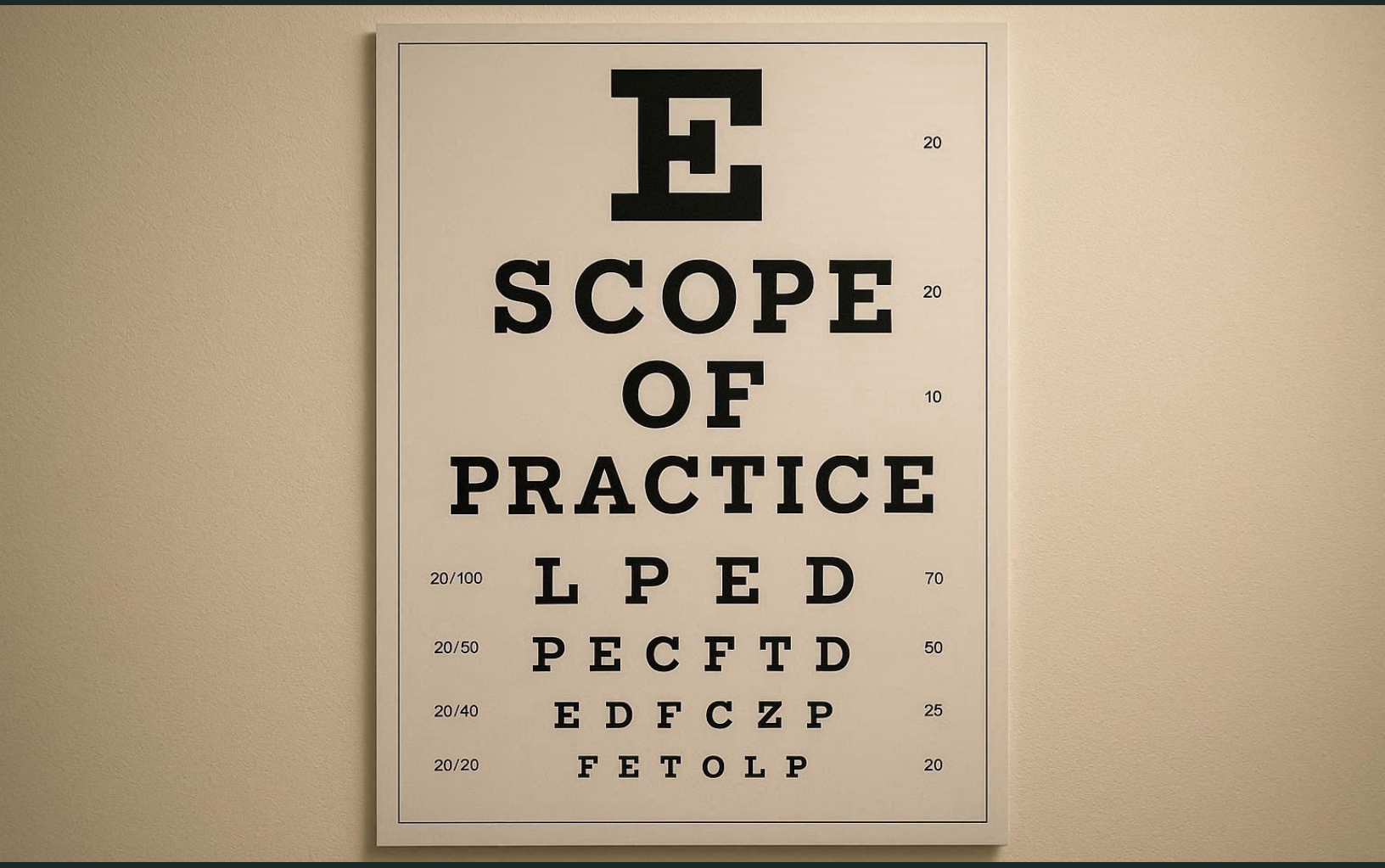


IMPROVING EYE CARE ACCESS THROUGH SCOPE-OF-PRACTICE EXPANSION

Kihwan Bae and Liam Sigaud

SHORTAGES OF HEALTHCARE PROVIDERS IN THE United States pose a growing threat to public health. More than 1 in 10 Americans cannot find an available appointment when they need medical services.[1] For some patients, including low-income individuals with government-financed health insurance, obtaining timely care is especially difficult.[2] Delaying or forgoing needed care increases the risk of adverse health outcomes and imposes unnecessary downstream costs on the health system.

