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POLICY BRIEF

A Snapshot of Healthcare Regulations in Southeastern States

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Healthcare in the United States is complex and expensive, a consequence of decades of regulatory accumulation. The relationship between federal and state regulations has further complicated the effects of regulation on the healthcare industry. Certificate-of-need (CON) laws, occupational licensing laws, scope-of-practice laws, reimbursement regulations, insurance coverage regulations, and myriad other regulations have resulted in one of the most expensive healthcare systems in the world, and they have resulted in outcomes that are directly are odds with the stated purpose of the regulations. For example, CON laws, which regulate the major capital expenditures of new and existing hospitals, have led to 99 fewer hospital beds per 100,000 people.[1] Occupational licensing restrictions have discouraged people from changing their job or moving to another state. Although not all regulations are necessarily detrimental, their sheer volume means that they are likely to result in some adverse outcomes.

All around the nation, spurred by the COVID-19 pandemic, states have been reviewing how to use existing regulations to address challenges in healthcare delivery. Telehealth, occupational licensing, scope of practice, and CON have all received the attention of scholars and policymakers as tools for responding to the pandemic and for improving health outcomes in the long term.

This snapshot is the first in a series that will compare the healthcare regulatory landscapes and highlight areas for reform across states, beginning with the Southeast region of the United States. The Southeast region, as defined by the Bureau of Economic Analysis, comprises Alabama, Arkansas,[2] Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia. We use public data and proprietary data produced through the Quantitative Health Lab (QHL), an initiative of the Open Health Program at the Mercatus Center at George Mason University.

The rest of this snapshot proceeds as follows: We first briefly describe our primary data sources. Then we summarize healthcare regulatory restrictions in the Southeast region, compare the volume of healthcare regulatory restrictions to that of other types of regulation, and consider the volume of each state's regulatory restrictions in the context of each state's size. We show that healthcare regulations represent a significant portion of state regulations. After that, we discuss specific types of regulations, including CON laws, scope-of-practice laws, telehealth regulations, and occupational licensing restrictions in healthcare. Next, we review health outcomes and health services in the region, and we also discuss the Healthcare Openness and Access Project (HOAP) index scores for the region. Following that, we briefly discuss state-level health outcomes in the region, and we conclude the snapshot by highlighting some opportunities for reform.

DATA SOURCES AND METHODOLOGY

We use data from multiple sources, including unique data generated through the QHL. These data come from the RegData suite of datasets, namely State RegData, State Healthcare RegData, and Occupational Licensing RegData. In addition, we include other data compiled by Mercatus scholars such as data on the prevalence of CON laws, HOAP index scores, and data on scope-of-practice regulations. Each data source is described in the appendix, with a particular emphasis on RegData.

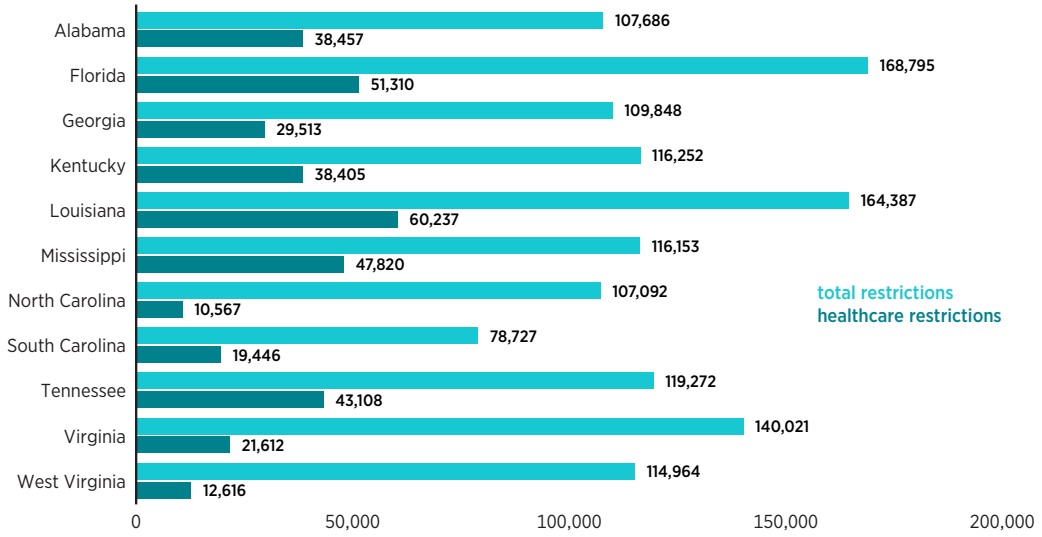
STATE HEALTHCARE REGULATORY RESTRICTIONS

The simplest way to quantify healthcare regulations is to count the number of regulatory restrictions. State Healthcare RegData contains these counts. Figure 1 shows the variations in regulatory restrictions across the Southeast region. The light teal bars show the total number of regulatory restrictions in each state, and the dark teal bars show the total number of healthcare regulatory restrictions.

In terms of total regulatory restrictions, Florida (168,796) leads the region, with Louisiana (164,387) in a close second place, and South Carolina (78,727) has the fewest restrictions. However, in terms of healthcare restrictions, Louisiana (60,237) leads the region.

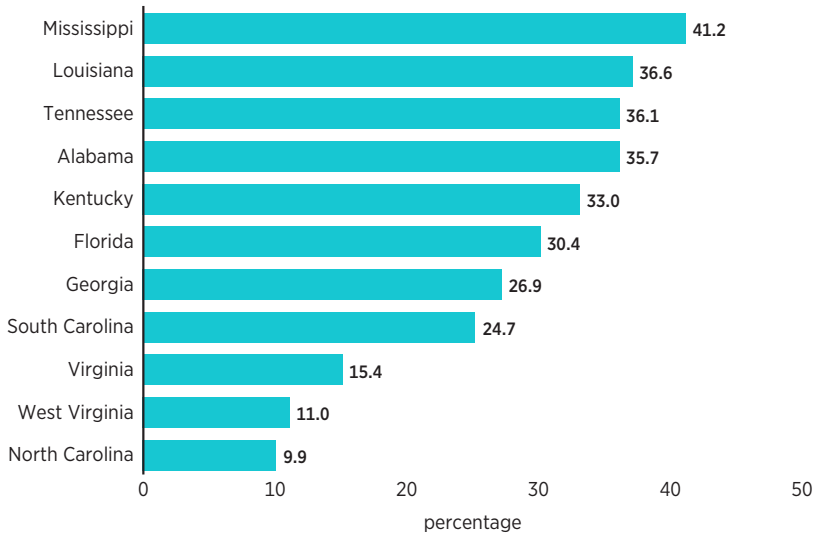
Figure 2 shows healthcare regulatory restrictions as a share of total regulatory restrictions across the region. There is no direct correlation between the total number of restrictions and the number of healthcare restrictions. The number of restrictions can vary depending on how important an industry is to a state. For example, in West Virginia, the mining sector is the third-greatest contributor to state GDP, and among all the states in the region, West Virginia has the greatest number of restrictions on mining.[3]

