

2023

Status

of the

Nebraska Healthcare Workforce



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ACKNOWLEDGMENTS

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Future of the Healthcare Workforce

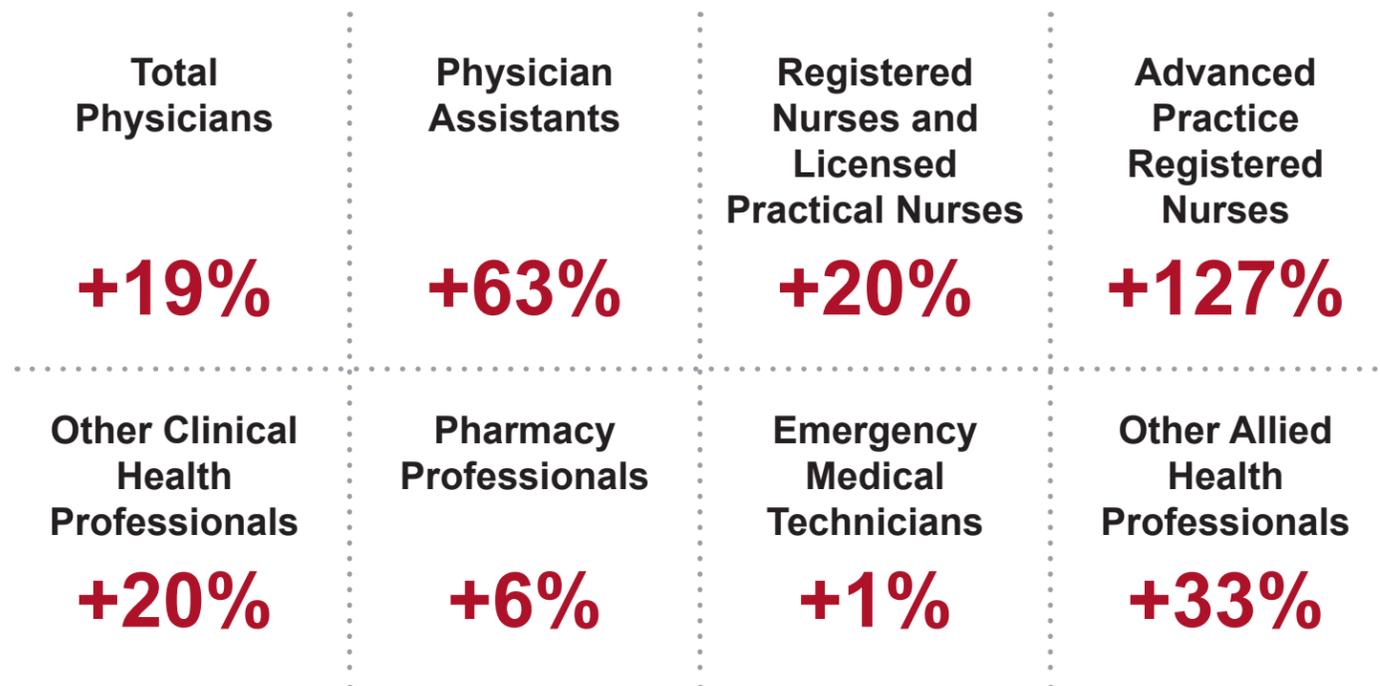
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EXECUTIVE SUMMARY

The healthcare workforce is critical to Nebraska as its members provide for the health and vitality of our population. Further, their efforts generate a substantial economic impact (see page 7).

According to projections outlined in this report, the future size of the healthcare workforce suggests steady growth for most professions — a positive finding for the state. However, challenges still exist.

Projected Growth by 2030



Projected Decline by 2030

Primary Care Physicians

↓ 9%

Dental Professionals

↓ 1%

While overall projections indicate a positive growth trajectory for the healthcare workforce, some professions are in decline and many regions of the state are already grappling with shortages of professionals. This report suggests that this trend will persist as the healthcare workforce becomes increasingly concentrated in metropolitan areas such as Omaha and Lincoln. Another challenge stems from the disparity between the demographic composition of Nebraska's healthcare workforce and that of the state's population. Currently, the healthcare workforce is predominantly, White, non-Latino/a.

Percent of Health Diagnosing and Treating Practitioners by Practice Area



While the current trajectory of the size of the healthcare workforce is positive, a range of factors can impact positive trends and exacerbate areas of concern. This report explores workforce opportunities, current earnings, changes over time in the likelihood of healthcare practitioners leaving Nebraska for other states, the coming retirement boom, and the number of professionals educated in the state who practice in the state. These data present both opportunities and challenges for growing the healthcare workforce.

4.5% of the Nebraska workforce is a health diagnosing and treating practitioner¹

Since 2010, median wages for health technologists and technicians² have increased **36%**

2.7% of health diagnosing and treating practitioners have moved to another state since 2016

About 20% of currently practicing physicians plan to retire within the next 10 years

86.8% of dentists who practice in Nebraska received their dental education in Nebraska

The summary section of this report offers policy and practice solutions to overcome challenges and build on opportunities to ensure a vibrant healthcare workforce that meets the needs of Nebraskans.

¹ Using job categories from the U.S. Census Bureau, Healthcare Diagnosing or Treating Practitioners category includes but is not limited to: physicians, chiropractors, dentists, optometrists, pharmacists, physician assistants, registered nurses, and therapists. See page 43.

² Using job categories from the U.S. Census Bureau, Health Technologists and Technicians category includes but is not limited to: clinical laboratory technologists and technicians, cardiovascular technologists and technicians, emergency medical technicians, paramedics, pharmacy technicians, psychiatric technicians, medical records specialists, orthotists and prosthetists, and hearing aid specialists. See page 43.

ECONOMIC IMPACT OF NEBRASKA'S HEALTHCARE SECTOR IN BRIEF

The healthcare workforce in Nebraska generates a substantial economic impact. Estimating the economic impact in detail was beyond the purview of this report; however, we believe some brief assessment provides important context for the report that follows.

