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JOHN CHAMBERS COLLEGE OF BUSINESS AND ECONOMICS
KNEE REGULATORY RESEARCH CENTER

Labor Policy Brief

Chiropractic Scope-of-Practice and Provider Distribution in Pennsylvania

Summary

Pennsylvania ranks as the 3rd most restrictive state nationally for chiropractic scope-of-practice, with a regulatory restrictiveness index score of 9 compared to a national average of 4.59. This level of restrictiveness, shaped by historical regulatory development rather than modernized scope-of-practice standards, means that chiropractors in Pennsylvania may perform only 1 of 12 evaluated diagnostic or therapeutic procedures without additional licensure or certification[2]. Using a newly constructed national index and county-level workforce data, this brief examines how Pennsylvania's regulatory framework compares to other states and how scope-of-practice constraints intersect with provider distribution and access to care. Although Pennsylvania maintains a moderate overall supply of chiropractors, substantial rural–urban disparities persist: many central and northern counties exhibit low chiropractor density, compounding existing healthcare workforce shortages and elevated demand for musculoskeletal care. These access challenges are further compounded by Pennsylvania's limited in-state chiropractic education pipeline, increasing reliance on out-of-state recruitment in a competitive regional labor market. Taken together, the findings suggest that Pennsylvania's restrictive and ambiguous scope-of-practice environment may constrain workforce mobility, discourage provider entry, and limit access to conservative, non-pharmacological care in underserved communities, with important implications for healthcare access and workforce policy in the Commonwealth.

Produced by

The Knee Regulatory Research Center

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[2] Adjustments on extremities refers to manipulation of joints in the arms, legs, hands, or feet to correct misalignment, improve function, and restore proper joint motion. This represents Pennsylvania chiropractors' only clearly unrestricted procedure among the 12 evaluated practices, all others either require additional credentials or lack explicit regulatory authorization.

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1. Introduction:

Chiropractic care is a licensed health profession focused on the diagnosis, assessment, and non-invasive management of neuromusculoskeletal conditions, particularly disorders of the spine and extremities that affect pain, mobility, and functional capacity[3]. Chiropractors primarily employ spinal manipulation and other manual therapies, often alongside rehabilitative and physiotherapeutic modalities, to address musculoskeletal dysfunction. Today, chiropractic services are commonly utilized for conditions such as lower back pain, neck pain, and related musculoskeletal disorders, consistent with clinical guidelines that recognize spinal manipulation as an effective treatment option for selected patients[4,5].

Although chiropractic care is now licensed in all fifty states and the District of Columbia (D.C.), its regulatory treatment remains highly heterogeneous across jurisdictions. State laws vary substantially in how they define chiropractic scope-of-practice (SOP), including the diagnostic authority granted to chiropractors and the therapeutic services they may provide. These regulatory differences shape professional mobility, workforce supply, geographic distribution of providers, and patient access to conservative, non-pharmacological care.

Pennsylvania occupies a distinctive position within this national landscape. While the Commonwealth supports a sizable chiropractic workforce and demonstrates substantial patient demand, its statutory framework governing chiropractic SOP remains among the most restrictive, and particularly ambiguous in the country. Understanding how Pennsylvania arrived at this regulatory posture, and how it compares with national norms, requires situating contemporary policy within the profession's broader historical and institutional context.

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[3] National Institutes of Health, *Chiropractic: In Depth*, http://nccih.nih.gov/health/chiropractic-in-depth

[4] A. Qaseem et al., *Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline from the American College of Physicians,* Annals of Internal Medicine (Feb. 21, 2017), https://www.acpjournals.org/doi/10.7326/M16-2367

[5] N. M. Paige et al., *Association of Spinal Manipulative Therapy With Clinical Benefit and Harm for Acute Low Back Pain, JAMA* (Nov. 7, 2017), https://jamanetwork.com/journals/jama/fullarticle/2616395.

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2. Historical Foundations of Chiropractic Regulation:

Chiropractic emerged in the United States in the late nineteenth century during a period of rapid professionalization and consolidation across health occupations. As state governments began formalizing licensure systems for medicine, osteopathy, and other healing professions, chiropractic developed as a distinct approach centered on manual diagnosis and treatment of neuromusculoskeletal conditions. Early chiropractors practiced widely but without formal statutory recognition, placing the profession in direct conflict with organized medicine.

Throughout the early twentieth century, the American Medical Association (AMA) and affiliated medical boards viewed chiropractic as an unlicensed and illegitimate competitor. This opposition manifested through criminal prosecutions, exclusion from hospitals, and regulatory barriers that limited chiropractors' ability to practice. In many states, chiropractors were arrested for practicing medicine without a license, despite asserting that chiropractic constituted a separate system of care[6]. These legal challenges prompted the profession to organize defensively, most notably through the Universal Chiropractors Association, which coordinated litigation and advocacy efforts to establish chiropractic as a legally distinct profession[7,8,9].

A pivotal moment occurred in 1907 with *Wisconsin v. Morikubo*, in which a court accepted the argument that chiropractic was neither medicine nor osteopathy but a separate discipline with its own methods and philosophy. This decision provided a legal foundation for state-by-state licensure campaigns, leading legislatures to adopt chiropractic-specific licensing statutes

[6] World Federation of Chiropractic, *History of Chiropractic*, https://www.wfc.org/history
[7] Agocs, S. *Chiropractic's Fight for Survival.* AMA Journal of Ethics. 2011;13(6):384–388. Available at: https://journalofethics.ama-assn.org/article/chiropractics-fight-survival/2011-06
[8] Kaptchuk, T. J. & Eisenberg, D. M. *Chiropractic: Origins, Controversies, and Contributions.* Archives of Internal Medicine. 1998;158(20):2215–2224. doi:10.1001/archinte.158.20.2215
[9] Johnson, C. D. *Looking back at the lawsuit that transformed the chiropractic profession.* PMC. 2021. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC8493523/

beginning in 1913. By the early 1930s, most states had enacted chiropractic licensure laws, although these statutes were often narrowly drawn and highly restrictive. Full licensure across all states was not achieved until 1974[10].

Even after licensure, regulatory conflict persisted. Between the 1920s and 1950s, many states enacted “basic science laws” which placed chiropractic licensure examinations under the oversight of medical boards and emphasized standardized training in foundational scientific subjects such as anatomy, physiology, and pathology. Proponents of these laws argued that they were intended to promote scientific rigor, ensure minimum educational standards across health professions[11]. However, during this period, the AMA expressed skepticism toward chiropractic, frequently characterizing the profession as lacking sufficient scientific grounding and discouraging medical physicians from professional association with chiropractors[12]. These concerns were institutionalized through the AMA’s establishment of a Committee on Quackery in 1963, which sought to limit the expansion and integration of practices it viewed as insufficiently evidence-based within the broader healthcare system.

While this opposition was publicly framed as scientific concern for patient safety, recent work in labor and regulatory economics suggests it may also reflect strategic responses by incumbent professional groups to emerging competitors[13]. Fallon (2025) models the introduction of chiropractic licensure as a competitive shock to physician markets and shows that medical boards responded by increasing regulatory stringency, including adopting basic science laws and raising educational requirements, to protect market position. From this perspective,

[10] Courtney Baalman, *Chiropractic: A Brief History of Its Origin* (history of chiropractic licensure and regulation, including first licensing law in Kansas), https://kansascitychiropractic.com/chiropractic-a-brief-history-of-its-origin/

[11] Keating, Joseph C., Carl S. Cleveland, and Michael Menke. *Chiropractic history: a primer.* Davenport, IA: Association for the History of Chiropractic, 2004. https://www.researchgate.net/publication/239735121_Chiropractic_History_a_Primer

[12] Johnson, Claire D., and Bart N. Green. “Looking Back at the Lawsuit That Transformed the Chiropractic Profession Part 4: Committee on Quackery.” *Journal of Chiropractic Education* 35, no. S1 (2021): 55–73. https://pmc.ncbi.nlm.nih.gov/articles/PMC8493528/

[13] John Fallon, *Competitive Occupational Licensure: Doctors Versus Chiropractors* (Job Market Paper, 2025), https://john-fallon-econ.com/Files/JMP.pdf

restrictions on chiropractic practice can be understood as part of a broader pattern of competitive occupational licensing, where established professions use regulatory mechanisms to limit entry by substitute providers, rather than solely as patient-safety regulation designed to protect consumers from harm[14].

The institutional consequences of this conflict were ultimately addressed through federal antitrust litigation. In *Wilk v. American Medical Association*, filed in 1976, chiropractors alleged that the AMA had engaged in an unlawful conspiracy to restrain trade by attempting to "contain and eliminate" chiropractic. In 1987, a federal district court ruled in favor of the chiropractors, finding that the AMA had violated antitrust law. The ruling, later upheld on appeal, resulted in a permanent injunction prohibiting the AMA from restricting professional relationships with chiropractors. This decision removed a major institutional barrier to chiropractic integration and marked a turning point in the profession's legal and professional status.