To meet the growing demand for healthcare, policymakers in many states have expanded the role of nonphysician providers. For example, most states now permit nurse practitioners to prescribe routine medicines without physician supervision, a regulatory regime known as "full practice authority." Other healthcare providers, including pharmacists, midwives, and dental hygienists, have also been granted broader scope of practice in many jurisdictions. The evidence overwhelmingly indicates that these scope-of-practice reforms have benefited patients by making care more accessible and less costly without jeopardizing patient safety.[3]

While the success of scope-of-practice expansions across some healthcare occupations has been widely acknowledged, other reforms have attracted less attention. Optometrists, in particular, have experienced one of the most extensive scope-of-practice expansions in US medical history, yet relatively little is known about the implications of these developments for patients' access to eye care. Initially known as "refractionists" in the early 20th century, optometrists primarily measured visual acuity. From the 1960s to the 1990s, they gained the authority to diagnose and treat eye conditions, evolving into "eye doctors." Those reforms were associated with a reduction in vision impairment and narrowed racial and ethnic disparities in eye health.[4] Since the 1980s, and especially over the past decade, more than a dozen US states have gone further, authorizing optometrists to perform certain laser procedures for eye care. These policies, which are analogous to full practice authority for nurse practitioners, narrow the gap between the services optometrists are allowed to perform and the skills they acquire in current optometry training programs.

In this research in brief, we summarize the findings of our recent working paper investigating the effects of optometrists' laser authority on eye care utilization. Consistent with previous research on scope-of-practice expansions in other health care occupations, we find that allowing optometrists to perform more advanced tasks increases access to vital healthcare services among Medicare enrollees.

A SHRINKING OPHTHALMOLOGY WORKFORCE IMPERILS ACCESS TO EYE CARE

TRADITIONALLY, EYE SURGERY IN THE UNITED STATES has been performed by ophthalmologists—that is, medical doctors trained to diagnose and treat eye diseases and disorders. However, the population-adjusted number of ophthalmologists is dwindling, creating barriers to access for many patients. From 1995 to 2017, the number of ophthalmologists per capita declined by 9.8 percent,[5] even as the aging of the US population increased the prevalence of eye diseases and disorders and drove up demand for medically necessary eye care. More than one-quarter of US adults over the age of 70 experience vision impairment.[6]

The inadequate supply of ophthalmologists affects patients across the country. Moreover, projections indicate that the shortage of ophthalmologists will worsen by 30 percent between 2020 and 2035, making ophthalmology the second most affected specialty among 38 medical and surgical specialties.[7] At the same time, existing ophthalmologists are shifting away from underserved communities: from 2012 to 2022, the proportion of ophthalmologists in rural areas declined, and recent graduates of ophthalmology programs became less likely to practice in a rural setting.[8]

