

# Tennessee's Physician Workforce Landscape

SUPPLY, DEMAND, AND EDUCATION CAPACITY



NOV.

2025

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# ACKNOWLEDGMENTS

*This study was commissioned by the Tennessee Hospital Association and in collaboration with its nonprofit, the Tennessee Center for Health Workforce Development, and funded by a grant from the State of Tennessee.*

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# EXECUTIVE SUMMARY

TENNESSEE stands at a critical juncture in its healthcare workforce planning. While the state has made impressive strides in expanding medical education capacity, a careful examination of physician supply, demand, and training infrastructure reveals a system under strain; one that demands strategic, coordinated action to ensure all Tennesseans have access to quality physician care, both today and in the future.

## THE CHALLENGE AHEAD

Tennessee's physician workforce will face mounting pressure over the next decade. By 2035, demand for physicians is projected to grow by approximately 10%, driven by an aging population and increasing healthcare needs. Meanwhile, physician supply is expected to increase by only 3% without strategic intervention. This translates to an estimated gap of 3,860 physicians by 2035, a shortage that will be felt most acutely in high-need specialties and underserved communities. The specialties facing the most significant shortages include family medicine (requiring an additional 773 physicians), psychiatry (752 physicians), and internal medicine (549 physicians).

## CURRENT WORKFORCE REALITIES

Today, Tennessee has approximately 18,800 active physicians, translating to 264 physicians per 100,000 Tennesseans, 13% below the national average of 302 physicians per 100,000 population. While the state has built notable strength in certain areas, such as hematology and oncology, its physician workforce capacity falls below national benchmarks in several key areas. Tennessee currently has 33% fewer psychiatrists, 20% fewer emergency medicine physicians, and 14% fewer primary care physicians (including family medicine and pediatrics) per capita compared to national averages. These national-comparison gaps highlight areas where Tennessee has less capacity today, while Tennessee-specific supply-and-demand forecasts indicate that the most significant future shortages will emerge in family medicine, psychiatry, and internal medicine.

Geographic disparities compound these challenges. Nearly every county has at least one primary care physician, but distribution is highly uneven. Urban centers like Davidson, Knox, and Shelby counties meet or exceed national benchmarks, while rural counties face severe shortages. Twenty-eight counties fall below federal primary care benchmarks, and 52 counties have no psychiatrist at all.

The aging of Tennessee's physician workforce presents another looming challenge. While the overall age distribution mirrors national averages, specific specialties face impending retirement waves. More than 30% of physicians in ophthalmology, psychiatry, and urology are age 65 or older, and over 25% of physicians in anesthesiology, family medicine, gastroenterology, general surgery, and several other specialties will likely retire within the next decade. Without deliberate succession planning, these retirements will compound existing shortages in critical areas.

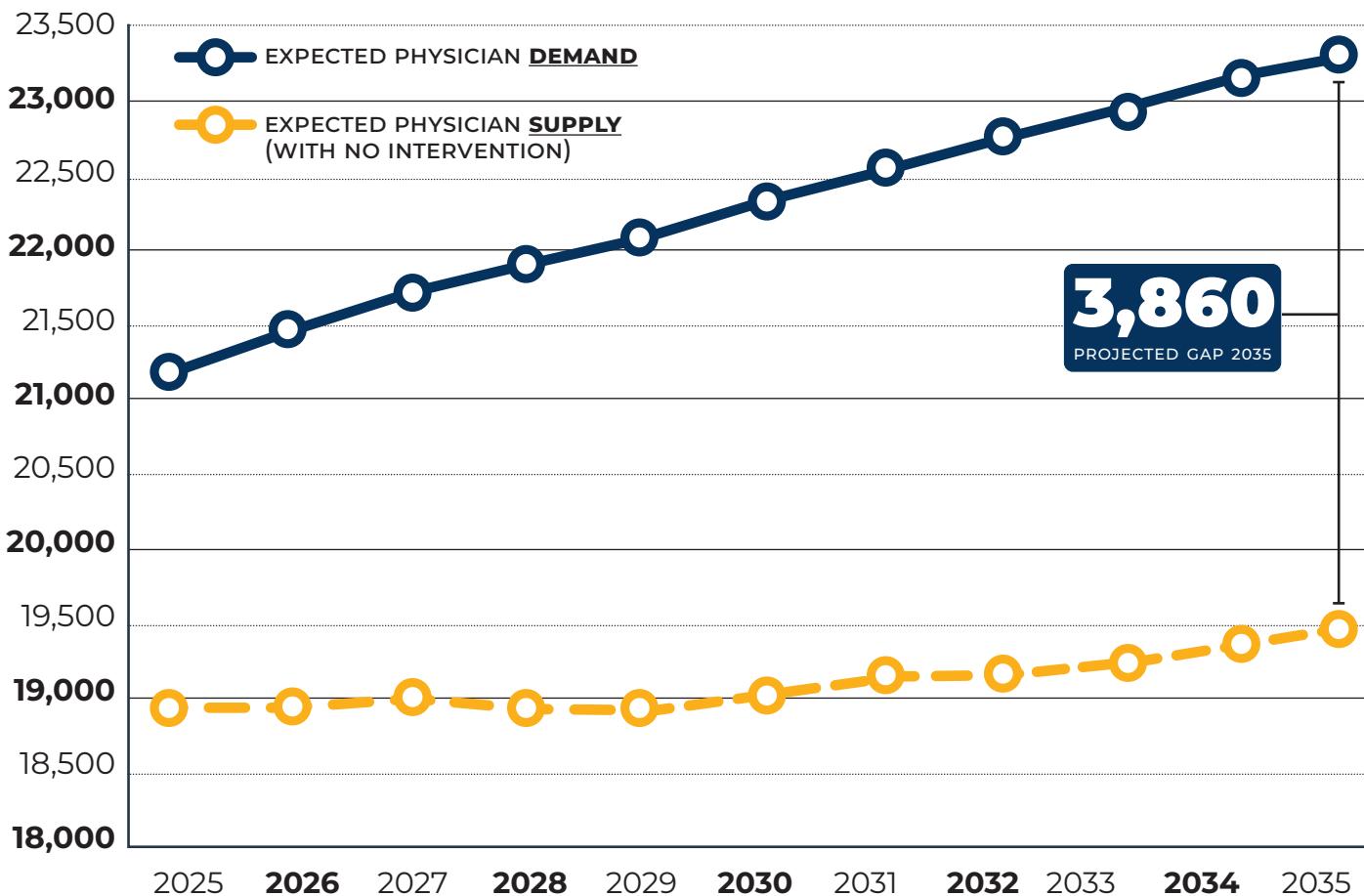
## A MEDICAL EDUCATION SUCCESS STORY—WITH A CATCH

Tennessee has built impressive medical education capacity. The state now has eight medical schools, including two that opened their doors in 2024. This year's total enrollment of 1,059 students is notable for being the first in which osteopathic (DO) students outnumbered allopathic (MD) students. Tennessee produces 10.8 medical students per 100,000 residents compared to the national average of 8.7, and graduations are projected to more than double from 784 in 2025 to approximately 1,627 annually by 2035.

However, this expansion creates a critical bottleneck: Tennessee's residency training infrastructure cannot absorb this growth. In 2025, the state had 764 first-year residency positions compared to 784 medical school graduates, a shortfall of 20 slots. Without corresponding residency expansion, this gap will widen



## TENNESSEE PHYSICIANS SUPPLY AND DEMAND EXPECTATIONS



dramatically. By 2035, Tennessee could face a shortage of 863 residency positions, forcing more than half of its medical graduates to seek training elsewhere.

This matters because it impacts Tennessee's physician pathway-to-practice. Tennessee already retains only 33.5% of its medical school graduates (below the national average of 37.8%) and 42.2% of its residents (below the national average of 48.2%). Without expanding GME or increasing retention, Tennessee is at risk for becoming a net exporter of physicians, leading to a consistent outflow of potential its future workforce.

### WHAT'S AT STAKE

Tennessee's current trajectory, without intervention, will leave thousands of Tennesseans without adequate access to physician care. The projected shortage of 3,860 physicians by 2035 is not inevitable, but addressing it requires coordinated action now. The long lead time for establishing new residency programs (3-4 years) means that decisions made today will determine the healthcare landscape Tennessee residents experience in the next decade.

The state has built a strong foundation through medical education expansion and maintains robust clinical training infrastructure. The challenge now is to align these assets with population health needs, strengthen the pathway from training to practice, and ensure that Tennessee-trained physicians remain in Tennessee to serve Tennessee communities. The data, the infrastructure, and the opportunity are all present. Without expanding GME or increasing retention, Tennessee is at risk for becoming a net exporter of physicians, leading to a potential consistent outflow of its future workforce.



# INTRODUCTION

## THE ISSUE

THE United States faces significant physician workforce challenges that threaten healthcare access and quality nationwide. From rural provider shortages to specialty care gaps in urban areas, the misalignment between physician supply and population health needs affects communities across the country.<sup>1,2</sup> These shortages are not new but were exacerbated by the COVID-19 pandemic, which accelerated physician burnout and early retirements.<sup>3</sup> The situation is expected to worsen as a substantial portion of the nation's physician workforce approaches retirement age, while demand for healthcare services continues to grow with an aging population.<sup>4,5</sup> Data-driven physician workforce planning is essential to address these challenges systematically and proactively. Tennessee, like many states, must develop comprehensive strategies to ensure it can meet both current and future healthcare needs for all residents.

## THE APPROACH

This study was designed as a comprehensive, strategic workforce planning effort to assess the current and future supply of physicians in Tennessee. It brings together multiple, distinct analyses into a single synthesis, offering an integrated understanding of the physician workforce pathway-to-practice, practice trends, and projected needs across the state. The study's findings are intended to serve as a data foundation for informed policy and investment decisions by state leaders, hospital and education stakeholders, and health system partners.

**The project was structured around three major areas critical to understanding and planning for Tennessee's physician workforce:**

- CURRENT SUPPLY VS. FUTURE DEMAND:** Models presenting the future supply and demand for physicians by specialty in Tennessee through 2035, using nationally recognized methodologies adapted to the state's unique data and workforce context.
- IN-DEPTH LOOK AT THE CURRENT PHYSICIAN WORKFORCE:** A comprehensive look at current physician workforce supply for specialties prioritized by the Tennessee Hospital Association, including comparisons to the United States and selected states (Alabama, Missouri, and Virginia) and information on key characteristics (aging, burnout, etc.).
- EDUCATION LANDSCAPE:** Information on medical schools and graduate medical education capacity by specialty and current retention of trainees.

## STUDY DATA

The study relied primarily on quantitative analysis using multiple state and national data sources, complemented by targeted stakeholder interviews to provide context and shape the report's considerations. Where possible, analyses were conducted at the county level, with results aggregated to illustrate regional and statewide trends. The study focused exclusively on physicians; other advanced practice providers were intentionally excluded due to data availability and modeling complexity.

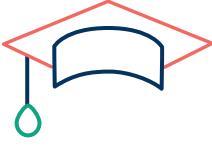
Figure 1 outlines the data sources that were utilized in the study.

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1. <https://www.ruralhealth.us/blogs/2025/06/rural-physician-burnout-and-staffing-shortage-impact-in-2025>
2. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2786186>
3. <https://www.ama-assn.org/practice-management/sustainability/how-aging-nation-covid-19-stretch-doctor-workforce-thin>
4. <https://www.federalreserve.gov/econres/feds/files/2022081pap.pdf>
5. <https://www.ama-assn.org/delivering-care/population-care/ama-outlines-5-keys-fixing-america-s-rural-health-crisis>



## Figure 1. Data Sources by Study Area

 SUPPLY AND DEMAND PROJECTIONS	 LICENSURE AND WORKFORCE	 EDUCATION LANDSCAPE
<ul style="list-style-type: none"> <li>■ Association of American Medical Colleges' (AAMC) 2024, The Complexities of Physician Supply and Demand</li> <li>■ Health Resources and Services Administration's (HRSA), 2024 Health Workforce Simulation Model</li> <li>■ Lightcast Employment Projections</li> </ul>	<ul style="list-style-type: none"> <li>■ American Association of Medical Colleges, Physician Workforce Dashboards</li> <li>■ Tennessee Department of Health, Health Professional Licensing Reports</li> </ul>	<ul style="list-style-type: none"> <li>■ American Association of Medical Colleges</li> <li>■ American Association of Colleges of Osteopathic Medicine</li> <li>■ Accreditation Council for Graduate Medical Education</li> <li>■ National Resident Match Program</li> <li>■ Internet search and direct contact with programs</li> </ul>

## THE REPORT

This report analyzes Tennessee's physician workforce across three interconnected domains, each building toward a complete picture of the state's current position and future trajectory.

**PROJECTED PHYSICIAN SUPPLY AND DEMAND** models workforce needs through 2035 using nationally recognized approaches adapted to Tennessee's context. It projects supply and demand across major specialties and explores how strategic interventions (such as early or late retirements, graduate medical education expansion, or improved retention) could alter Tennessee's trajectory.

**THE CURRENT PHYSICIAN WORKFORCE CHARACTERISTICS** section assesses where Tennessee stands today, analyzing current capacity by specialty compared to national benchmarks and peer states. It examines workforce characteristics including age distribution, diversity, training origins, and geographic distribution across all 95 counties.

Finally, the **MEDICAL EDUCATION LANDSCAPE** section maps the infrastructure available to address future needs. This section traces Tennessee's pathway-to-practice from medical school through residency training, documenting recent capacity expansions and examining whether training infrastructure can absorb growth and retain graduates.

# PROJECTED PHYSICIAN SUPPLY AND DEMAND

## ABOUT THE APPROACH

**W**HEN assessing projected physician demand three sources were used, HRSA, AAMC, and Lightcast. Each model has its own benefits and challenges, but all are important contributors to determining demand. This report models the future supply and demand for physicians in Tennessee through 2035, using nationally recognized methodologies. The blended modeling approach follows best practices in healthcare workforce analysis, combining multiple national frameworks and grounding them in the best-known supply data source: AAMC (sourced from the American Medical Association provider Masterfile). The Approach

The custom models for Tennessee draw upon three reputable national frameworks:

- **HRSA's Health Workforce Simulation Model (HWSM):** Represents an upper-bound estimate of potential need if all Tennesseans had full access to care.
- **AAMC's The Complexities of Physician Supply and Demand:** Represents expected utilization under current coverage and delivery patterns.
- **Lightcast Employment Projections:** Reflect observed hiring demand derived from employer job and industry trends.

## SUPPLY MODELING SCENARIOS:

- **RETIRE EARLY:** This scenario builds upon the HRSA projections as to the impact of physicians retiring (leaving the workforce) two years early. As such, this model can be used to explore the potential impact of unaddressed burnout or other retirement-inspiring scenarios.
- **RETIRE LATE:** This scenario builds upon the HRSA projections as to the impact of physicians retiring two years later than expected and contributing to the workforce for an additional two years.
- **GME GROWTH:** The GME Growth scenarios in the model incorporate a scenario where the state might plan GME expansion to align the number of first year GME positions with medical school graduations, providing the opportunity for each Tennessee trainee to remain in-state for graduate medical education training.
- **GME GROWTH + 15% INCREASED GME RETENTION:** This scenario builds upon the GME growth scenario to incorporate known GME retention rates by specialty. AAMC reports that Tennessee retains 42.2% of its GME graduates across all specialties. Although unavailable for Tennessee specifically, national data is available to adjust retention rates by specialty, which allowed for modeling of Tennessee baseline retention by specialty, and an increase of 15% retention of GME graduates.



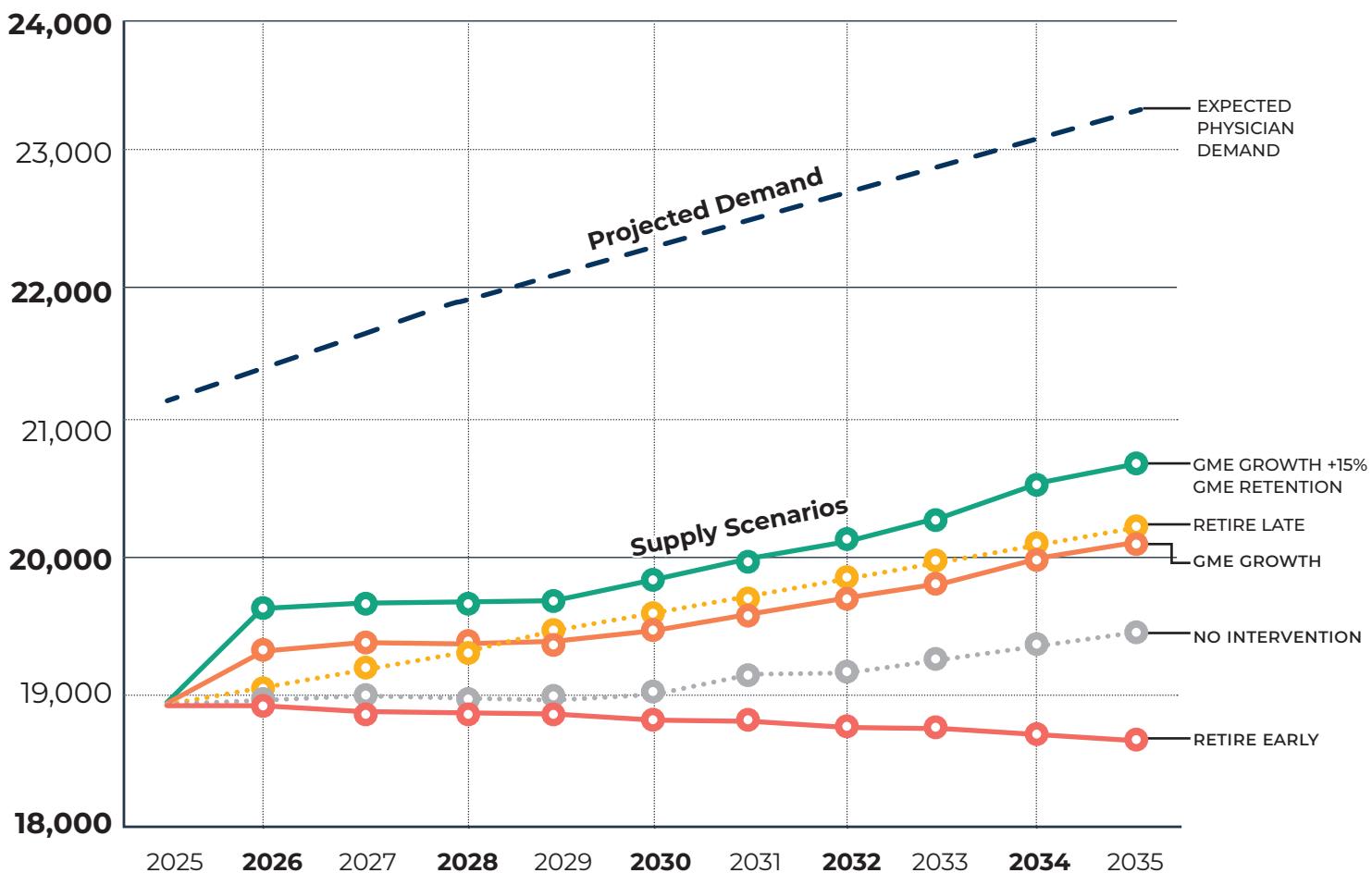
## RESULTS

The model indicates that physician demand will grow by approximately 10% between 2025 and 2035, while supply is projected to increase by roughly 3% without any further workforce intervention, or up to 9% with GME expansion and increased retention.

Using these estimates, Tennessee is estimated to have an average supply of 19,460 physicians without any intervention in 2035, with a corresponding demand of 23,320 physicians, yielding a gap of 3,860 physicians, 2,318 of which are primary care specialties and the remaining 1,542 are specialty medicine physicians. That gap could lessen if certain supply interventions were pursued, such as expanding first year GME positions to match the number of graduates (reducing the supply-demand gap to 3,175 physicians), encouraging physicians to retire two years later (reducing the gap to 3,118 physicians), or expanding GME and increasing retention of Tennessee's GME graduates by 15% (reducing the gap to 2,626 physicians).