2.1. Relevance for Pennsylvania's Contemporary Regulatory Framework:

While the legal legitimacy of chiropractic is now firmly established, the legacy of early professional conflict continues to shape state-level regulation. Many chiropractic SOP statutes, including Pennsylvania's, were written or amended during periods when skepticism toward the profession was widespread. As a result, these laws often reflect precautionary or restrictive assumptions that differ from the profession's modern educational standards and clinical integration.

In Pennsylvania, this historical layering is particularly evident. The Commonwealth licenses chiropractors as independent healthcare practitioners and grants diagnostic authority beyond

[14] Morris M. Kleiner and Evan K. Soltas, *A Welfare Analysis of Occupational Licensing in U.S. States*, NBER Working Paper No. 22626 (2016), revised manuscript, https://evansoltas.com/papers/KleinerSoltas_LicensingWelfare.pdf

strictly musculoskeletal conditions. At the same time, statutory ambiguity and conditional permissions limit chiropractors' ability to provide a range of therapeutic and diagnostic services that are commonly permitted in other states. This combination of partial recognition and persistent restriction places Pennsylvania among the most constrained chiropractic regulatory environments nationally.

Understanding the historical origins of chiropractic regulation is therefore essential for interpreting Pennsylvania's current policy landscape. The Commonwealth's SOP framework is not simply a reflection of contemporary clinical evidence or educational standards, but the product of decades of professional conflict, incremental statutory change, and uneven regulatory modernization. This context provides a foundation for evaluating how Pennsylvania's regulatory approach compares with other states and how it may influence workforce distribution, provider mobility, and access to conservative musculoskeletal care.

3. Modern Educational Standards and Professional Regulation:

Although chiropractic regulation emerged from decades of professional conflict and institutional skepticism, contemporary chiropractic education is now governed by uniform national standards designed to ensure clinical competence and scientific rigor. Modern chiropractic education and accreditation are overseen by the Council on Chiropractic Education (CCE), the federally recognized accrediting agency responsible for evaluating and accrediting Doctor of Chiropractic (DoC) degree programs. The CCE has been recognized by the U.S. Department of Education since 1974 as the official authority on the quality and integrity of chiropractic education in the United States.

DoC degree programs require completion of substantial pre-professional undergraduate coursework, typically a minimum of 90 semester hours, including foundational sciences such as anatomy, physiology, chemistry, and physics, followed by a four-year professional program by the CCE. The DoC curriculum integrates classroom instruction, laboratory training, and

supervised clinical education in basic sciences, clinical sciences, diagnostic procedures, chiropractic techniques, and patient care. Graduates of accredited programs are eligible to sit for examinations administered by the National Board of Chiropractic Examiners (NBCE), which assess competency across foundational knowledge and clinical domains and are required for state licensure[15]. Individual state boards may impose additional requirements, such as jurisprudence examinations, but the core educational and testing standards are nationally consistent.

The chiropractic profession maintains that these educational and examination standards are comparable in structure to those of other doctoral-level healthcare fields[16-21], though independent cross-professional comparisons remain limited in the scholarly literature. What can be stated with confidence is that licensed chiropractors in all states complete the same nationally accredited curriculum and satisfy the same national board examination requirements. Variation in state chiropractic SOP laws therefore reflects differences in regulatory philosophy and statutory interpretation rather than differences in practitioner preparation or training quality.

3.1. National Variation in Chiropractic Scope

Chiropractic SOP laws vary widely across U.S. states, with each jurisdiction defining which

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[15] Council on Chiropractic Education, *Accreditation Standards: Principles, Processes & Requirements for Accreditation* (January 2025), https://www.cce-usa.org/uploads/1/0/6/5/106500339/2025-01_cce_accreditation_standards__current_.pdf

[16] Logan Chiropractic. *Chiropractors vs Medical Doctors: Who Really Studies More?*, https://loganchiropractor.com/chiropractors-vs-medical-doctors-who-really-studies-more/

[17] Boston Osteopathic Health, Comparison: DOs vs MDs and Chiropractors (overview of differences among osteopathic physicians, medical doctors, and chiropractors), https://bostonosteopathichealth.com/comparison-dos-vs-mds-chiropractors/

[18] Merolla Chiropractic, *Doctor or Chiropractor?* (comparative overview of chiropractic education and role of Doctors of Chiropractic), https://www.merollachiropractic.com/rumford-massachusetts-doctor-vs-chiropractor/

[19] Harmony Chiropractic, *Chiropractic Qualifications and Education* (overview of education, training, licensure, and scope within healthcare systems), https://harmonychiro.com/chiropractic-education/

[20] Lisette Rollins, *Chiropractors vs. Medical Doctors: A Deep Dive into Their Education and Roles in Healthcare,* MyNeckMyBackChiro.com, November 14, 2024, https://www.myneckmybackchiro.com/post/chiropractors-vs-medical-doctors-a-deep-dive-into-their-education-and-roles-in-healthcare

[21] American Chiropractic Association, Certification, Licensure, and Education, https://handsdownbetter.org/about-chiropractic/certification-and-licensure/

services chiropractors may legally provide. To quantify these differences, we developed a regulatory restrictive index for chiropractic SOP. This index assigns each state a score (0 to 10) based on how many key procedures are permitted without undue restriction, with higher scores indicating a more restrictive scope. The 12 specific procedures selected for the index reflect critical domains of chiropractic care, from diagnostic tests to therapeutic and adjunctive treatments, that often vary by state law. These were chosen because they: (1) represent core services chiropractors might provide (or be prohibited from providing) under state law, (2) span the diverse modalities in chiropractic practice (diagnostic, therapeutic, nutritional, etc.), (3) show significant variation between jurisdictions, and (4) align with skills taught in accredited DoC programs. Below is a comprehensive list of the procedures included in creating this index, along with the justification for its inclusion, followed by the summary of the methodology of index creation.

- **Nutritional Therapies (Supplements and Injections):** Many chiropractors incorporate nutrition into patient care by recommending dietary supplements, vitamins, or herbal products, which is generally within their SOP (nutrition is a required part of DoC clinical sciences curricula). Most states allow chiropractors to advise on nutrition and supplements as part of wellness counseling. However, the ability to administer nutritional substances by injection is almost uniformly prohibited. *Nutritional injection* was found to be the most restricted procedure, in nearly all states, chiropractors cannot legally inject vitamins or other nutrients (e.g. B12 shots). Only a few states carve out exceptions: for example, Oklahoma permits injectable nutrients if the chiropractor obtains a special certification[22, 23], and New Mexico[24] allows certain injectables under an advanced practice license. These

[22] Marion Medical, *Chiropractic Injectable Nutrients* (information on certification and state scope-of-practice), https://www.marionmedicalpc.com/chiropractic-injectable-nutrients

[23] Oklahoma Board of Chiropractic Examiners, *Injectable Certifications – Authorization for Injectables* https://oklahoma.gov/chiropractic/resources/injectable-nutrient.html

[24] New Mexico Regulation and Licensing Department, 2010 Advanced Practice Chiropractic Physician (APC) Formulary, https://www.rld.nm.gov/uploads/files/2010%20APC%20Formulary.pdf

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- stark differences make nutritional interventions a key index component. The inclusion of the two variables *nutritional supplements* and *nutritional injections* captures both ends of the spectrum: basic nutritional counseling (widely allowed across states) vs. invasive nutritional therapy (highly restrictive), highlighting how restrictive a state's scope is regarding non-musculoskeletal, quasi-medical interventions.
- **Needling:** *Acupuncture* and *dry needling* are two invasive needling techniques that overlap with chiropractic and physical therapy scopes in some states, and their legal status for chiropractors varies considerably across jurisdictions. *Acupuncture* is included in some states' chiropractic scope but only with additional training or certification commonly requiring 100–300 hours of acupuncture education and often passage of a board exam[25]. *Dry needling*, while similar to acupuncture, is treated separately. While some states do not have clear guidance in their SOP (like Arizona or Connecticut), a majority of the states allow it with additional training. These procedures also reflect the therapeutic diversity of modern chiropractic care, many DoC programs offer elective training or encourage postgraduate certification in acupuncture, recognizing its value in integrative musculoskeletal care[26].
- **Physiotherapy Modalities (Ultrasound, Thermotherapy, Electrical Stimulation, Traction):** Chiropractors commonly use adjunctive physiotherapeutic modalities to treat patients, for example, therapeutic ultrasound, heat/cold therapy, electric muscle stimulation, and mechanical traction[27]. These modalities are taught as part of standard chiropractic education in physical therapy/rehabilitation courses. Many states allow *ultrasound therapy*, *thermotherapy* and *electrical therapy* while some others may require additional training.
- **Bloodwork:** Including *bloodwork* in the index gauges whether a state views chiropractors

