

Future of the U.S. Healthcare Industry:

Labor Market Projections by 2028



Introduction

The shortage of healthcare workers in the United States has been a long-standing concern, notably exacerbated during the COVID-19 Pandemic^{1,2}. The strain facing our healthcare systems continues to gain attention and urgency³ with politicians across the aisle now proposing legislation to mitigate this multifaceted issue (e.g., Bipartisan Primary Care and Health Workforce Act)^{4,5,6}. Occupational associations and scholars have detailed the severity of expected shortages in the industry — with many studies focusing on physician shortages in particular^{7,8}. However, the environment is significantly different now than when many of these projections were made, during and shortly after the height of COVID. To contribute to an understanding of this crisis, Mercer conducted a comprehensive review of available data and estimated future shortages (or surpluses) by occupation and geography. This report details insights on the projected supply and demand of multiple healthcare occupations (as defined by the Bureau of Labor Statistics⁹) by 2028.

Specifically, we sought to answer 4 interrelated questions:

1. Where will the greatest gaps between supply and demand be located?
2. Which healthcare occupations will see the greatest changes in supply and demand and thus surpluses/shortages by 2028?
3. How will these gaps differ by occupation across geographies?
4. How do current trends in compensation by occupation and geography inform future talent strategies?

These questions are top of mind for stakeholders in the healthcare industry — we offer insights with the hope that healthcare systems will be better prepared to navigate future uncertainty.

Results from this study provide employers with a nuanced understanding of healthcare worker shortages, by occupation and in their local markets.

This, in turn, informs proactive business strategies on talent acquisition, retention, job design, staffing and compensation to ensure continued quality services to patients without disruption.



Executive summary

The main findings of the 2024 study can be summarized into four key insights:

1

Nationwide shortages of critical healthcare labor are projected, with a total deficit of 100,000 workers by 2028. Populous states, such as California, Texas and Pennsylvania are expected to weather the storm with estimated labor supply that exceeds demand. However, acute shortages are projected in states like New York and New Jersey

2

The projected shortage of Nursing Assistants may be severe: only 13 states are expected to meet or exceed future demand. Given that NAs constitute a large share of the overall healthcare workforce, these projected shortages warrant close attention. Conversely, we do not project large shortages for physicians generally — though it is critical to consider the differences between specialist and primary care roles.

3

The outlook for Registered Nurses demonstrates how gaps may differ widely on a state-by-state basis. Nationally, there is an estimated surplus of about 30,000 RNs by 2028. However, shortages are projected for New York and other East Coast states. Employers in these locations will need varied and creative strategies to prepare for waning labor supply.

4

Understanding the variation of compensation by occupation and geography is crucial to prepare for potential shortages. If Nursing Assistants can earn more for the same job by moving to a neighboring state, or even metropolitan areas, they may choose to relocate. Employers must stay competitive on pay to ensure successful recruitment and retention of increasingly scarce talent.

Methodology

Mercer examined projected changes to the US healthcare labor market by 2028 for states and metro and micro statistical areas¹⁰ (MSAs). In this report, we summarize key insights aggregated at the state level — but granular projections by MSAs are also available in the full dataset.

Based on Mercer research, publicly available data, and data provided by our partner Lightcast¹¹, Mercer created metrics on labor supply and demand to evaluate and estimate labor market conditions in the future. Projections were made up to 2028 based on historical data up to 2023. Labor demand was projected using historic trends at the industry level with break down assignment based on prevalence of each occupation within the industry. Supply projections were derived using a linear autoregressive model based on historical supply within each occupation and geography.

Finally, Mercer estimated the gaps between projected demand for and supply for all healthcare occupations across geographies.

A major focus of the research was to also identify where healthcare workers are and will be versus where they need to be in the future. Mercer shares some high-level observations gleaned from state-by-state analysis and offers thoughts on what these observations mean for healthcare leaders as they develop and execute their workforce planning.

As the findings demonstrate, every state is different, and healthcare systems should assess how anticipated changes to their external labor markets will ultimately affect both employees and delivery of patient care in the coming years.

Background



Defining the shortage

The growing shortage of healthcare workers in the U.S. is caused both by a decrease in supply and an increase in demand. Increased demand is an inevitable reality of a growing — and aging — population¹². However, decreased supply is a more nuanced problem, and we identify three major factors underlying the observed decline:

1. COVID-19 as a catalyst for the acceleration of resignations
2. ongoing burnout among healthcare workers
3. non-competitive compensation for some occupations

Our analysis examines the mismatch between supply and demand while situating cost as an additional lever in the dynamic between these forces.