Figure 1. State Regulatory Restrictions in the Southeast Region



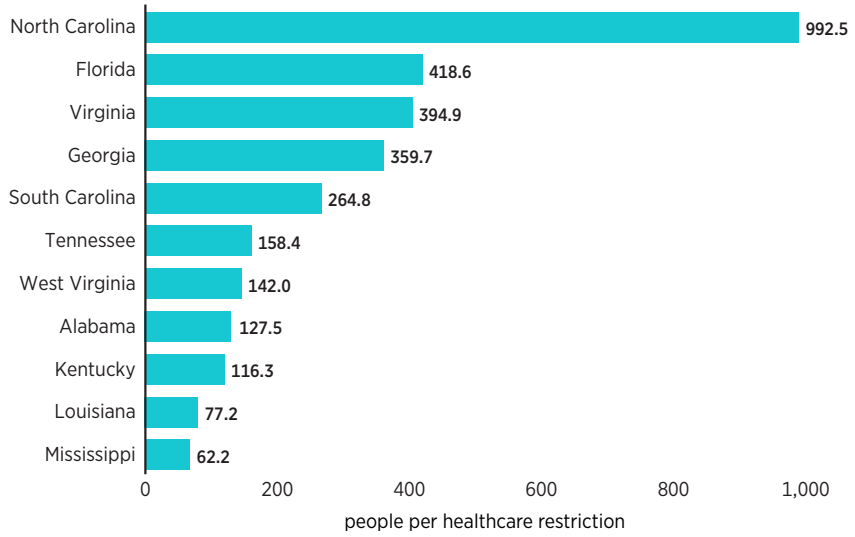
Source: Patrick A. McLaughin et al., State RegData 2.1 (dataset), QuantGov, Mercatus Center at George Mason University, July 8, 2020, https://www.quantgov.org/bulk-download; Kofi Ampaabeng and Stephen Strosko, State Healthcare RegData 1.0 (dataset), QuantGov, Mercatus Center at George Mason University, Arlington, VA, October 19, 2020, https://www.quantgov.org/bulk-download.

Figure 2. Healthcare Regulatory Restrictions as a Proportion of Total Regulatory Restrictions in the Southeast Region



Source: Authors' calculations based on McLaughlin et al., State RegData 2.1 (dataset); Ampaabeng and Strosko, State Healthcare RegData 1.0 (dataset).

Figure 3. Healthcare Restrictions per capita in the Southeast Region



Source: Authors' calculations based on Ampaabeng and Strosko, State Healthcare RegData 1.0 (dataset); Census Bureau, "Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2019" (dataset), December 2019, https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html.

In the Southeast region, South Carolina and North Carolina are two of the least regulated states in that they have the smallest number of total restrictions and the smallest number of healthcare restrictions, respectively. The proportion of healthcare restrictions to total restrictions in North Carolina is also the smallest in the region. Furthermore, North Carolina has the fewest healthcare restrictions per capita (as shown in figure 3). Louisiana has the greatest number of healthcare restrictions, but Mississippi's healthcare restrictions make up the largest share of total regulatory restrictions in the region.

HEALTHCARE RESTRICTIONS PER CAPITA

Often regulations are promulgated to address specific local concerns. Other researchers have noted that population density is a good predictor of the volume of regulations in a jurisdiction.[4] Taking this fact into consideration, figure 3 shows the number of healthcare regulatory restrictions per capita. For readability, the numbers in figure 3 are inverted—that is, they are the number of residents in the state that are served by a single regulatory restriction. Using this metric, Florida, the state with the second-highest number of healthcare regulatory restrictions, is actually the sixth among the Southeast states when adjusted for population. These numbers are consistent with previous research showing that states with greater populations are more regulated.[5]

HEALTHCARE RESTRICTIONS AND INDUSTRY CONTRIBUTION TO STATE GDP

One of the key advantages of using State Healthcare RegData is that we can determine the industries or sectors of the economy that are likely to be affected by regulation. Thus, we can determine industry-relevant regulatory restrictions. For the purpose of this determination, we define industries according to the North American Industry Classification System. In this section, we examine the relationship between the size of healthcare-related industries in each state and the number of regulatory restrictions each state places on those industries.

Figure 4 shows the top five industries in each of the Southeast states as measured by the contribution of the industry to state GDP. Healthcare-related industries include ambulatory healthcare services, hospitals, and nursing and residential care facilities. In 9 of the 11 Southeast states, either ambulatory healthcare services or hospitals is among the top five industries. Though not causative, the size of an industry in a state does influence the number of state regulatory restrictions thereon. For example, in Florida, the state with the second-most healthcare regulatory restrictions, ambulatory healthcare services are the second-greatest contributor to GDP. The relationship is not perfect, though. Louisiana has the most regulatory restrictions on healthcare-related industries, but the ambulatory healthcare services industry ranks fifth in state GDP contribution. This circumstance warrants a deeper look.

Figure 4. Top Five Industries as a Share of GDP in the Southeast Region

Source: "GDP by State," Bureau of Economic Analysis, accessed May 4, 2021, https://www.bea.gov/data/gdp/gdp-state.

Florida's case may be reflective of the demographics of the state, given that 20 percent of the state's population is 65 or older and requires greater levels of spending on geriatric healthcare.[6]

These simple but innovative ways of measurement provide an overview of the pervasiveness of healthcare restrictions within a state but do not measure the effect those restrictions have on those being regulated—providers and patients. Measuring this effect requires a more in-depth look at particular healthcare occupations and at other regulations that affect the delivery of healthcare.

SPECIFIC HEALTHCARE REGULATIONS

In the previous section we summarize the volume of healthcare regulatory restrictions in the Southeast region. However, healthcare is a vast field and there are different types of regulations such as CON laws; occupational licensing laws; scope-of-practice laws; and regulations on healthcare facilities, insurance, and drug prices. In this section we introduce in more detail each type of regulation and compare states in the Southeast in terms of the volume of such regulations.

Given the wide breadth of healthcare regulations, we leave many topics unexplored, such as state prescription drugs price controls. In addition, our review of scope-of-practice laws does not include nurse practitioners and examines only one aspect of pharmacy practice. This speaks to the breadth of healthcare regulations in the states.

Certificate-of-Need Laws

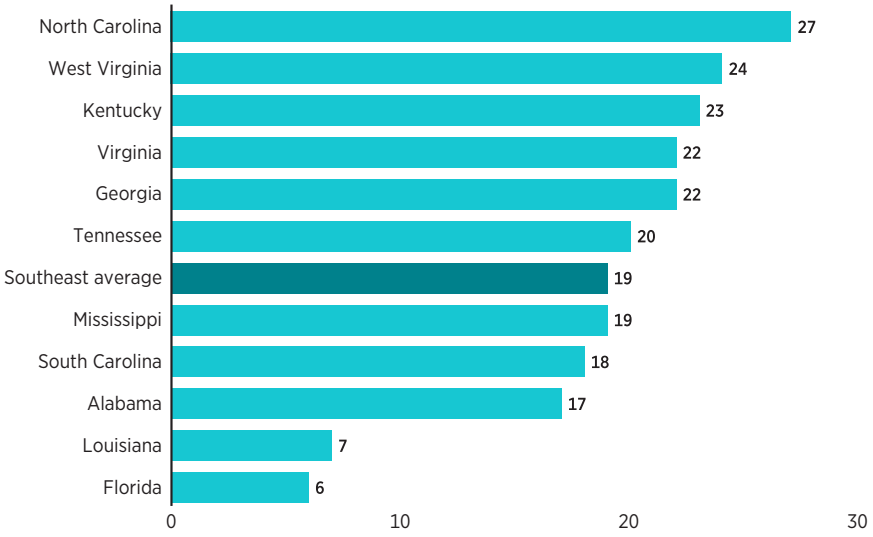
CON laws require medical providers to seek government permission before embarking on major capital expenditures such as building new hospitals, installing new equipment, providing new services, or expanding existing buildings. Although legislators have enacted CON laws to increase healthcare quality and supply, research shows that the laws tend to achieve the opposite.[7]