[25] Council of Chiropractic Acupuncture & American Board of Chiropractic Acupuncture, *State Requirements for Chiropractic Acupuncture,* https://www.councilofchiropracticacupuncture.com/state-requirements/

[26] Smith, Clasina Leslie, Bill Reddy, Charis M. Wolf, Rosa N. Schnyer, Korina St John, Lisa Conboy, Jen Stone, and Lixing Lao. "The state of 21st century acupuncture in the United States." *Journal of Pain Research* (2024): 3329-3354. https://www.tandfonline.com/doi/full/10.2147/JPR.S469491

[27] Walker, Bruce F., Simon D. French, William Grant, and Sally Green. "Combined chiropractic interventions for low-back pain." *Cochrane Database of Systematic Reviews* 4 (2010). https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD005427.pub2/abstract

- as competent to engage in basic diagnostic evaluations. States with broad scopes explicitly authorize lab testing as part of practice, whereas a highly restrictive state might omit or prohibit it. In general, most states allow bloodwork within the SOP of Chiropractors. However, some states like Vermont, Virginia, Nebraska do not allow it while others like Rhode Island and West Virginia do not explicitly mention it.
- **Advanced Imaging:** Chiropractors have long been authorized to take and interpret X-rays, but advanced imaging like CT scans fall in a gray area in some jurisdictions. The index variable *CT scan* assesses whether a chiropractor may order a CT for a patient (and subsequently receive the report or films for co-management). While a lot of states allow chiropractors to perform CT scans, quite a number of them do not explicitly state it in their legal SOP. Some states, namely Kentucky and North Carolina do not allow CT scans to be performed by Chiropractors.
- **Diagnostic Authority and Beyond Musculoskeletal Care:** Almost all states allow *diagnostic authority* to chiropractors, however, only at a musculoskeletal level, while some states like Indiana allow beyond musculoskeletal diagnosis. There is further variation in musculoskeletal care with variations across the ability to perform *Mechanical Spinal Traction* and *Adjustments on extremities*. For example, Mississippi allows chiropractors to perform *Mechanical Spinal Traction*, however, does not allow *Adjustments on extremities.*

Across all these variables, each procedure represents an aspect of chiropractic practice that is important to clinical care and subject to legal variance. Notably, all 12 are either part of the conventional chiropractic skill set or reasonably attainable through additional training, meaning they align with what chiropractors could do given appropriate education. Accredited DoC programs under the CCE cover the scientific and clinical foundations for these services: students learn about nutrition, physiotherapy modalities, acupuncture concepts (in some programs), extremity adjusting techniques, radiology, laboratory diagnosis, etc. Therefore, if a state prohibits one of these practices, it is restricting something chiropractors are fundamentally trained to perform. This justifies using these SOP elements as indicators of regulatory

restrictiveness. *Table 1* provides a snapshot of all the 12 variables used.

Table 1: Scope-of-Practice Indicators Used to Construct the Chiropractic Regulatory Autonomy Index

Sub-Area	Variable Included in the Index
Nutritional Therapies	Nutritional Supplements
	Nutritional Injections
Needling	Acupuncture
	Dry Needling
Physiotherapy Modalities	Ultrasound Therapy
	Thermotherapy
	Electrical Therapy
Blood Analysis	Bloodwork
Advanced Imaging	CT Scans
Diagnostic Authority/Beyond Musculoskeletal Care	Diagnostic Authority
	Mechanical Spinal Traction
	Adjustments on Extremities

3.2. Constructing the Chiropractor Regulatory Autonomy Index:

Using the 12 SOP variables above, we created a composite index to rank states from most restrictive to least restrictive. The methodology follows a standard index-scoring approach used in other regulatory index studies[28, 29]. Each state's law was coded for each SOP item on an ordinal scale of permissiveness:

1. *Cannot perform or order;* the chirporactor has no authority to perform the procedure (most restrictive).

[28] Flowers Anna Claire, Geloso Vincent, Piano Clara, & Stone Lyman (2024). Childcare Regulation Index in the States: 1st Edition. Policy brief. Retrieved from https://csorwvu.com/childcare_regulation_index_1/

[29] Trudeau Noah, Timmons Edward, Seevers Benjamin (2025). State Occupational Licensing Index 2025. Report. Archbridge Institute. Retrieved from https://www.archbridgeinstitute.org/state-occupational-licensing-index/

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2. *Can order;* the chiropractor may refer/order the procedure (e.g., order a test or refer for a service) but not perform it directly.
3. *Allowed with additional training/license/certification;* the chiropractor can perform the procedure only if they obtain extra training, a specialty certification, or another license.
4. *Can perform;* the chiropractor may perform the procedure without any additional credentials (full authority under their basic license).

For the diagnostic authority measure, states were coded simply as either allowing chiropractors to diagnose conditions beyond the musculoskeletal system or limiting them to musculoskeletal issues only. Once this was set, we scored all 12 SOP items for every state. The index then totals to 12, counting 1 for each of the SOP the state allows. States that permit more procedures receive lower scores, while states that prohibit or tightly restrict most procedures receive higher scores. For example, Pennsylvania allows chiropractors to perform only one unrestricted procedure (*extremity adjusting*) and permits diagnosis beyond musculoskeletal issues, giving it a total score of 9. Kansas, on the other hand, allows 8 of the procedures without restriction and grants broader diagnostic authority, resulting in a score of 0, one of the lowest in the country.

Table 2: Pennsylvania Chiropractic Scope-of-Practice Permissions and Restrictions

Variable	Permitted/Restricted
Nutritional Supplements	Not clearly outlined
Nutritional Injections	Not clearly outlined
Acupuncture	Permitted with additional license/training
Ultrasound Therapy	Permitted with additional license/training
Bloodwork	Permitted with additional license/training
Thermotherapy	Permitted with additional license/training
Electrical Therapy	Permitted with additional license/training
Dry Needling	Not clearly outlined
Adjustments On Extremities	Can perform
CT Scans	Permitted with additional license/training
Mechanical Spinal Traction	Not clearly outlined
Diagnostic Authority	Only musculoskeletal

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3.3 Pennsylvania's Regulatory Restrictiveness:

Pennsylvania's chiropractic SOP reflects a somewhat restrictive regulatory environment. While some procedures like extremity adjustments are permitted, but the majority of other services other such as therapeutic modalities (ultrasound, thermotherapy, electrical therapy), advanced imaging (CT scans), bloodwork, and mechanical spinal traction are allowed only with additional training or licensure. Several activities, including nutritional injections and dry needling, are not explicitly addressed in statute, creating ambiguity that can functionally limit their use, which creates additional hassle for both provider and patients. However, Pennsylvania grants diagnostic authority to chiropractors beyond strictly musculoskeletal conditions, a broader diagnostic scope compared to many states. This mix of conditional permissions and statutory ambiguity places Pennsylvania toward the more restrictive end of the regulatory spectrum relative to other states (see Table 3). Relative to peer states in the Northeast, Pennsylvania's restrictions are driven less by outright prohibitions and more by reliance on conditional permissions and statutory ambiguity.

Table 3 presents the Regulatory Restrictiveness Index for chiropractic SOP across all 50 U.S. states and Washington, D.C. Each state's index score reflects how many of the 12 identified chiropractic procedures and authorities are permitted without restriction. Lower index scores indicate less restrictive regulatory environments, while higher scores correspond to more restrictive frameworks. States such as Hawaii (HI) and Wisconsin (WI) rank among the most restrictive, whereas Kansas (KS), Oregon (OR), and Texas (TX) sit at the permissive end with the lowest scores. Columns report the number of procedures that chiropractors in each state may perform beyond musculoskeletal care, the number requiring additional licensure or certification, the number they may order but not directly perform, and the number they cannot order at all.