WITHOUT  
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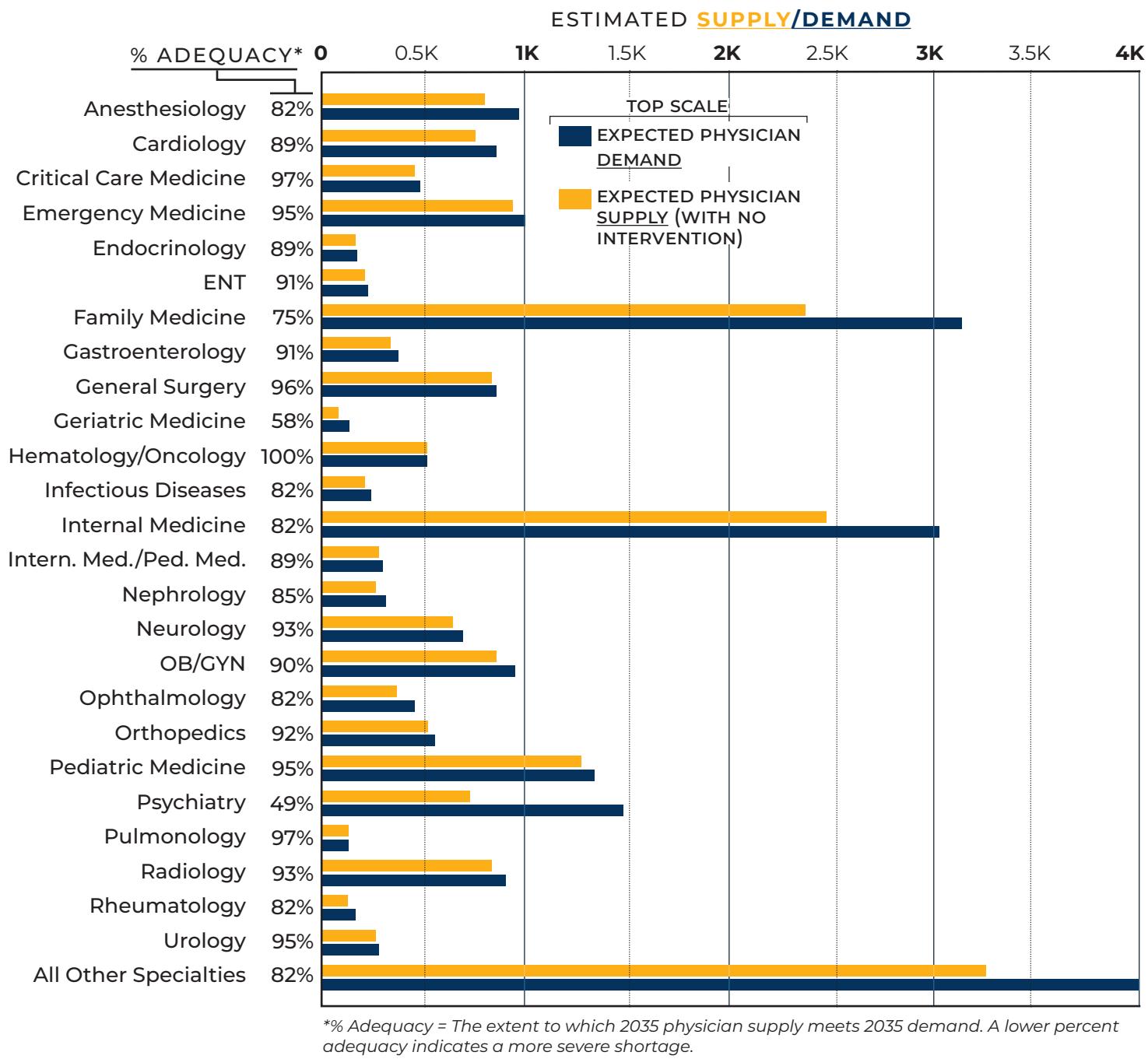
**Figure 2: Tennessee Physician Supply and Demand Estimates, 2025-2035**



## TENNESSEE PHYSICIAN SUPPLY AND DEMAND BY SPECIALTY

In addition to total physician supply and demand estimates, projections were prepared by specialty to observe which specialties might experience the greatest demand. Specialty projections were grounded in AAMC-reported specialty supply. Utilizing this framework, the specialties expected to experience the greatest demand include: Family Medicine (773 estimated physicians needed), Psychiatry (752 physicians), Internal Medicine (549 physicians).

**Figure 3: Tennessee Physician Supply and Demand Estimates by Specialty, 2035**



**Table 1: 2035 Physician Gap by Specialty**

Project Specialty	Average Supply in 2025	Average Supply in 2035	Average Demand in 2035	Anticipated % Adequacy in 2035	Est. Number of Addl. Physicians Need to Meet 2035 Demand
Anesthesiology	792	784	962	82%	177
Cardiology	725	757	851	89%	95
Critical Care Medicine	411	454	469	97%	15
Emergency Medicine	824	933	986	95%	53
Endocrinology	137	146	164	89%	18
ENT	186	194	213	91%	18
Family Medicine	2,287	2,376	3,149	75%	773
Gastroenterology	313	323	357	91%	34
General Surgery	767	817	847	96%	30
Geriatric Medicine	61	69	119	58%	50
Hematology/Oncology	478	512	511	100%	-1
Infectious Diseases	183	191	232	82%	41
Internal Medicine	2,397	2,480	3,030	82%	549
Internal Medicine/Pediatric Medicine	255	260	293	89%	33
Nephrology	243	253	298	85%	44
Neurology	590	636	681	93%	45
OB/GYN	873	849	940	90%	91
Ophthalmology	369	362	442	82%	80
Orthopedics	490	504	548	92%	44
Pediatric Medicine	1,250	1,263	1,333	95%	70
Psychiatry	730	721	1,474	49%	752
Pulmonology	98	108	112	97%	4
Radiology	830	826	889	93%	64
Rheumatology	110	118	145	82%	27
Urology	244	254	269	95%	15
All Other Specialties	3,296	3,266	4,007	82%	741
<b>GRAND TOTAL</b>	<b>18,940</b>	<b>19,460</b>	<b>23,320</b>	<b>83%</b>	<b>3860</b>

Specialties in red text indicate those at or below the state average of percent adequacy.



# CURRENT PHYSICIAN WORKFORCE CHARACTERISTICS

## TENNESSEE PHYSICIAN WORKFORCE BY THE NUMBERS

**T**HERE is no single source of truth reporting the supply of physicians by specialty within communities across the state of Tennessee.<sup>6</sup> Some sources offer state-level counts for all physicians (Federation of State Medical Boards, [Physician License Census](#)), others offer state-level counts by specialty (American Association of Medical Colleges [U.S. Physician Workforce Data Dashboard](#), American Medical Association [Health Workforce Mapper](#)). State-level Tennessee physician supply estimates from these sources range from these sources range from 17,000 to nearly 21,000.

Unfortunately, none of the previously mentioned national sources accessibly offer information on the count of physicians by specialty within Tennessee counties, which is needed to understand distribution, identify shortages, and plan for workforce development. Tennessee licensing data are available for state workforce assessments and planning, but these data are incomplete. Of the total 76,160 allopathic and osteopathic physician licenses reported as of 5/21/2025, only 33,873 licenses were active or on probation, and only 15,837 are able to be confidently confirmed as practicing in the state of Tennessee through information maintained and reported by the respective boards. An additional 9,569 licenses have no additional information that can be used to determine whether these physicians have a practice location in Tennessee or are otherwise contributing to medical care for Tennesseans (such as through telehealth). At least [thirty two other states](#), including Florida, Indiana, Missouri, South Carolina, Utah, Virginia, etc., are collecting practice information from licensed physicians at the time they renew their state licenses so that the number practicing within the state, and even within specific communities, by medical specialty can be confidently reported and understood.

The following Tennessee physician workforce data are reported from the best available sources for each indicator. The specific sources are referenced for each indicator. Enhancing physician workforce data in Tennessee must be a strategic priority.

**6** A note about physician workforce data: Determining the number of physicians currently licensed and practicing in Tennessee is inherently complex. No single dataset provides a definitive count, as each source relies on different definitions of "active practice," methods of assigning physicians to geographic locations, and levels of data granularity. To provide the most accurate possible estimate, this report relies on AAMC Workforce data as the most direct and authoritative source, while triangulating findings against three supplemental datasets: the Association of American Medical Colleges (AAMC) data derived from the American Medical Association Physician Professional Database (AMA PPD), projections from the Health Resources and Services Administration (HRSA), and employment estimates from Lightcast.

## DATA DIGEST

- Tennessee has 18,812 physicians practicing in-state, translating to 264 physicians per 100,000 Tennesseans, less than the national average of 302 physicians per 100,000 population.
- Many specialties have imminent retirements (family medicine, ophthalmology, psychiatry, radiology and urology in particular)
- Primary care physicians have highest in-state training rates
- Workforce capacity is greatest in Tennessee's most urban counties, with rural counties suffering from acute shortages and several without access to psychiatry or specialty care

## STAKEHOLDER PERSPECTIVES

- Healthcare stakeholders across Tennessee consistently identified primary care and rural workforce shortages as top pressing challenges, among other specialties such as ENT and Urology.



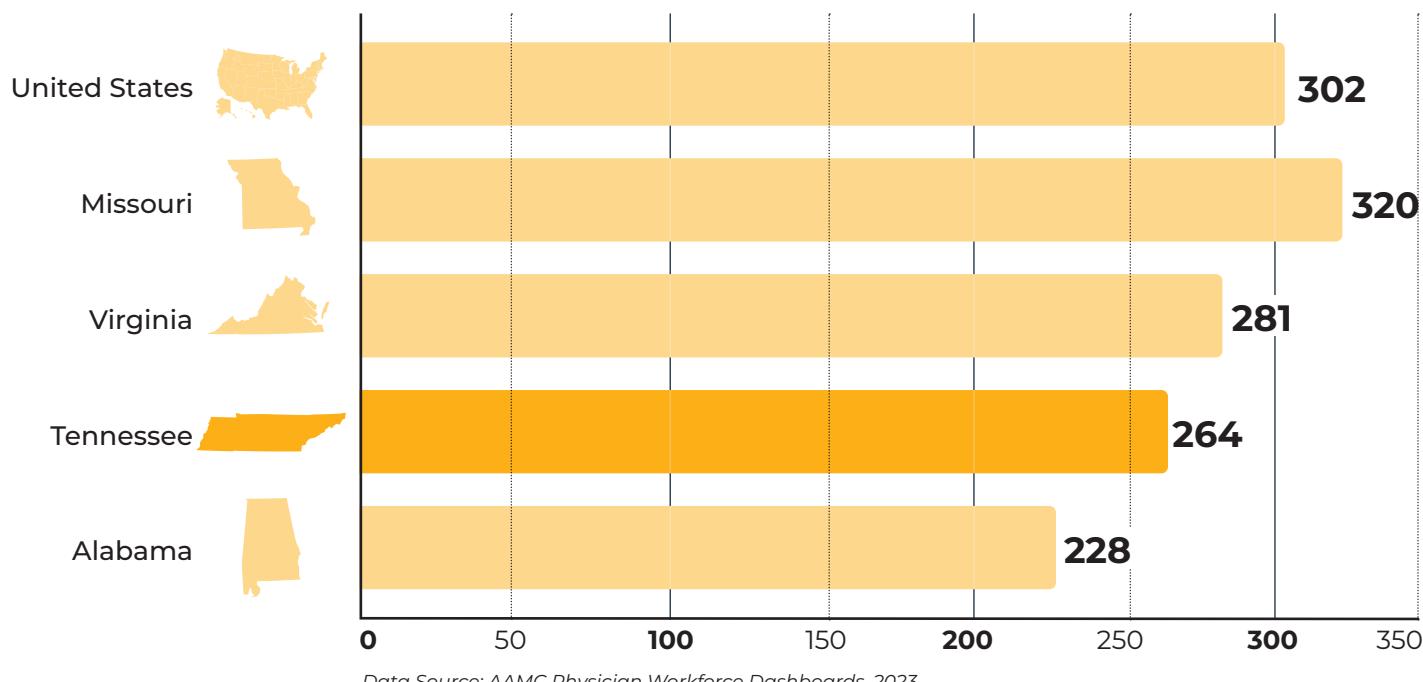
## CURRENT PHYSICIAN WORKFORCE CAPACITY

As of 2023, Tennessee's physician workforce includes approximately **18,800 active physicians**, accounting for **264 physicians per 100,000 residents**.<sup>7</sup> This represents a lower overall physician-to-population ratio than the national average of 302 per 100,000 residents.

Across specialties, Tennessee's physician distribution closely mirrors national patterns, though several notable differences emerge. Family medicine and internal medicine represent the largest segments of Tennessee's workforce, comprising 12.1 percent and 12.7 percent of all physicians, respectively, nearly identical to national shares. Other large specialties include pediatrics (6.6%), emergency medicine (4.3%), obstetrics/gynecology (4.6%), and anesthesiology (4.2%).

When compared to national averages, Tennessee has a smaller proportional share of physicians in several specialties, including anesthesiology, psychiatry, emergency medicine, family medicine, pediatrics, and OB/GYN. The state's proportional representation is also lower in smaller fields such as endocrinology, geriatrics, rheumatology, and pulmonology. Conversely, Tennessee has a higher relative concentration of physicians in hematology/oncology, general surgery, and internal medicine/pediatrics, as well as similar or slightly above-average representation in radiology and orthopedics.

**Figure 4: Physicians per 100K population**



<sup>7</sup> Note: The AAMC Physician Workforce numbers included within this section are all based on 2023 data (where Tennessee supply from 2023 is 18,810). This is the latest data available from AAMC and is the foundation upon which 2025 Tennessee physician estimates in the **Projected Physician Supply and Demand** section were derived (supply of 18,940, based on two years of growth assumed from supply growth models).

### KEY INSIGHT

- At least 264 physicians per 100K Tennesseans. Tennessee has less physician capacity than the national average of 302 physicians per 100K population.



How many physicians does Tennessee have in each specialty, and how does that compare to other states?

**Table 2: Physician Supply and Share by Specialty and State**

Specialty	US		Tennessee		Alabama		Missouri		Virginia	
	Number of Physicians	Share of Total Workforce	Number of Physicians	Share of Total Workforce	Number of Physicians	Share of Total Workforce	Number of Physicians	Share of Total Workforce	Number of Physicians	Share of Total Workforce
Anesthesiology	46297	4.6%	787	4.2%	503	4.3%	820	4.1%	1,024	4.2%
Cardiology	34855	3.4%	720	3.8%	424	3.6%	719	3.6%	790	3.2%
Critical Care Medicine	19743	2.0%	408	2.2%	206	1.8%	543	2.7%	459	1.9%
Emergency Medicine	50,654	5.0%	818	4.3%	460	3.9%	889	4.5%	1,292	5.3%
Endocrinology	8,909	0.9%	136	0.7%	74	0.6%	190	1.0%	238	1.0%
ENT	10,178	1.0%	185	1.0%	172	1.5%	197	1.0%	253	1.0%
Family Medicine	123,713	12.2%	2,272	12.1%	1,723	14.8%	2,241	11.3%	3,162	12.9%
Gastroenterology	16,855	1.7%	311	1.7%	194	1.7%	318	1.6%	394	1.6%
General Surgery	34345	3.4%	762	4.1%	482	4.1%	639	3.2%	818	3.3%
Geriatric Medicine	6,518	0.6%	61	0.3%	32	0.3%	117	0.6%	148	0.6%
Hematology/Oncology	21,667	2.1%	475	2.5%	235	2.0%	392	2.0%	434	1.8%
Infectious Diseases	10,678	1.1%	182	1.0%	108	0.9%	190	1.0%	231	0.9%
Internal Medicine	129,458	12.8%	2,381	12.7%	1,488	12.8%	2,081	10.5%	3,053	12.5%



Specialty	US		Tennessee		Alabama		Missouri		Virginia	
	Number of Physicians	Share of Total Workforce	Number of Physicians	Share of Total Workforce	Number of Physicians	Share of Total Workforce	Number of Physicians	Share of Total Workforce	Number of Physicians	Share of Total Workforce
Internal Medicine/Pediatrics	6,286	0.6%	253	1.3%	87	0.7%	143	0.7%	104	0.4%
Nephrology	12,360	1.2%	241	1.3%	156	1.3%	255	1.3%	277	1.1%
Neurology	28,668	2.8%	477	2.5%	298	2.6%	510	2.6%	592	2.4%
OB/GYN	43,706	4.3%	867	4.6%	531	4.6%	752	3.8%	1,138	4.6%
Ophthalmology	19,933	2.0%	367	2.0%	225	1.9%	332	1.7%	497	2.0%
Orthopedics	22,844	2.3%	487	2.6%	347	3.0%	489	2.5%	545	2.2%
Pediatric Medicine	68,567	6.8%	1,242	6.6%	826	7.1%	1,331	6.7%	1,825	7.4%
Psychiatry	50,954	5.0%	725	3.9%	398	3.4%	826	4.2%	1,279	5.2%
Pulmonology	4,606	0.5%	97	0.5%	64	0.5%	79	0.4%	103	0.4%
Radiology	37,948	3.8%	824	4.4%	492	4.2%	707	3.6%	916	3.7%
Rheumatology	6,870	0.7%	109	0.6%	89	0.8%	119	0.6%	155	0.6%
Urology	10,747	1.1%	242	1.3%	147	1.3%	201	1.0%	254	1.0%
<b>TOTAL</b>	<b>1,010,892</b>	<b>100.0%</b>	<b>18,812</b>	<b>100.0%</b>	<b>11,646</b>	<b>100.0%</b>	<b>19,849</b>	<b>100.0%</b>	<b>24,498</b>	<b>100.0%</b>

The following specialties from AAMC data were mapped to one primary specialty: Anesthesiology includes Pediatric Anesthesiology, Cardiology (Cardiovascular Disease, Clinical Cardiac Electrophysiology, Interventional Cardiology, Pediatric Cardiology), Critical Care Medicine (Critical Care Medicine, Pediatric Critical Care Medicine), General Surgery (General Surgery, Surgical Critical Care (Surgery), Thoracic Surgery), Hematology and Oncology (Hematology and Oncology, Pediatric Hematology/Oncology), Internal Medicine (Hospice and Palliative Medicine, Internal Medicine), Neurology (Clinical Neurophysiology, Neurological Surgery, Neurology, Neuroradiology), Orthopedics (Orthopedic Surgery, Sports Medicine - Orthopedic Surgery), Pediatric Medicine (Neonatal-Perinatal Medicine, Pediatrics), Psychiatry (Child and Adolescent Psychiatry, Psychiatry), Radiology (Radiation Oncology, Radiology and Diagnostic Radiology, Vascular and Interventional Radiology).



## How much physician capacity does Tennessee have for each specialty, and how does that compare to other states?

With 264 physicians per 100,000 Tennesseans, the state falls 13% short of the national benchmark, a gap that translates to real challenges in healthcare access for Tennesseans. While the state outpaces neighboring Alabama, it lags both Missouri and Virginia in overall physician capacity. This gap isn't uniform across specialties: Tennessee has built notable strength in cancer care, exceeding national benchmarks for hematology and oncology specialists, and leads the region in combined internal medicine/pediatrics physicians. However, these bright spots are overshadowed by critical shortages in high-demand areas.

The most pressing concerns center on psychiatry (33% below national average at 10 vs. 15 psychiatrists per 100,000 nationally), emergency medicine (20% below), and primary care specialties including family medicine and pediatrics (both 14% below). For Tennessee to remain competitive and ensure citizens receive timely, high-quality care close to home, addressing these workforce gaps must be a strategic priority.

### KEY INSIGHT

- Tennessee's physician capacity lags the U.S. average in several specialties, such as psychiatry, emergency medicine, and various primary care specialties.