Mercatus scholars and other academic researchers have established that CON laws produce no discernible benefits other than protection for incumbent healthcare providers. They lead to shortages of hospital beds and medical imaging equipment and have a negligible or negative effect on health outcomes.[8] The Mercatus Center's CON laws database and research show that repealing CON laws would have significant positive effects on healthcare delivery and health outcomes.[9]

The Southeast region is unique in that it is the only region where every state has a CON law on the books. North Carolina, with 27 CON laws (see figure 5), has the highest number of CON laws in the region. Actions for which every state in the region requires a CON include

- buying nursing home beds or long-term care beds,
- building or expanding intermediate care facilities for individuals with intellectual disabilities,

Figure 5. Number of Services Regulated through CON Laws in the Southeast Region



Source: Matthew D. Mitchell, Anne Philpot, and Jessica McBirney, "The State of Certificate-of-Need Laws in 2020," February 19, 2021, https://www.mercatus.org/publications/healthcare/con-laws-2020-about-update.

- offering psychiatric services,
- offering substance and drug abuse services (except Louisiana), and
- building new hospitals or making hospital-sized investments (except Louisiana).

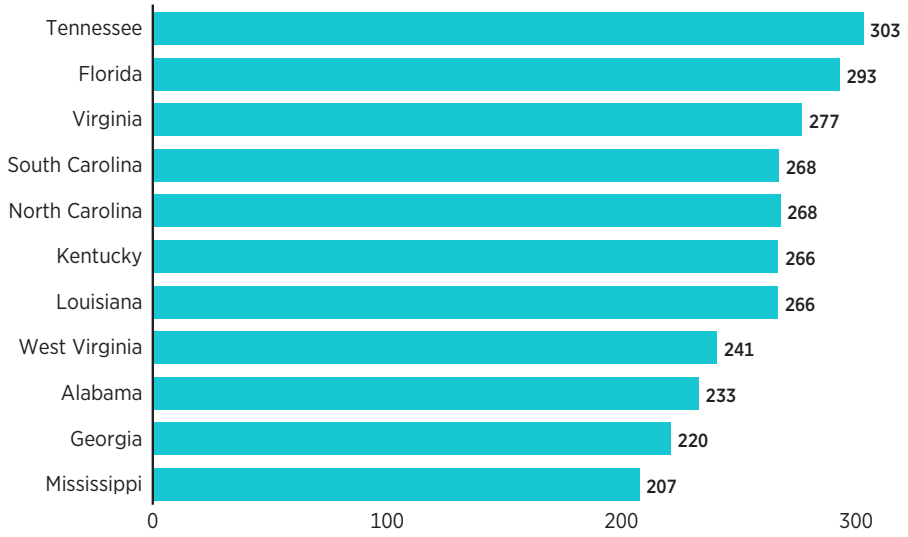
Reform or repeal of these regulations has been the trend for the past 40 years. Currently, nationwide, 11 states do not have any CON laws, and 4 have only one CON law. The Southeast region has seen some reforms in states such as Florida, but it still lags the rest of the country.[10]

Regulation of Medical Professionals

Healthcare occupations can be regulated in multiple ways that restrict where healthcare professionals can practice, how often they can practice, and what tasks they can perform. Occupational licensing laws and scope-of-practice laws are the two main sources of regulation in this area. Occupational licensing laws determine who can work in certain occupations, and many healthcare occupations require a license. Scope-of-practice determines how broadly healthcare professionals can employ their training. For example, such laws may require physician assistants and nurse practitioners to practice only with supervising physicians.

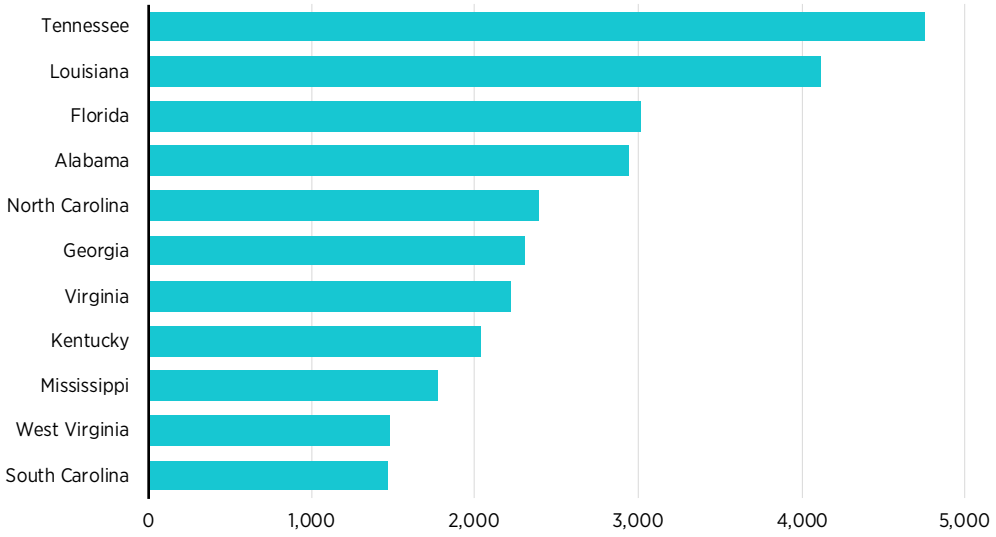
The number of regulatory restrictions on an occupation may relate to the number of individuals employed in that occupation. Figure 6 shows the number of physicians and surgeons per 100,000 people in each state. The state with the greatest number, Tennessee, has almost 100 physicians and surgeons per 100,000 people more than the state with the smallest number, Mississippi. This disparity

Figure 6. Physicians and Surgeons per 100,000 People in the Southeast Region, 2019



Source: Authors' calculations based on Census Bureau, "Annual Estimates of the Resident Population" (dataset); Census Bureau, "Sex by Occupation for the Civilian Employed Population 16 Years and Over" (dataset), accessed July 6, 2021, https://data.census.gov/cedsci/table?q=surgeons&tid=ACSDT1Y2019.B24010.

Figure 7. Occupational Licensing Restrictions That Affect Healthcare Practitioners in the Southeast Region



Source: Kofi Ampaabeng, Jonathan Nelson, Walter Stover, and Stephen Strosko, Occupational Licensing RegData 1.1 (dataset), QuantGov, Mercatus Center at George Mason University, October 10, 2020, https://www.quantgov.org/bulk-download.

closely matches the disparity between the number of regulatory restrictions over certain healthcare occupations (see figure 7). Having said that, we do not claim any direct causal connection between the volume of regulations and the supply of healthcare inputs, such as the number of physicians.

Occupational Licensing RegData allows one to look at how restrictions may affect different occupations (as defined by the Standard Occupational Classification system). Figure 7 shows the number of regulatory restrictions that affect healthcare practitioners.[11] There is a noticeable difference between the number of restrictions on healthcare practitioners and the number of restrictions on healthcare support occupations.