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Table 3: State Restrictiveness Index and Scope-of-Practice Components

Rank	States	Index Value	Can't Order, Refer, or Perform	Does Not State	Can Order/ Only MSK	Additional Training/Licenses	Can Perform/ Beyond MSK
1	Hawaii	10	3	4	1	4	0
2	New Jersey	9	0	6	2	3	1
3	**Pennsylvania**	9	0	4	1	6	1
4	Alabama	8	0	5	0	5	2
5	West Virginia	8	0	5	1	4	2
6	Mississippi	7	5	1	1	2	3
7	Georgia	7	2	2	1	4	3
8	Michigan	7	1	7	1	0	3
9	Arkansas	7	1	6	1	1	3
10	Wyoming	7	0	6	1	2	3
11	District of Columbia	7	0	2	4	3	3
12	South Carolina	6	5	0	1	2	4
13	Illinois	6	2	1	3	2	4
14	Delaware	6	1	6	1	0	4
15	Utah	6	1	3	2	2	4
16	Nebraska	6	1	1	4	2	4
17	Tennessee	6	0	6	1	1	4
18	Arizona	6	0	4	0	4	4
19	Washington	5	4	3	0	0	5
20	Kentucky	5	4	1	2	0	5
21	Virginia	5	4	0	2	1	5
22	California	5	2	4	0	1	5
23	Nevada	5	2	1	2	2	5
24	Oklahoma	5	0	3	0	4	5
25	North Carolina	4	4	0	1	1	6
26	New Hampshire	4	2	2	0	2	6
27	Connecticut	4	1	2	2	1	6
28	New York	4	1	1	2	2	6
29	Idaho	4	0	4	0	2	6
30	Wisconsin	4	0	3	1	2	6
31	Louisiana	4	0	2	2	2	6
32	Colorado	4	0	1	1	4	6
33	Vermont	3	3	0	1	1	7
34	Alaska	3	2	3	0	0	7
35	North Dakota	3	2	1	0	2	7
36	Maine	3	2	1	1	1	7
37	Minnesota	3	2	0	1	2	7
38	Florida	3	1	2	0	2	7
39	Iowa	3	1	0	2	2	7
40	Maryland	3	1	0	2	2	7
41	Massachusetts	3	0	4	1	0	7
42	Missouri	3	0	3	0	2	7
43	Oregon	2	2	0	1	1	8
44	Indiana	2	1	0	1	2	8
45	Montana	2	1	0	1	2	8
46	Ohio	2	1	0	2	1	8
47	Rhode Island	2	1	0	2	1	8
48	South Dakota	2	0	3	0	1	8
49	Texas	1	1	1	1	0	9
50	New Mexico	1	0	0	0	3	9
51	Kansas	0	1	0	0	1	10

Note: Higher index values indicate more restrictive chiropractic scope-of-practice. The index is constructed by counting fully allowed scope-of practice domains and applying a min–max normalization to a 0–10 scale.

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Chiropractic Scope-of-Practice and Provider Distribution in Pennsylvania

Pennsylvania stands out as one of the most restrictive chiropractic regulatory environments in the United States, ranking 3rd nationally with a restrictive index score of 9, far higher the national average (4.58). This high score reflects that Pennsylvania permits only one of the 12 evaluated procedures (extremity adjustments) without additional licensing or certification. In contrast, nearly every other procedure requires supplemental credentials or remains ambiguous in the statute. This regulatory ambiguity is a defining feature of Pennsylvania's framework: key areas such as mechanical spinal traction, nutritional supplements, nutritional injections, and dry needling are not clearly specified in law, creating uncertainty for practitioners and limiting their ability to deliver a consistent range of services. Compared with broader-scope states such as Kansas, Oregon, and Texas, which each allow 9 procedures without restriction, Pennsylvania's narrow statutory language places it among the most constrained jurisdictions in the country. This restrictiveness has implications for patient access, provider mobility, and professional autonomy, positioning Pennsylvania as a state where the chiropractic SOP remains substantially limited relative to national norms.

Figure 1: Chiropractor Scope-of-Practice restriction for the U.S

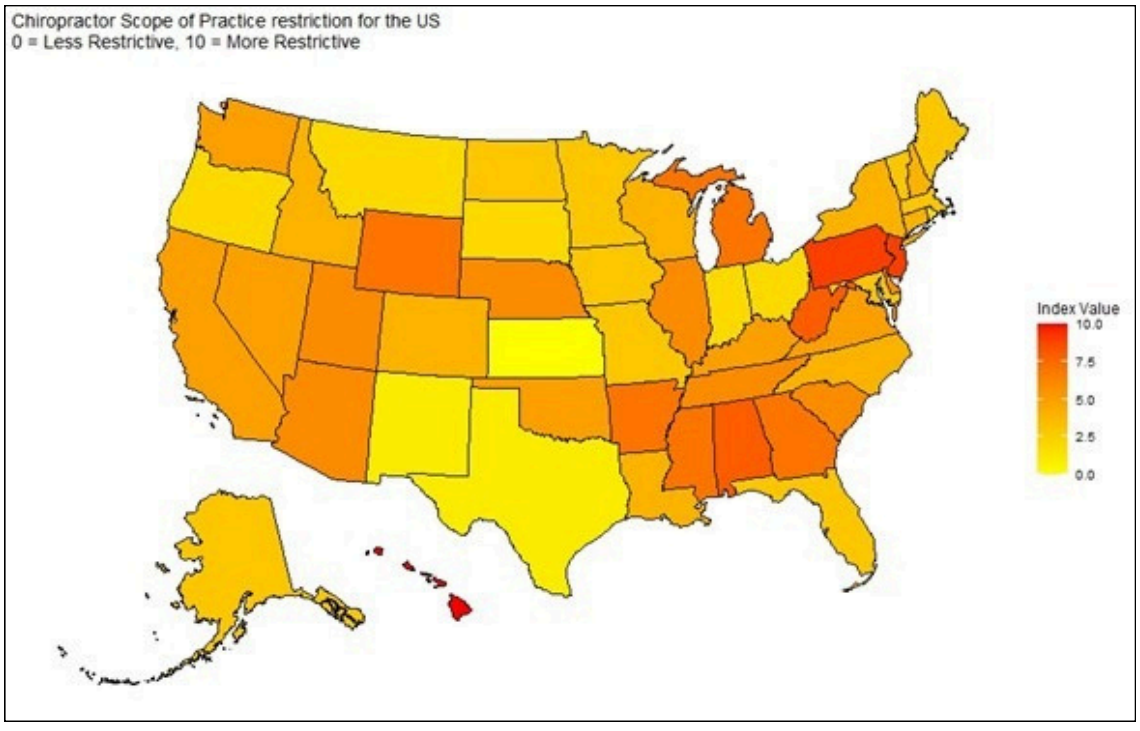
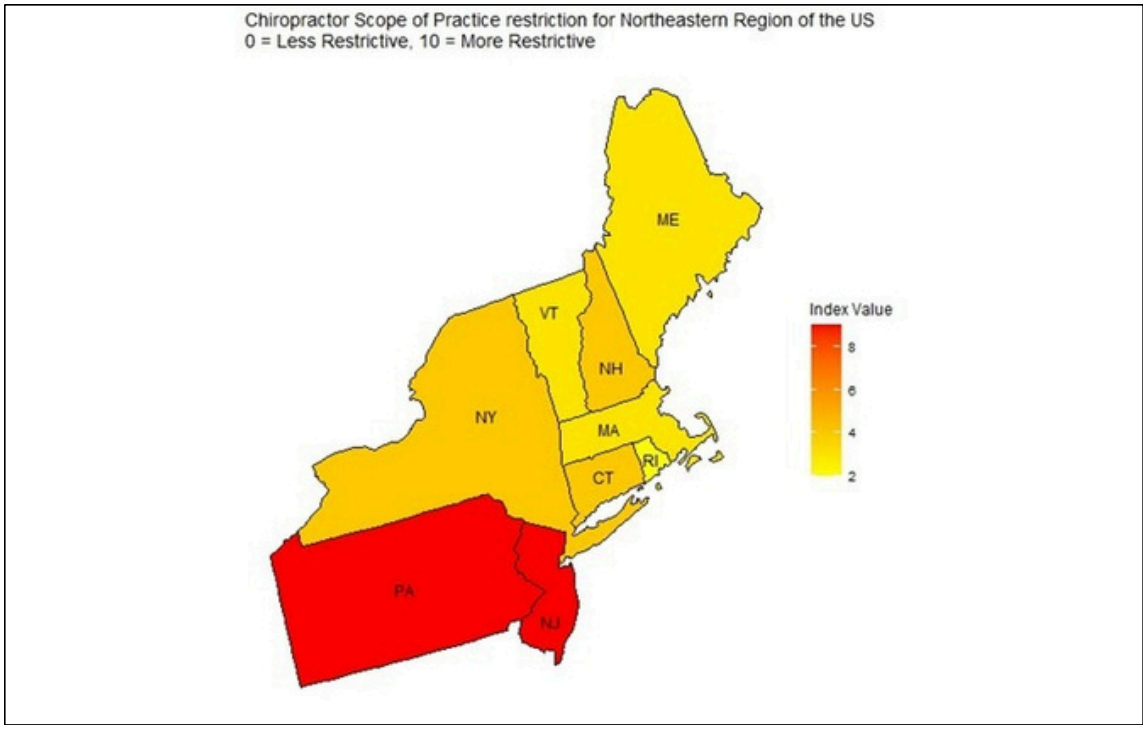


Figure 2: Chiropractor Scope-of-Practice restriction for the Northeastern region of U.S.