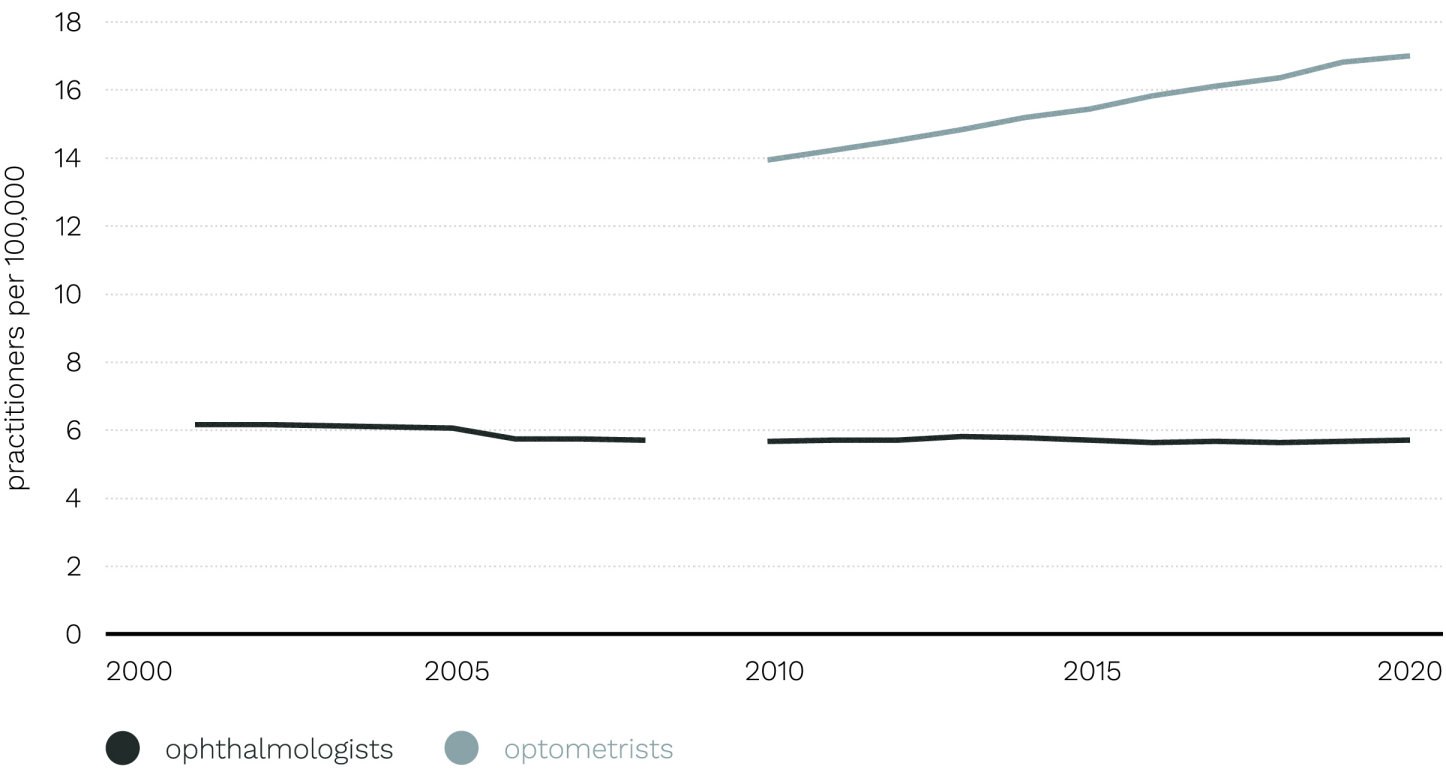
A GROWING BODY OF OPTOMETRISTS WIDENS OPPORTUNITIES FOR SCOPE-OF-PRACTICE EXPANSIONS

BY CONTRAST, THE AVAILABILITY OF OPTOMETRISTS has been increasing across the nation over recent decades. The optometry workforce has grown by 45.7 percent on a per capita basis from 1990 to 2017,[9] and more than 99 percent of Americans live in counties with a practicing optometrist.[10]

Figure 1 reflects these workforce trends, showing how the numbers of ophthalmologists and optometrists (adjusted for population) have changed over time, using data for ophthalmologists from 2001 to 2020. Data on optometrists are more limited, stretching back only to 2010. The figure shows that the ratio of optometrists to ophthalmologists increased from 2.46 to 2.98 between

2010 and 2020. As the eye care workforce continues to shift toward optometrists, maintaining access to vital services requires policymakers to remove unnecessary impediments to optometrists' ability to serve patients.

FIGURE 1. **Workforce Trends in Ophthalmology and Optometry**



Note: Opthamologist counts for 2009 are not available in the Area Health Resource Files.

Sources: Workforce data: "Area Health Resources Files" (database), Health Resources and Services Administration, last updated November 8, 2024, https://data.hrsa.gov/topics/health-workforce/nchwa/ahrf. Population data: Federal Reserve Bank of St. Louis, "Population" (dataset), last updated December 5, 2025, https://fred.stlouisfed.org/series/POPTHM.