**Table 3: Tennessee Physician Workforce Capacity vs. Comparators**

	Physicians per 100k Population				
	US	Tennessee	Alabama	Missouri	Virginia
Anesthesiology	14	11	10	13	12
Cardiology	11	10	9	12	10
Critical Care Medicine	6	6	4	9	6
Emergency Medicine	15	12	9	14	15
Endocrinology	3	2	1	3	3
ENT	3	3	3	3	3
Family Medicine	37	32	34	36	36
Gastroenterology	5	4	4	5	5
General Surgery	10	10	10	11	9
Geriatric Medicine	2	1	1	2	2
Hematology/Oncology	6	7	5	6	5
Infectious Diseases	3	3	2	3	3
Internal Medicine	39	34	30	34	35
Internal Medicine/Pediatrics	2	4	2	2	1
Nephrology	4	3	3	4	3



	Physicians per 100k Population				
	US	Tennessee	Alabama	Missouri	Virginia
Neurology	9	9	8	9	8
OB/GYN	13	12	10	12	13
Ophthalmology	6	5	4	5	6
Orthopedics	7	7	7	8	6
Pediatric Medicine	21	18	16	16	21
Psychiatry	15	10	8	13	15
Pulmonology	1	1	1	1	1
Radiology	21	21	17	21	18
Rheumatology	2	2	2	2	2
Urology	3	3	3	3	3
<b>TOTAL</b>	<b>302</b>	<b>264</b>	<b>228</b>	<b>320</b>	<b>281</b>

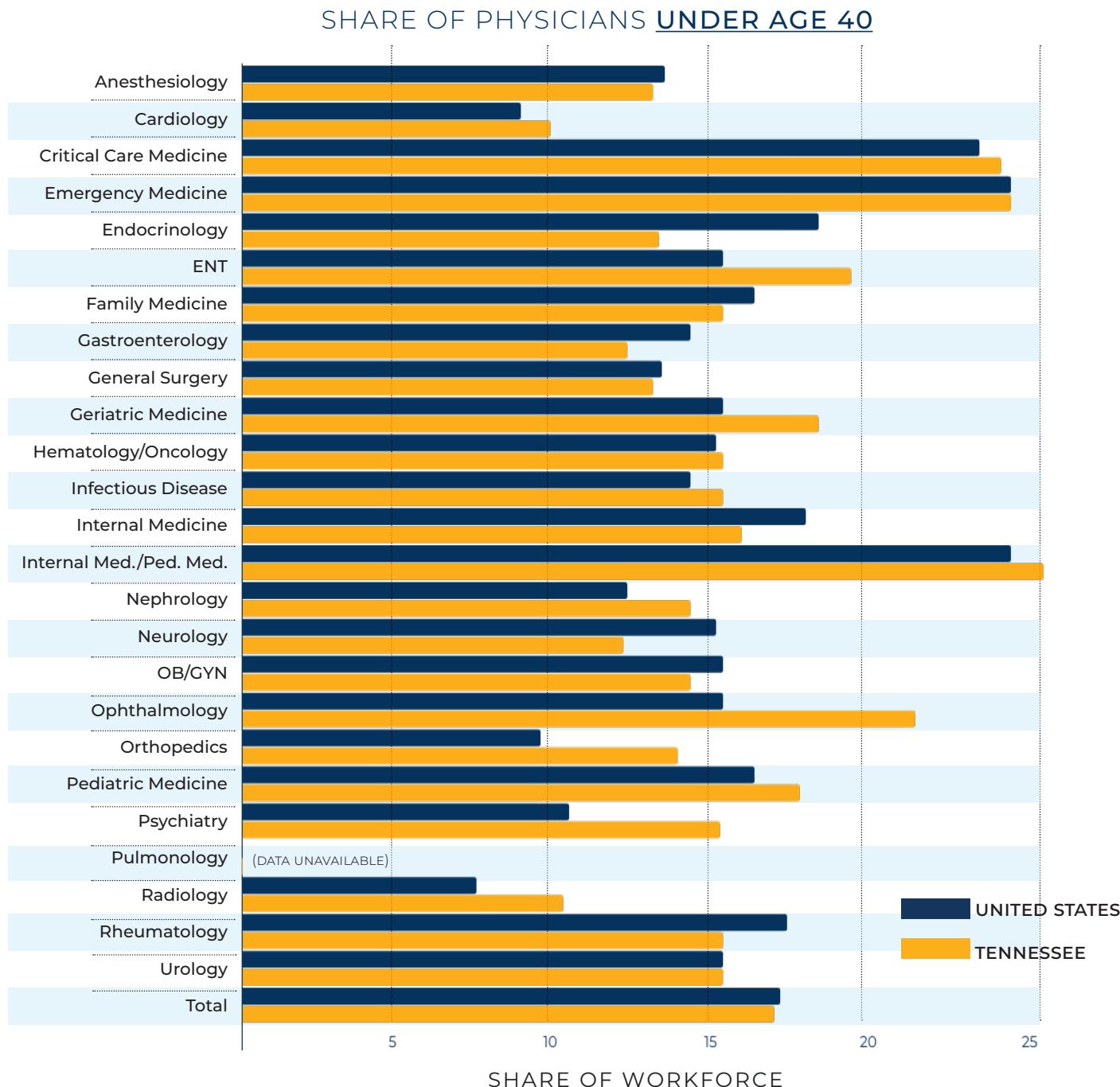
Data Source: AAMC Physician Workforce Dashboards, 2023.

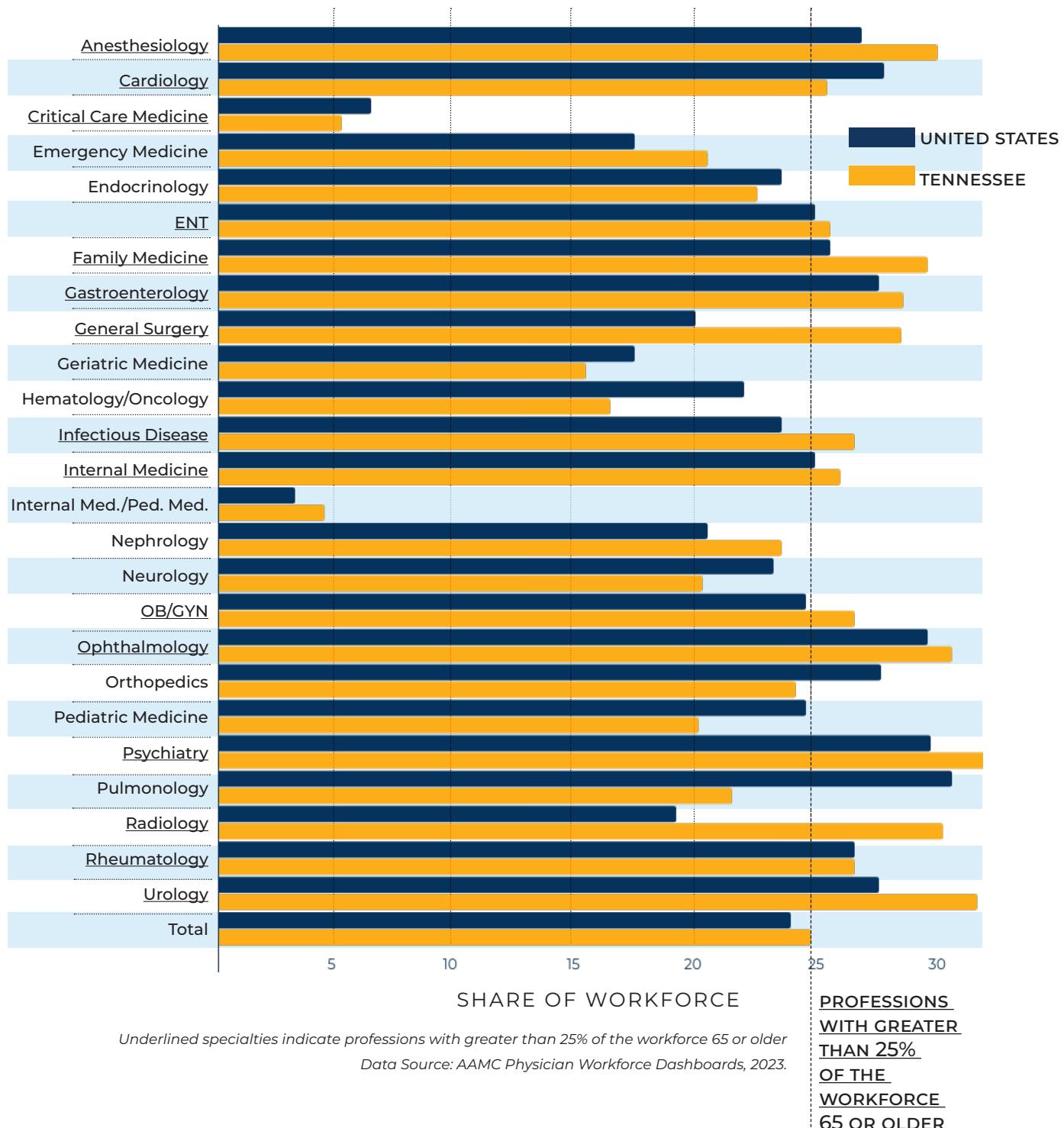


## DEMOGRAPHICS

**What is the age distribution of Tennessee's physicians compared to the national average?**

The physician age profile reveals looming succession challenges. While the overall workforce is balanced (about 17% under age 40 and 24% over age 65, and similar to national averages), specific specialties face retirement waves. In ophthalmology, psychiatry, and urology, over 30% of physicians are 65 or older. Several other specialties have more than one fourth of the workforce over the age of 65 as well (Anesthesiology, Otolaryngology, Family Medicine, Gastroenterology, General Surgery, Infectious Disease, Internal Medicine, OB/GYN, Radiology, and Rheumatology). Without deliberate succession planning, these specialties will experience significant capacity losses within the next decade, compounding existing shortages.

**Table 4. Age Distribution of Tennessee's Workforce by Specialty vs. National Average**

SHARE OF PHYSICIANS OVER AGE 65

*Underlined specialties indicate professions with greater than 25% of the workforce 65 or older*

*Data Source: AAMC Physician Workforce Dashboards, 2023.*

## What is the gender and race/ethnicity distribution of Tennessee's physicians compared to the national average?

In regard to other demographic findings, Tennessee has relatively fewer female physicians compared to the national average (33.1% in Tennessee compared to 38.1% nationally), and a substantially lower proportion of physicians with a non-white race or ethnicity (30.4% vs. 43.5%). Although lower representation of non-white physicians compared to the national average, Tennessee physicians closely reflect the race/ethnicity of the general Tennessee population (30.4% non-white Tennessee physicians vs. 20.1% non-white Tennessee population).

**Table 5. Proportion of Female Physicians by Specialty and State**

Specialty	United States	Tennessee	Alabama	Missouri	Virginia
Anesthesiology	28.7%	24.4%	17.5%	28.6%	29.6%
Cardiology	17.6%	14.1%	12.3%	18.4%	14.9%
Critical Care Medicine	31.8%	30.8%	28.5%	33.1%	30.6%
ENT	21.0%	12.0%	12.0%	23.0%	22.0%
Emergency Medicine	30.0%	25.0%	22.0%	26.0%	32.0%
Endocrinology	55.0%	49.0%	42.0%	48.0%	58.0%
Family Medicine	44.0%	35.0%	36.0%	40.0%	45.0%
Gastroenterology	21.0%	16.0%	13.0%	19.0%	18.0%
General Surgery	24.1%	20.4%	16.1%	22.3%	26.4%
Geriatric Medicine	56.0%	56.0%	56.0%	46.0%	64.0%
Hematology/Oncology	39.6%	40.7%	34.2%	39.4%	38.8%
Infectious Diseases	44.0%	41.0%	39.0%	38.0%	50.0%
Internal Medicine	40.6%	34.6%	33.4%	36.5%	42.5%
Internal Medicine/Pediatrics	54.0%	48.0%	56.0%	53.0%	58.0%
Nephrology	30.0%	30.0%	19.0%	34.0%	26.0%
Neurology	27.4%	25.8%	17.2%	22.2%	25.8%
OB/GYN	63.0%	58.0%	49.0%	62.0%	67.0%
Ophthalmology	29.0%	24.0%	16.0%	27.0%	31.0%
Orthopedics	7.2%	4.6%	3.1%	6.9%	6.2%
Pediatric Medicine	65.1%	61.6%	61.5%	64.6%	68.7%
Psychiatry	45.0%	42.3%	38.7%	43.7%	44.4%
Pulmonology	13.0%	10.0%	17.0%	9.0%	15.0%
Radiology	26.9%	20.3%	18.1%	26.7%	27.3%
Rheumatology	49.0%	45.0%	37.0%	53.0%	50.0%
Urology	12.0%	12.0%	10.0%	11.0%	14.0%
<b>TOTAL</b>	<b>38.1%</b>	<b>33.1%</b>	<b>30.7%</b>	<b>34.2%</b>	<b>39.4%</b>

Data Source: AAMC Physician Workforce Dashboards, 2023.



**Table 6. Percent of Non-white Physicians by Specialty**

	United States	Tennessee	Alabama	Missouri	Virginia
Anesthesiology	37.3%	21.9%	16.5%	27.5%	30.3%
Cardiology	48.7%	38.3%	33.9%	45.1%	45.0%
Critical Care Medicine	47.3%	33.7%	37.3%	43.9%	48.9%
Emergency Medicine	30.0%	20.0%	16.0%	20.0%	26.0%
Endocrinology	55.0%	46.0%	53.0%	51.0%	52.0%
ENT	32.0%	20.0%	15.0%	23.0%	30.0%
Family Medicine	42.0%	30.0%	34.0%	28.0%	40.0%
Gastroenterology	51.0%	39.0%	29.0%	44.0%	51.0%
General Surgery	38.4%	22.5%	25.7%	32.2%	33.6%
Geriatric Medicine	60.0%	56.0%	56.0%	33.0%	59.0%
Hematology/Oncology	47.7%	40.5%	37.0%	43.6%	43.1%
Infectious Diseases	48.0%	32.0%	39.0%	45.0%	47.0%
Internal Medicine	55.6%	41.4%	44.3%	48.4%	53.5%
Internal Medicine/Pediatrics	35.0%	26.0%	21.0%	21.0%	44.0%
Nephrology	63.0%	55.0%	52.0%	62.0%	57.0%
Neurology	42.1%	33.2%	29.4%	36.8%	38.5%
OB/GYN	39.0%	27.0%	23.0%	22.0%	36.0%
Ophthalmology	39.0%	20.0%	20.0%	35.0%	34.0%
Orthopedics	25.4%	12.6%	15.7%	19.4%	23.2%
Pediatric Medicine	44.3%	26.0%	31.6%	28.4%	40.6%
Psychiatry	46.9%	40.2%	39.5%	51.1%	49.2%
Pulmonology	45.0%	29.0%	36.0%	27.0%	48.0%
Radiology	34.5%	20.1%	17.3%	26.1%	31.5%
Rheumatology	50.0%	36.0%	48.0%	47.0%	46.0%
Urology	34.0%	18.0%	21.0%	27.0%	25.0%
<b>TOTAL</b>	<b>38.2%</b>	<b>26.9%</b>	<b>30.8%</b>	<b>45.1%</b>	<b>34.7%</b>

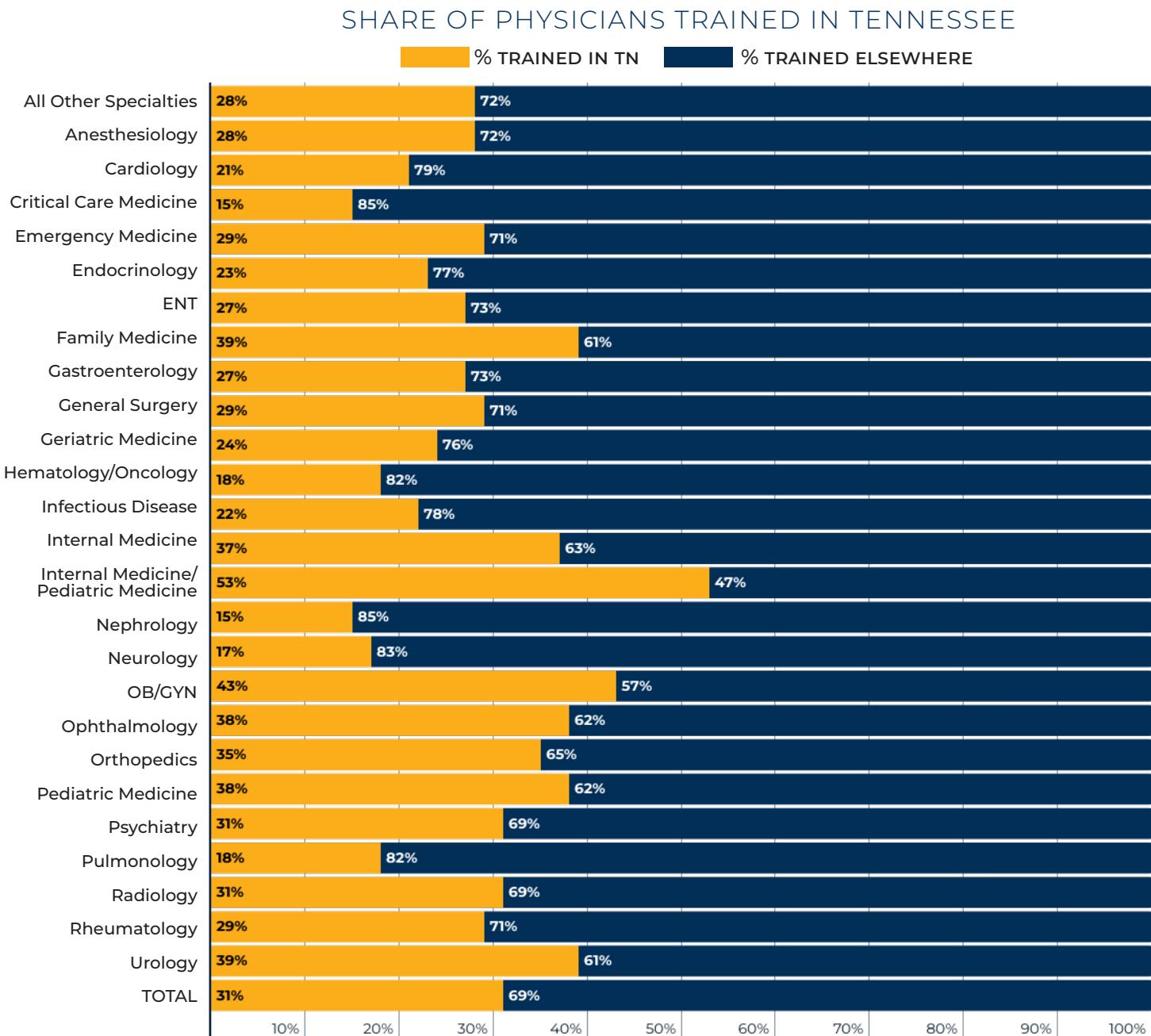
Data Source: AAMC Physician Workforce Dashboards, 2023.



## EDUCATION BACKGROUND

**Among Tennessee's known physicians, how many trained in-state by specialty?**

About one-third of Tennessee's physicians received at least part of their medical training in the state. This in-state training rate is highest in primary care specialties like family medicine (39%), pediatrics (38%), and obstetrics-gynecology (43%). Subspecialties show lower retention, with fields like nephrology, critical care, and pulmonology containing fewer than 20% of Tennessee-trained physicians. These patterns suggest both pipeline successes in primary care and opportunities to strengthen subspecialty retention.

**Table 7. Education Background of Tennessee Physicians by Specialty**

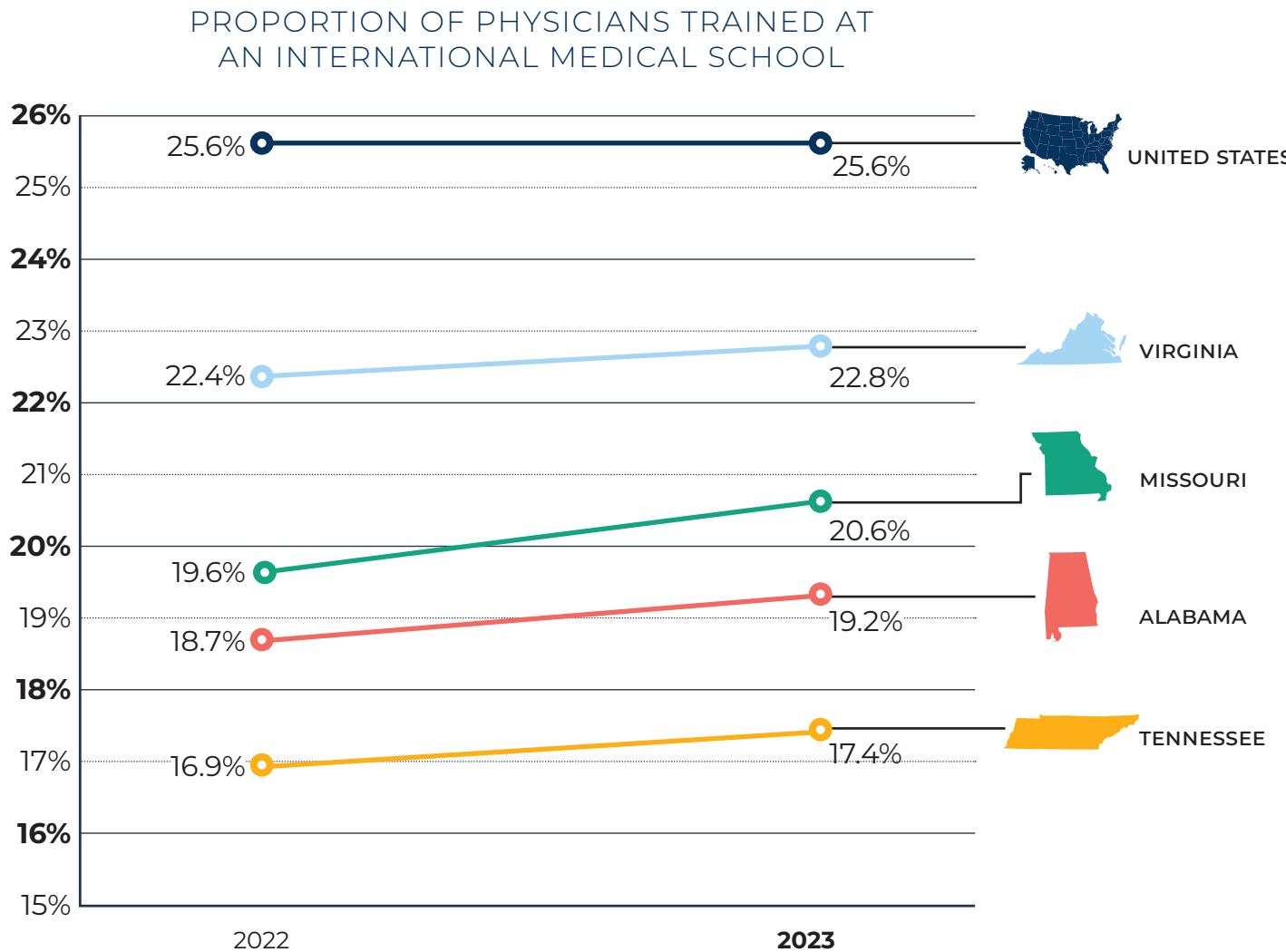
*Data Source: These data were sourced from available Tennessee physician licensing data. The inability to confidently map all licensees to a practice state may have resulted in under-representation of licensees. However, we do not anticipate that this potential underrepresentation would skew the trends demonstrated in the table.*



## What proportion of Tennessee physicians went to an international medical school compared to other states?

Tennessee has a lower overall share of physicians trained at international medical schools compared with the U.S. average and many peer states. Across all specialties, 17.4% of Tennessee physicians received their medical degree internationally, compared with 25.6% nationally. Peer states range from 19.2% in Alabama to 22.8% in Virginia.