Demands of an ageing society

The increased healthcare needs of an ageing population are well understood¹³. The U.S. is no exception — Americans are older today than ever before, with 1 in 6 people at or above 65 years of age¹⁴. Healthcare expenditure data shows that older people understandably spend more money on services as they encounter more health issues. Meanwhile, census projections show a steady increase in this age group toward 2100¹⁵. Associated increases in healthcare expenditure will thus continue to drive demand into the foreseeable future.



Supply pressures

Healthcare worker turnover spiked during the COVID-19 pandemic in 2020 and in 2022 — particularly among women, workers with children, and marginalized racial groups¹⁶. Surveys at the time revealed heightened turnover intent driven by COVID related stress and burnout, among other factors: More than 1 in 5 physicians, 3 in 10 advanced practice providers and 2 in 5 nurses considered leaving their current practice within 2 years¹⁷. By 2022, ~100,000 registered nurses had left the workforce because of stress, burnout, and retirement¹⁸. This exodus may prove persistent: results from a 2023 survey show that about half of clinicians (doctors and nurses) in the U.S. considered leaving their current role in the next 2-3 years — of those, 1 in 3 considered leaving healthcare altogether¹⁹.

In 2022, the U.S. Surgeon General issued an advisory regarding healthcare workers' burnout²⁰, which is disproportionately prevalent for women, people of color, and immigrants. The advisory notes that, while COVID-19 certainly exacerbated burnout, it was already an ongoing issue in the healthcare system. Unaddressed burnout can create a corrosive cycle: burnout leads to increased exits and decreased supply, which strains remaining healthcare workers and compounds further burnout.

Under-compensation and wage stagnation are other critical factors that can impact the supply of different healthcare occupations²¹. In particular, median wage growth (or decline) has differed historically depending on the occupation, socioeconomic status, and demographics of workers²². Despite their importance in preventive care, primary care doctors are paid much less compared to specialists largely because health insurance pays more for specialized procedures²³. The majority of nurses in one survey report feeling underpaid²⁴, with some experts noting gender pay gaps in the occupation²⁵. Further, many healthcare support workers — though essential to the functioning of the U.S. health system — report median pay below \$15 per hour²⁶. As with other industries, healthcare employers need to be strategic about their compensation to drive long-term talent attraction and retention while also addressing gender pay gaps²⁷. Workers will continue to change jobs or leave the healthcare industry altogether if they feel they are not being adequately compensated²⁸ — which affects all of us seeking healthcare now and in the future.

Labor market study results

To better understand the outlook of the healthcare workforce by 2028, our labor market study focused on three interrelated features:



1. Variability in jobs:

We examine supply, demand, and potential shortages for healthcare occupations that fall under the combined BLS categorizations of Healthcare Practitioners and Technical Occupations (SOC: 29)²⁹ and Healthcare Support Occupations (SOC: 31)³⁰ recognizing that the diversity of jobs in the industry may present differing trajectories. In this report we highlight occupations that comprise sizeable percentages of the overall healthcare workforce, those that underpin the proper functioning of health systems, including: physicians, nurse practitioners (NPs), registered nurses (RNs), nursing assistants (NAs) and home health and personal care aides.



2. Variability in geography:

We analyzed results by metropolitan and micropolitan statistical areas (MSAs) and, for the purposes of this report, aggregated regions to visualize trends at the state level.



3. Variability in compensation:

As discussed, compensation is a lever to attract and retain talent and potentially mitigate projected shortages. Variability in pay will similarly differ depending on the 'who' (occupation) and the 'where' (geographical unit).

In the following sections we present surpluses and shortages of workers in absolute terms. A negative value represents a shortage, with demand exceeding supply, while a positive value represents a surplus. In the full dataset we also calculate gaps in terms of a percentage of projected supply to facilitate comparison across geographies with different populations and projected overall labor market sizes. We provide maps that show this raw gap derived from the difference between projected supply and demand. When gaps are positive, they represent surpluses and when negative, shortages. Surpluses are shown in red, and shortages are shown in blue with gradation indicating the magnitude.