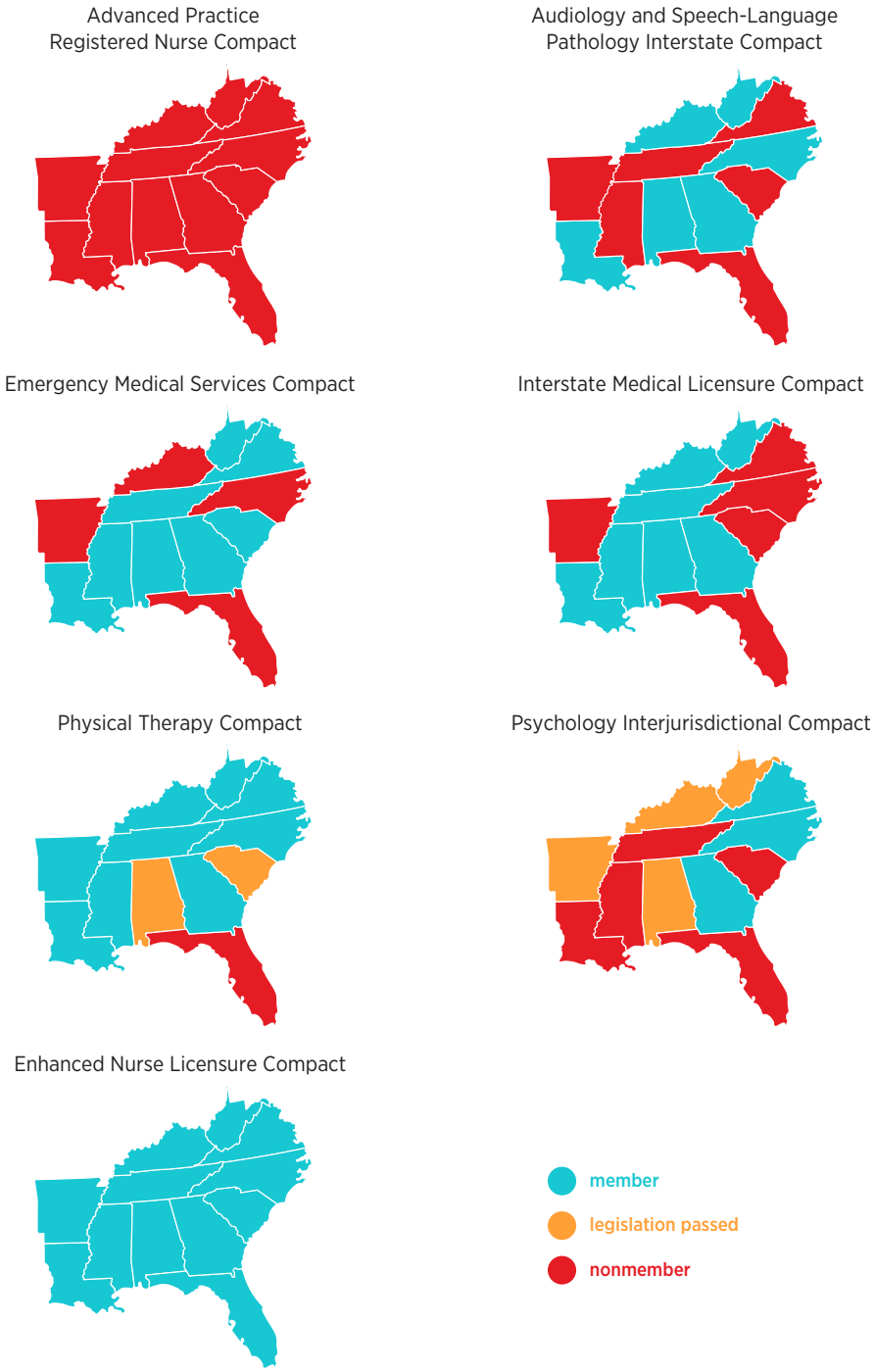
Multistate Practice and Compact Participation

Licensure of medical professionals is state based, which means that providers must obtain a license from each state in which they wish to practice. Although medical education standards are practically uniform across the country, each state imposes its own licensing requirements. This arrangement is costly and time consuming for practitioners who want to practice in multiple states or even move to another state to practice. The result of state-based licensing is that medically qualified professionals are less likely to move between states. A growing body of research shows that licensed workers are less likely to move to other states than their unlicensed counterparts.[12] As was evidenced during the COVID-19 pandemic, mobility of medical professionals is key to improving access to healthcare.

To increase the geographic mobility of medical professionals, various professional organizations have proposed legislation to create compacts among states that streamline the licensing process. Though these compacts come in different forms, they commonly allow licensed professionals to practice in all participating states. Members of different medical professions have created or proposed seven interstate compacts: the Interstate Medical Licensure Compact (for physicians); the enhanced Nurse Licensure Compact (eNLC); the Advanced Practice Registered Nurse Compact; the Emergency Medical Services Compact; the Audiology and Speech-Language Pathology Interstate Compact, the Physical Therapy Compact, and the Psychology Interjurisdictional Compact. In order for a compact to take effect, the state legislature must adopt model legislation that contains the relevant provisions of the compact and the condition(s) by which the compact takes effect.

Most states have signed onto such healthcare compacts, promising to respect out-of-state medical licenses within their borders. The NLC, which was the first of the compacts and the most widely adopted (with 35 participating states), allows board-certified nurses to practice in any participating state without obtaining a new license. By participating in compacts, states benefit from a national pool of providers, especially during emergencies and other disasters.[13] Licensure compacts also facilitate telehealth, wherein physicians within a member state can practice virtually with patients in other participating states.

Figure 8. Participation in Medical Occupation Compacts in the Southeast Region



Source: "Nurse Licensure Compact," National Council of State Boards of Nursing, accessed July 6, 2021, https://www.ncsbn.org/nurse-licensure-compact.htm; "APRN Compact," National Council of State Boards of Nursing, accessed July 6, 2021, https://www.ncsbn.org/aprn-compact.htm; "Audiology and Speech-Language Pathology Interstate Compact (ASLP-IC)," National Center for Interstate Compacts, accessed July 6, 2021, https://aslpcompact.com/compact-map/; "Compact Governance," Interstate Commission for EMS Personnel Practice, accessed July 6, 2021, https://www.emscompact.gov/the-commission/member-states/; Interstate Medical Licensure Compact (website), accessed July 6, 2021, https://www.imlcc.org/; "Compact Map," PT Compact, accessed July 6, 2021, http://ptcompact.org/ptc-states; "Map," Psychology Interjurisdictional Compact Commission, accessed July 6, 2021, https://psypact.site-ym.com/page/psypactmap.

Figure 8 shows the membership of medical professional compacts across the Southeast. As of June 2021, all states in the region were members of the eNLC. Georgia, Mississippi, North Carolina, Tennessee, and West Virginia were members of four or more compacts each, whereas Florida was a member to only one compact, the eNLC. No state in the region has yet joined the Advanced Practice Registered Nurse Compact, which was created in 2020 and presently has only North Dakota as a member. In addition, a number of states have enacted the necessary laws to join existing compacts.

Telehealth Regulations

Telehealth played a starring role during the COVID-19 pandemic,[14] ensuring that patients continued to receive care even as hospitals redirected resources to deal with the pandemic. Before the pandemic, the use of telehealth was not widespread, but it was expanding,[15] particularly in the direct-to-consumer market.[16] Though not the sole hindrance, regulations limited the use of telehealth.[17] During the pandemic, states around the country temporarily removed some of the regulatory barriers to the use of telehealth. In a few states, some of these changes have been made permanent; in others, the changes are scheduled to expire when the public health emergency occasioned by the COVID-19 pandemic ends.