**Figure 5. Proportion of the Physician Workforce Comprised of International Medical Graduates by State**



**Table 8. International Medical Graduates by Specialty**

	US	Tennessee	Alabama	Missouri	Virginia
Anesthesiology	19.9%	10.1%	8.7%	12.8%	14.2%
Cardiology	34.2%	28.3%	25.3%	29.9%	26.3%
Critical Care Medicine	38.7%	34.3%	34.8%	42.2%	35.2%
Emergency Medicine	7.0%	6.0%	4.0%	5.0%	6.0%
Endocrinology	45.0%	37.0%	46.0%	52.0%	41.0%
ENT	5.0%	3.0%	4.0%	6.0%	3.0%
Family Medicine	26.0%	20.0%	24.0%	14.0%	23.0%
Gastroenterology	30.0%	22.0%	18.0%	32.0%	29.0%
General Surgery	18.6%	7.6%	5.7%	11.1%	14.3%
Geriatric Medicine	52.0%	51.0%	41.0%	46.0%	55.0%
Hematology/Oncology	36.7%	29.3%	27.5%	38.1%	29.5%
Infectious Diseases	37.0%	28.0%	33.0%	39.0%	34.0%
Internal Medicine	40.6%	26.4%	29.4%	33.6%	39.9%
Internal Medicine/Pediatrics	10.0%	5.0%	5.0%	6.0%	13.0%
Nephrology	53.0%	47.0%	44.0%	60.0%	58.0%
Neurology	25.3%	19.4%	17.2%	28.2%	27.9%
OB/GYN	14.0%	6.0%	3.0%	7.0%	12.0%
Ophthalmology	7.0%	3.0%	3.0%	9.0%	5.0%
Orthopedics	5.7%	1.7%	3.4%	2.6%	3.4%
Pediatric Medicine	25.2%	12.7%	18.7%	13.8%	19.0%
Psychiatry	30.2%	25.4%	27.2%	41.1%	36.4%
Pulmonology	33.0%	25.0%	19.0%	15.0%	30.0%
Radiology	11.4%	3.5%	4.3%	10.9%	6.9%
Rheumatology	37.0%	31.0%	30.0%	34.0%	36.0%
Urology	10.0%	3.0%	3.0%	7.0%	7.5%
<b>TOTAL</b>	<b>24.7%</b>	<b>16.8%</b>	<b>18.6%</b>	<b>20.2%</b>	<b>22.3%</b>

Data Source: AAMC Physician Workforce Data Dashboards, 2023

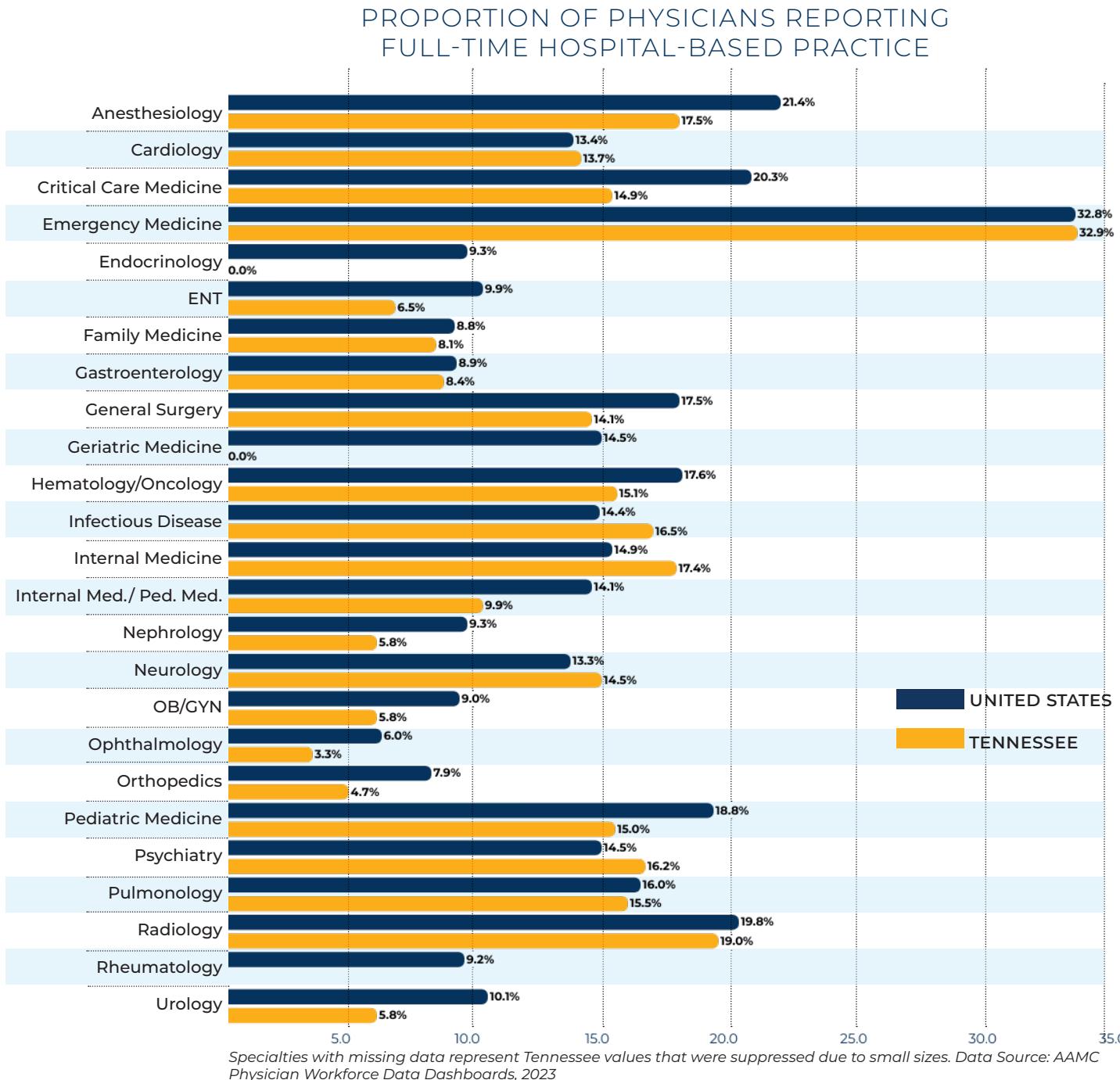


## PRACTICE CHARACTERISTICS

### What proportion of Tennessee physicians report full-time hospital-based practice?

On average, Tennessee has 12.3% of its total physician workforce that reports a full-time hospital based practice, compared to 14.1% of all U.S. physicians. This varies substantially by specialty, with the lowest rates of full-time hospital-based practice among Tennessee Ophthalmologists (3.0%) and Orthopedics (4.4%), and specialties with the highest rates of full-time hospital-based practice are Emergency Medicine (33.0%), Infectious Disease (17.0%), and Radiology (16.7%).

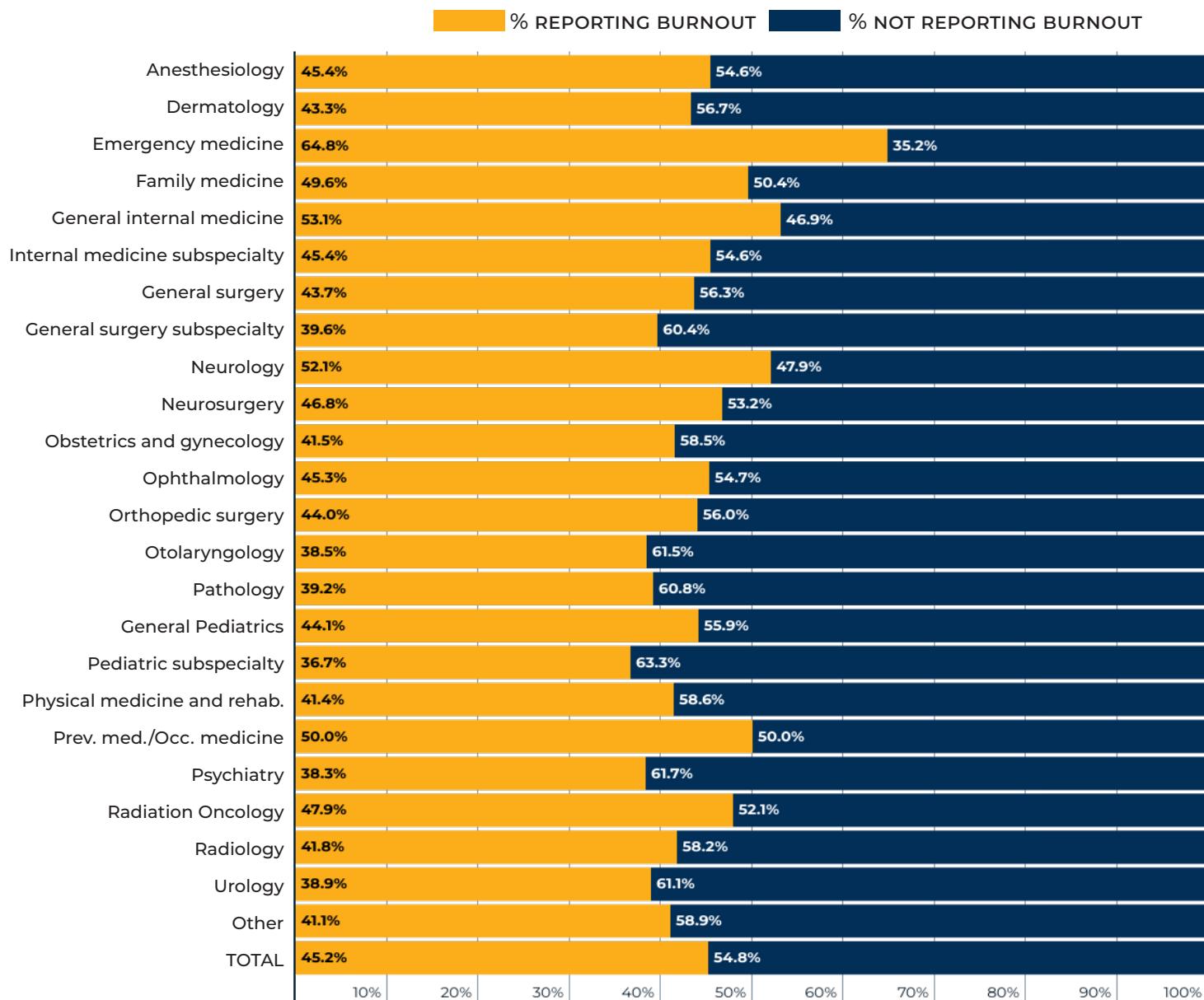
**Figure 6. Proportion of Physicians reporting Full-time Hospital-based Practice by Specialty**



## What is the state of burnout among physicians?

Burnout is a syndrome characterized by emotional exhaustion, depersonalization, and reduced sense of personal accomplishment that results from chronic workplace stress. Burnout directly impacts physician well-being, patient care quality, medical errors, and healthcare system sustainability, and may contribute to the ongoing physician shortage through early retirement and career changes. To examine the state of physician burnout, data from the American Medical Association and a recent article published on the findings of the Well Being Index by Mayo Clinic are used. Unfortunately, data on burnout is only available at the national level (though assumed to also be applicable to Tennessee physicians). The AMA reports that physician burnout is around 45.2% as of 2023, down from 62.8% in 2021, but up from 38.2% in 2020. Burnout reporting varies by specialty, with specialties such as Emergency Medicine, General Internal Medicine, and Neurology reporting the greatest prevalence of burnout symptoms. Conversely, specialties such as Pediatric Subspecialties, Psychiatry, and Otolaryngology report the lowest rates.

**Table 9. Burnout by Specialty (National), 2023**



Data Source: Supplemental Tables and Methodology from [Changes in Burnout and Satisfaction With Work-Life Integration in Physicians and the General US Working Population Between 2011 and 2023](#). Shanafelt, Tait D. et al. Mayo Clinic Proceedings, Volume 100, Issue 7, 1142 - 1158



## WHAT IS THE GEOGRAPHIC DISTRIBUTION OF TENNESSEE'S PHYSICIANS?

Although national data from the Association of American Medical Colleges (AAMC), sourced from the American Medical Association (AMA), remains the most reliable for national-level comparisons, it does not support sub-state geographic analyses. Therefore, Tennessee state licensing data were used to generate county-level physician counts. Based on these data, 15,837 physicians were confidently identified as reporting a practice state of Tennessee. An additional 9,569 Tennessee-licensed physicians reported an unknown practice location. It is plausible that many of these physicians with unknown locations are actively practicing in Tennessee, and that some physicians licensed in Tennessee but reporting practice locations in other states may still provide services to Tennesseans through telehealth.

While these limitations prevent a precise accounting of the total active in-state supply, Tennessee licensing data remain the best available source for county-level assessment. There is no evidence to suggest geographic bias or skew in the available data, making it a reliable albeit likely conservative, estimate of the state's known physician workforce. Despite its limitations, the dataset provides valuable insight into geographic distribution patterns and can help identify areas of opportunity for geographic prioritization in workforce planning and policy development. Appendix A outlines the population-to-physician ratios by physician specialty for each Tennessee county.

Almost every Tennessee county has at least one primary care physician; Moore County is the sole exception. However, distribution across counties is highly uneven.<sup>9</sup> The statewide average is 1,070 Tennessee residents per primary care physician, but ratios range from 517:1 in Washington County to 13,859:1 in Stewart County. Urban counties such as Davidson (543:1), Knox (693:1), Madison (568:1), and Shelby (917:1) meet or exceed national benchmarks, while many rural counties face severe shortages. When compared to the federal Health Professional Shortage Area (HPSA) benchmark,<sup>10</sup> 28 of Tennessee's 95 counties exceed the cutoff for primary care shortages, underscoring potential primary care service access challenges.<sup>11</sup>

## DATA DIGEST

- 28 Tennessee counties face significant primary care workforce shortages and 64 have psychiatrist shortages
- The most critically under resources counties are Lake, Van Buren, Steward, Bledsoe, Perry and Moore.

## STAKEHOLDER PERSPECTIVES

Based on stakeholder interviews, Tennessee's physician workforce challenges extend beyond simple provider ratios to include significant geographic and specialty-specific disparities, particularly in rural and marginalized communities. Healthcare leaders confirm critical shortages in surgical subspecialties (**ENT, urology, gastroenterology**) and primary care, which are perceived to be driven by inadequate reimbursement, insufficient GME capacity, and fragmented workforce development efforts. Stakeholders emphasize that sustainable solutions require increased state funding for residency programs, early pipeline engagement with students from underresourced communities, improved workforce data systems, and financial models that support physicians practicing in high-need areas.

**8** It should be noted that Tennessee practice county information was unavailable for 29 known Tennessee primary care physicians, which were then removed from county-level population-to-provider calculations. Additionally, practice state and locations were unknown for more than 9,000 licensed physicians.

**9** Calculated as 3,500 population:1 provider for a primary medical care professional geographic area designation, per [42 C.F.R. Part 5 \(Designation of Health Professional\(s\) Shortage Areas\)](#).

**10** This calculation was done using the Tennessee Hospital Association's preferred classification of primary care specialties which is broader than the definition outlined in federal regulations. When utilizing only those specialties referenced in federal regulations (family medicine, general internal medicine, pediatric medicine, OB/GYN), the number of Tennessee counties with population-to-provider ratios that indicate a shortage is likely much greater.