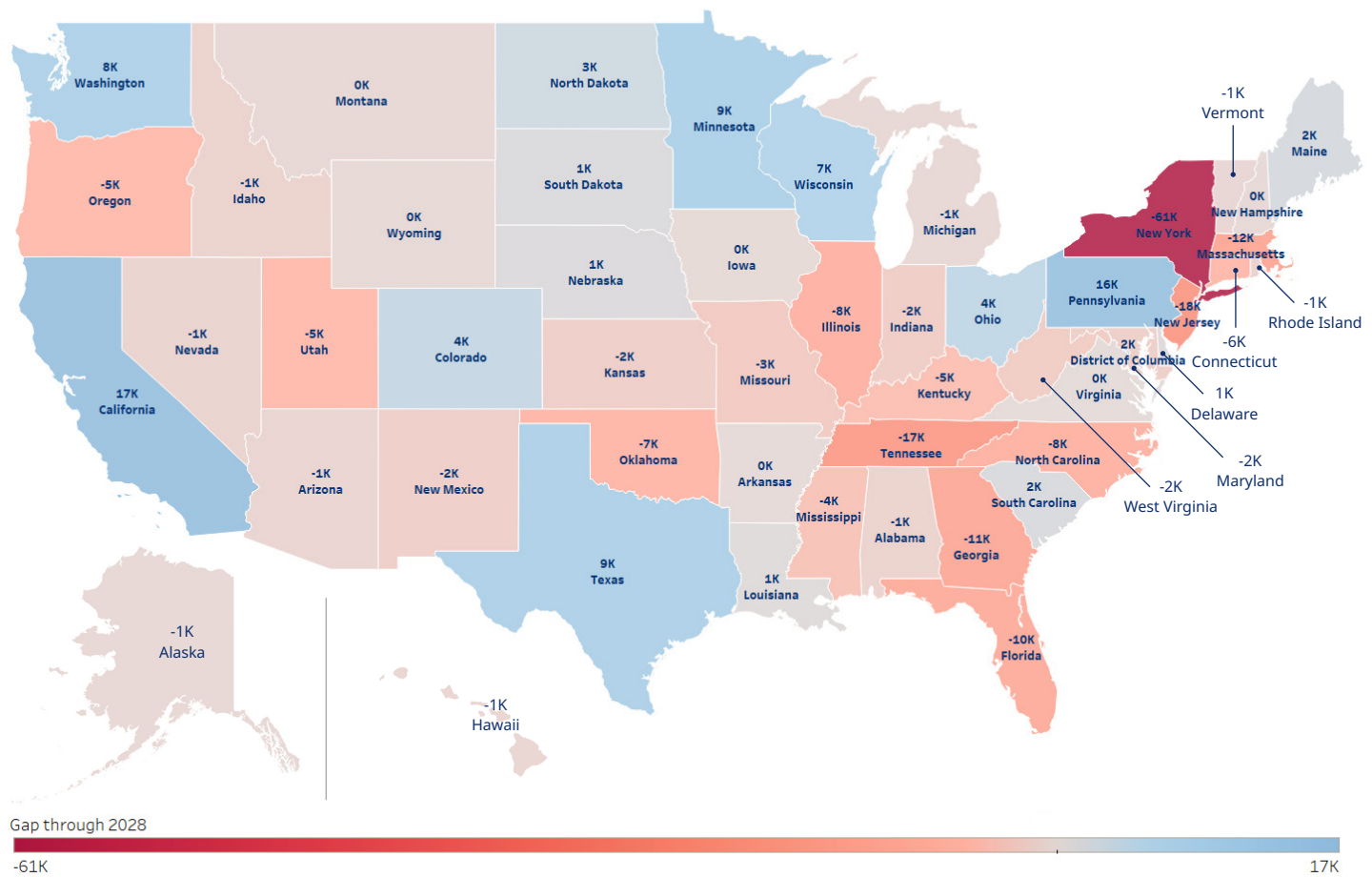


A national deficit

At a high level, our analysis validates ongoing concerns of a nationwide shortage of healthcare workers. About 16.9 million individuals currently work in healthcare occupations³¹. If United States workforce trends hold, we project a total supply of 18.6 million healthcare workers in 2028, an increase of over one and a half million people from 2023. That looks reassuring on the surface, yet during the same period the need for these workers will grow to around 18.7 million. That adds up to an overall shortage of critical healthcare labor in the country — over 100,000 workers within five years. While that figure may not seem like a crisis in absolute terms, it represents an added burden to a system strained by geographic and demographic disparities in access to care.³²

This aggregated view of all healthcare occupations identifies which states are projected to feel the effects of a labor shortage most acutely — and which may counter the national trend. While states like California, Texas and Pennsylvania top the list for greatest projected surpluses between future supply and demand, others like New York are forecasted to experience a severe shortage of healthcare workers by 2028.

Of course, healthcare jobs are diverse in their responsibilities, educational requirements, level of specialization, and compensation. To this end we examined the specific supply and demand dynamics for key healthcare occupations and discuss below the ramifications of their respective gaps.