In 2023, the healthcare and social assistance industry³ contributed \$9.7 billion to Nebraska's Gross Domestic Product (GDP), the fifth largest contributing industry to GDP, behind, for instance manufacturing (\$15 billion) and agriculture (\$12 billion). The scale of the contribution of this sector alone suggests an important direct economic benefit to Nebraska.

Nebraska's Gross Domestic Product by Industry

Sector	GDP
Manufacturing	\$15,049,597,656
Agriculture, Forestry, Fishing and Hunting	\$12,899,125,976
Finance and Insurance	\$12,777,477,539
Real Estate and Rental and Leasing	\$11,413,246,093
Healthcare and Social Assistance	\$9,741,822,265
Wholesale Trade	\$7,834,603,515
Transportation and Warehousing	\$7,002,178,222
Information	\$6,839,478,515
Professional, Scientific and Technical Services	\$6,525,839,843
Retail Trade	\$5,845,307,128
Management of Companies and Enterprises	\$3,914,113,037
Construction	\$3,908,113,037
Administration, Business Support and Waste Management Services	\$3,828,124,511
Utilities	\$2,699,549,560
Accommodation and Food Services	\$2,350,735,595
Other Services (except Public Administration)	\$2,347,127,441
Educational Services	\$796,933,654
Arts, Entertainment and Recreation	\$694,894,348
Mining	\$252,294,342

Additionally, we can examine the multiplier benefits of the healthcare sector using IMPLAN, an economic analysis software and database. A multiplier is the additional economic activity generated because of a change in the target industry. In Nebraska in 2022, for every dollar in revenue generated by the healthcare services sector an additional 75 cents is added to the state's economy through indirect and induced effects.⁴ The medical services jobs multiplier is 1.56. This means that for every job generated by the medical services sector, an additional 0.56 jobs are created through indirect and induced effects.

Taken together these estimates demonstrate the substantial economic contribution of the healthcare sector.

³ Sector here refers to the Healthcare and Social Assistance industry as categorized under NAICS 62. It includes offices of physicians, dentists, and other healthcare practitioners; outpatient care centers; hospitals; ambulatory healthcare services; counselors and social workers; family and welfare services; and natural disaster and emergency relief services. Statistics are from <https://www.ibisworld.com/united-states/economic-profiles/nebraska/#IndustryStatistics>, and the NAICS definition is from <https://www.naics.com/six-digit-naics/?v=2022&code=62> (accessed February 12, 2024).

⁴ An **indirect** effect measures the impact that additional demand from one sector has on its suppliers. For example, increased demand for medical services requires more medicines, medical materials, and medical equipment, having an impact throughout the supply chain. An **induced** effect measures the additional spending that comes from increased labor income. For example, increased demand for medical services may require hiring new doctors. These jobs generate more income in the state, which is then spent locally, for example at grocery stores. Together, these stimuli generate the overall multiplier effect.

DATA SOURCES AND METHODS

The first section of this report examines the 2023 status of various healthcare professionals, utilizing data from two sources. The primary data originates from the University of Nebraska Medical Center’s Health Professions Tracking Service (HPTS) for 2023. HPTS collects comprehensive information on healthcare providers through original survey data covering demographics, education, specialties, and practice locations. Additionally, HPTS provides access to licensing data sourced from the Nebraska Department of Health and Human Services.

To ensure accuracy in the number of current, active practitioners in Nebraska, the data underwent filtration based on practice location and practitioner status (e.g., full-time or visiting). Despite efforts to provide accurate estimates, it is acknowledged that these data have limitations. Survey data may be affected by response rates and changes in providers’ practice conditions over time, while license data may include non-active practitioners. Consequently, reported counts may vary slightly from actual numbers.

Throughout this report, specific counts of information are provided to facilitate trend extrapolation. Noteworthy considerations when reviewing practitioner counts include:

- The number of practitioners in a county is only reported when it exceeds 10.
- Counties with no specialists are indicated in white.
- Efforts were made to filter the data to include only practitioners actively practicing in Nebraska, although discrepancies may exist.
- The trend lines for healthcare practitioners are not on the same scale. Therefore, differences in practitioner counts should be interpreted within each field year-to-year, rather than compared across different fields.

Demographic characteristics of practitioners, reported throughout the first section, are self-reported and not all practitioners responded to these questions. As a result, there may be differences between reported and actual distributions. Often, specialists are grouped in the reporting of demographic data. For example, demographics are reported for all physicians, not for individual specialties. Age and gender are reported for all professions included in the report, while race and ethnicity data are reported only for professions in the HPTS data.

Practitioners’ practice locations, counties, hours, specialties, and education are documented by HPTS. This report reflects counties and hours based upon practitioners’ primary (first) Nebraska practice location. Practitioners may have additional satellite practice locations. This report assumes full-time status to be 40 hours per week, following the guidelines of the Fair Labor Standards Act.

An appendix at the end of this report contains additional data for some practitioners.