Telehealth regulations typically address a number of issues, including coverage, payment, and originating sites. We review the regulatory landscape as it pertains to these three issues. Telehealth coverage regulations typically mandate that health insurance providers or health maintenance organizations cover certain conditions. Payment regulations require, among other things, payment parity, which providers and hospitals routinely demand. Payment parity means that payers reimburse telehealth services and in-person services at the same rate. However, a few states exclude charges such as facility fees from parity rules. Finally, originating site regulations define telehealth in terms of the location of the provider and the patient. Before the COVID-19 pandemic, states, and especially the federal government, reimbursed telehealth services only if the patient was in a rural or underserved area.

Some telehealth regulations not covered in detail in this snapshot include requirements that medical staff be located in or hold a medical license in the same state as their patients when administering telehealth services and state or federal regulations that allow only certain staff to practice telehealth services or limit what services can be provided.[18] For example, according to federal regulation, physicians issuing prescriptions can do so only if the patient has received at least one in-person consultation previously or has another physician present with him or her during a telehealth session.[19] Many of these requirements were temporarily lifted during the COVID-19 pandemic, with some being made permanent through legislative action. A notable example are states signing onto medical licensure compacts, which allow healthcare professionals to practice in all participating states both in person and virtually.[20]

Table 1. State Telehealth Regulation before and after the Beginning of the COVID-19 Pandemic in the Southeast Region

STATE	COVERAGE PARITY		PAYMENT PARITY		UNRESTRICTED SITE	
	PRE-COVID	POST-COVID	PRE-COVID	POST-COVID	PRE-COVID	POST-COVID
Alabama	not applicable (n/a)					
Florida	no				no	yes
Georgia	yes					
Kentucky	yes					
Louisiana	yes					
Mississippi	yes		no		yes	
North Carolina	n/a					
South Carolina	n/a					
Tennessee	yes				no	
Virginia	yes					
West Virginia	n/a	yes	n/a	yes	n/a	yes

Source: Nathanial M. Lacktman et al., "50-State Survey of Telehealth Commercial Insurance Laws," *Health Care Law Today*, February 9, 2021; Nathanial M. Lacktman, Jacqueline N. Acosta, and Sunny J. Levine, *50-State Survey of Telehealth Commercial Payer Statutes* (Tampa, FL: Foley and Lardner, December 2019).

Table 1 shows the state of telehealth laws in the Southeast region along three dimensions: coverage, payment, and originating site. Alabama, North Carolina, and South Carolina do not have any telehealth regulations, whereas Georgia, Kentucky, Louisiana, and Virginia have regulations involving each of the three dimensions. West Virginia has enacted the most changes by mandating coverage and payment parity, and it did not impose restrictions on originating sites. Florida has no coverage or payment parity requirements but has moved to remove limits on originating sites.

The COVID-19 pandemic was a wake-up call for states to reassess their regulatory environments and determine what barriers existed that hindered care. Within the Southeast, West Virginia took the biggest steps in addressing telehealth. Before the COVID-19 pandemic, West Virginia laws did not address telehealth within the three dimensions. New laws passed in 2021 mandate coverage and payment parity. Moreover, West Virginia continues not to impose restrictions on the originating sites for telehealth visits.

Pharmacist Scope-of-Practice Regulations

Several states limit what services nonphysician medical professionals can render. For example, in a number of states, advanced nurse practitioners, who are nurses with advanced degrees, such as a master's degree or doctorate, are restricted in various ways from practicing to the full extent of their training.[21] Several other professionals are also equally restricted, including pharmacists, physician assistants, and dental hygienists among others. Researchers Gina Oliver and coauthors

estimate that restricted scope of practice reduces access to care and causes worse health outcomes.[22] It is instructive that during the COVID-19 pandemic, one of the most effective tools to combat the pandemic has been the temporary relaxation of scope-of-practice restrictions.[23]

We focus here on the differences in vaccination authority granted to pharmacists. In all states, pharmacists, in spite of being highly educated and trained, are unable to administer most vaccinations without explicit authorization from the state legislature. Pharmacists were only recently authorized to administer disease-preventing vaccines. The first training to administer vaccines occurred in 1994,[24] and since then, pharmacists have been instrumental to the increasing uptake of vaccinations.[25]

The authority to administer vaccines is often vaccine specific, may require prescription from a physician, and may even include age restrictions on the patient. Table 2 compares pharmacy vaccination restrictions in the Southeast region. The vaccinations included in the summary are pneumococcal, zoster, Td (tetanus and diphtheria) or Tdap (tetanus, diphtheria, and pertussis), HPV (human papillomavirus), hepatitis B, MMR (measles, mumps, and rubella), and meningococcal vaccines. Alabama, Tennessee, and West Virginia permit licensed pharmacists to administer all seven types of vaccines without any restrictions. In fact, all states in the union, with the exception of New Hampshire, New York, and Wyoming, allow pharmacists to administer pneumococcal and zoster vaccines with full prescriptive authority. (However, these permissions also require that pharmacists be trained.) Georgia requires a prescription for five of the types of vaccines, and North Carolina requires a prescription with one. Six states have an age restriction on vaccines.

Table 2. Pharmacist Scope-of-Practice Regulations on Vaccination in the Southeast Region

STATE	MAY VACCINATE WITH NO RESTRICTIONS	MAY VACCINATE WITH PRESCRIPTION	MAY VACCINATE WITH AGE RESTRICTION
Alabama	7	—	—
Florida	3	—	3
Georgia	2	5	—
Kentucky	6	—	—
Louisiana	4	—	3
Mississippi	6	—	—
North Carolina	3	1	3
South Carolina	4	—	3
Tennessee	7	—	—
Virginia	3	—	4
West Virginia	7	—	—

Source: American Pharmacists Association and National Alliance of State Pharmacy Associations, Pharmacist Administered Vaccines, September 18, 2020, https://naspa.us/wp-content/uploads/2020/08/IZ-Authority-9_2020.pdf.

HEALTHCARE OPENNESS AND ACCESS INDEX

So far, we have analyzed healthcare regulations in isolation. However, researchers at the Mercatus Center have created an index comprising composite scores of state healthcare regulations. Researchers calculate these scores according to five regulation categories:[26]

1. Professional: How strictly states regulate particular healthcare occupations.
2. Institutional: How strictly states regulate institutions such as hospitals, pharmacies, and insurance companies.
3. Patient: What drugs states allow patients access to and whether there are protections for free speech and Good Samaritans in medicine.
4. Payment: How states restrict or liberate payment arrangements between patients and providers.
5. Delivery: How easy it is for healthcare to be given to patients and to what extent innovation in healthcare delivery is allowed.