Top 5 Projected Surplus States

California	Pennsylvania	Texas	Minnesota	Washington
16,591	16,036	9,035	8,614	8,414

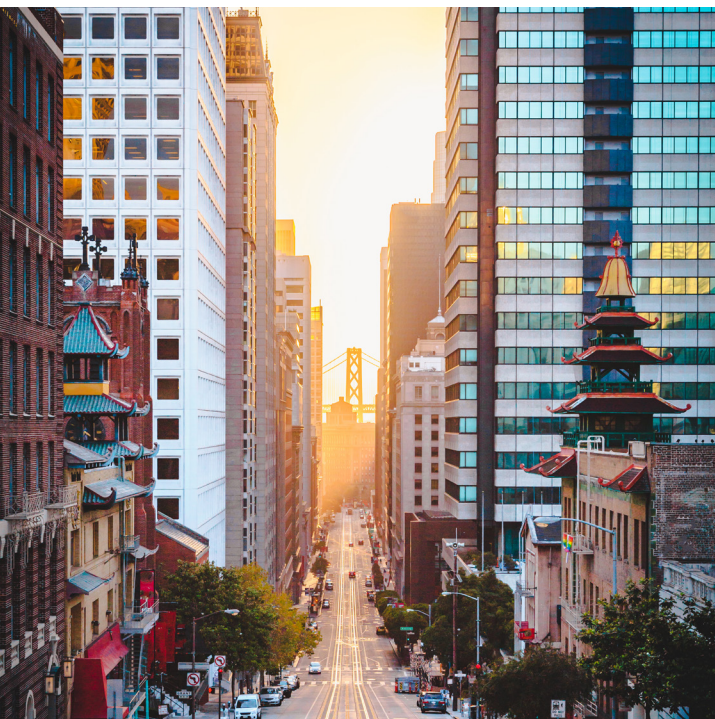
Bottom 5 Projected Shortage States

Georgia	Massachusetts	Tennessee	New Jersey	New York
-11,308	-12,329	-16,719	-17,769	-61,473

Physician gaps

States vary greatly in expected shortages vs. surpluses for occupations, with large shortages in Texas, California and New York but large surpluses in Pennsylvania, Indiana and Minnesota. The gaps for many states fall only slightly above or below meeting expected demand. This combined view may conceal some variation in specific occupations under the occupation category, especially when considering the differences between specialists and primary care doctors. Consequently, we identified the states with the largest gaps for three key occupations that deliver primary care.

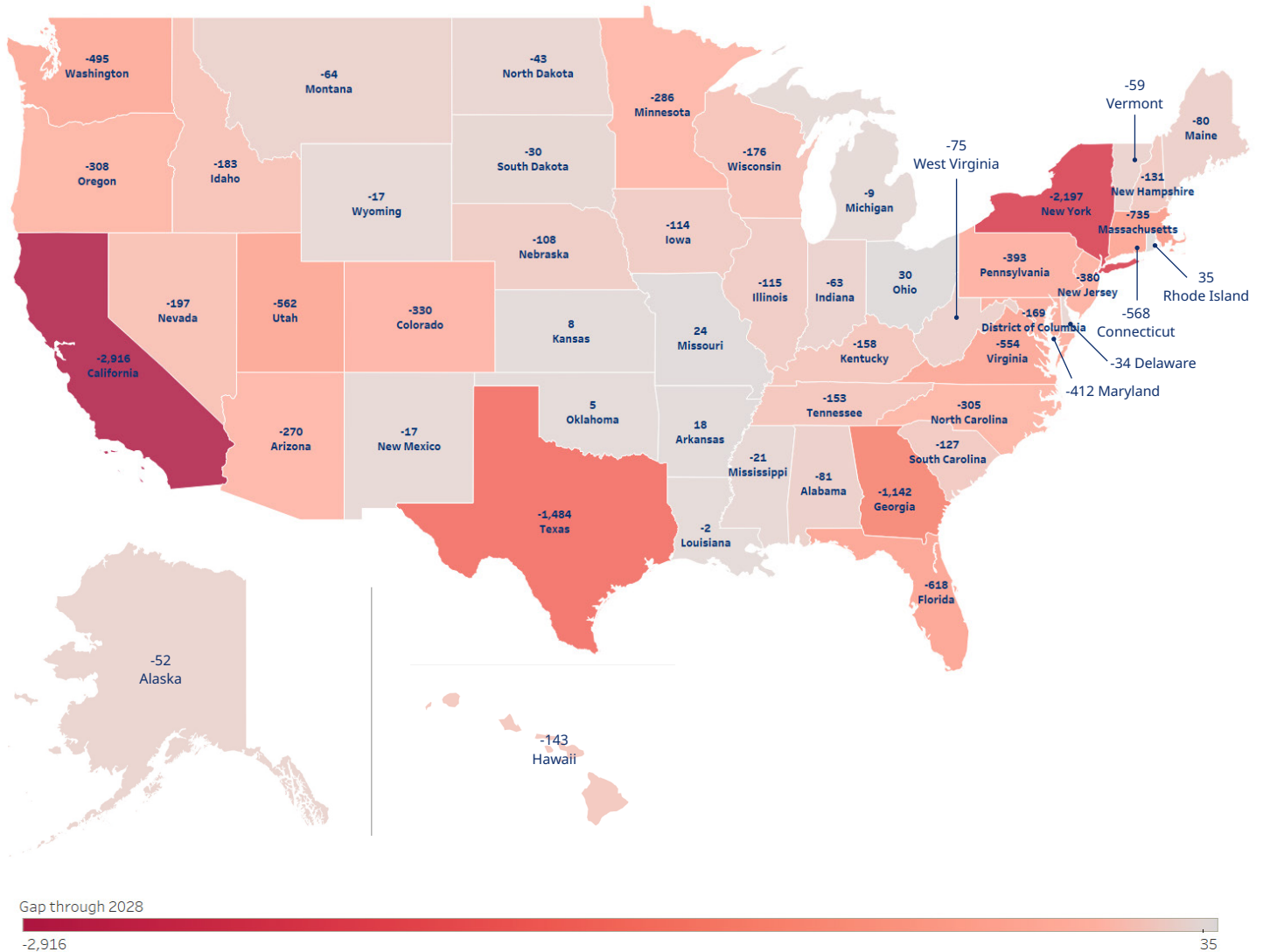
	OBGYNs	Pediatricians	Family Medicine
1	California -406	California -732	North Carolina -1,394
2	Texas -287	Massachusetts -512	California -852
3	Virginia -104	Texas -395	Illinois -614
4	South Carolina -91	Georgia -223	Georgia -223
5	Missouri -90	Ohio -148	Michigan -575