LASER SURGERY IS A NEW WAVE OF SCOPE-OF-PRACTICE EXPANSIONS FOR EYE CARE

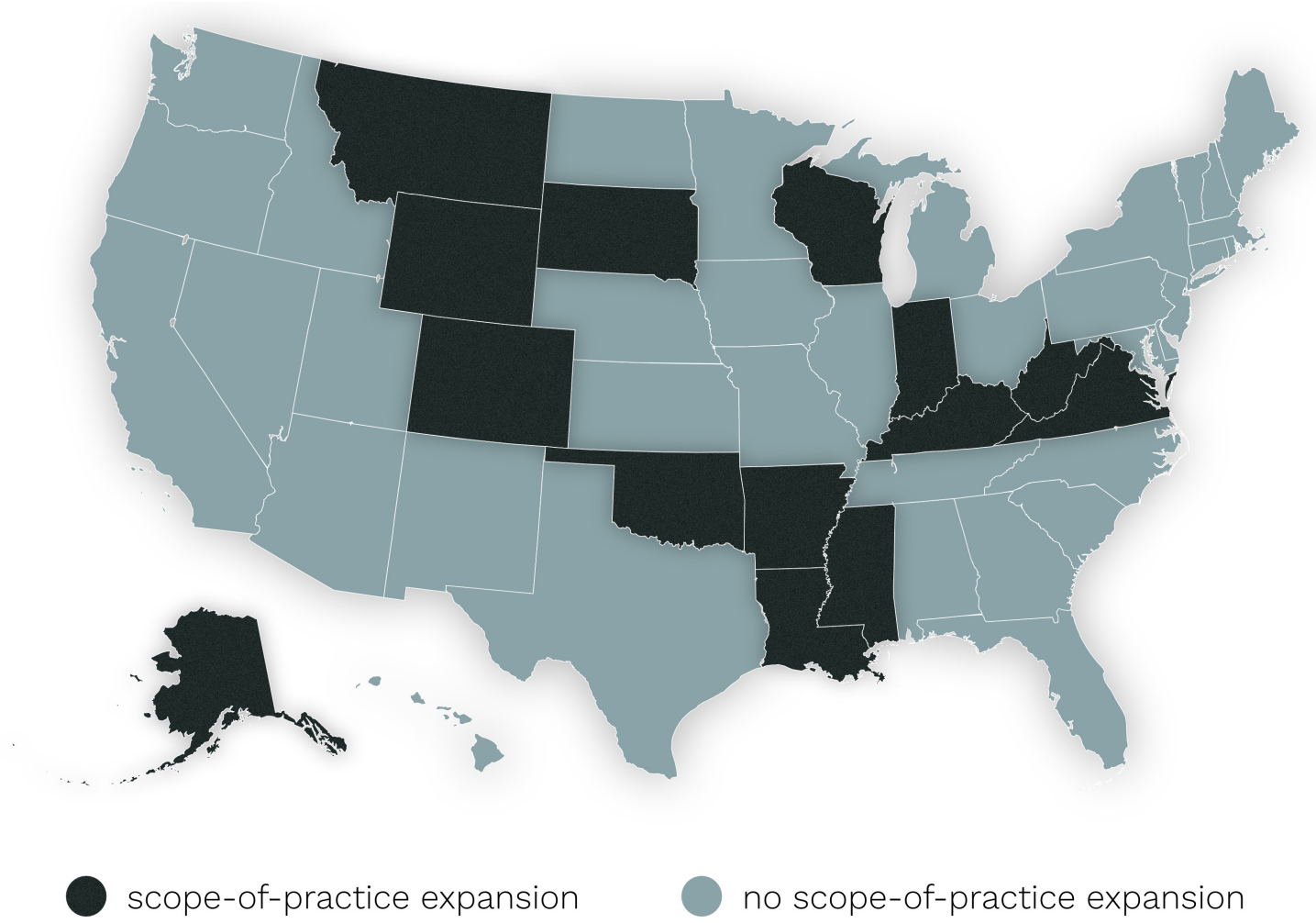
BUILDING ON REFORMS IN THE SECOND HALF OF THE 20th century that granted optometrists the authority to prescribe medications, a growing number of states have recognized the benefits of further loosening scope-of-practice constraints on optometrists by allowing them to provide certain laser procedures for eye care. While states differ in the specific types of laser procedures now open to optometrists, most reform states allow them to perform yttrium aluminum garnet (YAG) posterior capsulotomy, laser trabeculoplasty, peripheral iridotomy, or some combination of these common procedures, which are used to treat a range of eye diseases or disorders, including glaucoma and secondary cataract. In our research, we focus on the effects of scope-of-practice expansions on the utilization of YAG surgery.

The YAG procedure is a safe and effective treatment typically performed in an office setting in less than 10 minutes and is covered by Medicare. YAG surgery is a medically necessary procedure to treat posterior

capsule opacification, a condition that sometimes develops after cataract surgery. Cataracts are the leading cause of vision loss, especially among older adults. More than half of Americans develop them by age 65, and more than 450,000 Medicare beneficiaries received YAG surgery in 2023. Given the widespread need for this procedure, understanding how scope-of-practice expansions for optometrists affect access to YAG surgery is of substantial public health importance.