Figure 7. Tennessee Population-to-Primary Care Physician Ratios

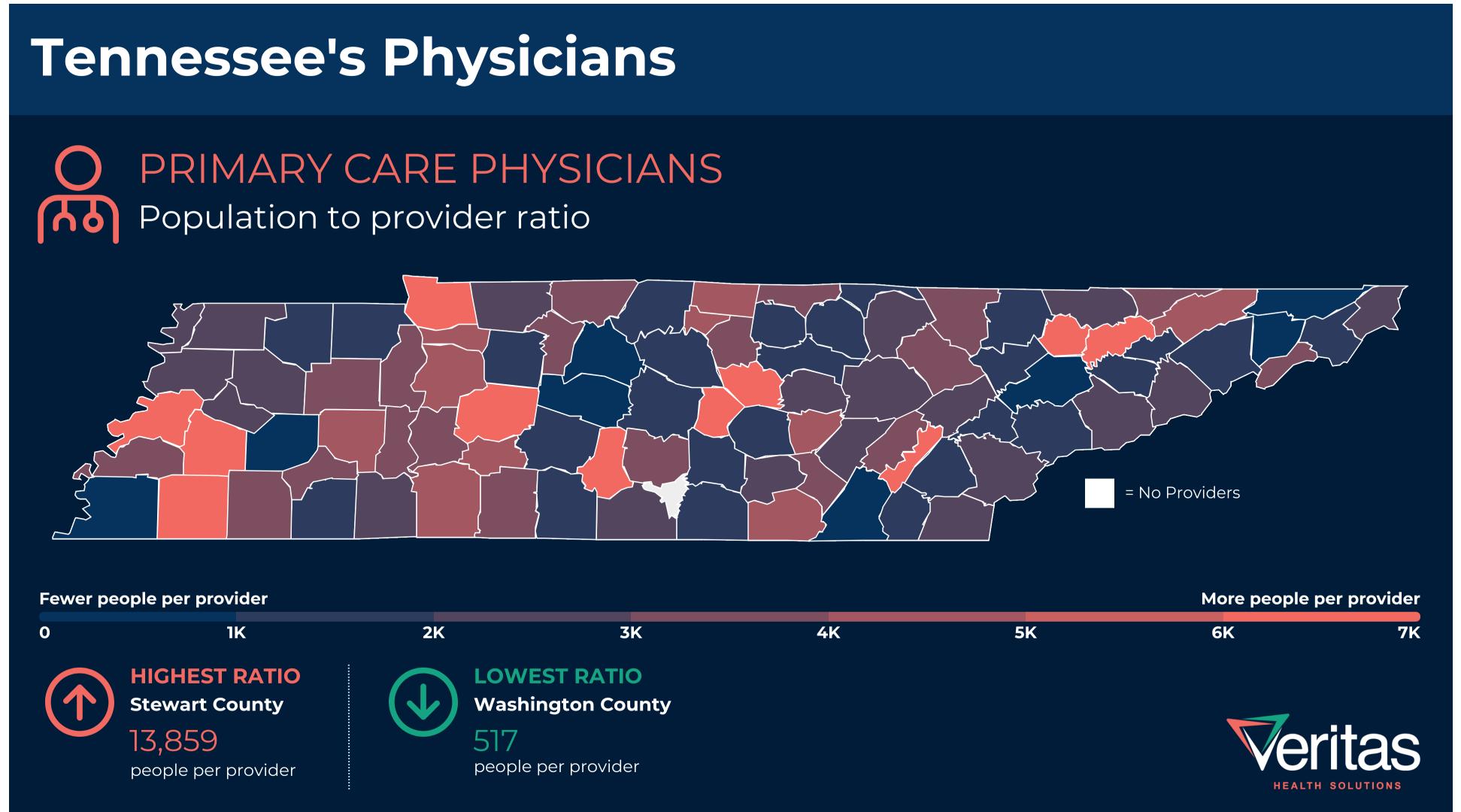
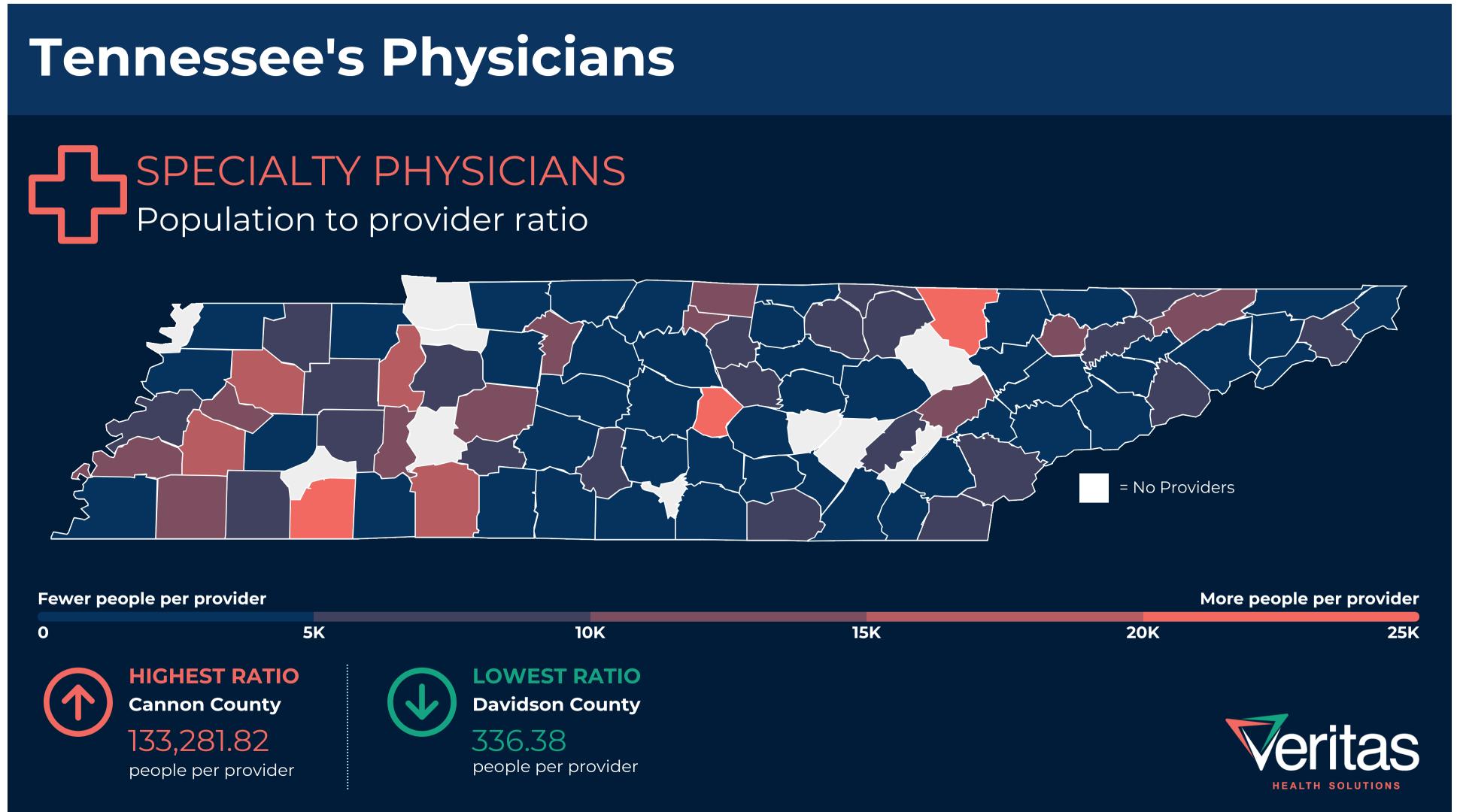
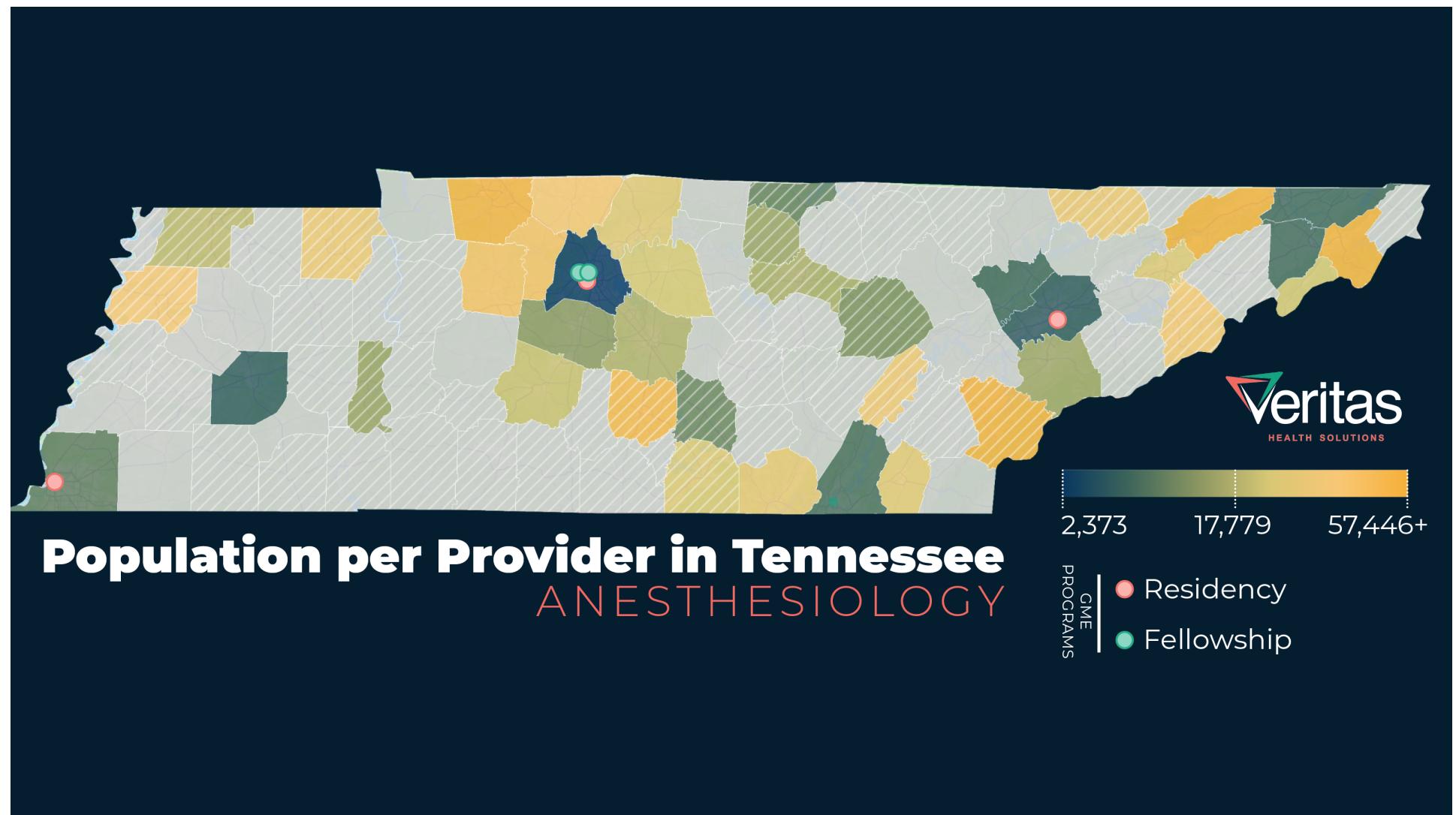
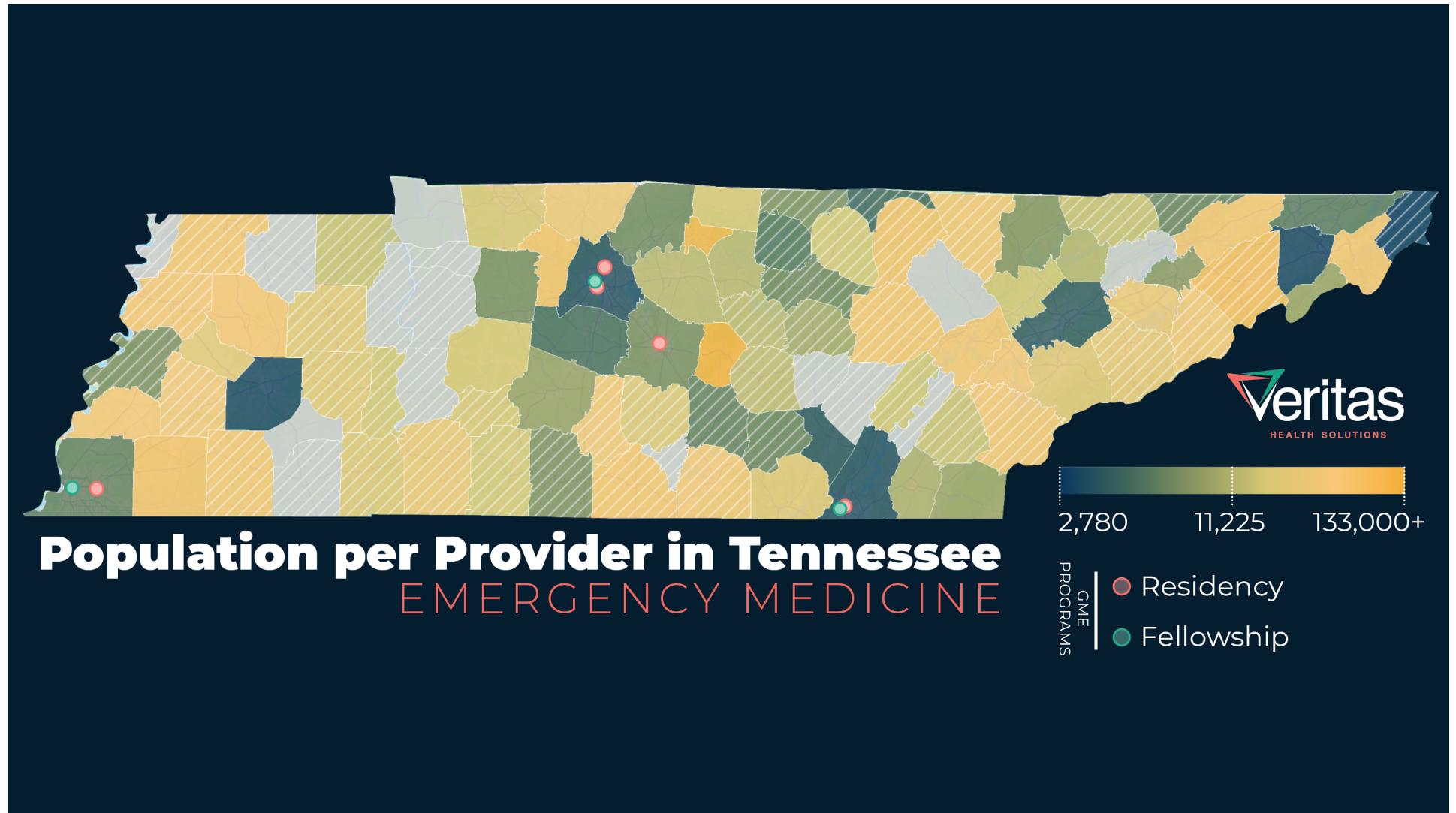


Figure 8. Tennessee Population-to-Specialty Physician Ratios

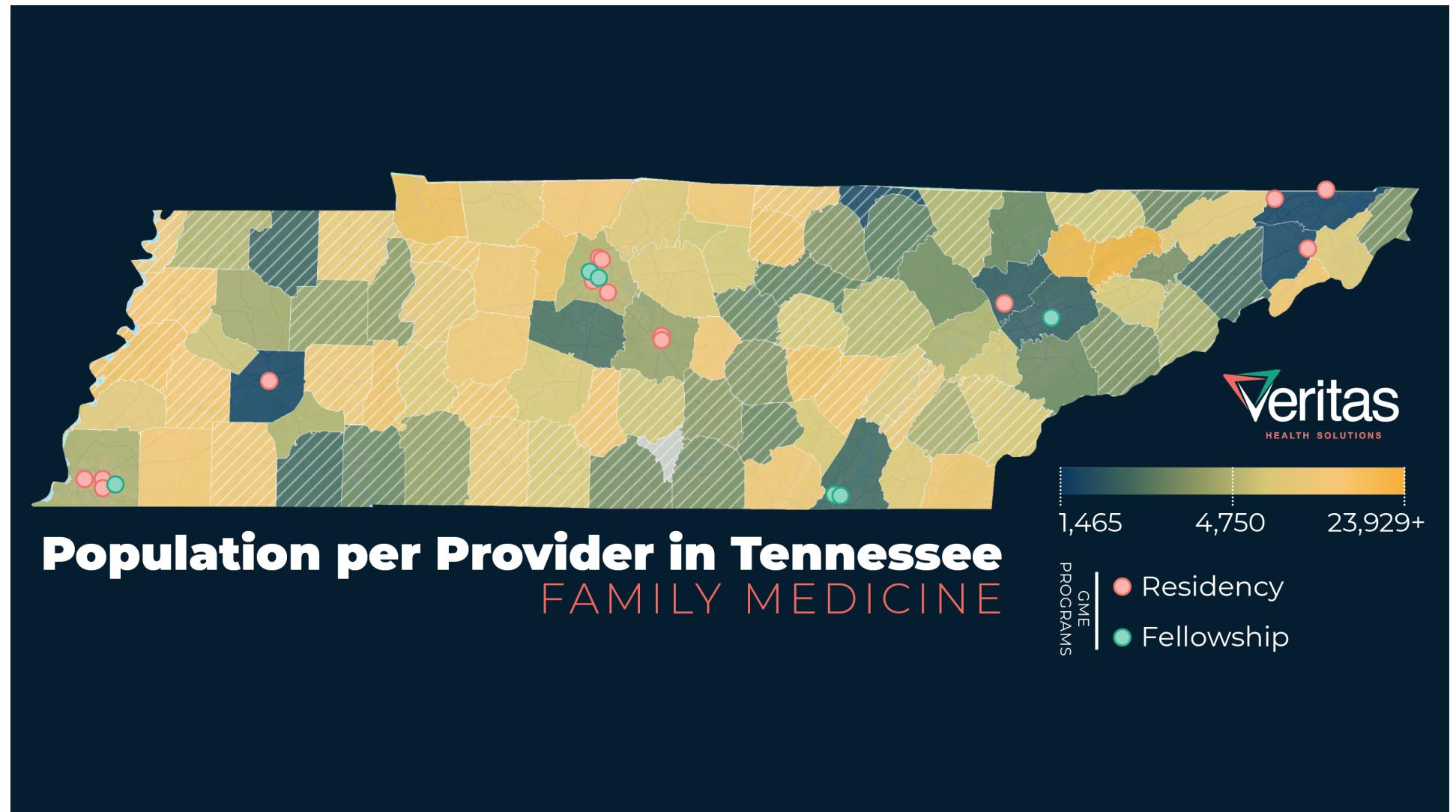


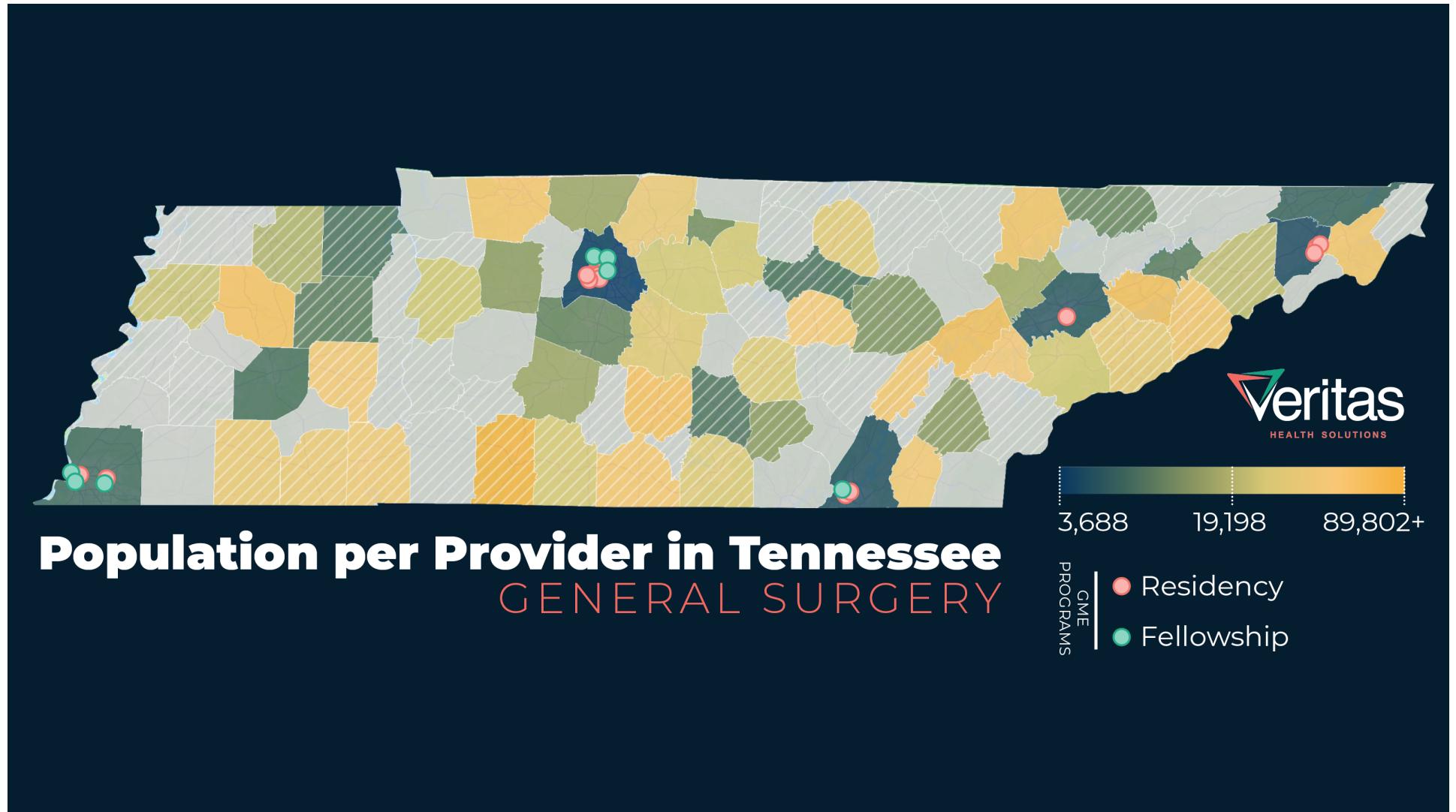
**Figure 9. Tennessee Population-to-Anesthesiologist Physician Ratios**



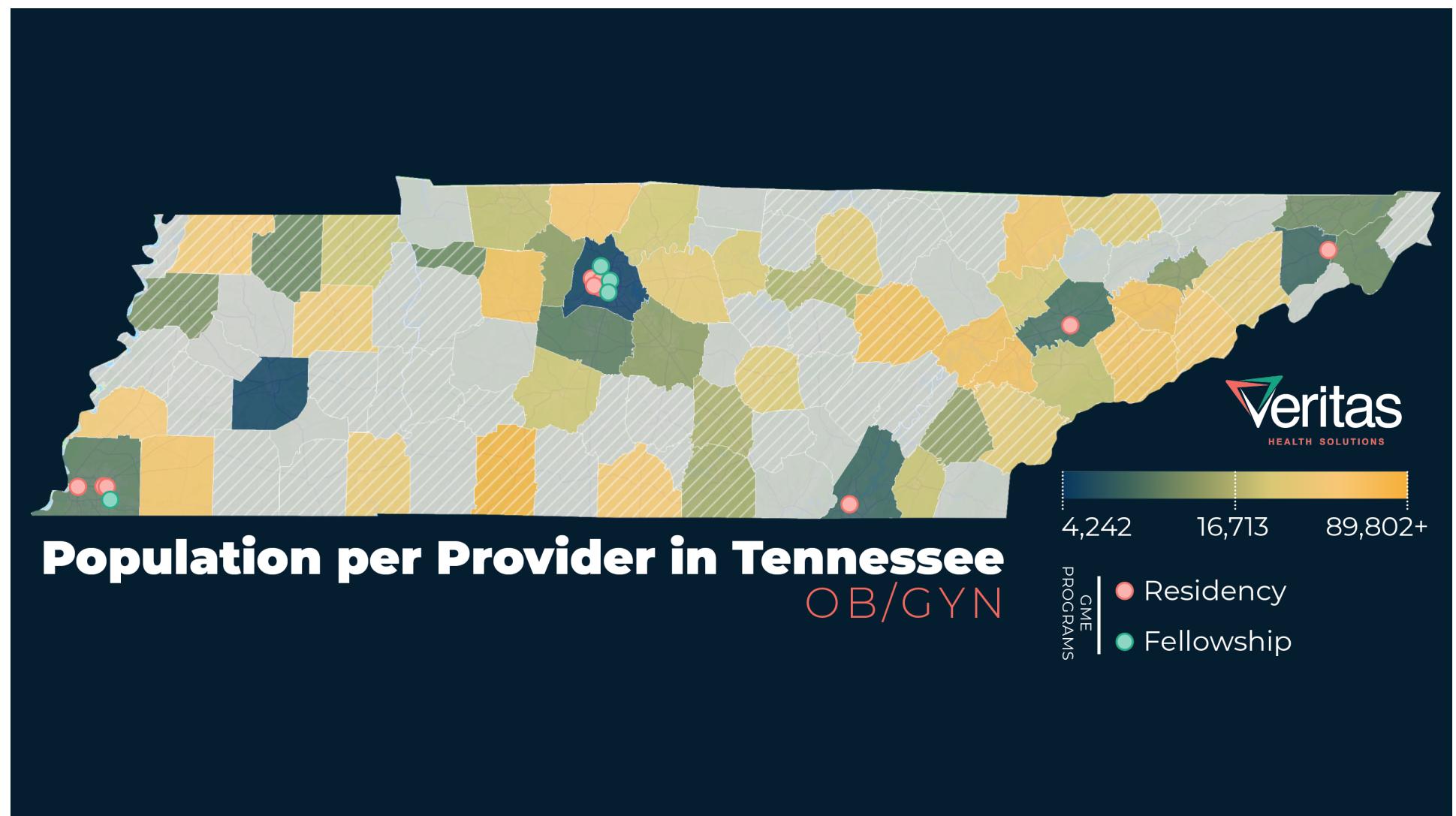
**Figure 10. Tennessee Population-to-Emergency Medicine Physician Ratios**