Each category itself has a score that is calculated according to certain metrics. For example, professional regulation involves reciprocity of medical licensure, breadth of midwife scope of practice, and the extent of liability of charity caregivers. The purpose of HOAP is to raise important

Figure 9. HOAP Index Scores in the Southeast Region

	national HOAP risk	composite	professional	institutional	patient	payment	delivery
Alabama	35	3.14	2.90	3.00	2.83	3.67	3.30
Florida	47	2.87	2.30	2.17	2.50	3.89	3.50
Georgia	25	3.28	2.40	3.50	3.00	4.11	3.40
Kentucky	44	2.96	2.60	1.83	2.83	4.11	3.40
Louisiana	30	3.19	2.80	2.67	2.83	3.56	4.10
Mississippi	24	3.29	3.40	2.83	2.83	3.78	3.60
North Carolina	46	2.91	2.50	2.67	2.33	3.67	3.40
South Carolina	39	3.08	2.20	3.50	2.83	3.67	3.20
Tennessee	33	3.17	2.80	3.17	2.83	3.33	3.70
Virginia	18	3.42	2.50	4.17	3.00	3.22	4.20
West Virginia	38	3.12	3.60	1.67	3.50	3.22	3.60
Southeast average	n/a	3.25	2.80	3.22	2.89	3.61	3.58

Source: Jared M. Rhoads, Darcy Nikol Bryan, and Robert F. Graboyes, "Healthcare Openness and Access Project 2020: Full Release" (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, December 2020).

questions, such as how open each state's laws and regulations are to institutional variation in the delivery of healthcare and how much access to varying modes of care this openness confers on each state's patients and providers.

Three states in the Southeast (Virginia, Mississippi, and Georgia) have composite scores in the top 25 of the index (see figure 9). Florida, North Carolina, and Kentucky have composite scores in the bottom 10. Scores in each component category paint a more nuanced picture, though. For instance, although Kentucky ranks 44th overall, it ties with Georgia for 1st place in having the best environment to buy healthcare services (by not taxing health savings accounts, among other things).

HEALTH OUTCOMES

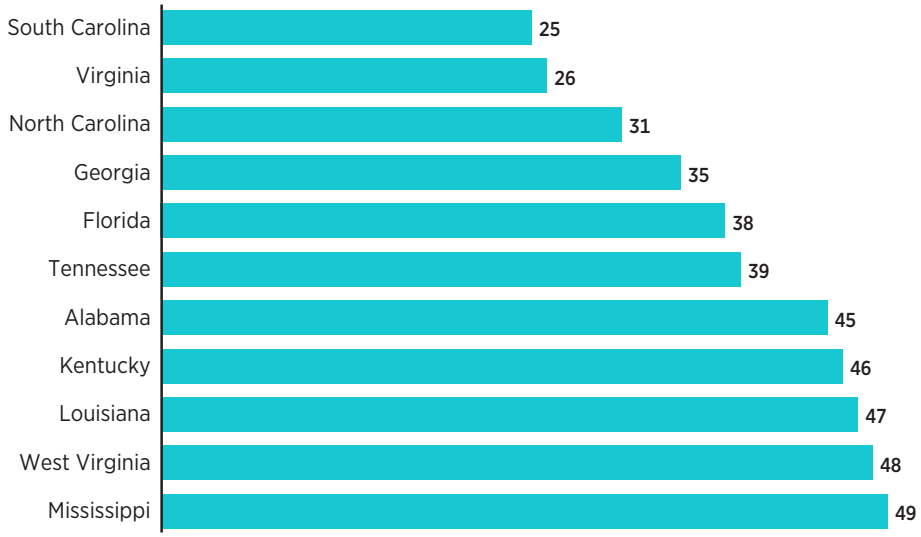
Ultimately, the goal of healthcare regulations should be improved healthcare outcomes. As the response to the COVID-19 pandemic has demonstrated, regulatory reforms can improve health outcomes and save lives. Most restrictions we highlight in this snapshot impact the supply side of care—that is, CON laws or occupational licensing laws, for example, determine how much care is provided in a state by restricting the number of physicians or the number of hospitals that can be built. These restrictions can exacerbate poor health outcomes, but greater access to care could help alleviate ambulatory, inpatient, and preventative care gaps.[27] Given the descriptive nature of this snapshot, we do not claim a direct connection between regulatory restrictions and health outcomes. Other studies have examined any such connection. However, by presenting health outcomes in the Southeast region here, we put the regulatory landscape within the appropriate context.

Figure 10 shows a ranking of states in the Southeast region according to their effectiveness in mitigating preventable hospitalizations. Within the region, 5 states rank in the bottom 10 in the nation for preventable hospitalizations.

Health outcomes in the region show that the Southeast tends to perform poorly compared to the rest of the country, according to data by the United Health Foundation (see figure 11). Eight states in the Southeast rank in the bottom 10 on overall health outcomes, an aggregate measure of physical health,[28] risk factors,[29] and mortality.[30] Louisiana, Mississippi, and Alabama rank the lowest in the country. Similarly, Mississippi and Louisiana also rank in the bottom 10 in the percentage of patients who seek healthcare but have difficultly finding it (see figure 12).

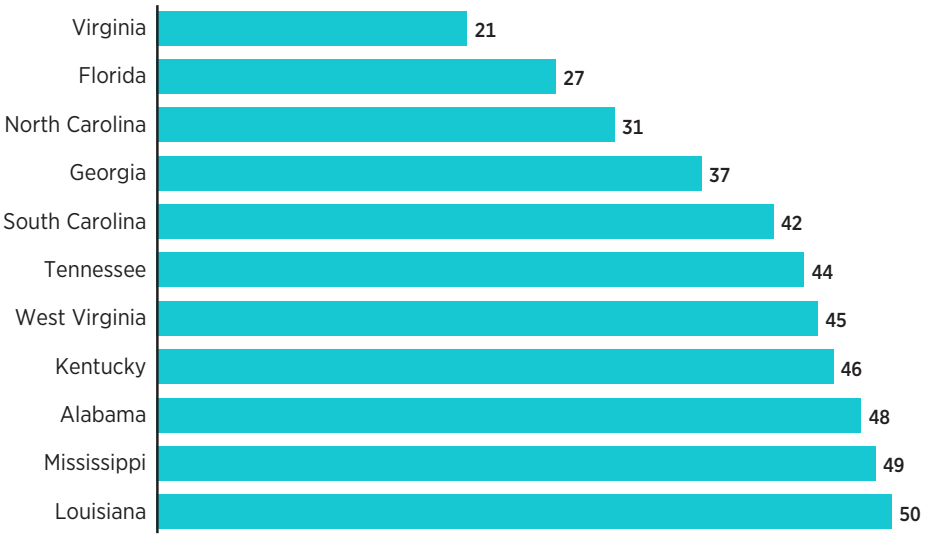
Looking at these three figures, one can see a negative association between the number of regulatory restrictions and health outcomes. Again, we caution against attributing causality, though some research does examine particular regulations and their effect on health outcomes. For example, research from the Mercatus Center shows that states with CON laws tend to have poorer health outcomes and higher care costs than states without them.[31]

Figure 10. Preventable Hospitalization Rankings in the Southeast Region



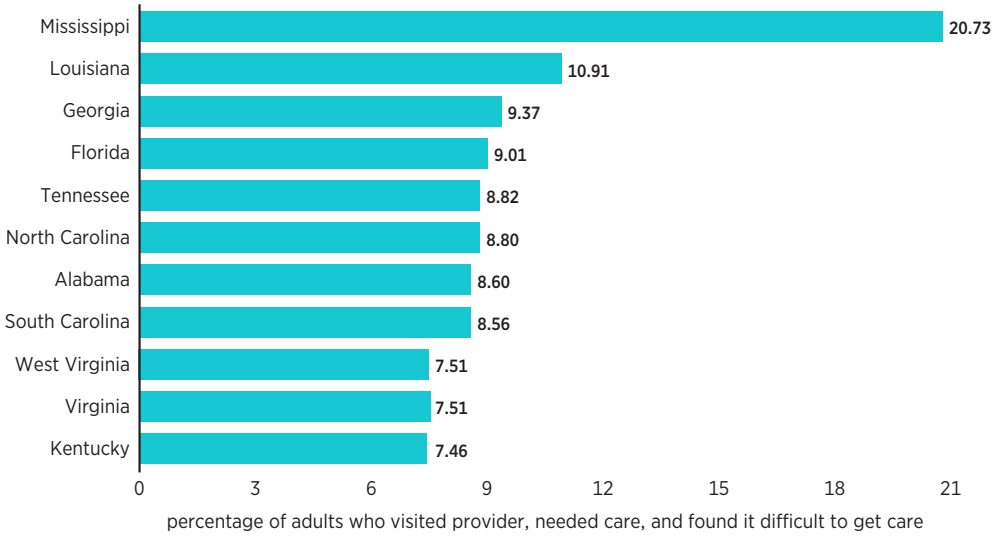
Source: United Health Foundation, *Annual Report 2020*, December 2020, https://assets.americashealthrankings.org/app/uploads/annual20-rev-complete.pdf, 63, 79, 81, 95, 97, 109, 127, 141, 145, 153, 157.