The map in Figure 2 shows 14 states that allow optometrists to perform YAG surgery, as of mid-2025. Oklahoma and Kentucky were the first to do so, implementing policy changes in 1998 and 2011, respectively. The other states enacted their reforms in a staggered fashion from 2014 (Louisiana) to 2025 (West Virginia and Montana). These scope-of-practice expansions have occurred in every region of the United States except the Northeast, perhaps because Northeastern states tend to have less severe shortages of ophthalmologists than the rest of the country. In states that have expanded scope of practice, optometrists have performed nearly 150,000 YAG surgeries, with only two examples of negative outcomes or complications.

FIGURE 2. **States That Have Granted Optometrists Laser Authority (Mid-2025)**



Sources: Nathan Lighthizer et al., "Establishment and Review of Educational Programs to Train Optometrists in Laser Procedures and Injections," *Clinical and Experimental Optometry* 108, no. 3 (2025): 248–57; American Optometric Association, County Data Demonstrates Eye Care Access Nationwide, April 2018; state statutes and regulations (see appendix).

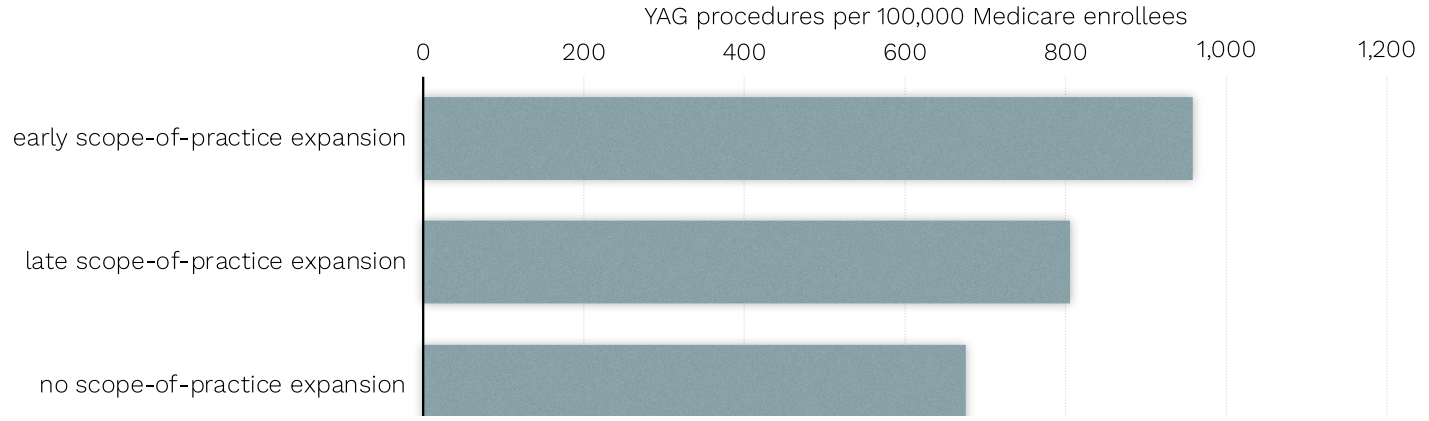
SCOPE-OF-PRACTICE EXPANSIONS ARE ASSOCIATED WITH HIGHER UTILIZATION OF LASER SURGERY

IN OUR RECENT WORKING PAPER, WE CONDUCT AN empirical analysis to determine whether scope-of-practice expansions for optometrists may affect access to laser procedures among older patients. Using Medicare claims data, we compare the volumes of YAG procedures performed in states that permit optometrists to perform laser surgeries and in states that do not. Our analysis focuses on the number of Medicare beneficiaries receiving YAG procedures per 100,000 enrollees. To measure overall access, we include YAG procedures performed by optometrists and ophthalmologists. We use 2023 data, which is the latest year available from the Centers for Medicare & Medicaid Services (CMS).