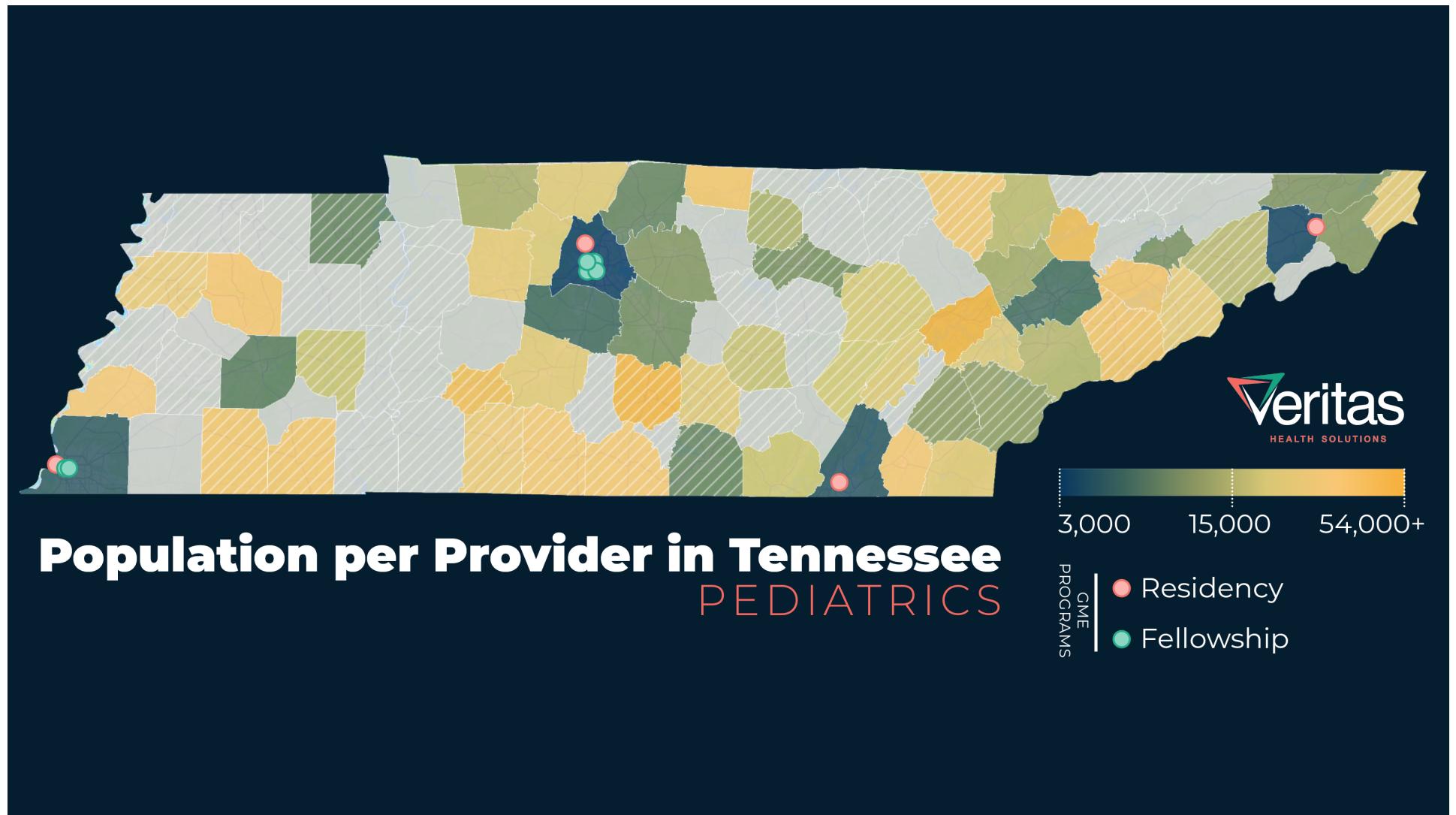
**Figure 11. Tennessee Population-to-Family Medicine Physician Ratios**



**Figure 12. Tennessee Population-to-General Surgery Physician Ratios**

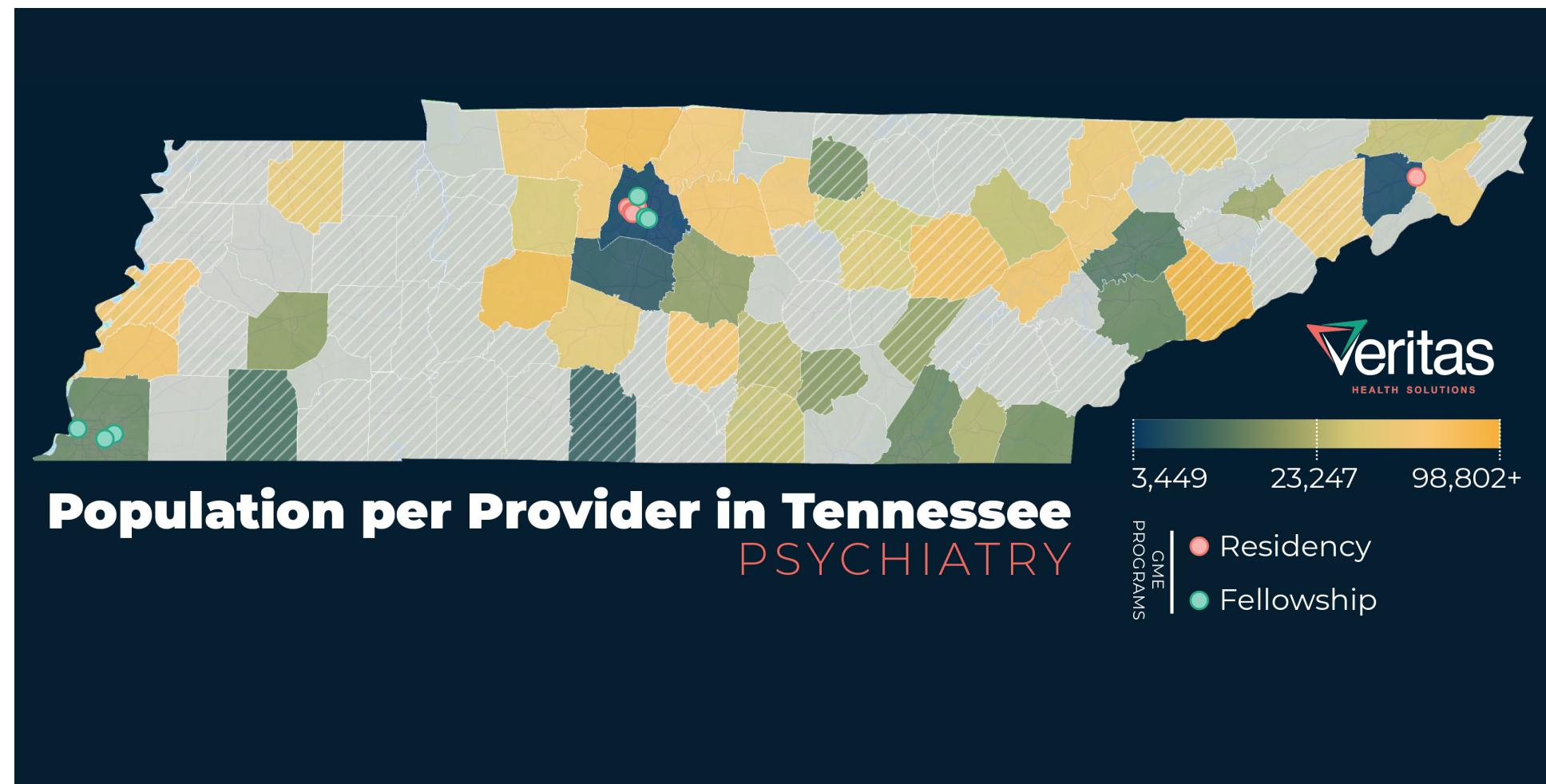
**Figure 13. Tennessee Population-to-OB/GYN Physician Ratios**



**Figure 14. Tennessee Population-to-Pediatrician Physician Ratios**

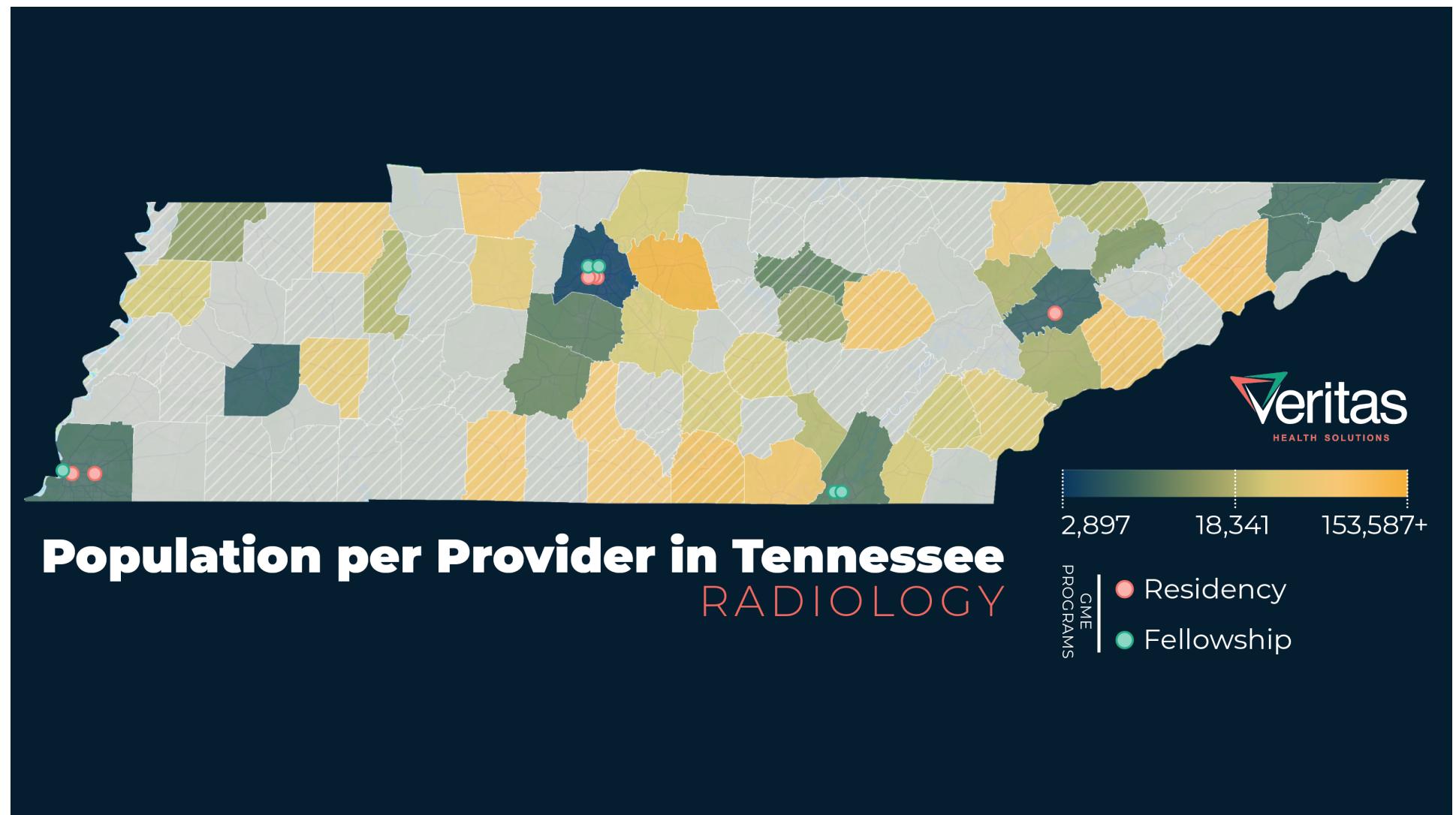
Although psychiatry is included in this project's definition of primary care, it is assessed separately under federal standards as a mental health specialty and is therefore also presented as separately below (as well as being included in the primary care section above). Tennessee has approximately 600 psychiatrists, with a statewide ratio of 11,750 residents per psychiatrist. The distribution is far more uneven than for primary care physicians overall; 51 counties have no psychiatrist. Among the 44 counties with at least one psychiatrist, 20 fall below federal benchmarks for adequate supply, resulting in 64 Tennessee counties with psychiatry shortages. Psychiatrist capacity is concentrated in urban centers: Davidson County alone has 206 psychiatrists (1 per 3,449 residents), compared to rural counties like Sevier (1 per 98,802) and Hickman (1 per 76,452).

**Figure 15. Tennessee Population-to-Psychiatrist Physician Ratios**



<sup>11</sup> Several psychiatrists had an unknown practice county; those were excluded from the geographic mapping.

**Figure 16. Tennessee Population-to-Radiologist Physician Ratios**

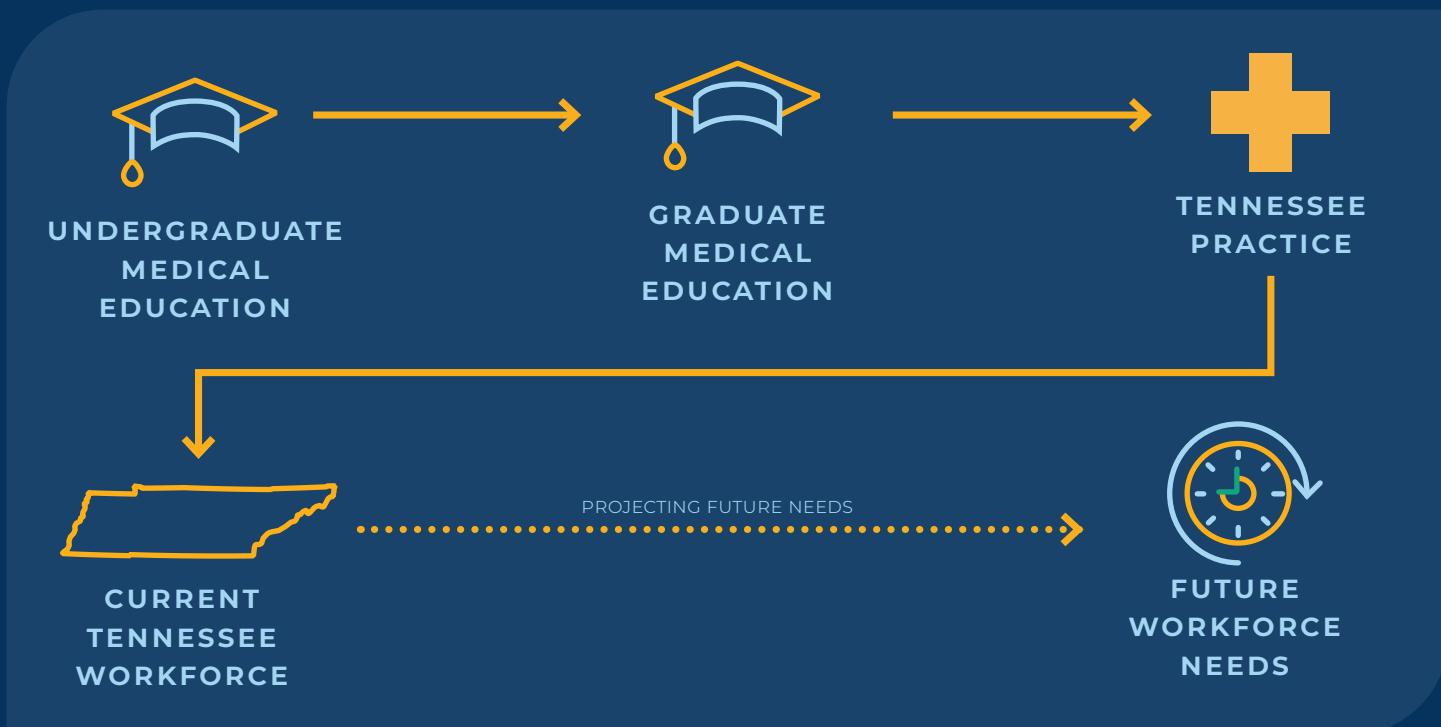


# TENNESSEE MEDICAL EDUCATION LANDSCAPE

## ABOUT TENNESSEE'S PATHWAY-TO-PRACTICE

THE figure below illustrates Tennessee's physician workforce pathway-to-practice, showing the progression from undergraduate medical education through graduate medical education (residency) to practicing physicians in Tennessee. The arrow represents the continuous pipeline feeding into the state's current workforce in 2025 and projecting forward to meet future workforce needs in 2035. The visualization emphasizes how medical education at both levels must align strategically to ensure Tennessee can adequately supply physicians for its present and future healthcare demands.

**Figure 17. Tennessee's Pathway-to-Practice**



## THE BIG PICTURE

Tennessee is producing more medical students than ever before, especially in osteopathic medicine. But the state faces a looming challenge: without expanding residency training slots, many Tennessee medical graduates will have to leave the state to complete their training, and they may never return.

## UNDERGRADUATE MEDICAL EDUCATION

Tennessee now has eight medical schools, including two brand-new programs that welcomed their first students in 2024. Together, these schools enrolled 1,059 medical students this year, a milestone moment where osteopathic (DO) students outnumbered allopathic (MD) students for the first time (540 vs. 519). When adjusted for population, the state produces 10.8 medical students per 100,000 residents compared to the national average of 8.7. Tennessee is particularly strong in osteopathic education, producing nearly twice the national rate of DO students. One notable pattern: Tennessee has fewer in-state MD students (48.3%) than the national average (59.8%). However, when excluding Vanderbilt, the state's other MD programs enroll in-state students at 68.6%, well above the national benchmark.

Interest in Tennessee medical schools remains strong. While medical school applications fell nationally between 2022 and 2024, Tennessee saw applications rebound to 28,811 in 2024, a 1% increase over 2022. However, recent medical school expansion means that these applications are distributed across more available seats, resulting in lower competition per seat compared to the national average. This is particularly evident in DO programs, where Tennessee schools received only 13.4 applications per matriculant seat compared to the national average of 20.8 applications.

Medical school graduations have grown steadily, from 578 in 2015 to 784 in 2025, averaging nearly 3% annual growth. By 2035, the number of graduates is expected to more than double with Tennessee projected to graduate approximately 1,627 physicians annually. The figures on the following pages demonstrate the number of graduates and locations of medical education institutions in Tennessee. Appendix B details the full name and location of these institutions.

## DATA DIGEST

### MEDICAL SCHOOL GROWTH:

Tennessee graduated 784 physicians in 2025 and will graduate approximately 1,627 annually by 2035, more than doubling current output.

### RESIDENCY CAPACITY

**SHORTFALL:** Tennessee had only 764 first-year residency positions in 2025 vs. 784 medical school graduates: a 20-slot gap projected to reach 863 by 2035 without expansion.