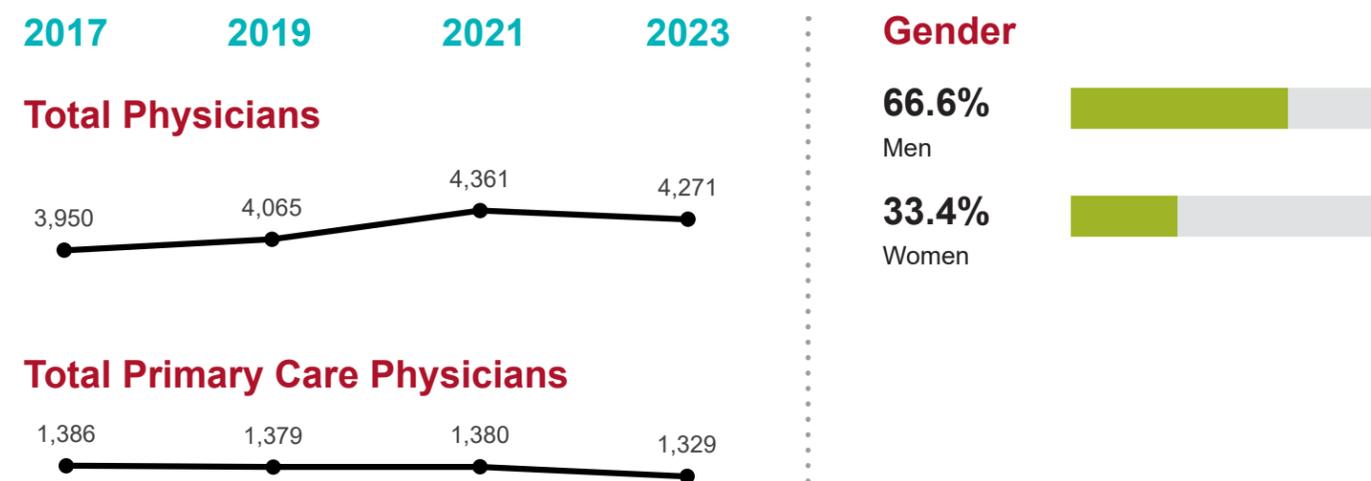
It is important to note that this report excludes information about non-licensed healthcare professionals, also known as healthcare support workers which includes, professionals such as home health aides, nursing assistants, pharmacy aides, and dental assistants.

PHYSICIANS

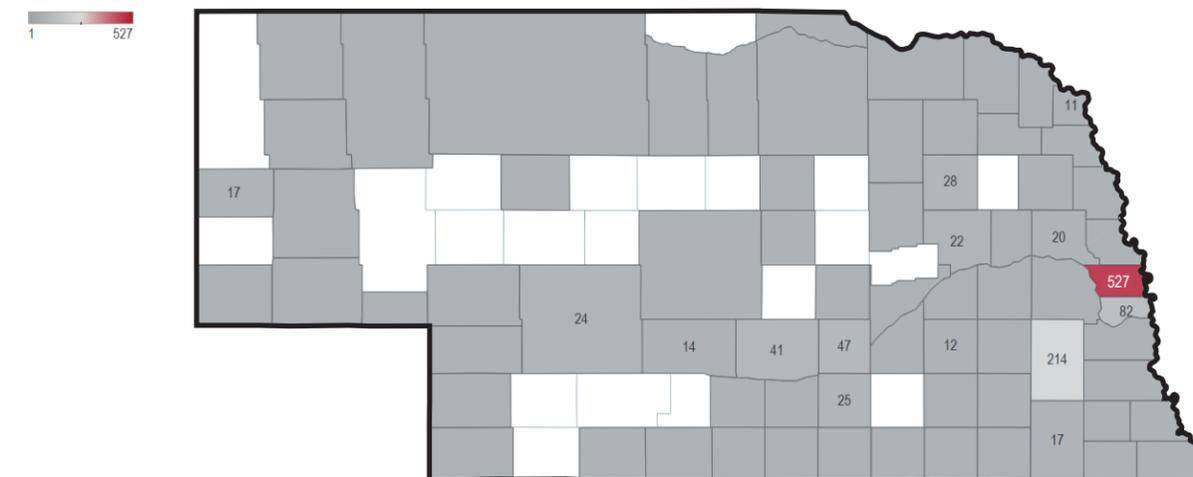
In Nebraska, there are currently 4,271 practicing physicians, a slight decrease from 2021 but an increase since 2017. Approximately 67% identify as men, and 33% as women, with most physicians identifying as White, non-Latino/a. On average, physicians work around 40 hours per week.

Among physicians we note there has been a consistent decline in the number of primary care physicians, exacerbating the existing state designated shortage for many primary care specialists in areas around the state.⁵ Primary care physicians, include family medicine, general practice, internal medicine, OB/GYN, pediatrics, and pediatric internal medicine. In 2023, 21 counties lacked a primary care physician, many more lack a primary care specialist such as an OB/GYN or pediatrician. Most primary care physicians work about 40 hours a week.

Number of Physicians



Primary Care Physicians by County | 2023



⁵ Nebraska State-Designated Shortage Area Guidelines: [https://dhhs.ne.gov/RH%20Documents/Nebraska%20State-Designated%20Shortage%20Area%20Guidelines%20\(04-19\).pdf](https://dhhs.ne.gov/RH%20Documents/Nebraska%20State-Designated%20Shortage%20Area%20Guidelines%20(04-19).pdf)