Figure 3 shows the level of YAG use across three groups of states: early scope-of-practice expanders (Oklahoma and Kentucky, which adopted reforms before 2013), late scope-of-practice expanders (nine states that adopted reforms between 2013 and 2023), and states that had not expanded scope of practice for optometrists by 2023. The figure shows a clear positive association between scope-of-practice expansions and YAG service utilization. Specifically, early scope-of-practice expansion states report the highest utilization rates of YAG surgery (958 per 100,000 enrollees), followed by late scope-of-practice expansion states (805 per 100,000 enrollees). The lowest volume of YAG surgery occurred in states that had not expanded scope of practice in 2023 (676 per 100,000 enrollees).

These results suggest that scope-of-practice expansion improves access to care. They also indicate that the effects of scope-of-practice expansion appear to grow in magnitude over time, consistent with the notion that optometrist practices gradually adapt to the new regulatory environment. Finally, we note that while our research focuses on the YAG procedure, recent scope-of-practice reforms encompass other types of laser surgery, including laser trabeculoplasty and peripheral iridotomy, which are sometimes used to treat glaucoma. Accounting for these additional procedures would likely yield larger effects of scope-of-practice reforms on access to medically needed eye care.

FIGURE 3. **Number of YAG Procedures by State Scope-of-Practice Expansion Status**



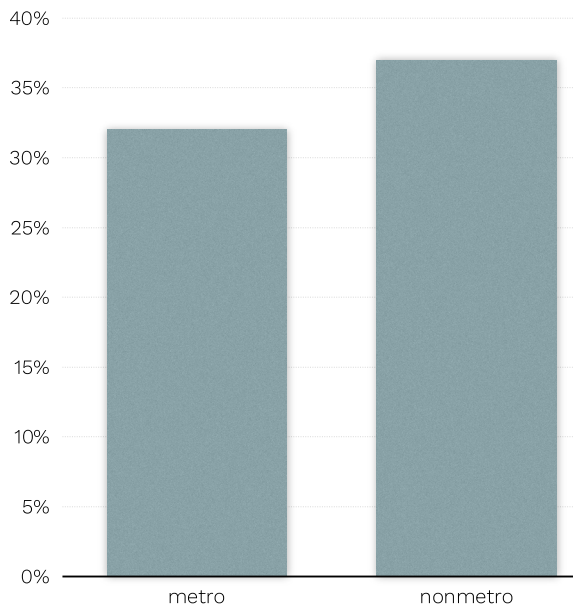
Notes: This graph shows the volume of YAG procedures in 2023 (i.e., the number of Medicare beneficiaries receiving a YAG procedure per 100,000 Medicare enrollees) in different groups of states, on the basis of when (or if) the groups of states adopted scope-of-practice expansions for optometrists. We include all YAG procedures performed by optometrists and ophthalmologists combined. States in the "early scope-of-practice expansion" group expanded scope of practice before 2013 and include Oklahoma and Kentucky. States in the "late scope-of-practice expansion" group expanded scope of practice between 2013 and 2023 and include Alaska, Arkansas, Colorado, Indiana, Louisiana, Mississippi, Virginia, Wisconsin, and Wyoming. States in the "no scope-of-practice expansion" group had not adopted scope-of-practice expansions for optometrists by the end of 2023 and include the remaining 40 states (and the District of Columbia).

Source: Authors' calculations based on "Medicare Physician & Other Practitioners - by Provider and Service" (dataset), last updated 2023, https://data.cms.gov/provider-summary-by-type-of-service/medicare-physician-other-practitioners/medicare-physician-other-practitioners-by-provider-and-service/data.

RURAL AREAS BENEFIT MORE FROM SCOPE-OF-PRACTICE EXPANSIONS FOR OPTOMETRISTS

WE ALSO FIND THAT THE INCREASE IN YAG UTILIZATION associated with scope-of-practice expansions is proportionally larger in nonmetropolitan areas than in metropolitan areas, implying that populations with more severe access barriers may benefit most from expanded scope of practice for optometrists. As shown in Figure 4, the volume of YAG procedures in rural counties is 37 percent higher in states with early scope-of-practice expansions in 2023 than it is in states with no scope-of-practice expansions, which is larger than the difference in the volume of YAG procedures in urban counties between the same groups of states (32 percent). This finding is consistent with the fact that rural communities in the United States face particularly acute shortages of ophthalmologists, forcing residents to defer care or travel long distances to a provider. Since optometrists are far more numerous than ophthalmologists in rural areas, expanding optometrists' scope of practice could disproportionately improve access for rural residents.