### BELOW NATIONAL BENCHMARKS:

**Tennessee** has 8.83 residents entering training per 100k Tennesseans compared to the national average of 11.17.

### RETENTION CHALLENGES:

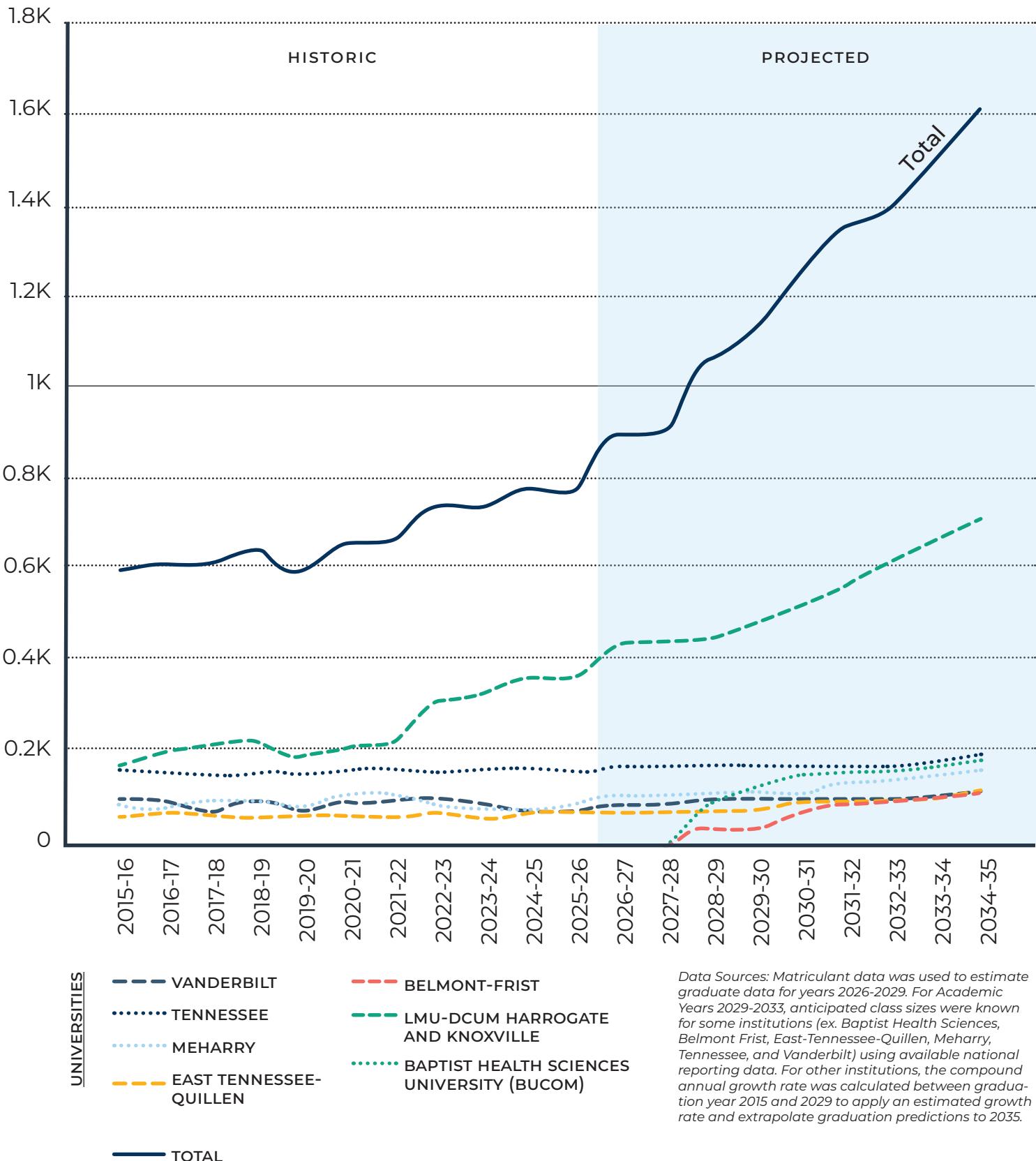
Tennessee retains only 33.5% of medical school graduates (vs. 37.8% nationally) and 42.2% of residency graduates (vs. 48.2% nationally).

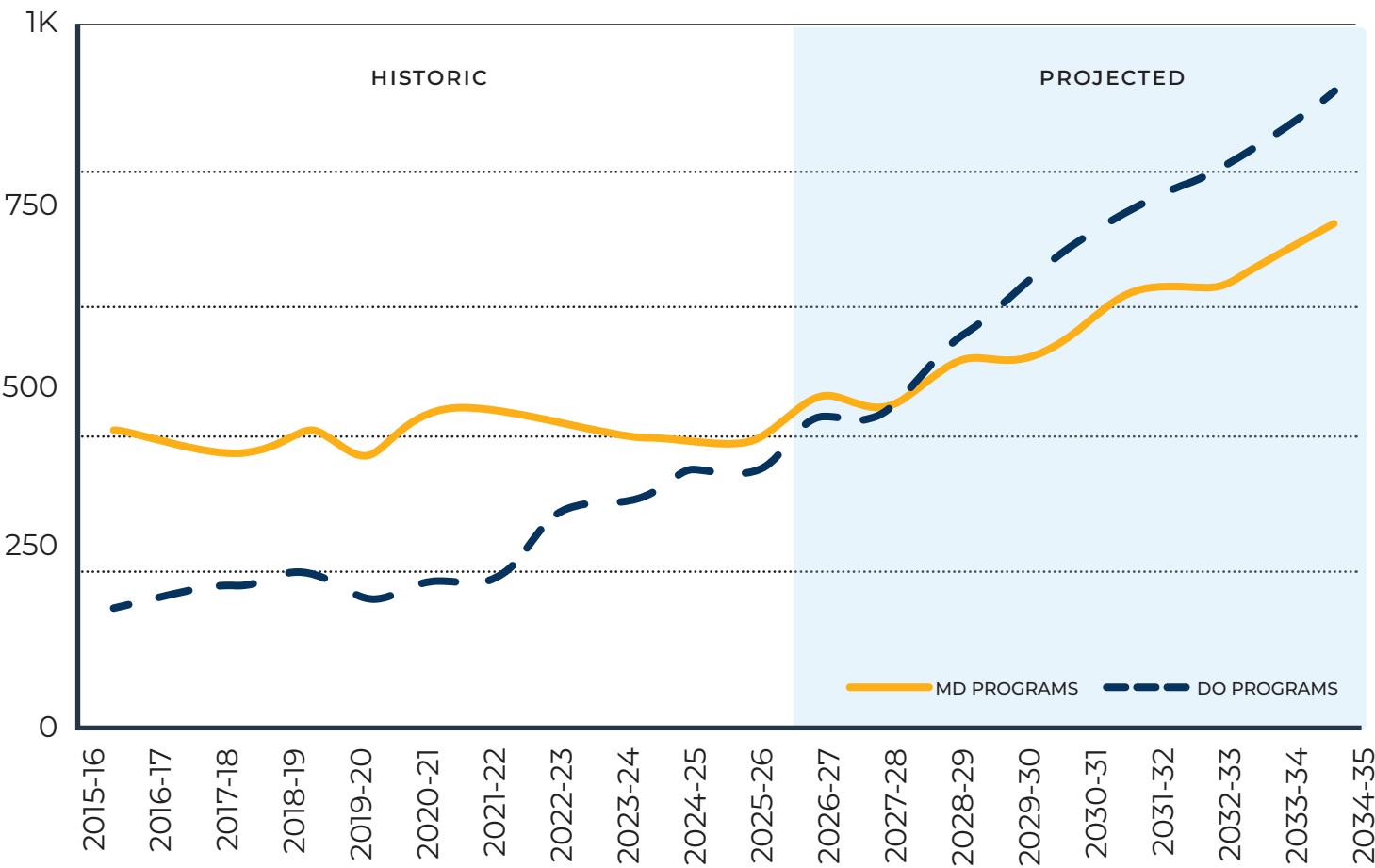
### OSTEOPATHIC EXPANSION:

In 2024, DO students outnumbered MD students (540 vs. 519) for the first time, with Tennessee producing nearly twice the national rate of DO students per capita.

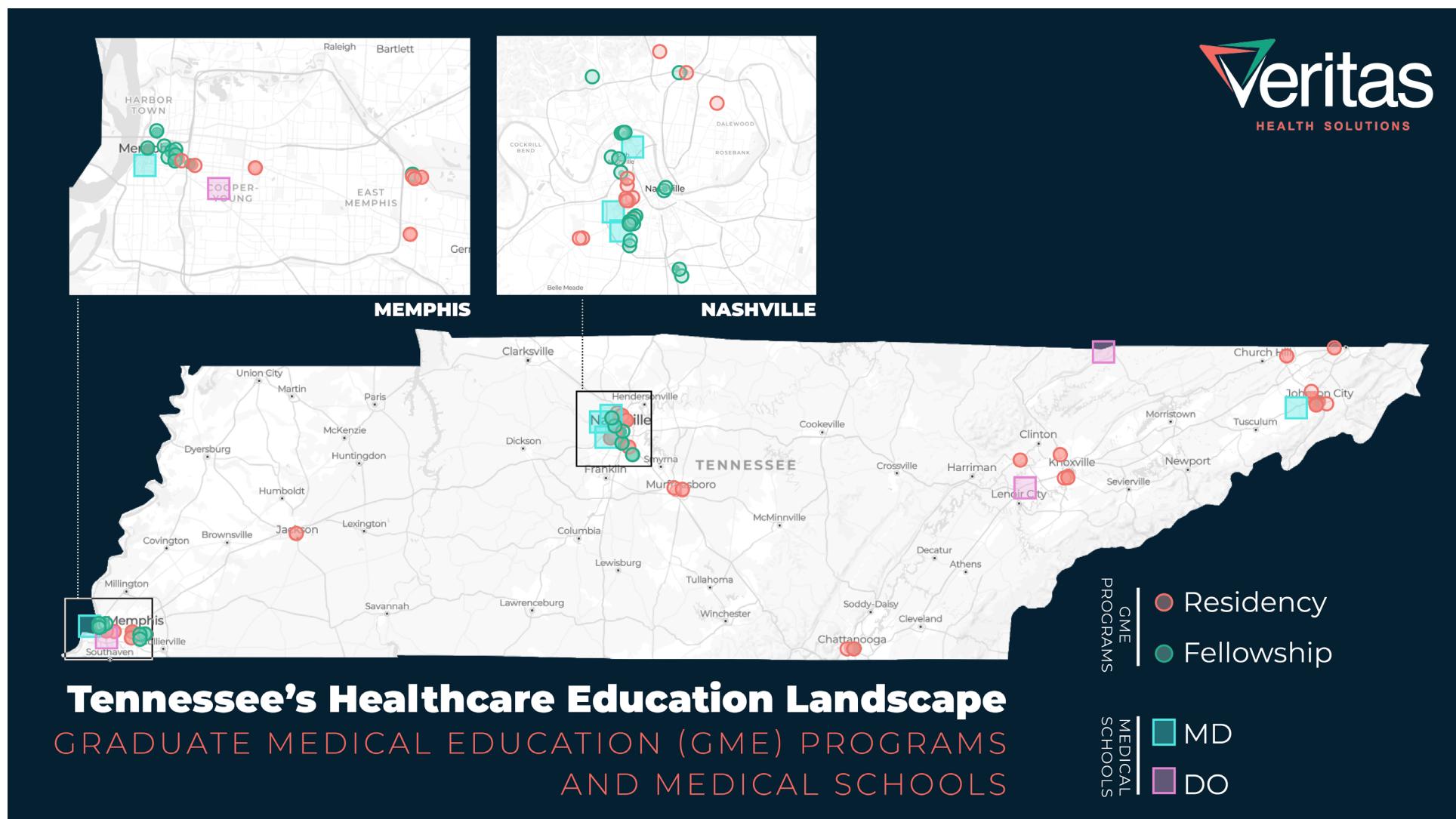


Figure 18a. Tennessee Medical Graduates per Year and Institution, 2016-35



**Figure 18b. Tennessee Medical Graduates per Year and Type of Degree, 2016-35**

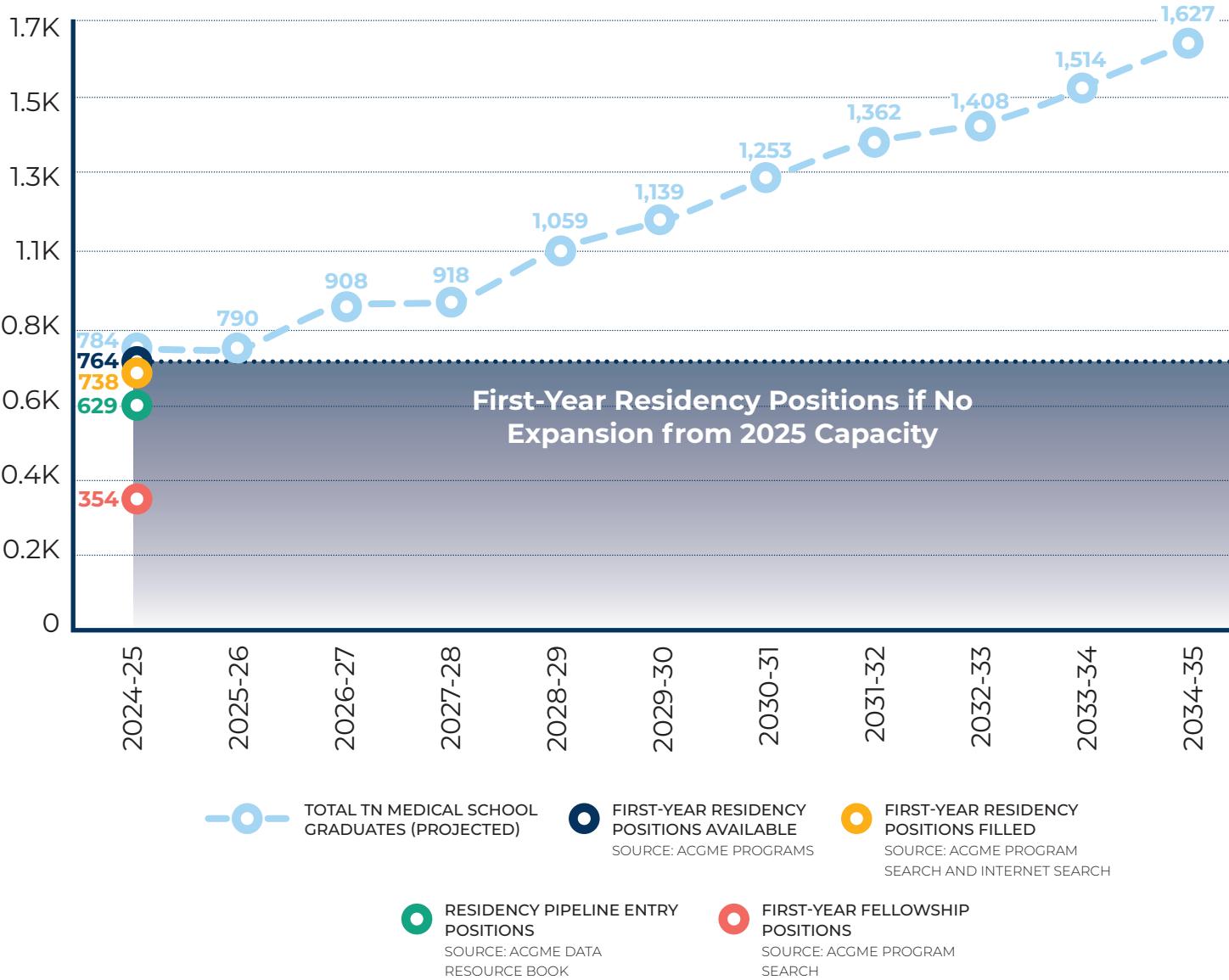
**Figure 19. Tennessee's Physician Education Landscape: Undergraduate and Graduate Medical Education Locations**



## GRADUATE MEDICAL EDUCATION

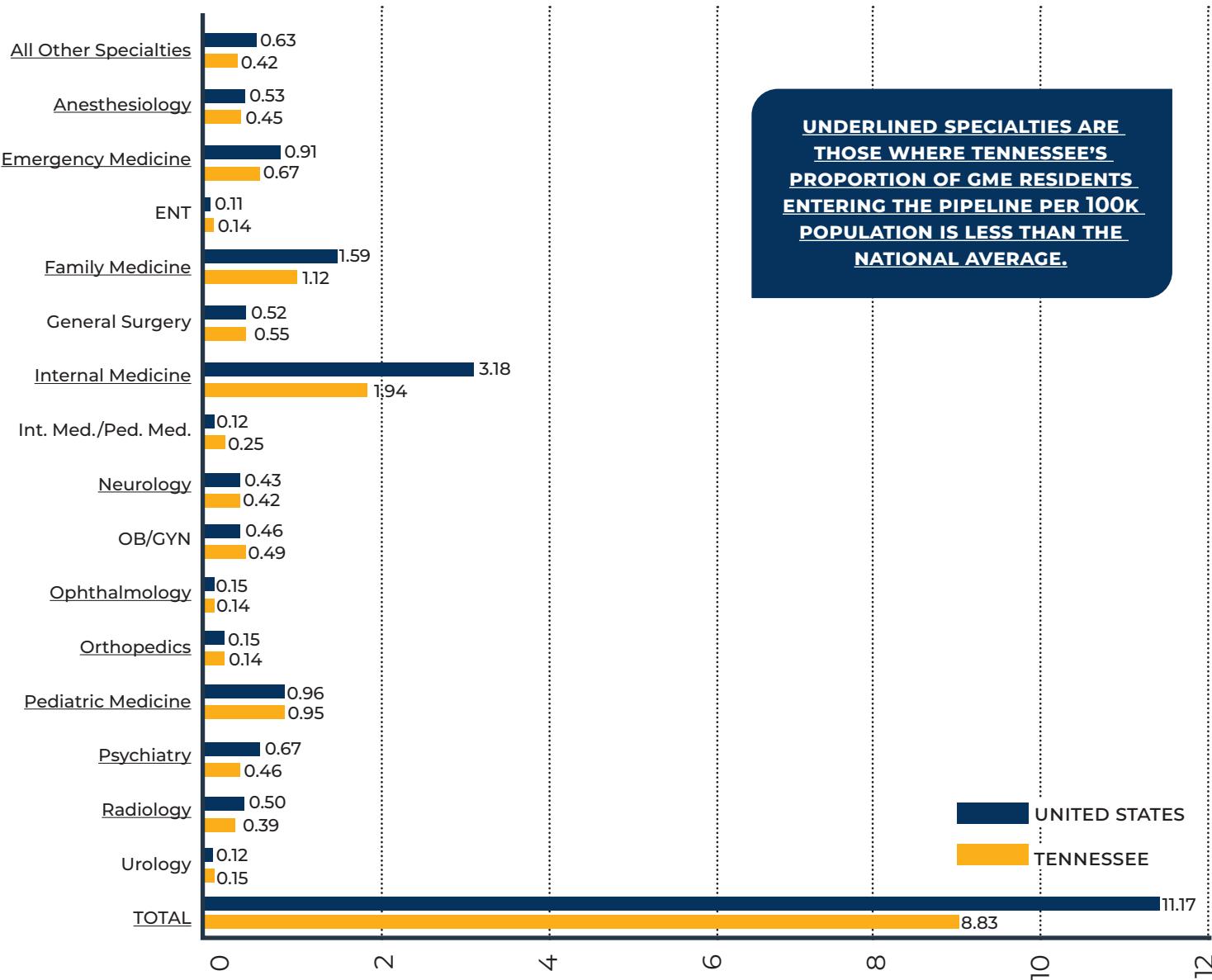
Here's where the challenge emerges: after medical school, physicians must complete residency training to practice medicine. In 2025, Tennessee had 764 first-year residency positions compared to 784 medical school graduates, a shortfall of 20 slots to accommodate in-state medical students to continue training in-state. Without corresponding residency expansion, this gap will widen dramatically as medical school expansions ramp up. Without adding more residency positions, Tennessee could face a shortage of 863 residency slots by 2035, leaving more than half of its medical graduate capacity without corresponding in-state training opportunities. This means Tennessee would be producing hundreds of medical doctors who would be forced to seek residency training out of state, and research shows that physicians tend to practice where they complete their residency, making it unlikely these graduates would ever return to serve Tennessee communities.

**Figure 20. Tennessee Medical Graduates vs. First-Year Residency Positions**



Tennessee's residency infrastructure already lags behind national benchmarks. The state has 8.83 residents entering the pipeline per 100,000 population compared to the national average of 11.17. When looking at residency capacity and fill rates by specialty, Internal Medicine had 15 unfilled first-year positions in 2025, while Psychiatry and Family Medicine (all high-need specialties) also showed unfilled slots or below-average training capacity relative to the national average. Tennessee performs better in fellowship (subspecialty) training, with capacity near the national average (4.00 fellowship graduates per 100,000 population compared to the U.S. average of 4.36). This suggests the state has developed strength in advanced training but needs to strengthen its foundational residency base.

**Table 10. Residents Entering the GME Pipeline per 100k Population in Tennessee vs. United States**



Source: ACGME Data Resource Book, 2023-2024, Tables C.30-C.32.