2017 2019 2021 2023

Family Medicine/General Practice



Internal Medicine



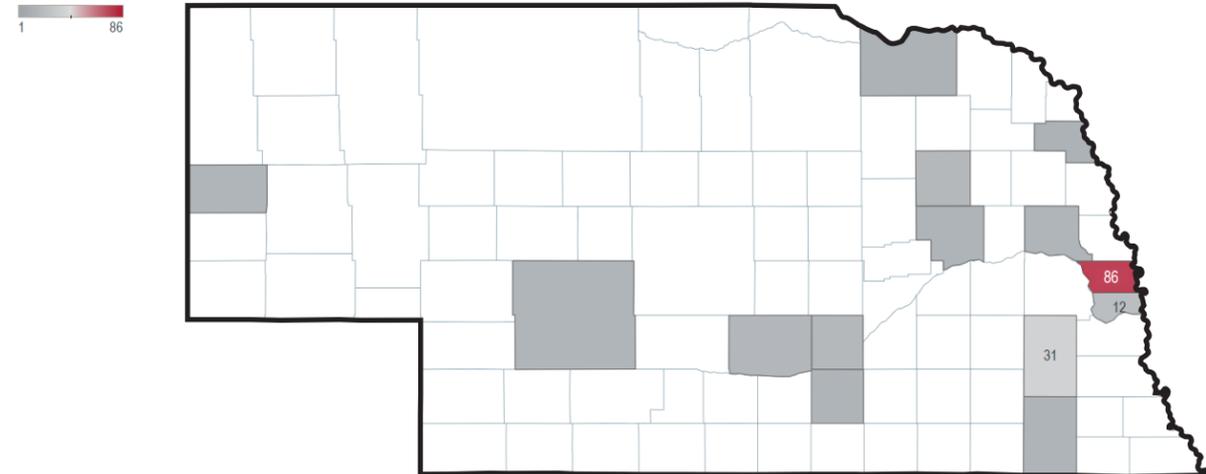
Internal Medicine/Pediatrics



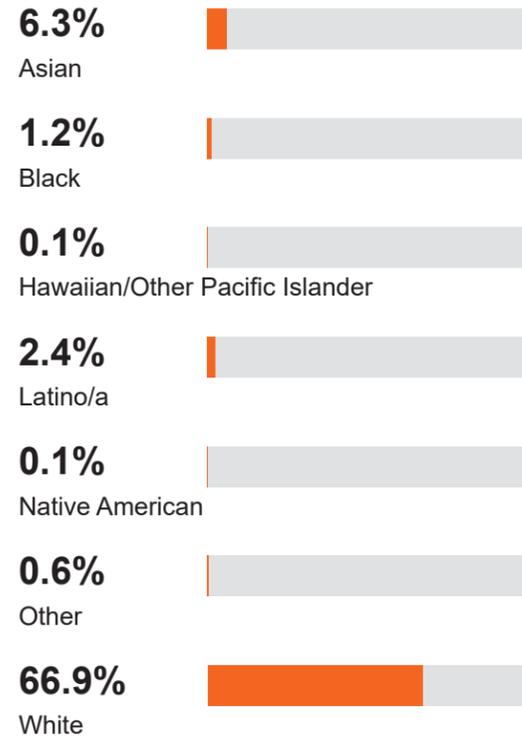
Obstetrics and Gynecology



Number of OB/GYN Physicians by County | 2023



Race and Ethnicity



Note: Over 20% did not respond to race and/or ethnicity questions.

2017 2019 2021 2023

Pediatrics



General Surgery

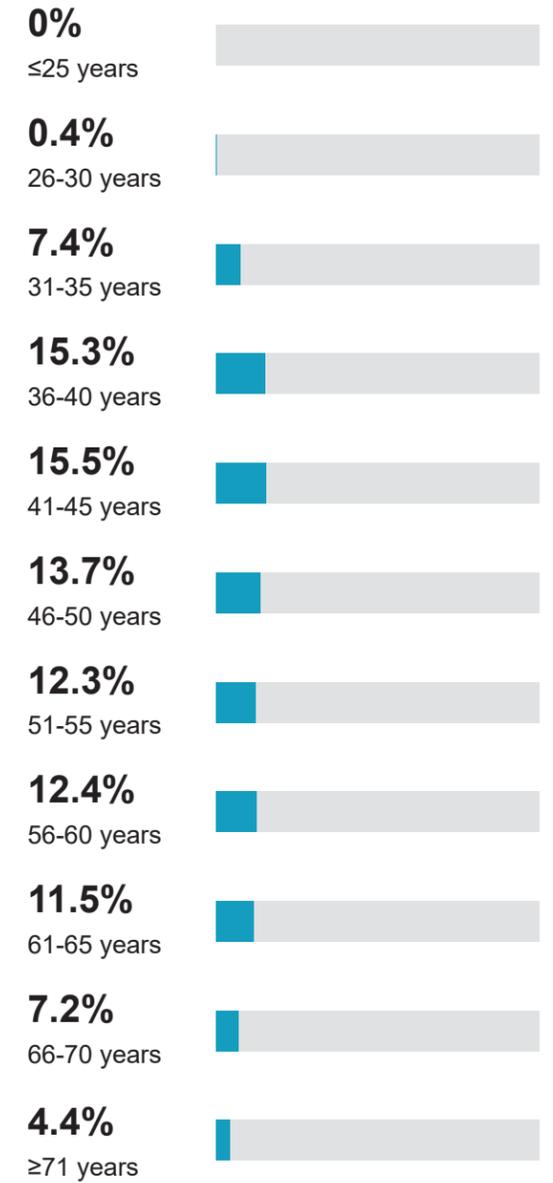


Other Specialties

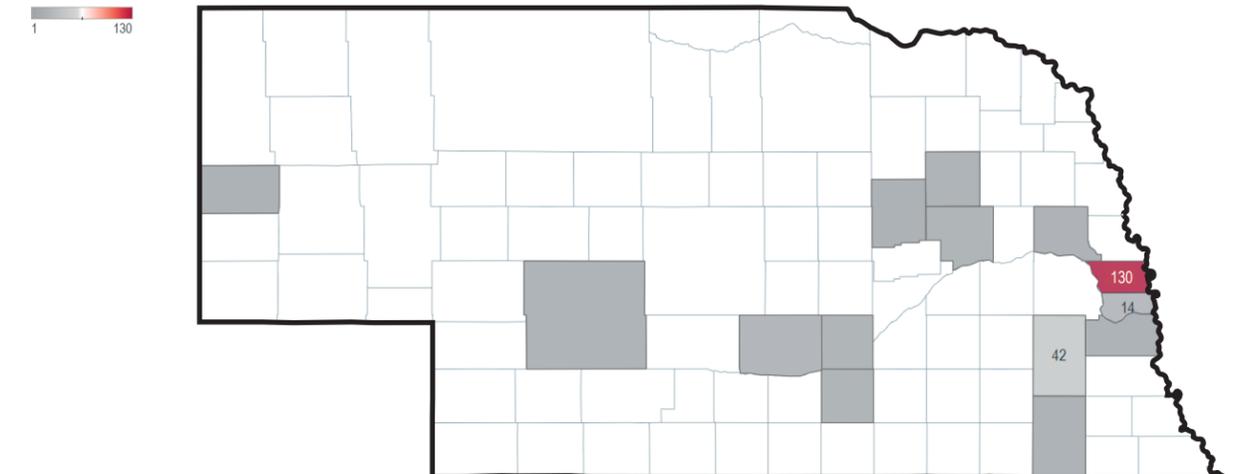


*The 2023 reported number includes general surgery and pediatric surgery.