FIGURE 4. **Volume of YAG Procedures in Metro and Nonmetro Areas**



Notes: This graph shows the percentage difference in the volume of YAG procedures in 2023 (i.e., the number of Medicare beneficiaries receiving a YAG procedure per 100,000 Medicare enrollees) between 2 states with early scope-of-practice expansions (Oklahoma and Kentucky) and 40 states with no scope-of-practice expansions. We include all YAG procedures performed by optometrists and ophthalmologists combined.

Source: Authors' calculations based on "Medicare Physician & Other Practitioners - by Provider and Service" (dataset), last updated 2023, https://data.cms.gov/provider-summary-by-type-of-service/medicare-physician-other-practitioners/medicare-physician-other-practitioners-by-provider-and-service/data.

CONCLUSION

OUR RESEARCH PROVIDES EVIDENCE THAT SCOPE-OF-practice expansions for optometrists make it easier for older Americans to obtain essential eye care, particularly in underserved areas. Given the declining availability of medical doctors specializing in eye care, scope-of-practice expansions for optometrists are expected to be a cost-effective measure to improve access by using an existing workforce with advanced, specialized training for eye care. Additionally, there is little concern regarding the quality of care because optometrists should practice only within their education and training even with expanded scope of practice.

These results have broad implications for regulatory policies aimed at improving access to care in the face of provider shortages and growing demand for medical services. Eliminating unnecessary scope-of-practice restrictions in healthcare occupations is a key step toward making healthcare accessible to all Americans.

APPENDIX

Alaska
- Alaska Stat. Ann. § 08.72.278 (West)
- Alaska Admin. Code tit. 12, § 48.040

Arkansas
- Ark. Code Ann. § 17-90-101 (West)

Colorado
- Colo. Rev. Stat. Ann. § 12-275-103 (West)

Indiana
- Ind. Code Ann. § 25-24-1-4 (West)

Kentucky
- Ky. Rev. Stat. Ann. § 320.210 (West)

Louisiana
- La. Stat. Ann. § 37:1041

Mississippi
- Miss. Code Ann. § 73-19-1 (West)

Montana
- Mont. Code Ann. § 37-10-101 (West)

Oklahoma
- Okla. Stat. Ann. tit. 59, § 581 (West)

South Dakota
- S.D. Codified Laws § 36-7-1

Virginia
- Va. Code Ann. § 54.1-2400.01:1 (West)
- Va. Code Ann. § 54.1-3201 (West)
- Va. Code Ann. § 54.1-3225 (West)

West Virginia
- W. Va. Code Ann. § 30-8-9 (West)

NOTES

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2. Walter R. Hsiang et al., "Medicaid Patients Have Greater Difficulty Scheduling Health Care Appointments Compared with Private Insurance Patients: A Meta-Analysis," *Inquiry* 56 (2019): 1–9.

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5. Paula W. Feng et al., "National Trends in the United States Eye Care Workforce from 1995 to 2017," *American Journal of Ophthalmology* 218 (2020): 128–35.

6. Olivia J. Killeen et al., "Population Prevalence of Vision Impairment in US Adults 71 Years and Older," *JAMA Ophthalmology* 141, no. 2 (2023): 197–204.

7. Sean T. Berkowitz et al., "Ophthalmology Workforce Projections in the United States, 2020 to 2035," *Ophthalmology* 131, no. 2 (2024): 133–39.

8. Aishah Ahmed et al., "Geographic Distribution of US Ophthalmic Surgical Subspecialists," *JAMA Ophthalmology* 143, no. 2 (2025): 117–24.

9. Feng et al., "National Trends."

10. American Optometric Association, *County Data Demonstrates Eye Care Access Nationwide*, April 2018.

11. Jovany J. Franco and Roberto Pineda, "Geographic Access to Eye Care in the United States," *Ophthalmology* 132, no. 1 (2025): 119–21.

12. Nathan Lighthizer et al., "Establishment and Review of Educational Programs to Train Optometrists in Laser Procedures and Injections," *Clinical and Experimental Optometry* 108, no. 3 (2025): 248–57.

13. Kihwan Bae and Liam Sigaud, "A Clearer View: Scope-of-Practice Expansion and Access to Eye Care" (working paper, Social Science Research Network, October 27, 2025).

PACIFIC LEGAL FOUNDATION

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