of services that dental hygienists can provide vary by state. Colorado and Maine, for example, impose few limits in their scope-of-practice laws, whereas many southeastern states, such as Alabama and Mississippi, have enacted much more restrictive scope-of-practice laws.[41] Figure 2 illustrates the wide variation in scope-of-practice laws throughout the United States. Each state is given a score based on the level of autonomy of dental hygienists.

Figure 2: *Map of the 2016 DHPPI Scores and Ranking of States by Quintiles Based on Scores*



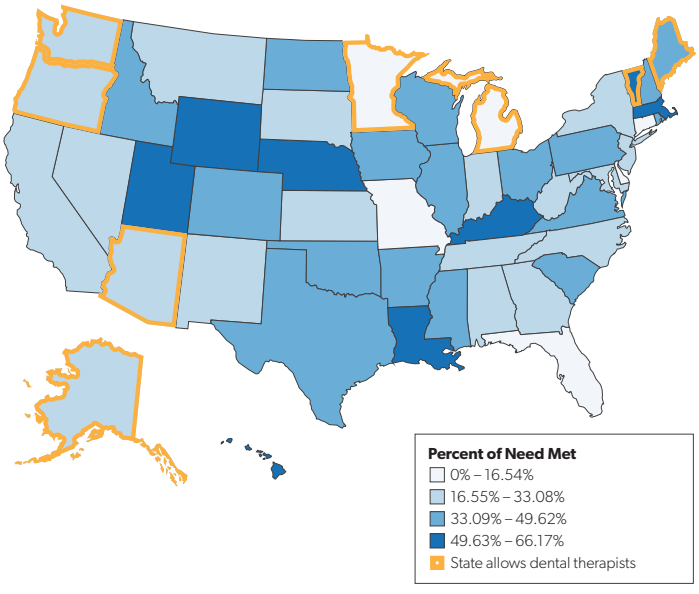
Source: M. Langelier, et al., "Development of a Dental Hygiene Professional Practice Index by State," 2016, Center for Health Workforce Studies, http://www.chwsny.org/wp-content/uploads/2016/12/SOP_Policy_Brief_2016-1.pdf

A number of studies suggest that expanding the scope of practice for dental hygienists expands access to primary dental care. One report from the National Center for Health Workforce Analysis finds that broader scope of practice for dental hygienists is "significantly and positively correlated" with more individuals receiving oral health care, including larger percentages of individuals getting their teeth cleaned and visiting the dentist.[42] Another report from the National Center for Health Workforce Studies finds similar results, as greater autonomy for dental hygienists is positively correlated with access to oral health services and oral health.[43]

Much as past reforms led to higher wages for nurse practitioners and lower costs for consumers, reducing licensing restrictions on dental hygienists could result in better outcomes for both hygienists and their patients.[44]

Dental therapists, another type of mid-level dental care provider, recently have begun to practice in the United States. Dental therapists offer preventative care similar to dental hygienists, but they also can offer restorative or permanent procedures, including filling cavities or performing simple extractions. As of March 2019, dental therapists were allowed to practice in some form in eight states.[45] Figure 3 outlines in orange the states where dental therapists practice. The same figure also shows the severity of Health Professional Shortage Areas in each state. The lighter the color, the greater the need for dental professionals.

Figure 3: *Dental Care Health Professional Shortage Areas (HPAs) as of December 31, 2018*



Sources: John Grant and Kristen Mizzi Angelone, "Michigan Becomes 8th State to Authorize Dental Therapists," Pew Charitable Trusts, December 31, 2018, https://www.pewtrusts.org/en/research-and-analysis/articles/2018/12/31/michigan-becomes-8th-state-to-authorize-dental-therapists. See also Henry J. Kaiser Family Foundation, December 31, 2018, "Dental Care Health Professional Shortage Areas (HPSAs), https://www.kff.org/other/state-indicator/dental-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D.

Dental therapists have thus far been allowed to practice mainly in states already home to large numbers of Health Professional Shortage Areas. The main driver for allowing dental therapists to practice in such states has been policy makers' desire to increase access to dental care.[46] The reforms have notably increased the availability of dental services to underserved populations.[47]

In 2005, Alaska was the first state to allow dental therapists to practice, but its scope of practice was limited to Native American communities.[48] A 2017 report conducted at the University of Washington asked whether differences in access to preventative care and overall dental health existed between Yukon Kuskokwim communities in which dental therapists practiced and areas in which they did not. The study finds that the members of those communities in which dental therapists worked received more preventative care and had fewer teeth extractions—indications of greater overall health.[49]

To address the oral health problems of low-income, minority, and elderly individuals, Minnesota passed a law in 2009 that allows dental therapists to practice in settings that focus on treating low-income patients or in Health Professional Shortage Areas.[50] A Minnesota Department of Health report examines the early impacts of the thirty-two dental therapists who were licensed as of February 2014, finding that many clinics saw reductions in waiting times for patients and an increase in new patients directly attributable to the addition of a dental therapist to the team.[51] About one-third of the patients surveyed by the study's authors reported having shorter waits for treatment because their local clinic had hired a dental therapist.[52] Reducing barriers to entry for mid-level providers may have a positive impact on consumer health.

Reforming Scope-of-Practice Laws to Increase Access to Dental Care

A need for broader access to dental care at lower prices is evident. Reforming occupational licensing rules in other industries has increased social welfare. Similar changes in the dental field could expand access to dental care for poor and underserved communities while also lowering the cost of care for everyone. Many of the changes are as simple as expanding scope-of-practice laws for mid-level providers, especially in states where licensing laws are currently restrictive.

As lawmakers pursue occupational licensing reforms within their states, it is important that they consider highly specialized fields like dentistry in addition to low-skilled occupations. The existing academic literature on the issue suggests that broad welfare improvements can be achieved when licensed professionals are given more freedom to practice.

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