Figure 11. Health Outcome Rankings in the Southeast Region



Source: United Health Foundation, *Annual Report 2020*, 63, 79, 81, 95, 97, 109, 127, 141, 145, 153, 157.

Figure 12. Percentage of Patients with Difficulty Finding Treatment with Managed Care Visits in the Southeast Region



Source: John Rauch et al., *2018 Chartbook: What Consumers Say about Their Experiences with Their Health Plans and Medical Care* (Rockville, MD: Agency for Healthcare Research and Quality, October 2018).

As shown in figure 12, healthcare access may be improved by removing restrictions to support primary care. This can be done by repealing CON laws or telehealth restrictions, which limit the supply of primary care services.[32]

CONCLUSION

In this snapshot of the Southeast region, we present a picture of healthcare regulation by using unique data from the Mercatus Center and other sources. States differ considerably in the volume and scope of healthcare regulations. North Carolina is the least regulated state in the region in terms of healthcare restrictions, whereas Louisiana and Florida are among the most regulated.

Many states still have CON laws, despite substantial evidence that they are detrimental to healthcare access and patient outcomes. At least 11 states in other parts of the nation have repealed CON laws without any adverse effects. If Southeast states wish to improve healthcare access, repealing CON laws is a step in the right direction; these states would also benefit from joining medical professional compacts.

Over the past year, states have made regulatory changes to improve access to care. For example, West Virginia passed laws to facilitate the use of telehealth. Unfortunately, the law also mandates payment parity between in-person and telehealth consultations. Payment parity laws completely ignore the costs of providing services and impose artificially high prices on care, negating an intrinsic benefit of telehealth. Encouragingly, Florida has repealed its telehealth originating site

restrictions, allowing for telehealth to be provided regardless of the location of the provider or the patient. Florida also does not mandate telehealth payment parity.

As state governments continue to review their regulations in the wake of the COVID-19 pandemic, policymakers and researchers must have a complete picture of the regulatory landscape. This snapshot is an attempt to provide such a picture. That said, there are other regulations that were necessarily excluded, such as drug price controls and regulations on the scope of practice of other kinds of providers. All these regulations need to be considered for truly comprehensive review and reform to occur.

APPENDIX

Data Sources and Methodology

In this regulatory snapshot, we use unique data generated through the QHL (State Healthcare RegData) and other data from the RegData suite of products (State RegData and Occupational Licensing RegData). In addition, we include other data compiled by Mercatus scholars such as data on the prevalence of CON laws, HOAP index scores, and data on scope-of-practice regulations. We describe each data source in this appendix, with a particular emphasis on RegData.

Measuring Regulations: An Introduction to RegData

In 2012, researchers at the Mercatus Center created RegData, a groundbreaking dataset that quantifies federal regulations in the United States. The researchers created RegData by using QuantGov, an open-source machine learning and text analysis platform for analyzing regulatory text. Regulations by nature impose restrictions on regulated individuals and businesses, either by requiring or by preventing some activities, so RegData contains data on the volume of regulatory restrictions in a jurisdiction. Regulatory restrictions are instances of the terms *shall*, *must*, *may not*, *prohibited*, and *required* in regulations. These terms approximate the restrictions that regulators impose on a jurisdiction. State Healthcare RegData builds on RegData by quantifying state regulations that pertain to healthcare.[33]

In RegData, the primary unit of analysis is a regulatory document, which represents a coherent grouping of a body of regulatory text in a jurisdiction. For example, in Louisiana, the regulatory text (administrative code) is divided into titles, which are further divided into parts, then chapters. The title-part-chapter represents a regulatory document and thus the unit of analysis. (Some regulatory texts further divide into sections, but sections are not part of the definition of a regulatory document in RegData because they contain too few words.)

A unique feature of RegData is data on industry-relevant regulatory restrictions, which allow researchers to discern the industries likely to be affected by a regulation. To generate these data,

Mercatus researchers estimate the probability that a regulatory document applies to an industry, as defined by the North American Industry Classification System. Then they estimate the number of industry-relevant restrictions by multiplying this probability by the total number of restrictions in the document.

State Healthcare RegData

QHL researchers have produced State Healthcare RegData, which builds on State RegData, a long-running dataset like RegData but that quantifies state regulation. State Healthcare RegData is the result of a two-step process. The first step is to identify healthcare regulations in regulatory text such as state administrative codes. In this first step, machine learning algorithms determine the probability that a regulatory document pertains to healthcare. The second step is to measure a number of features of the regulatory document, including the total number of restrictions, the total number of words, and the complexity.

Occupational Licensing RegData

In addition to State Healthcare RegData, we also use Occupational Licensing RegData, which Mercatus researchers again created using QuantGov, but which applies to occupational licensing regulations in the states. Similar to how they classified regulations according to the industries the regulations affect, Mercatus researchers here determined the occupations (as defined by the Standard Occupational Classification system) that are regulated. With Occupational Licensing RegData, one is able to determine the volume of healthcare regulations and other regulations that pertain to healthcare occupations in each state.

Using the predicted probabilities from the first step (described earlier), we calculate the number of healthcare regulatory restrictions in a state using one of two approaches. The first approach imposes a single threshold for classifying a regulation as healthcare related. Under this approach, all restrictions in a regulation with probability greater than 0.5 are considered healthcare related, regardless of the state. The total number of healthcare restrictions in a regulation is thus the probability multiplied by the number of restrictions in that regulation. This is the approach we use in this snapshot.

The second approach accounts for imperfection in the prediction algorithm by assigning different probabilities to each state. The threshold therefore differs for each state. Under this approach, all the restrictions in a regulation are deemed healthcare related. The number of regulatory restrictions calculated using the second option are included in table A1.

Table A1. Healthcare Regulatory Restrictions					
	50 PERCENT THRESHOLD		STATE-SPECIFIC THRESHOLD		
STATE	HEALTHCARE RESTRICTIONS	PROPORTION OF TOTAL RESTRICTIONS (PERCENTAGE)	HEALTHCARE RESTRICTIONS	PROPORTION OF TOTAL RESTRICTIONS (PERCENTAGE)	TOTAL RESTRICTIONS
Alabama	38,457	18	19,515	36	107,880
Florida	51,310	16	26,195	30	168,795
Georgia	29,513	14	15,113	27	109,848
Kentucky	38,405	17	19,611	33	116,274
Louisiana	60,237	18	30,325	37	164,387
Mississippi	47,820	21	24,798	41	116,153
North Carolina	10,567	10	11,017	10	107,092
South Carolina	19,446	13	10,082	25	78,727
Tennessee	43,108	19	22,247	36	119,272
Virginia	21,612	16	22,433	15	140,021
West Virginia	12,617	11	13,262	11	120,210

Other Mercatus Data

This snapshot also uses two other datasets created by Mercatus researchers: data on the prevalence of CON laws and HOAP index scores. The CON laws dataset catalogs the CON laws in all 50 states and the District of Columbia. The HOAP index contains composite scores of the healthcare regulatory landscape in 50 states and the District of Columbia. The index also includes a number of scores on specific regulatory areas.