Age



Number of Pediatric Physicians by County | 2023



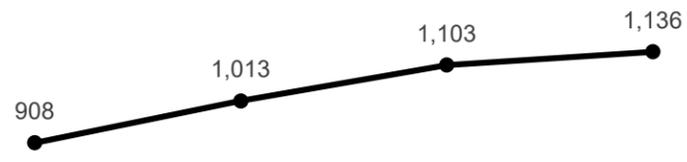
PHYSICIAN ASSISTANTS

In 2023, the number of physician assistants (PAs) in Nebraska increased, maintaining an upward trend since 2017. PAs are active in 67 out of 93 counties in the state. Most PAs are under the age of 50 and identify as women, with over 75% identifying as White, non-Latino/a. Generally, PAs work around 40 hours per week across most counties.

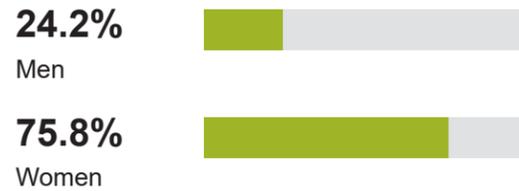
Number of Physician Assistants

2017 2019 2021 2023

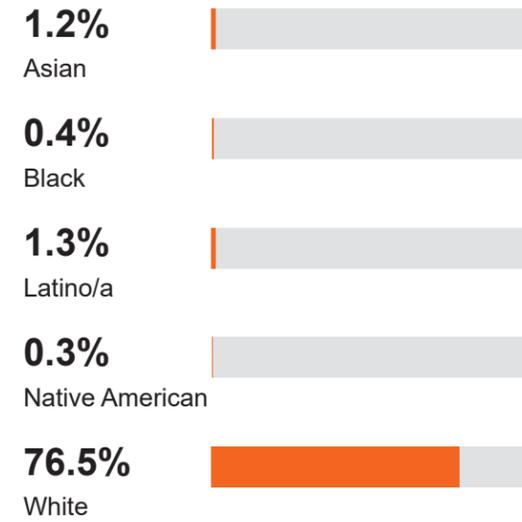
Physician Assistants



Gender

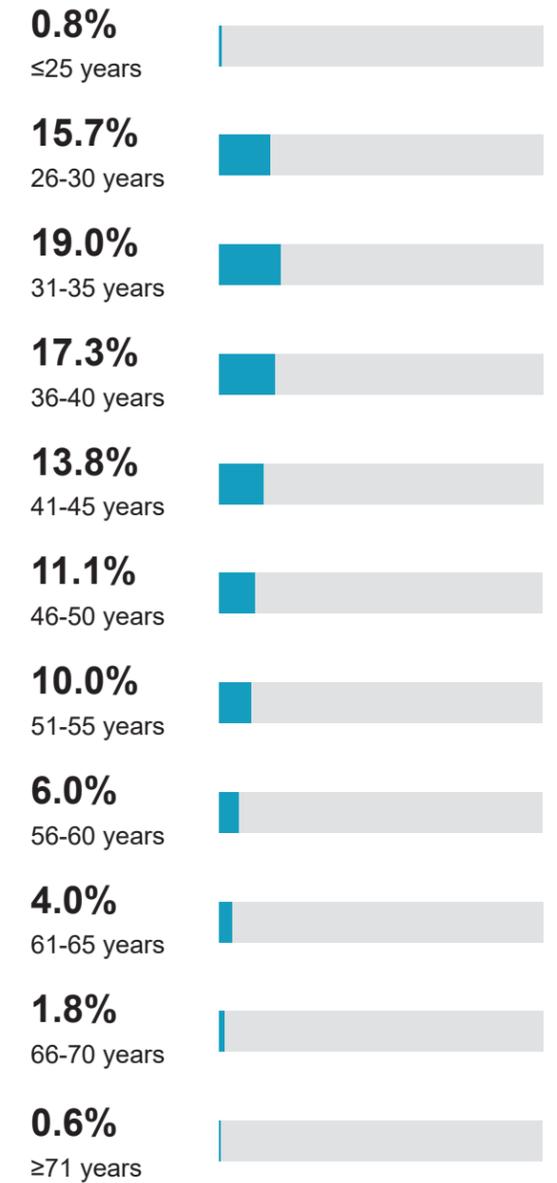


Race and Ethnicity

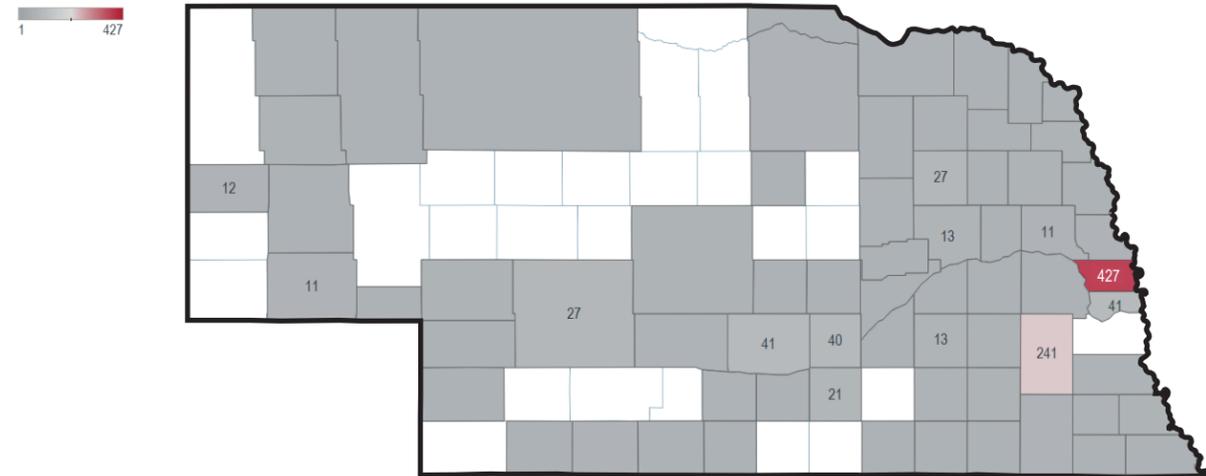


Note: Nearly 20% did not respond to race and/or ethnicity questions.