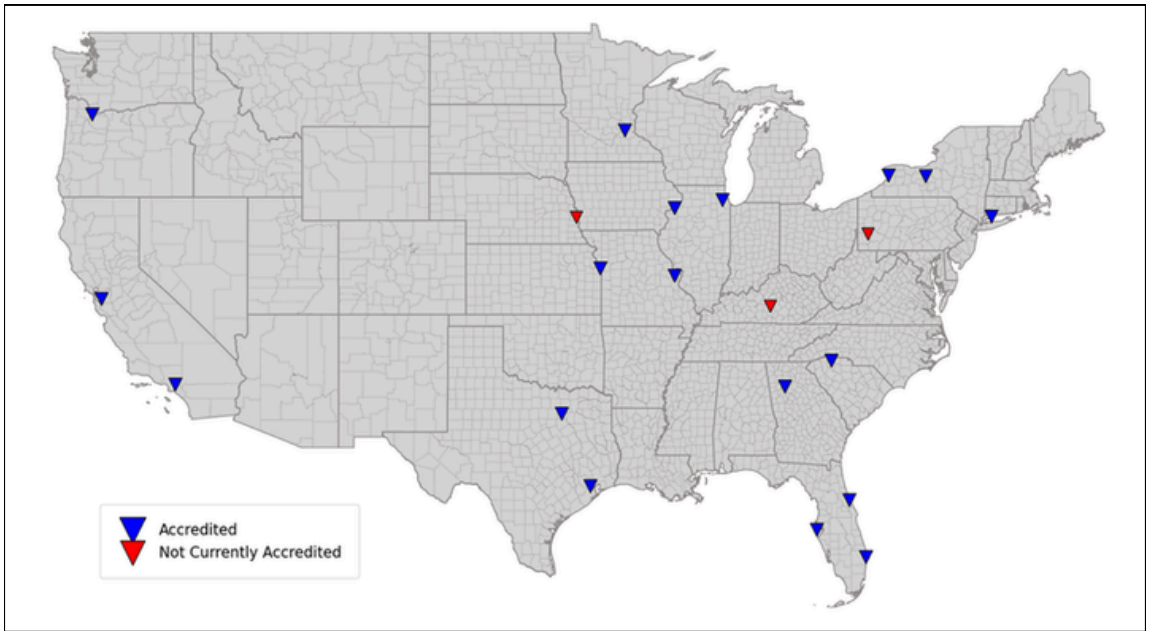
4. Educational Pipeline and Workforce Distribution:

Although Pennsylvania has a substantial chiropractic patient base and an active practitioner workforce, its regulatory environment poses notable challenges for workforce pipeline development, the geographic distribution of providers, and healthcare market dynamics. Unlike several other states, Pennsylvania currently has no accredited chiropractic educational program. While the University of Pittsburgh School of Health and Rehabilitation Sciences has recently launched a chiropractic program, it remains in the process of seeking programmatic accreditation from the CCE; the program does not yet hold accredited status, and there is no guarantee of eventual accreditation[30].

[30] University of Pittsburgh School of Health and Rehabilitation Sciences, *Doctor of Chiropractic (DoC) Program,* https://www.shrs.pitt.edu/academics/chsrs/chiropractic/

Chiropractic Scope-of-Practice and Provider Distribution in Pennsylvania

Figure 3: Locations of Accredited and Non-Accredited Chiropractic Colleges in the United States, 2025



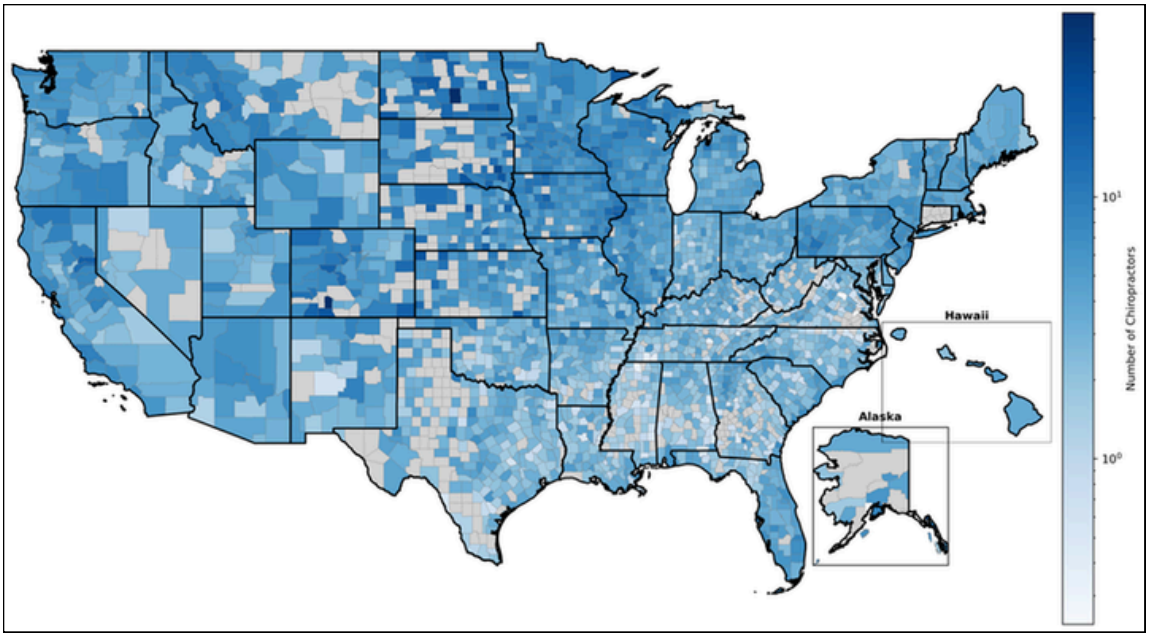
As of 2025, there are 18 CCE accredited D.C. programs in the United States, none of which are located in Pennsylvania or the broader Mid-Atlantic region (see Figure 3)[31]. The nearest accredited institutions are in New York and Connecticut, with additional programs scattered across more distant states including Missouri and California. This geographic gap may soon narrow: three programs are currently pursuing CCE accreditation, including one at the University of Pittsburgh.

Until that accreditation is secured, however, Pennsylvania faces a structural disadvantage in chiropractic workforce development. Healthcare workforce research consistently demonstrates that professionals disproportionately practice near their training locations, a pattern driven by established professional networks, familiarity with state regulatory environments, community

[31] Council on Chiropractic Education, *Directory of Accredited Doctor of Chiropractic (DoC) Programs*, https://www.cce-usa.org

ties formed during clinical rotations, and reduced relocation costs[32]. Without in-state educational programs, Pennsylvania must recruit all chiropractors from out-of-state institutions while competing against states that offer both local training pipelines and, in many cases, less restrictive practice environments.

Figure 4: Chiropractor Density by County, United States (per 10,000 Population)



The national county-level map in Figure 4 reveals distinct regional patterns in chiropractor density per 10,000 population, darker blue represents a greater concentration of chiropractors per capita within the county. The Upper Midwest, particularly Minnesota, Iowa, Wisconsin, and the Dakotas, demonstrates consistently high practitioner density, appearing as a concentrated band of darker blue across the region. This pattern aligns with the presence of multiple chiropractic educational programs, including Palmer College of Chiropractic in Davenport, Iowa (the profession's founding institution), Northwestern Health Sciences University in Minnesota, and programs in the Kansas City area. Iowa's strong showing is particularly notable given its

[32] Strasser, Roger, and Andre-Jacques Neusy. "Context counts: training health workers in and for rural and remote areas." *Bulletin of the World Health Organization* 88 (2010), 777-782. https://pubmed.ncbi.nlm.nih.gov/20931063/

predominantly rural character, suggesting that educational infrastructure can generate substantial practitioner retention even in states that might otherwise struggle to attract healthcare professionals.

Pennsylvania's overall chiropractor density falls within the moderate-to-high range nationally, comparable to much of the Northeast and exceeding many states in the Southeast and Mountain West. The Upper Midwest, where chiropractic's educational infrastructure is concentrated, remains the clear national leader.

While Pennsylvania maintains reasonable statewide practitioner numbers, the distribution is notably uneven. As can be seen in *Figure 5*, Metropolitan areas and their suburbs show healthy density (Allegheny at 12.2, Philadelphia collar counties at 7-8), but a persistent rural gap remains. Central Pennsylvania counties fall to 2-3 Chiropractors per 10,000 per capita, a three-to-sixfold disparity that raises access concerns for populations already facing healthcare workforce shortages.