Other Data on State Laws

In addition to RegData (State RegData, State Healthcare RegData, Occupational Licensing RegData) and other data from the Mercatus Center, we use data from other sources to identify specific types of regulations. Specifically, we obtained data on scope-of-practice laws, CON laws, drug pricing regulations, telehealth regulations, and occupational licensure compacts directly from state law repositories with the help of third-party legislative trackers from the National Conference of State Legislators and the American College of Clinical Pharmacy.

The regulatory texts that RegData quantifies were collected in May 2020. The data for the HOAP index were collected between September 2019 and March 2020. Data on telehealth regulations, scope-of-practice laws, CON laws, prescription drug policies, and other policies were collected between March and May of 2021.

ABOUT THE AUTHORS

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NOTES

1. Thomas Stratmann and Jacob W. Russ, "Do Certificate-of-Need Laws Increase Indigent Care?" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, July 2014).
2. Arkansas is not included in RegData owing to how the information in RegData is collected. Arkansas's regulation is not in a format that allows one to collect accurate data. We therefore exclude it from this part of the analysis.
3. West Virginia has 12,380 restrictions on mining, whereas the state with the second-most restrictions, Virginia, has 9,931.
4. James Bailey, James Broughel, and Patrick A. McLaughlin, "Larger Polities Are More Regulated" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, September 2020).
5. Bailey, Broughel, and McLaughlin, "Larger Polities Are More Regulated."
6. "Quickfacts: Florida," Census Bureau, accessed June 30, 2021, https://www.census.gov/quickfacts/fact/table/FL/AGE775219#AGE775219.
7. Matthew D. Mitchell and Christopher Koopman, "40 Years of Certificate-of-Need Laws Across America," Mercatus Center at George Mason University, September 27, 2016.
8. Fred J. Hellinger, "The Effect of Certificate-of-Need Laws on Hospital Beds and Healthcare Expenditures: An Empirical Analysis," *American Journal of Managed Care* 15, no. 10 (2009): 737–44; James Bailey, "The Effect of Certificate of Need Laws on All-Cause Mortality," *Health Services Research* 53, no. 1 (2018): 49–62.
9. Matthew D. Mitchell, Anne Philpot, and Jessica McBirney, "The State of Certificate-Of-Need Laws in 2020," February 19, 2021, https://www.mercatus.org/publications/healthcare/con-laws-2020-about-update.
10. Mitchell, Philpot, and McBirney, "The State of Certificate-Of-Need Laws in 2020."
11. SOC 29 is health practitioners, which include physicians, nurses, midwives, surgeons, therapists, and others. Healthcare support professionals include dental assistants, therapists' aides, medical orderlies, and others.
12. Janna E. Johnson and Morris M. Kleiner, "Is Occupational Licensing a Barrier to Interstate Migration?," *American Economic Journal: Economic Policy* 12, no. 27 (2020): 347–73.
13. Kenneth V. Iserson, "Augmenting the Disaster Healthcare Workforce," *Western Journal of Emergency Medicine* 21, no. 3 (2020): 490–96.
14. Although no consensus exists on the definition of telehealth, the working definition in many laws is similar to the one used by the Centers for Medicare and Medicaid Services: "Use of telecommunications and information technology to provide health assessment, diagnosis, intervention, consultation, supervision, and information across distance." "Tele-

medicine," Centers for Medicare and Medicaid Services, accessed July 9, 2021, https://www.medicaid.gov/medicaid/benefits/telemedicine/index.html.

15. Lisa M. Koonin et. al., "Trends in the Use of Telehealth during the Emergence of the COVID-19 Pandemic," *Morbidity and Mortality Weekly Report* 69, no. 43 (2020): 1595–99.

16. Suzanne G. Bollmeier et al., "Direct to Consumer Telemedicine: Is Healthcare from Home Best?," *Missouri Medicine* 117, no. 4 (2020): 303–9.

17. Rita M. Marcoux and F. Randy Vogenberg, "Telehealth: Applications from a Legal and Regulatory Perspective," *Pharmacy and Therapeutics* 41, no. 9 (2016): 567–70.

18. For example, see "Telemedicine," North Carolina Medical Board, March 2020, https://www.ncmedboard.org/resources-information/professional-resources/laws-rules-position-statements/position-statements/telemedicine; Patti A. Mataxen, "Licensure Barriers to Telehealth Nursing Practice," *Nursing* 49, no. 11 (2019): 67–68; Nicol Turner Lee, Jack Karsten, and Jordan Roberts, *Removing Regulatory Barriers to Telehealth before and after COVID-19* (Washington, DC: Brookings Institution, May 2020).

19. Drug Enforcement Administration, Implementation of the Ryan Haight Online Pharmacy Consumer Protection Act of 2008, 85 Fed. Reg. 61594 (September 30, 2020).

20. Kate Blackman, "Telehealth and Licensing Interstate Providers," *LegisBrief* 24, no. 25 (2016): 1–2.

21. Randall S. Hudspeth and Tracy A. Klein, "Understanding Nurse Practitioner Scope of Practice: Regulatory, Practice, and Employment Perspectives Now and for the Future," *Journal of the American Association of Nurse Practitioners* 31, no. 8 (2019): 468–73.

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24. Karen K. O'Brien, "Pharmacists' Role in Preventing Vaccine-Preventable Diseases," *U.S. Pharmacist*, August 20, 2009.

25. Amy Sparkman, Andrea L. Brookhart, and Jean-Venable Kelly R. Goode, "The Impact of an Immunization Check-Up at a Pharmacist-Provided Employee Health Screening," *Journal of the American Pharmacists Association* 57, no. 3S (2017): S274–S278.

26. Jared M. Rhoads, Darcy Nikol Bryan, and Robert F. Graboyes, "Healthcare Openness and Access Project 2020: Full Release" (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, December 2020).

27. Matthew D. Mitchell, "Michigan's Certificate-of-Need Program: Lessons from Research" (Testimony before the Michigan Senate Committee on Health Policy and Human Services, Mercatus Center at George Mason University, Arlington, VA, January 8, 2020).

28. This includes but is not limited to rates of cancer, cardiovascular disease, and diabetes.

29. This includes but is not limited to rates of high blood pressure, high cholesterol, and obesity.

30. This includes but is not limited to number of drug deaths, premature deaths, and suicides.

31. Thomas Stratmann, Matthew C. Baker, and Elise Amez-Droz, "Public Health in Rural States: The Case against Certificate-of-Need Laws" (Mercatus Policy Brief, Mercatus Center at George Mason University, Arlington, VA, September 2020).

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33. Kofi Ampaabeng and Elise Amez-Droz, "State Healthcare RegData 1.0: A Quantification of State Healthcare Regulations" (Mercatus Policy Brief, Mercatus Center at George Mason University, Arlington, VA, October 2020).