Age



Number of Physician Assistants by County | 2023



NURSE PROFESSIONALS

In 2023, Nebraska saw a decline in both registered nurses (RNs) and licensed practical nurses (LPNs), reversing the upward trend in RNs observed from 2017 to 2021. This decline compounds the existing nursing shortage in the state.⁶ Despite these challenges, every county in Nebraska has active RNs and all but one county has an active LPN. Most RNs and LPNs are aged 50 and under, with women comprising 93% of the workforce.

Number of Registered Nurses and Licensed Practical Nurses

2017 2019 2021 2023

Total Registered Nurse (RNs) and Licensed Practical Nurses (LPNs)



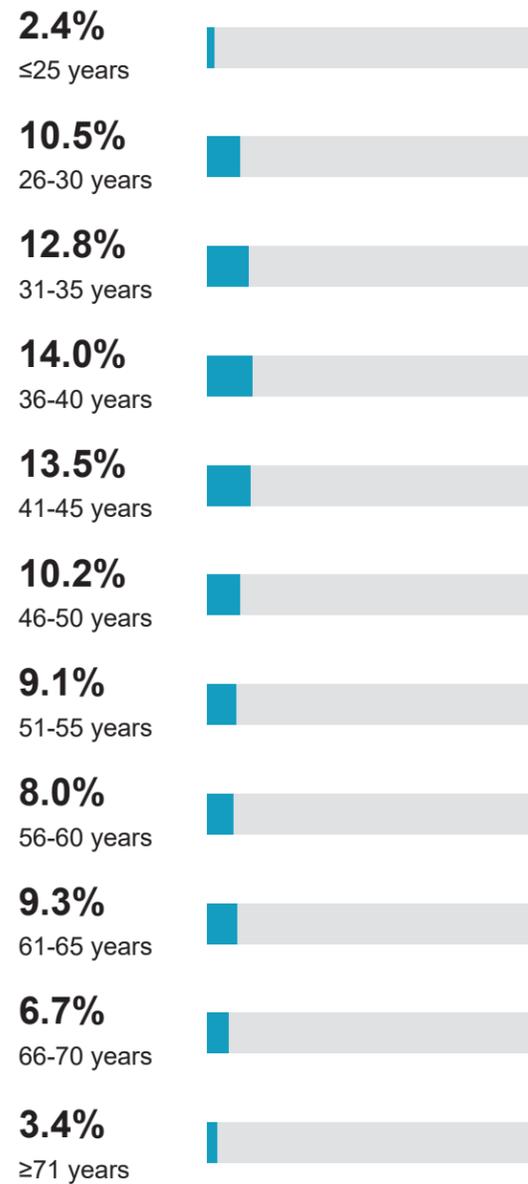
Registered Nurses (RNs)



Licensed Practical Nurses (LPNs)