Limited access to chiropractic care in underserved areas carries several potential consequences for patient outcomes and healthcare systems:

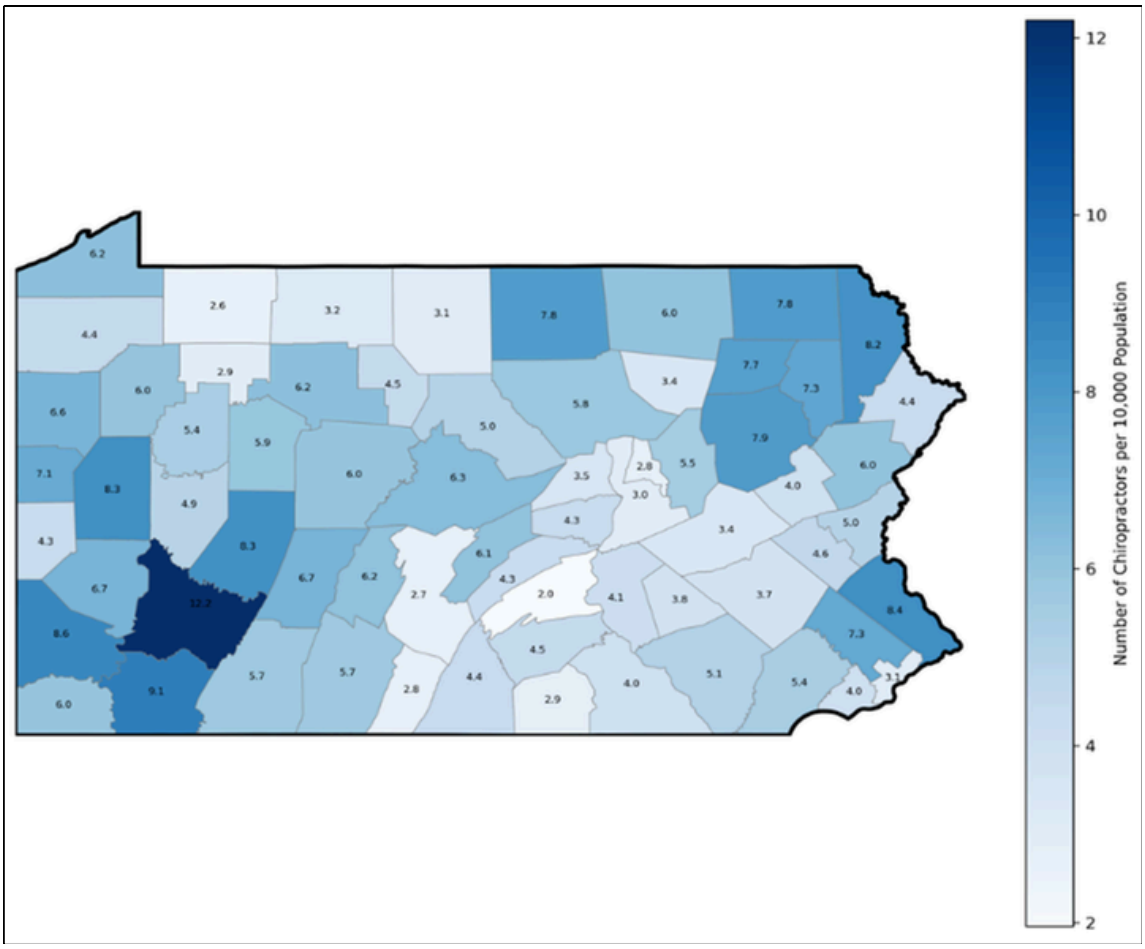
- **Decrease travel burden and increase utilization.** Geographic distance to healthcare providers is consistently associated with decreased utilization rates, particularly for ambulatory and preventive services. Patients in rural areas with limited provider availability face longer travel times, higher transportation costs, and greater likelihood of delaying or forgoing care entirely[33].This burden falls disproportionately on elderly, low-income, and transportation-disadvantaged populations[34].

[33] Thomas A. Arcury et al., *The Effects of Geography and Spatial Behavior on Health Care Utilization Among the Residents of a Rural Region, Health Services Research* 40, no. 1 (2005): 135-155, PMC1361130, https://pubmed.ncbi.nlm.nih.gov/15663706/

[34] Samina T. Syed, Ben S. Gerber, and Lisa K. Sharp, *Traveling Towards Disease: Transportation Barriers to Health Care Access*, *Journal of Community Health* 38, no. 5 (2013): 976–993, PMCID: PMC4265215, https://pubmed.ncbi.nlm.nih.gov/23543372/

Chiropractic Scope-of-Practice and Provider Distribution in Pennsylvania

Figure 5: Chiropractor Density by County, Pennsylvania (per 10,000 Population)



- **Substitution toward pharmacological pain management.** When conservative care options such as chiropractic are unavailable, patients with musculoskeletal pain often present to primary care physicians or emergency departments, where treatment protocols more frequently involve prescription medications. Multiple large-scale studies have documented associations between chiropractic utilization and reduced opioid prescribing: spinal manipulation recipients demonstrated 64% lower odds of filling an opioid prescription[35], initial visits to chiropractors or physical therapists have been associated with

[35] Whedon JM, Toler AWJ, Kazal LA, Bezdjian S, Goehl JM, Greenstein J, *Impact of Chiropractic Care on Use of Prescription Opioids in Patients with Spinal Pain, Pain Medicine* 21(12):3567–3573 (2020), https://doi.org/10.1093/pm/pnaa014

Chiropractic Scope-of-Practice and Provider Distribution in Pennsylvania

- substantially decreased early and long-term opioid use[36], and a systematic review and meta-analysis of 874 articles observed similar patterns across the literature[37]. While selection effects likely contribute to these associations, the consistency across studies suggests that access to non-pharmacological alternatives may influence prescribing patterns.
- **Lower downstream healthcare costs.** Limited access to conservative care including chiropractic, physical therapy, and other non-invasive approaches, may result in greater utilization of imaging, specialist referrals, epidural injections, and surgical interventions. Findings suggest that among Medicare beneficiaries with chronic low back pain, those who received chiropractic care had lower overall costs for their episode of care compared to those who did not[38]. Similarly, there has been documentation that early access to conservative spine care was associated with reduced likelihood of costly downstream interventions compared to first contact care with physicians[39].
- **Addressing workforce gaps.** Areas with few practitioners often struggle to recruit additional providers, as healthcare professionals tend to establish practices near training locations or within existing professinoal networks especially in rural and underserved areas[40]. This dynamic can entrench geographic disparities across generations of practitioners.

Pennsylvania's lowest chiropractor-density counties largely overlap with regions designated as Health Professional Shortage Areas. Many of these same counties also experience elevated opioid mortality rates, underscoring the interconnected nature of these workforce challenges.

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[37] Kelsey L. Corcoran et al., *Association Between Chiropractic Use and Opioid Receipt Among Patients with Spinal Pain: A Systematic Review and Meta-analysis*, *Pain Medicine* 21, no. 2 (2020): e139–e145, https://pubmed.ncbi.nlm.nih.gov/31560777/

[38] W.B. Weeks et al., *The Association Between Use of Chiropractic Care and Costs of Care Among Older Medicare Patients With Chronic Low Back Pain and Multiple Comorbidities, Journal of Manipulative and Physiological Therapeutics* 39 (2016): 63-75.e2, https://pubmed.ncbi.nlm.nih.gov/26907615/

[39] Taco A. W. Houweling et al., *First-Contact Care With a Medical vs Chiropractic Provider After Consultation With a Swiss Telemedicine Provider: Comparison of Outcomes, Patient Satisfaction, and Health Care Costs in Spinal, Hip, and Shoulder Pain Patients, Journal of Manipulative and Physiological Therapeutics* 38, no. 7 (2015): 477–483, https://pubmed.ncbi.nlm.nih.gov/26288262/