For California, the shortage in these critical occupations will amount to almost 2,000 individuals — or over 75% of the state's total projected shortage of all occupations. Thus, when thinking of potential occupation shortages, it is critical to consider which specific occupations we are talking about.

The prognosis for nurse practitioners

Nurse Practitioners (NPs) are a key occupation group for the delivery of preventative care in the United States. During the pandemic, governmental orders waived or reduced NPs' practice restrictions, increasing their ability to meet the unprecedented levels of demand.^{34,35} The current landscape of practice restrictions remains inconsistent between states, however, with calls to permanently remove barriers for NPs to practice and thereby increase access to care.³⁶ Regardless of regulatory changes, it is clear that NPs will remain a cornerstone of primary care into the future.

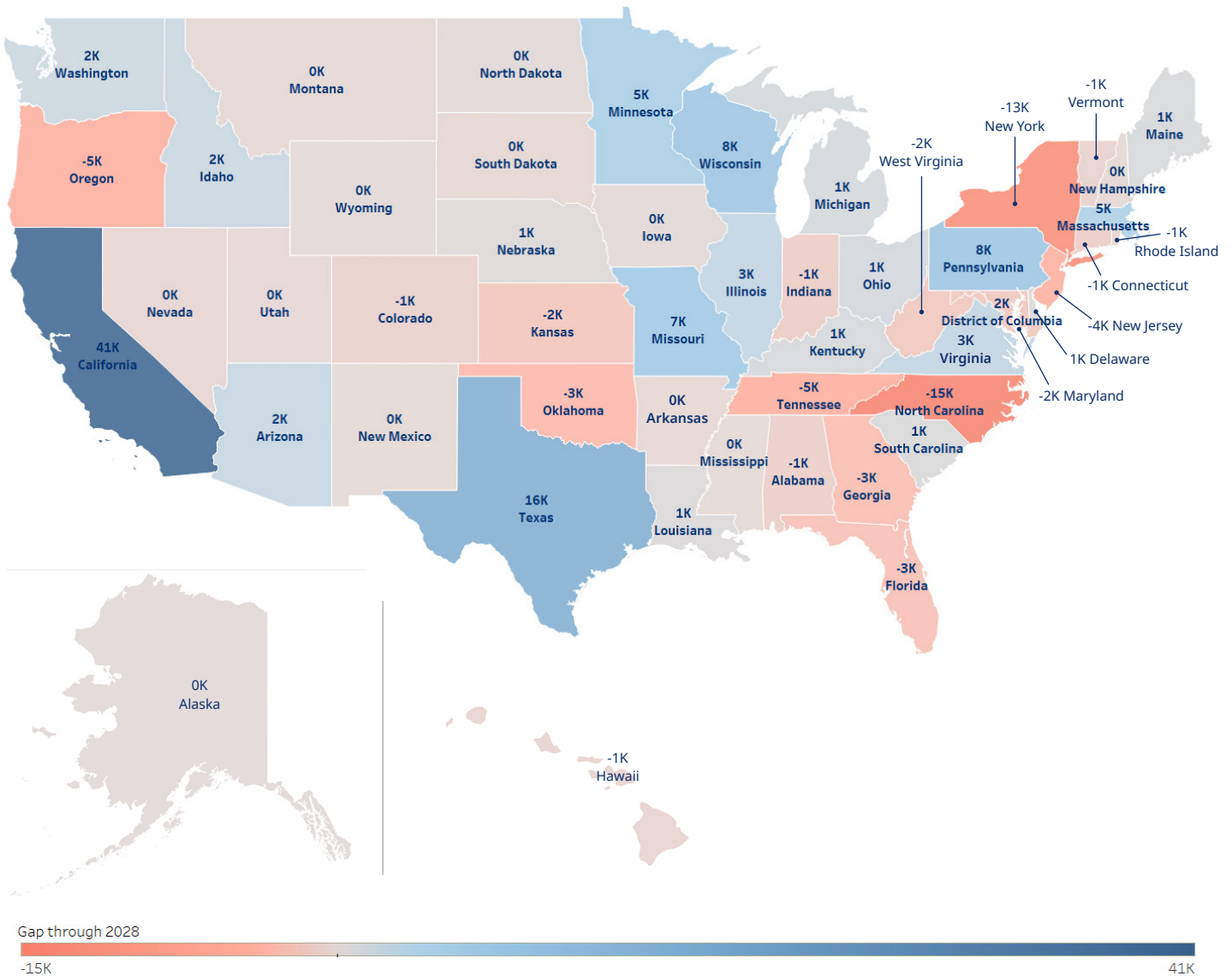


We project a nationwide shortage of NPs, including shortages for some states that have projected surpluses when examining all occupations. For example, Texas and California top both lists for projected surpluses of all healthcare workers and the most acute shortages of NPs. Healthcare organizations located in states with smaller shortages or surpluses will still need to closely monitor

their local labor markets to procure adequate NP talent. In states like California, Texas and New York, the combined impact of shortages for both NPs and physicians may result in significant disruptions to the continued delivery of preventative care.

Aid for the aides?

At over 4 million strong, Home Health and Personal Care Aides (HHAs) are the largest occupation highlighted in this report, representing almost one quarter of the total US healthcare workforce and over 50% of **Healthcare Support Occupations** in 2023. Encouragingly, labor supply of this critical occupation is projected to exceed demand nationally by almost 48,000 workers. Yet, as is the case with other occupations presented, the story differs greatly when reviewing gaps at the individual state level.