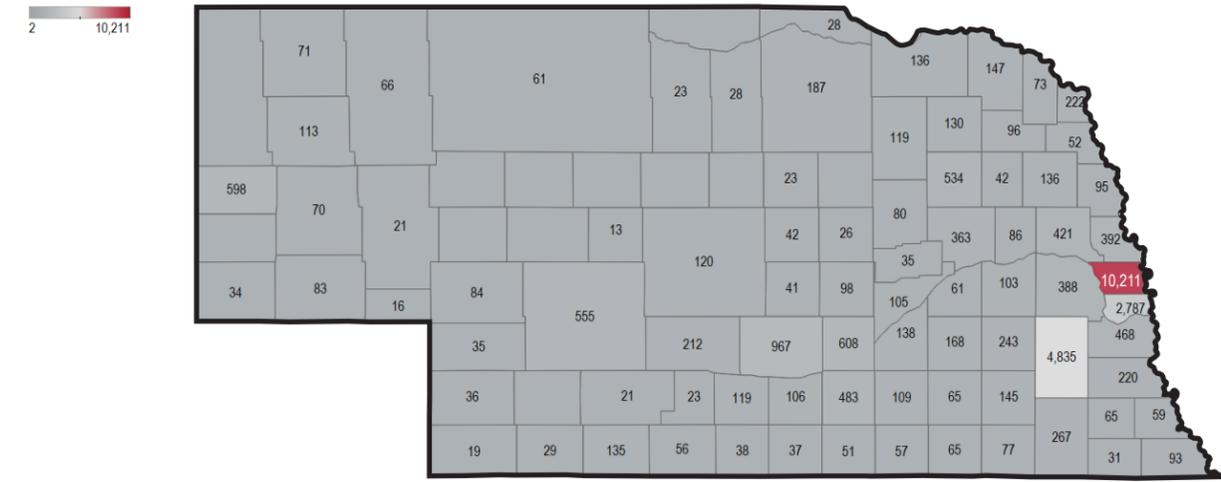
Age



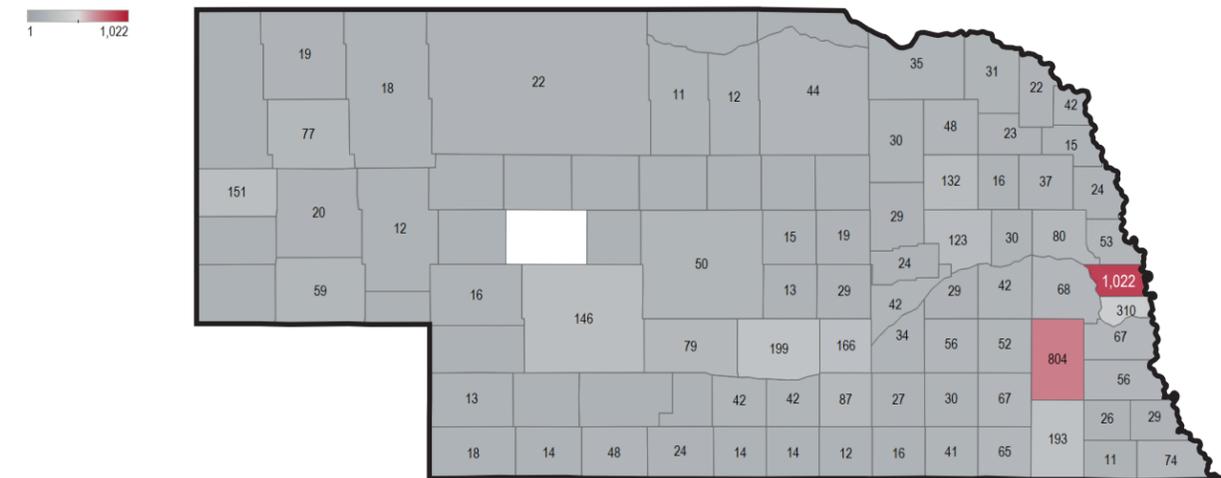
Gender



Number of Registered Nurses by County | 2023



Number of Licensed Practical Nurses by County | 2023



⁶ Nebraska Health Care Workforce Collaborative https://www.nebraskahospitals.org/file_download/inline/59fe69a8-0508-4580-b2fc-a8f-e8c09d0d8 (visited February 20, 2024).

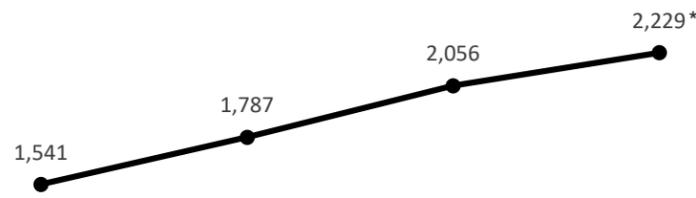
ADVANCED PRACTICE REGISTERED NURSES

In 2023, the total number of advanced practice registered nurses (APRNs) in Nebraska increased, with growth driven primarily by nurse practitioners (NPs) and certified registered nurse anesthetists (CRNAs). There was a decrease in the numbers of certified nurse midwives (CNMs) and clinical nurse specialists (CNSs) compared to 2021. The majority of APRNs are women and are aged 50 and under. All but 24 counties have an APRN. Additionally, close to 70% of APRNs identify as White, non-Latino/a. Most APRNs work around 40 hours per week.

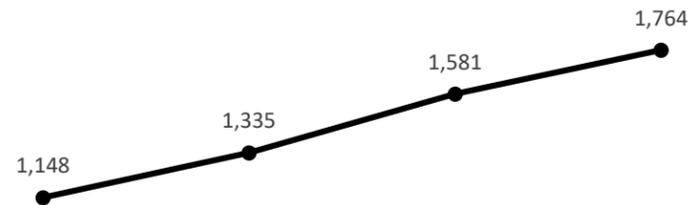
Number of Advanced Practice Registered Nurses

2017 2019 2021 2023

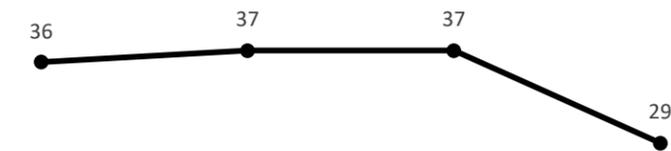
Total Advanced Practice Registered Nurses (APRNs)



Nurse Practitioner (NPs)

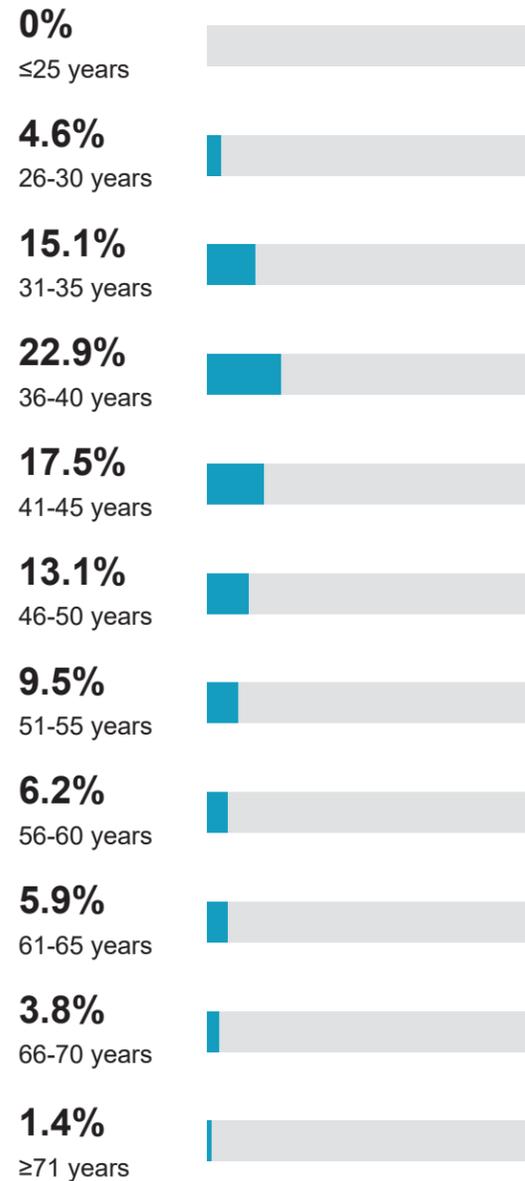


Certified Nurse Midwives (CNMs)



*This count does not include 12 APRNs that are dual licensed.