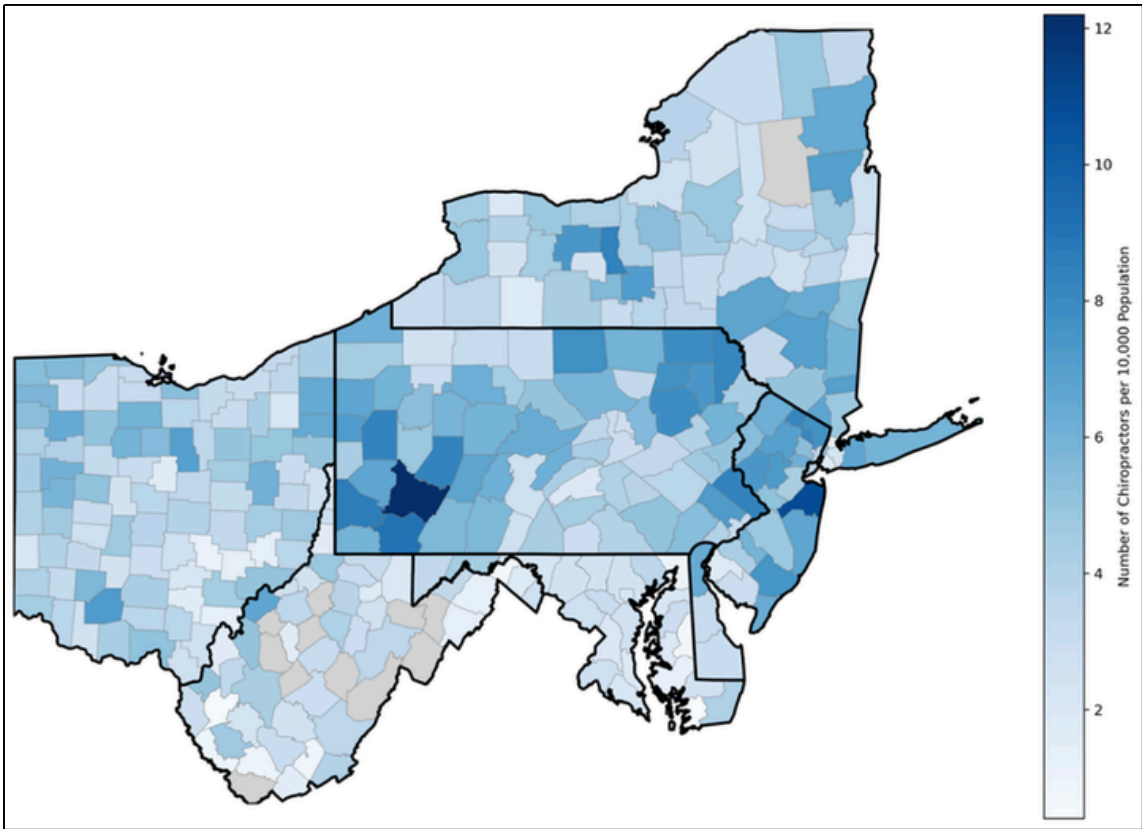
[40] Ian T. MacQueen et al., *Recruiting Rural Healthcare Providers Today: A Systematic Review of Training Program Success and Determinants of Geographic Choices, Journal of General Internal Medicine* 33, no. 2 (2018): 191–199, PMCID: PMC5789104, https://pubmed.ncbi.nlm.nih.gov/29181791/

Chiropractic Scope-of-Practice and Provider Distribution in Pennsylvania

As seen from Figure 6, Pennsylvania's overall chiropractor density is moderate compared with several neighboring states such as Ohio, West Virginia, and parts of Maryland, indicating that, at a broad level, the Commonwealth attracts a comparable supply of chiropractic providers. However, these aggregated figures may obscure two important considerations: first, whether Pennsylvania is achieving the level of provider supply commensurate with its population size, economic capacity, and healthcare infrastructure; and second, whether within-state maldistribution, rather than aggregate supply, is the more significant policy challenge. While statewide density appears adequate, substantial geographic disparities persist: many rural counties in central and northern Pennsylvania, which also overlap with primary care Health Professional Shortage Areas and regions with elevated opioid mortality, have chiropractor densities that are three to six times lower than those in metropolitan areas. This pattern suggests that the policy question may not be solely about increasing overall supply but about promoting more equitable geographic distribution of chiropractic care. Determining whether regulatory reform, expansion of educational pipelines, or targeted workforce recruitment incentives would be most effective in addressing rural-urban disparities requires further analysis.

Chiropractic Scope-of-Practice and Provider Distribution in Pennsylvania

Figure 6: Chiropractor Density by County, Pennsylvania and Surrounding States (per 10,000 Population)



New Jersey presents an instructive comparative case for understanding Pennsylvania's workforce challenges. With an identical restrictiveness index score of 9, New Jersey and Pennsylvania rank as the 2nd and 3rd most restrictive chiropractic regulatory environments in the nation, respectively. The marginal difference in their rankings reflects not a difference in index score but rather a difference in their regulatory constraints: New Jersey's regulations leave six of the twelve evaluated procedures without clear statutory guidance, while Pennsylvania's statute leaves four procedures unaddressed. This higher degree of regulatory ambiguity in New Jersey's statutory framework places it just above Pennsylvania in the restrictiveness ranking, as undefined regulatory language can function as a practical barrier to practice even in the absence of explicit prohibition.

Chiropractic Scope-of-Practice and Provider Distribution in Pennsylvania

Despite sharing comparably stringent regulatory environments, the two states exhibit notably different workforce outcomes. New Jersey maintains substantially higher chiropractor density than Pennsylvania, particularly in counties proximate to the greater New York metropolitan area, where elevated population density, higher median household incomes, and strong insurance market penetration generate robust patient demand capable of sustaining a larger practitioner base even under restrictive regulatory conditions. As seen in *Figure 6*, counties along Pennsylvania's eastern border transitioning into New Jersey show higher per-capita chiropractor counts than Pennsylvania's rural interior, a pattern that appears driven more by demand-side market conditions than by regulatory permissiveness. Geographic proximity to accredited chiropractic educational programs may further contribute to this disparity. As shown in *Figure 3*, the nearest accredited institutions to the Mid-Atlantic region are located in New York and Connecticut, meaningfully closer to New Jersey's population centers than to Pennsylvania's. Healthcare workforce research consistently demonstrates that practitioners disproportionately establish practices near their training locations, and New Jersey's geographic position adjacent to these programs may facilitate a steadier inflow of newly trained chiropractors than Pennsylvania's more distant position in the regional educational landscape can support.

This divergence carries important analytical implications for policy design. It suggests that regulatory restrictiveness alone does not determine practitioner supply or geographic distribution; demand-side factors including population density, insurance coverage rates, income levels, and proximity to both major metropolitan markets and accredited training programs also shape where practitioners choose to locate and practice. For Pennsylvania, the New Jersey comparison offers a cautionary note: regulatory reform, while potentially beneficial for broadening SOP and reducing entry barriers, may be insufficient on its own to address workforce shortages in rural central and northern Pennsylvania if underlying demand-side conditions in those regions remain unfavorable. Equally, New Jersey's experience demonstrates that highly restrictive regulatory environments need not necessarily produce severe aggregate workforce deficits in areas with sufficient patient demand and educational infrastructure nearby. Taken together, these patterns suggest that Pennsylvania's rural acess

challenges reflect a combination of regulatory constraints, educational infrastructure gaps, and structural demographic conditions including lower population density, lower median incomes, and limited insurance coverage in rural counties, that collectively warrant a multifaceted rather than single-instrument policy response.

5. Economic Implications of Occupational Licensing Restrictions

State-imposed SOP limits are not merely professional regulations; they shape labor market outcomes and healthcare access. As seen with nurse practitioners (NPs) and physician assistants (PAs), restrictive licensing rules can stifle the supply and distribution of providers[41,42]. For example, states that grant full practice authority to NPs see more of them working in rural and underserved areas and patients driving shorter distances for care[43]. By contrast, onerous supervision mandates have been shown to discourage NPs from establishing practices in shortage areas, without measurable gains in patient safety. These patterns illustrate a broader economic principle: when qualified professionals are permitted to utilize their full skillset, workforce supply expands to meet demand, whereas unnecessary restrictions create bottlenecks in care delivery[44].