Populous states like California and Texas are expected to exceed demand over the next five years. On the other hand, some states will need to prepare for a projected shortage of HHAs by 2028 — the tri-state area of New York, New Jersey and Connecticut for example will fall short of future demand by over 18,000 HHAs.

Areas with smaller shortages or even moderate surpluses will also need to closely monitor their local labor markets to procure adequate HHA talent. It is important to note that healthcare systems compete with other industries for HHA talent and will only benefit from this surplus if they can win the war for talent against these other industries.

Growing pains

While we have thus far presented a selection of different gaps between supply and demand for key healthcare occupations, equally informative in our analysis is the estimated rate at which occupations will grow in the future.

It's worthwhile to note the distinction between a projected supply-demand gap and a projected supply growth rate: an occupation may continue to grow but still see a shortage if supply growth is not sufficient to meet projected demand. Ultimately, understanding the trajectories of different occupations is crucial for any health system looking to secure key talent in preparation for future shortages.

The projected supply growth rates of the key occupations highlighted earlier demonstrate this point. The supply of

Nurse Practitioners is expected to grow at the fastest rate amongst the selected occupations — nursing assistants the slowest. On the whole, we project the supply of **Healthcare Support Occupations** to grow at a faster rate (2.4%) compared to the supply of **Healthcare Practitioners and Technical Occupations** (1.5%) over the next five years.