**Table 11. Residency and Fellowship Programs and 2025 Program 1<sup>st</sup> Year Filled Positions**

	First-Year Residency Positions: Filled (Unfilled)	First-Year Fellowship Positions: Filled (Unfilled)	Total First-Year Positions Filled (Unfilled)	Residency Programs	Fellowship Programs	Total Programs as of Sept 2025
All Other Specialties	36 (3)	30 (5)	66 (8)	13	21	34
Anesthesiology	34	8	42	3	2	5
Cardiology	0	45 (3)	45 (3)	0	13	13
Critical Care Medicine	0	34 (2)	34 (2)	0	9	9
Emergency Medicine	48	7 (1)	55 (1)	5	4	9
Endocrinology	0	9	9	0	4	4
ENT <sup>14</sup>	8 (1)	3	11 (1)	2	2	4
Family Medicine	94	4 (1)	98 (1)	13	4	17
Gastroenterology	0	16 (2)	16 (2)	0	6	6
General Surgery <sup>15</sup>	42 (1)	19 (2)	61 (3)	7	13	20
Geriatric Medicine	0	5 (1)	5 (1)	0	2	2
Hematology/Oncology	0	26 (1)	26 (1)	0	9	9
Infectious Diseases	0	10 (1)	10 (1)	0	4	4
Internal Medicine <sup>16</sup>	185 (15)	10	195 (15)	14	3	17
Internal Medicine / Pediatric Medicine	36 (2)	0	36 (2)	4	0	4
Nephrology	0	12 (2)	12 (2)	0	4	4
Neurology <sup>17</sup>	39	10 (6)	49 (6)	11	9	20
OB/GYN <sup>18</sup>	37	16 (3)	53 (3)	7	11	18
Ophthalmology	10	0	10	2	0	2
Orthopedics	19	8 (2)	27 (2)	4	8	12
Pediatric Medicine	68	3 (2)	71 (2)	4	5	9
Psychiatry	33 (4)	17 (2)	50 (6)	5	8	13
Pulmonology	0	2 (2)	2 (2)	0	3	3
Radiology <sup>19</sup>	35	10 (5)	45 (5)	7	9	16
Rheumatology	0	6	6	0	3	3
Urology	14	2	16	4	2	6
<b>TOTALS</b>	<b>738 (26)</b>	<b>311 (43)</b>	<b>1,050 (69)</b>	<b>105</b>	<b>158</b>	<b>263</b>
General Surgery - Prelim	38 (8)	0	38 (8)	5	0	5
Internal Medicine - Prelim	37 (4)	0	37 (4)	6	0	6

<sup>14</sup> Of these, 2 fellowship positions were not located in the ACGME Program Search Database but were included in NRMP. These were both filled. (Vanderbilt Univ Med Center-TN: Laryngology). <sup>15</sup> Of these, 3 fellowship positions were not located in the ACGME Program Search Database but were included in NRMP. All 3 positions were filled. (U Tennessee Health Sci Ctr-Memphis Surgical Critical Care/2 yr). <sup>16</sup> Of these, 7 residency positions were not located in the ACGME Program Search Database but were included in NRMP. All 7 were filled (Vanderbilt ABIM Research Track). <sup>17</sup> Of these, 2 residency positions were not located in the ACGME Program Search Database but were included in NRMP. Both were filled (U Tennessee Health Sci Ctr-Memphis and Vanderbilt Univ Med Ctr-TN Neurology). <sup>18</sup> Of these, 2 fellowship positions were not located in the ACGME Program Search Database but were included in NRMP. Both positions were filled (Vanderbilt: Minimally Invasive Gynecologic Surgery). <sup>19</sup> Of these, 6 fellowship positions were not located in the ACGME Program Search Database but were included in NRMP. All 6 were filled. (Vanderbilt Univ Med Ctr: Breast Imaging, Clinical Ultrasound, Emergency Radiology; U Tennessee COM-Chattanooga: Clinical Ultrasound). **Source:** ACGME Program Search Database and NRMP 2025 Results. ACGME Program search was completed in September 2025. For unfilled positions on ACGME or NRMP, program websites were reviewed to validate true fill status.



## KEEPING TRAINEES IN TENNESSEE

The goal is to achieve a one-to-one ratio between medical school graduates and residency slots, ensuring that Tennessee's residency capacity matches its medical school capacity so the state isn't simply preparing doctors for other states. However, even with this goal in place, training physicians in-state doesn't guarantee they'll stay. In fact, Tennessee falls below the national average in terms of retention for both medical school and residency graduates. Tennessee retains 33.5% of its medical school graduates compared to the national average of 37.8%. After residency training, Tennessee keeps 42.2% of residents versus 48.2% nationally.

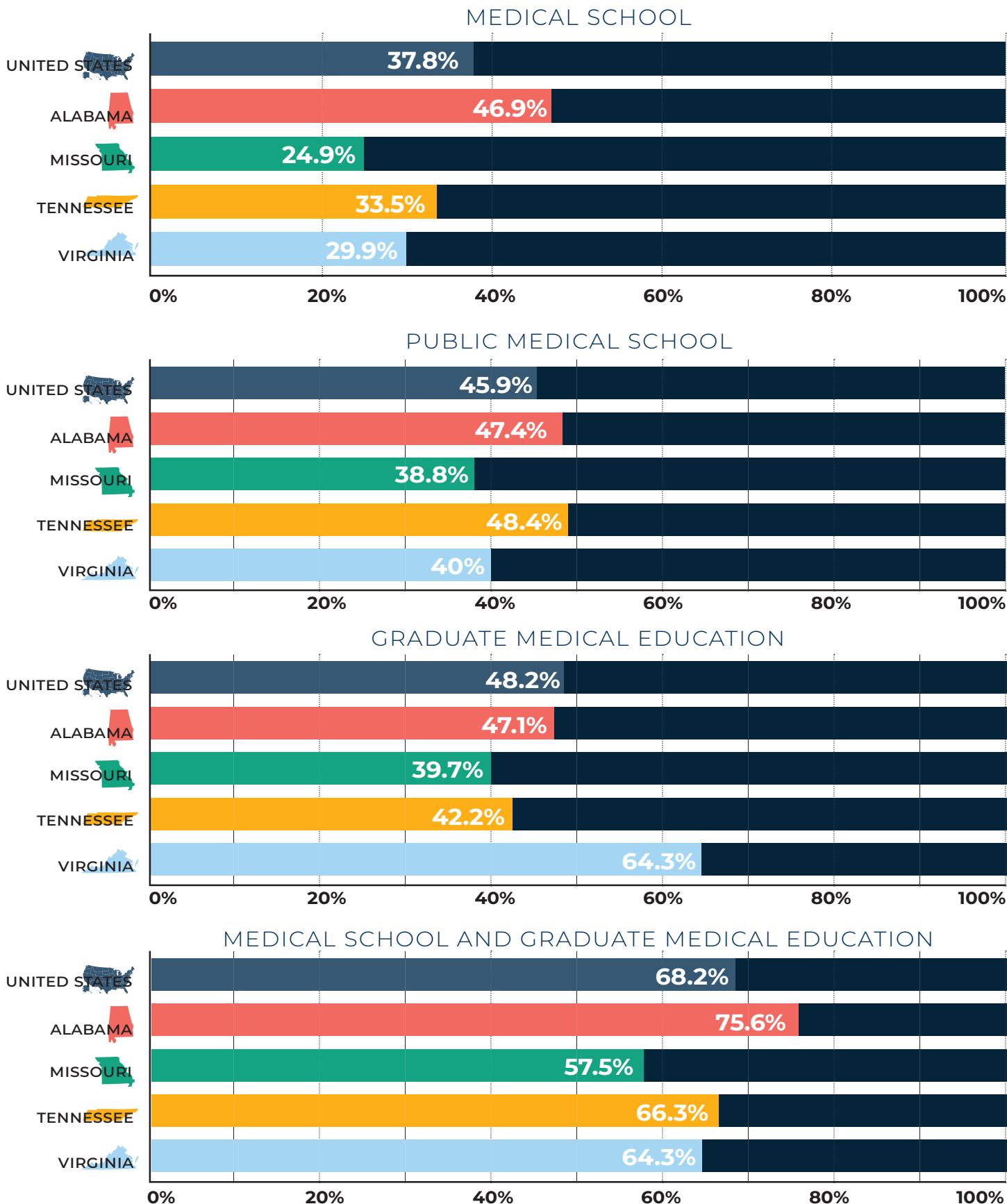
The state does slightly better retaining graduates from public medical schools (48.4% vs. 45.9% nationally). Physicians who complete both medical school and residency in Tennessee are more likely to stay; 66.3% remain in-state, close to the national rate of 68.2%.

Tennessee loses more physicians than average after medical school alone and after residency alone. Strengthening retention and providing enhanced support to Tennessee trainees' pathway-to-practice could boost the state's physician workforce.

## STAKEHOLDER PERSPECTIVES

Stakeholders consistently emphasized that Tennessee has expanded medical school enrollment without proportionally increasing residency slots, creating a bottleneck where in-state students struggle to secure residency positions. While increased TennCare GME funding was welcomed, there were no requirements tied to program expansion. Additionally, some academic-based stakeholders felt that the federal policy which requires federal funding to flow to teaching hospitals as training sites results in limited flexibility for community-based and rural rotations. Interviewees stressed that early pipeline recruitment from rural communities, mission-driven admissions that value holistic applicants over MCAT scores alone, sustained state funding beyond planning grants, and meaningful rural clinical experiences throughout training are critical to building a physician workforce that will serve Tennessee's underserved areas.



**Figure 21. Percent of Physicians Retained In-State After Training**

Data Source: AAMC Physician Workforce Data Dashboard, 2023. Available at: <https://www.aamc.org/data-reports/report/us-physician-workforce-data-dashboard>



## WHAT THIS MEANS

Tennessee has built impressive medical education capacity, particularly in osteopathic medicine. Applications are strong, graduations are climbing, and the state produces more medical students per capita than most peers.

But without strategic expansion of residency positions to match national averages in residency capacity (especially in high-need specialties like Family Medicine, Internal Medicine, and Psychiatry) and a focused effort to keep their trainees in-state for practice, Tennessee is at risk for becoming a net exporter of medical students who must seek residency training opportunities outside the state, leading to a consistent outflow of potential future physicians.



# SUMMARY

TENNESSEE's physician workforce faces challenges that demand immediate and coordinated action. The data reveals a system under strain: geographic maldistributions leave 52 counties potentially without psychiatrists and 28 counties below federal primary care benchmarks, while urban centers maintain robust access. An aging workforce compounds these disparities, with more than a quarter of physicians from 13 specialties approaching retirement age. Meanwhile, Tennessee's impressive medical education expansion, projected to produce 1,627 graduates annually by 2035, is undermined by insufficient graduate medical education capacity. Without action to achieve a 1:1 ratio between medical school graduates and residency slots, Tennessee will graduate hundreds of doctors who must seek training elsewhere, and research shows, are unlikely to return since physicians more commonly practice where they complete residency. Without expansion, Tennessee is projected to have a shortage of 3,860 physicians by 2035, with the greatest unfilled demand in specialties such as Family Medicine, Psychiatry, and Internal Medicine.

Addressing these challenges requires a treatment plan that operates across multiple timeframes and leverages multiple policy levers. The following recommendations offer potential opportunities for strengthening Tennessee's physician workforce through targeted GME expansion, enhanced workforce data infrastructure, improved retention strategies, and coordinated statewide planning. Recommendations are grounded in evidence and designed to move Tennessee from reactive shortage management to proactive, data-driven workforce planning.

## HIGHLIGHTING TENNESSEE'S EXISTING INITIATIVES

Tennessee already has several important initiatives to support the Tennessee physician workforce, including:

### EARLY PIPELINE:

**Rural Health Care Pathways Program** provides \$50 million in state grants to create or expand partnerships between high schools and colleges/TCATs that expose students to healthcare careers and facilitate transitions into health professions.

### UNDERGRADUATE MEDICAL EDUCATION:

**Rural Rotation Incentive Program** provides financial assistance for room and board to 3rd and 4th year medical students and primary care residents completing rural clinical rotations in Tennessee.

### GRADUATE MEDICAL EDUCATION:

**State GME funding** through direct and indirect funding, state appropriation, and the Tennessee Hospital Assessment Fee

**Residency Incentive Program** provides unrestricted stipends of \$105,000-\$140,000 to primary care residents (Family Medicine, Internal Medicine, Internal Medicine/Pediatrics, OB/GYN, Pediatrics, and Psychiatry) in exchange for 3-4 years of service in rural or underserved communities.

### RECRUITMENT AND RETENTION IN PRACTICE

**Practice Site Recruitment and Retention Incentive** offers up to \$50,000 to practice sites in rural or underserved areas to recruit and retain primary care physicians, psychiatrists, psychiatric nurse practitioners, or dentists with a 2-year work commitment.

**Tennessee State Loan Repayment Program** provides up to \$50,000 in educational loan repayment for primary care practitioners who commit to an initial 2-year service obligation at qualifying sites in Health Professional Shortage Areas.

Interstate Medical Licensure Compact participation



## CONSIDERATION #1

### **Targeted expansion of GME positions to align with graduations and population health needs.**

The data is clear: Tennessee's medical graduates outpace first-year training positions in 2025, and with the explosion of growth in Tennessee medical schools over the next decade, a lack of GME expansion would leave more than 50% of Tennessee medical graduates without an opportunity to stay in-state for residency by 2035. However, GME expansion should be intentional to align with Tennessee population health needs. Any state investment in GME should incorporate clear performance measures (such as tying back to new positions, instead of bolstering existing positions) and transparent reporting requirements (such as details on residents or fellows) to enable evaluation and reporting of outcomes.

#### **The path forward requires:**

- Expanding residency capacity to match projected medical school growth.
- Targeting high-need specialties where Tennessee shows gaps.
- Improving physician retention after medical school and residency training.
- Focusing on underserved regions (such as through rural tracks or rotations) to ensure under-resourced rural and urban communities benefit from workforce growth.

#### **Any investment in GME should be intentional, incorporating:**

- Clear performance measures tied to new positions, rather than bolstering existing slots.
- Transparent reporting requirements to allow evaluation of outcomes, including specialty, program, and residency/fellow details.

Given the long lead time required to establish new residency programs (3–4 years), priority should be given to expanding accredited existing programs, which can scale in less than a year. If new programs are pursued, planning support should span at least three years to ensure readiness and compliance.

**TARGETED RECRUITMENT TO ADDRESS IMMEDIATE GAPS:** Some counties face acute shortages: 52 lack psychiatrists, 28 fall below primary care benchmarks, and 10 have no specialty physicians. Coordinated short-term strategies, such as targeted recruitment incentives, loan repayment programs, and telehealth expansion, can help bridge these immediate gaps while GME expansion progresses.



**STATE EXAMPLE:**  
**TEXAS**

**STATE EXAMPLE:** Texas has a [10-year state GME investment initiative](#) with a goal to create 10% more first-year residency positions than medical school graduates. Through this initiative, GME programs can apply for funding of at least \$75,000 per year for each residency position awarded and filled during the grant period. The program is administered and overseen by the Texas Higher Education Coordinating Board. This investment was made to result in a surplus of first year resident positions-to-graduates.



**STATE EXAMPLE:**  
**FLORIDA**

**STATE EXAMPLE:** As a requirement of receipt of [Florida's GME investment funding](#), the Florida Agency for Health Care Administration requires detailed reporting of residents and fellows including medical license number, facility accreditation, FTE, dates of the position, and program specialty. This information is used to ensure compliance and allow for program evaluation.



## CONSIDERATION #2

### Leveraging Existing Technical Assistance and Federal Grants

Organizations considering development or expansion of GME programs should explore and leverage existing technical assistance resources and federal grant opportunities, such as the [Rural Residency Planning and Development \(RRPD\) Program](#), [Teaching Health Center Graduate Medical Education \(THCGME\) Program](#), [ShepsGME Technical Assistance Center](#), and the [Rural GME Technical Assistance Center](#). These initiatives provide critical planning funds, implementation support, and ongoing operational financing for rural and community-based residency programs. In addition, several national organizations offer targeted technical assistance, toolkits, and peer learning networks to assist hospitals and clinics in navigating accreditation, partnership formation, and sustainability planning.

Given that GME expansion efforts are already underway in many regions, it is essential to actively promote awareness and utilization of these resources among medical schools, health systems, and potential training sites. Existing technical assistance resources and funding opportunities should be promoted to all medical schools and member hospitals to ensure organizational contacts are aware of resources to support their planning or implementation. Ensuring that institutional leaders, clinical partners, and designated GME coordinators are familiar with available supports can help reduce startup barriers, accelerate accreditation timelines, and maximize the likelihood of successful program implementation.

## CONSIDERATION #3

### Explore Strategies to Strengthen In-State Pathways into Medical Education

Tennessee could explore opportunities to encourage greater in-state participation in publicly funded medical schools as a long-term strategy to bolster physician retention. Evidence from states such as Texas (which reserves a majority of medical school matriculant slots for in-state residents) suggests that prioritizing state residents in publicly supported medical education can help reinforce local workforce pipelines. A review of Tennessee's current medical school admissions policies could help identify opportunities to increase the proportion of in-state applicants or create incentives for Tennesseans to train, complete residency, and ultimately practice within the state. Such approaches could be developed in collaboration with public medical schools, the Tennessee Higher Education Commission, and state workforce partners to ensure alignment with institutional goals and state workforce needs.



**STATE EXAMPLE:** **Texas** maintains one of the strongest in-state preference policies in the country. Through the Texas Medical and Dental Schools Application Service (TMDSAS), [state statute](#) requires that at least 90% of first-year medical school positions at publicly funded institutions be offered to Texas residents. This policy reflects a deliberate strategy to ensure that publicly financed education primarily benefits Texans and to strengthen the state's long-term physician supply. The approach has been credited with supporting high in-state retention from medical school through residency and into practice, with Texas retaining 60.2% of its physicians who completed medical school at a public institution in-state (the second highest in the nation).



**STATE EXAMPLE:** **Massachusetts** [state statute](#) outlines that a medical student (or their immediate family) has to have lived in-state for seven consecutive years prior to enrollment in order to qualify for in-state tuition rates.

## CONSIDERATION #4

### Physician Workforce Data Enhancements

Enhancing workforce data collection at initial licensing and renewal will allow for better workforce planning and evaluation of workforce investments (education data cleanup, specialty, practice location, hours/week)

State licensing processes are a strategic opportunity for states to collect detailed information on the licensed health workforce. Tennessee's Department of Health provides public access to physician workforce profiles through data download. However, this information requires significant cleaning for usability. Even after cleaning, there are several data variables that are unclear or missing.

#### What might this look like?

- **A clear distinction between medical school and residency on license applications.** Currently, the educational fields are not clearly distinguished, resulting in an inability to clearly map physicians to the state where they completed medical school or residency, and therefore challenging reporting of how many licensed Tennessee physicians were trained in-state. This could be solved by utilizing a drop down selection for in-state schools in place of what is currently an open-text string variable.
- **Capturing practice specialty.** Although specialty of medical education is provided, it does not always directly correlate to the specialty of practice for Tennessee physicians. For example, some physicians have completed several residencies or fellowships. Without a clear "practice specialty" field, a manual investigation of the practitioners details is required to definitively map physicians to the primary specialty in which they are contributing to Tennessee's physician workforce.
- **Quantifying physician capacity.** In order to move from license count to full time equivalency, a variable is required to quantify the number of hours that a physician is practicing per week, and how many hours are in direct patient care. This specific variable is required for federal health professional shortage area designations and is considered a minimum indicator for health workforce analyses.



**STATE EXAMPLE:  
INDIANA**

**STATE EXAMPLE: Indiana** collects supplemental workforce data from licensed physicians and other health care professionals at the time of license renewal that are used for needs assessments, shortage area identification, and to inform and evaluate policy and decision making. There are two key factors that make Indiana's approach to physician workforce data successful; The [licensing agency is authorized to collect specified, minimum necessary supplemental workforce data IN statute](#) and the questions collecting these data are embedded into the license renewal process making it as efficient as possible and reducing burden for licensees. Physician workforce licensing trends are [reported annually](#) alongside other licensed healthcare professions, and supplemental workforce information (example: number of physicians actively practicing in the state/providing medical care for residents, by specialty and within Indiana counties) are reported each biennium in [workforce reports](#) and on [interactive dashboards](#).



## CONSIDERATION #5

### Supporting Data-driven GME Decisions

A dedicated advisory body could play a critical role in guiding additional state GME investments, ensuring that funding, program expansion, and policy decisions are aligned with Tennessee's workforce needs.

#### Such an entity could:

- **Evaluate GME Grant Applications:** Review proposals for new or expanded residency programs and provide recommendations to the state agency responsible for funding. This ensures that investments are strategic, targeted, and evidence-based.
- **Conduct Workforce Needs Assessments:** Use up-to-date data on physician supply, specialty distribution, geographic gaps, and projected retirements to identify priority areas for GME expansion.
- **Facilitate Coordination Across Stakeholders:** Bring together medical schools, teaching hospitals, health systems, and state workforce offices to align goals, share data, and leverage resources.
- **Monitor and Report Outcomes:** Track funded residency positions, specialty alignment, retention rates, and geographic distribution to assess the effectiveness of state GME investments.
- **Ensure Programming Develops Under-resourced Areas:** Ensure that investments support rural and underserved areas, high-need specialties, and populations most at risk of physician shortages.
- **Advise on Policy Development:** Recommend targeted policies, such as incentives for in-state retention, rural training tracks, and partnerships that create pathways from training to practice in shortage areas.



**STATE EXAMPLE:**  
NEVADA

**STATE EXAMPLE:** [Nevada](#) has a statutorily established Advisory Council on Graduate Medical Education that is responsible for evaluating GME Grant Program applications and making recommendations to the state agency for approval and funding.



**STATE EXAMPLE:**  
INDIANA

**STATE EXAMPLE:** [Indiana](#) established the [GME Board](#) into [statute](#) in 2015, and one of its first actions was to develop five regional GME consortiums across the state. [One of the regional consortiums](#) utilized a small portion of state funding (\$250,000) and \$1 million from each consortium-participating hospital to support the development of a regional needs-assessment to determine where and how GME growth might occur. The state GME Board ultimately selected several of these programs for GME expansion funding, resulting in 56 new internal medicine residents, 20 psychiatry residents, and 15 family medicine residents in-state.





## TENNESSEE'S PHYSICIAN WORKFORCE LANDSCAPE



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