Extensive economic research on occupational licensing reinforces that excessive regulation imposes net costs on society [45]. Licensing tends to raise incomes for incumbents by limiting competition, often without improving quality or safety commensurate[46]. Morris Kleiner[47], a leading economist on licensing, finds that such laws inflate wages and prices while reducing

[41] Plemmons, A, "Occupational licensing's effects on firm location and employment in the United States." *British Journal of Industrial Relations 60, no. 4 (2022): 735-760.* https://doi.org/10.1111/bjir.12661

[42] Shakya, S ., and A., Plemmons . "Does scope-of-practice affect mobility of nurse practitioners serving Medicare beneficiaries?." *Journal of Labor Research* 41, no. 4 (2020): 421-434. https://link.springer.com/article/10.1007/s12122-020-09308-1

[43] Healthforce Center at UCSF. "Policy Perspective: How Nurse Practitioners Expand Healthcare Access in Rural Areas." University of California, San Francisco, https://healthforce.ucsf.edu/news/policy-perspective-how-nps-expand-healthcare-access-rural-areas

[44] Skorup, J., Mackinac Center for Public Policy. *The Scope-of-Practice Problem.* Policy Brief S2017-02, 2017. https://www.mackinac.org/S2017-02

[45] Timmons, E. J., and S. E. Baker. "The Effects of Expanded Nurse Practitioner and Physician Assistant Scope-of-Practice on Health Care Utilization and Outcomes." *Social Science & Medicine* 187 (2017): 78–87. https://doi.org/10.1016/j.socscimed.2017.05.044

[46] Timmons, Edward J., and Anna Mills. "Bringing the effects of occupational licensing into focus: Optician licensing in the United States." *Eastern Economic Journal* 44, no. 1 (2018): 69-83. https://www.econlib.org/library/enc/occupationallicensing.html

[47] Kleiner, Morris M. *Licensing Occupations: Ensuring Quality or Restricting Competition?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2006. https://www.upjohn.org/research-highlights/licensing-occupations-ensuring-quality-or-restricting-competition

employment opportunities and worker mobility[48,49]. A 2015 Obama Administration report likewise concluded that stringent licensing requirements likely cost "millions of jobs" and over $100 billion in higher consumer expenses nationwide. In healthcare, these costs are borne out in provider shortages and geographic maldistribution. When licensure barriers deter new entrants or make it difficult for practitioners to move across state lines, communities, especially rural ones, are left with fewer available clinicians[50]. In short, overly restrictive licensing can create a protected guild of providers enjoying higher earnings, but at the expense of access and affordability for patients[51].

Within this context, Pennsylvania's chiropractic SOP rules may be constraining the state's workforce and services. Pennsylvania already ranks as one of the most restrictive states for chiropractic practice, with statutes so limited or ambiguous that nearly every advanced clinical procedure (from using therapeutic modalities to ordering imaging) requires additional certification or is not clearly permitted. For example, the law fails to plainly authorize common treatments like mechanical traction or dry needling, leaving chiropractors uncertain whether they can employ these modalities. Such regulatory ambiguity can have a costly effect: providers may avoid offering certain therapies, or avoid practicing in the state altogether, rather than risk legal repercussions in an unclear environment. Empirical evidence suggests that broader SOP correlates with better professional opportunities; one multistate study found that chiropractors in less restrictive states earned significantly higher wages on average, implying stronger demand for their services. By limiting what Pennsylvania chiropractors can do, the current rules likely dampen practice revenue and attractiveness, which in turn may dissuade some prospective chiropractors from locating in the Commonwealth. Over time, a constrained scope can thus translate into a smaller provider pool and fewer treatment options available to patients.

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[48] Timmons, E. J., & Thornton, R. J. (2008). The effects of licensing on the wages of radiologic technologists. *Journal of Labor Research*, 29(4), 333-346. https://link.springer.com/article/10.1007/s12122-007-9035-9

[49] Haupt, Andreas. "Who profits from occupational licensing?." *American Sociological Review* 88, no. 6 (2023): 1104-1130. https://journals.sagepub.com/doi/full/10.1177/00031224231207395

[50] The White House. *Occupational Licensing: A Framework for Policymakers*. Washington, DC: Executive Office of the President, July 2015. https://obamawhitehouse.archives.gov/sites/default/files/docs/licensing_report_final_nonembargo.pdf

[51] Kleiner, Morris M., and Alan B. Krueger. "Analyzing the extent and influence of occupational licensing on the labor market." *Journal of Labor Economics* 31, no. S1 (2013): S173-S202. https://www.journals.uchicago.edu/doi/abs/10.1086/669060

Chiropractic Scope-of-Practice and Provider Distribution in Pennsylvania

Another economic factor shaping Pennsylvania's chiropractor supply is the educational pipeline. Until recently, Pennsylvania was one of the largest states without an in-state accredited DoC program. Aspiring chiropractors from Pennsylvania have had to attend schools in other states, and many do not return home to practice. The absence of a local training institution has meant a reliance on in-migration of practitioners, which is inherently limited. Research on other health professions underscores that where providers train often influences where they settle; physicians and nurses who leave rural areas or smaller states for education tend to establish careers in the urban centers where they studied. The same dynamic likely applies to chiropractic. The launch of the University of Pittsburgh's chiropractic doctoral program in 2025 (the first ever in Pennsylvania) is poised to overcome these hurdles. However, until that program reaches full accreditation and scale, Pennsylvania's supply of new chiropractors will remain heavily dependent on graduates from New York, Iowa, Missouri, and other states with established chiropractic colleges. In practical terms, this bottleneck in the talent pipeline has compounded the effects of restrictive licensing, even as patient demand for non-pharmacologic musculoskeletal care has grown.

The combined impact of these economic factors is evident in Pennsylvania's chiropractic workforce distribution. The state's licensed chiropractors are heavily concentrated around the major population centers, while many rural counties have only a handful of practitioners. This mismatch leads to large swaths of the Commonwealth where residents have little to no access to chiropractic services within a reasonable distance. By limiting entry and hampering the mobility of practitioners, strict SOP rules and the lack of a homegrown workforce likely exacerbate these rural–urban disparities. In contrast, states that have modernized their chiropractic scope and fostered educational pipelines (or at least reciprocity compacts) generally report more even distribution of providers relative to population centers. In sum, Pennsylvania's current regulatory approach, born of historical mistrust and narrow definitions of chiropractic, carries concrete economic implications. It constrains the supply of practitioners, skews their geographic placement, and potentially inflates costs for patients who have fewer provider choices. These outcomes merit careful consideration by policymakers, especially as

other states move to loosen licensing burdens in hopes of improving access to care and labor market efficiency.

6. Conclusion

Pennsylvania's chiropractors operate within a statutory framework that has not kept pace with the profession's modern educational standards, leaving many uncertain about or restricted from performing therapies that contemporary clinical practice recognizes as safe and effective. This not only limits practitioners' ability to innovate and deliver comprehensive care, but also discourages some from practicing in Pennsylvania at all. The state's long lack of any accredited chiropractic college until this year has further hindered the growth and renewal of the workforce. Without a local academic center producing new chiropractors, Pennsylvania has for decades effectively been "importing" talent, and not enough of it, to replace retiring providers or expand services in underserved areas. The data on provider distribution reflect these barriers: a relative abundance of chiropractors in Philadelphia and Pittsburgh versus pronounced shortages across vast rural stretches of the state. In practical terms, the Commonwealth's regulatory and institutional posture has limited residents' access to chiropractic care that is now widely recognized as a legitimate, evidence-informed option for musculoskeletal conditions. Policymakers should recognize that a system designed for a different era is leaving tangible gaps in today's healthcare landscape.

Addressing these challenges could yield meaningful benefits for Pennsylvania's health system. Clarifying and modernizing the SOP, for example, explicitly allowing chiropractors to employ the full range of adjunctive therapies and refer for diagnostic tests within their training, would enable providers to practice at the top of their license. Such reforms, coupled with efforts to expedite licensure for qualified out-of-state graduates, can help attract new practitioners and improve the distribution of services. Likewise, investing in the local educational pipeline is crucial. The establishment of the University of Pittsburgh's chiropractic program is an encouraging step that, in time, will generate homegrown chiropractors familiar with the needs of Pennsylvania communities. With supportive policies, these new graduates could be incentivized to establish practices in high-need areas, including the rural counties that have seen little

chiropractic presence. Expanding access to chiropractic care is not just a workforce issue, but a public health opportunity. Recent studies suggest that when patients have greater access to services like spinal manipulation, their reliance on riskier interventions such as opioid pain prescriptions can decline[52]. While more research is needed, increasing the availability of conservative treatment options for back pain and other musculoskeletal issues aligns with broader efforts to combat the opioid crisis[53]. By revising its professional regulations and nurturing its provider base, Pennsylvania can better integrate chiropractic care as a valuable component of multidisciplinary health strategy. In doing so, the state would not only rectify an outmoded regulatory posture but also improve pain management alternatives and healthcare access for its residents, fulfilling the goal of occupational licensing reform: to protect the public interest without erecting needless barriers to care.

[52] Dowell, Deborah, Tamara M. Haegerich, and Roger Chou. "CDC guideline for prescribing opioids for chronic pain—United States, 2016." *Jama* 315, no. 15 (2016): 1624-1645. https://jamanetwork.com/journals/jama/fullarticle/2503508

[53] Sun, Eric, Jasmin Moshfegh, Chris A. Rishel, Chad E. Cook, Adam P. Goode, and Steven Z. George. "Association of early physical therapy with long-term opioid use among opioid-naive patients with musculoskeletal pain." *JAMA network open* 1, no. 8 (2018): e185909-e185909. https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2718095