Health systems, policymakers, and educational institutions all have a role to play if we are to ensure a consistent pipeline of adequate talent into the healthcare industry. We echo the calls from governmental and occupational groups to ensure collaborative investment in driving occupational development, increasing educational capacity and reviewing compensation.^{3,7}

Average annual growth rate at national level

0.1% Nursing Assistants

1.2% Physicians

1.6% Registered Nurses

3.4% Home Health and Personal Care Aids

3.5% Nurse Practitioners





Labor cost: The final puzzle piece

It is no secret that American healthcare workers are under enormous strain. As detailed earlier, burnout and attrition rates have persisted since the COVID-19 pandemic and drive growing labor unrest, such as the twofold increase in nursing strikes since 2021.³⁷ In fact, the largest strike of healthcare workers in American history took place in October 2023 with demands for improved pay and more staffing³⁸. After negotiations, the newly ratified contract stipulates a 21% increase in wages by 2027.³⁹

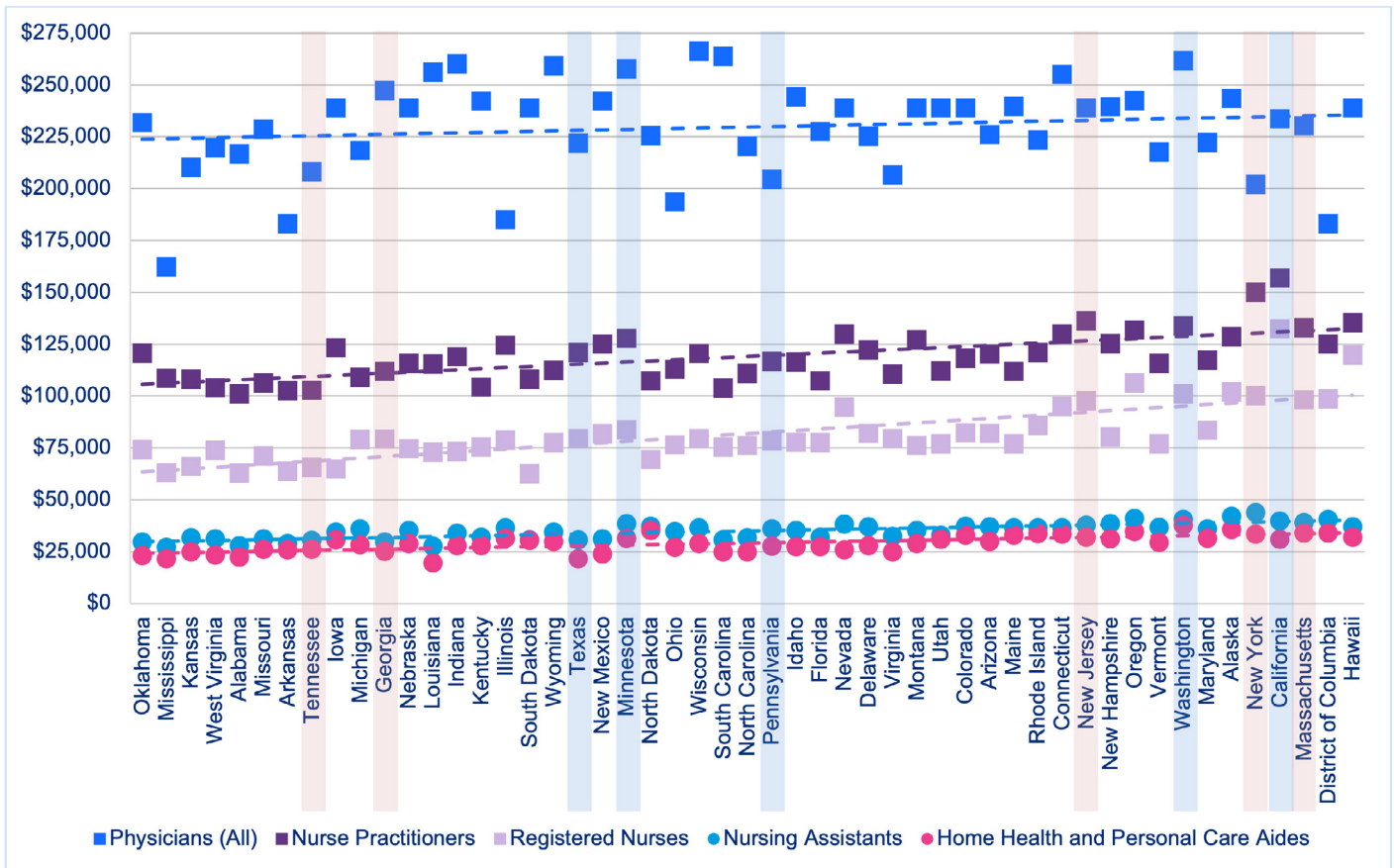
As our analyses have demonstrated, the competition over talent will intensify for key occupations in select geographies, at a time when healthcare systems are experiencing significant pressure on margins. For employers looking to understand the dynamics of their local labor markets, compensation is a crucial lever for attraction and retention of scarce talent. Estimating future wages is outside the scope of this report. However, we provide the most recent comparison of earnings by occupation and states to inform potential actions in the face of shortages.

In the chart below, 2022 median earnings for select occupations are presented for each state. States are ordered by lowest to highest cost of living⁴⁰ to better contextualize the differences in median earnings. The **Healthcare Practitioners and Technical Occupations** group jobs are represented as squares and the Healthcare Support Occupations group jobs are represented as circles. Further, we highlight the 5 states with the largest surpluses (in blue) and shortages (in red) of overall healthcare workers, respectively.

This data can help employers understand whether their compensation strategy for any given occupation is reasonable considering their projected shortage vs. demand in comparison to neighboring locations. For instance, Oklahoma is projected to experience a shortage of over 700 Nursing Assistants by 2028; neighboring Kansas is expected to see a surplus of over 600 NAs. Despite comparably low cost of living between the two states, the median 2022 earnings for NAs in Kansas were over \$2,000

more than their counterparts in Oklahoma. This means that employers in Oklahoma will need to be more competitive in their compensation to a) attenuate shortages and avoid losing talent to Kansas or b) to attract talent from Kansas to address shortages.

This data can additionally help us understand the comparative value placed on different occupations within a state. Specifically, NAs and HHAs earn significantly less than physicians, NPs, or RAs across the board, and this is understandable. However, they both constitute a large and important portion of the overall healthcare workforce. One of the most severe expected shortages is for the NA occupation and labor shortages tend to drive up wages. This is particularly the case in states with higher cost of living, since current variabilities in wage for NAs between states with lower vs. higher cost of living is extremely small. Healthcare systems will need to closely monitor wage growth for these “lower paid” occupations where the labor market will be tight.





What to do

Given the difficulties many healthcare systems are currently experiencing in filling key roles, and projections suggesting that these challenges are not going away in the foreseeable future, the successful healthcare systems will be those that are proactive in identifying and quantifying their labor risks and then in taking action to mitigate those risks. Healthcare systems are not just competing with other healthcare systems — they are competing with other industries, especially in filling their lower-wage/support positions which are critical to the overall delivery of quality patient care. Healthcare systems will need to “up their game” if they want to win this competition for talent.

So, what can be done?

1

Understand your specific supply/demand risks by occupation and department:

This involves projecting future internal demand for critical occupations due to attrition and expansion of services and evaluating demand against projected supply (current workforce headcount less attrition). Determine where the greatest risks of not filling vacant positions promptly lie, as prolonged vacancies can jeopardize the continued delivery of quality healthcare. Some occupations are more critical than others and will call for special attention and investment. It is important to understand the local labor market for these critical roles in tandem. Is there enough talent in the external labor market to fill your critical shortages? If not, then something needs to change, and it needs to change now.

2

Strengthen your supply pipeline:

Rethink sourcing and recruiting strategies and processes – these include expanding your talent catchment area, internal training and graduate pipeline. Healthcare organizations may need to pivot recruitment beyond typical boundaries to meet talent where it is. Whereas some states and metropolitan areas will have significant labor shortages, others will have surpluses, and it will be critical to know where those surpluses are. In parallel to recruitment efforts, consider building your own talent internally through training, development and certification programs. This won't happen overnight and therefore requires proactive decision making and a planned investment. Further, some healthcare systems have found success in partnering with local universities and trade schools for the training.

3

Retain the existing talent:

Improving retention is more important than ever. Staff shortages due to unplanned exits put more stress on already stressed staffing ratios, leading to an endless spiral of attrition. Given that attrition is often driven by burnout, healthcare systems need to ensure the well-being of existing employees. This can be done by fine-tuning the employee value proposition with respect to pay and benefits, schedule flexibility, career growth opportunities and job satisfaction. The landscape is rapidly changing and requires ongoing monitoring of the marketplace to remain competitive.

4

Lower demand:

Implement initiatives to reduce the number of people needed for hard to fill roles. Many healthcare systems are already leveraging technology (e.g., self-check-in) to reduce staffing pressures and time commitments⁴¹ and create a more positive experience for patients and employees. Job re-design is another effective way to lower staffing demand. By identifying tasks that can be automated, redistributed (to other roles), and eliminated, healthcare systems can mitigate or eliminate the inefficiencies and frustrations reported by healthcare workers and promote job satisfaction.

Successful implementation of these recommended actions to address healthcare worker shortages requires a new way of thinking about jobs, skills, the workforce and current HR processes. Leadership needs to lead the way with an inspiring vision that engages the entire workforce and clearly articulates the path forward. Healthcare systems need to be deliberate in their interventions, which will require a significant investment

of staff time and money. In addition, actions should be prioritized against a long-term vision — discrete actions to address “the problem of the day” will not lead to sustained success and will drain limited resources. The path to lasting success requires comprehensive analysis of data to inform decisions and prioritization of actions based on the highest return on investment.

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