Age



2017 2019 2021 2023

Clinical Nurse Specialists (CNSs)



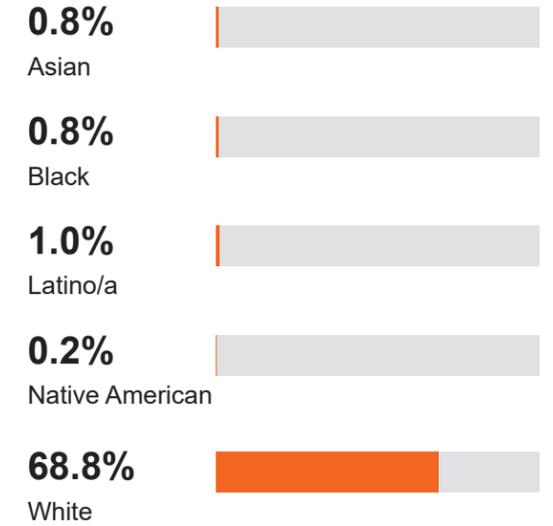
Certified Registered Nurse Anesthetists (CRNAs)



Gender

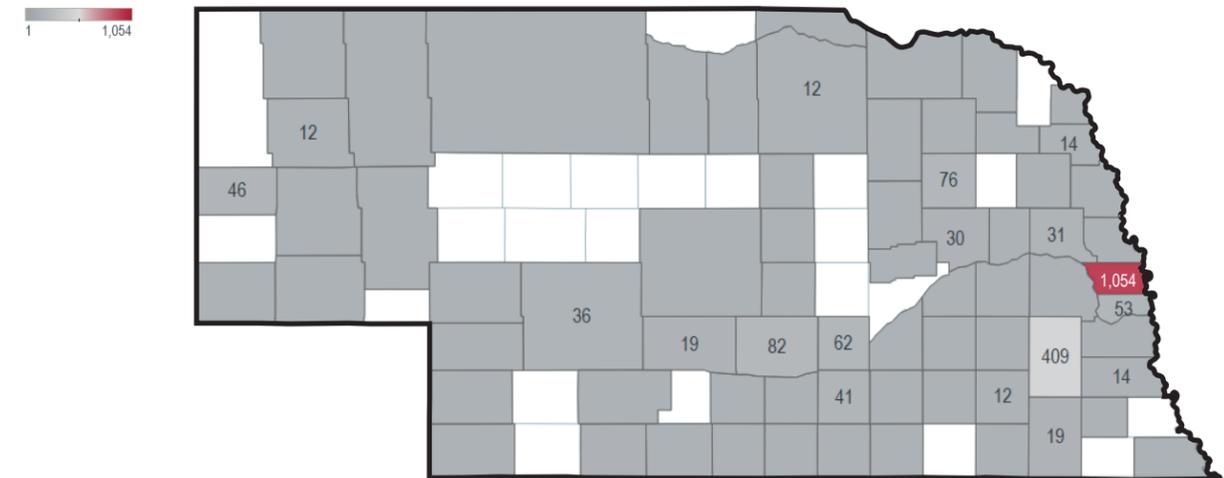


Race and Ethnicity



Note: Over 28% did not respond to race and/or ethnicity questions.

Number of Advanced Practice Registered Nurses by County | 2023



DENTAL HEALTH PROFESSIONALS

In 2023, Nebraska witnessed a decrease in the total number of dental health professionals. Dental health professionals include general practice dentists (DDSs), dental specialists, dual-licensed MD/DDSs, and dental hygienists. In 2023, 24 counties in Nebraska lacked access to a dentist. A slight majority of dentists in Nebraska are aged 50 and under, men constitute the majority at 69%, and over 80% of dentists identify as White, non-Latino/a. Most dentists across the state work around or over 40 hours per week. Most dental hygienists are aged 50 and under and identify as women.

Number of Dental Health Professionals

2017 2019 2021 2023

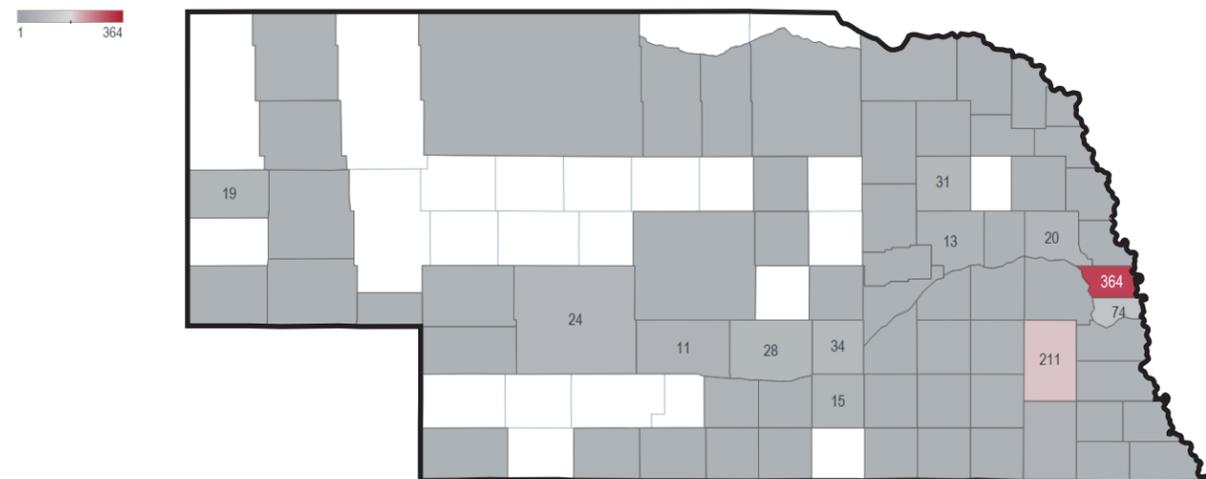
Total Dental Professionals



General Practice Dentists and Dental Specialists



Number of Dentists (DDSs) by County | 2023

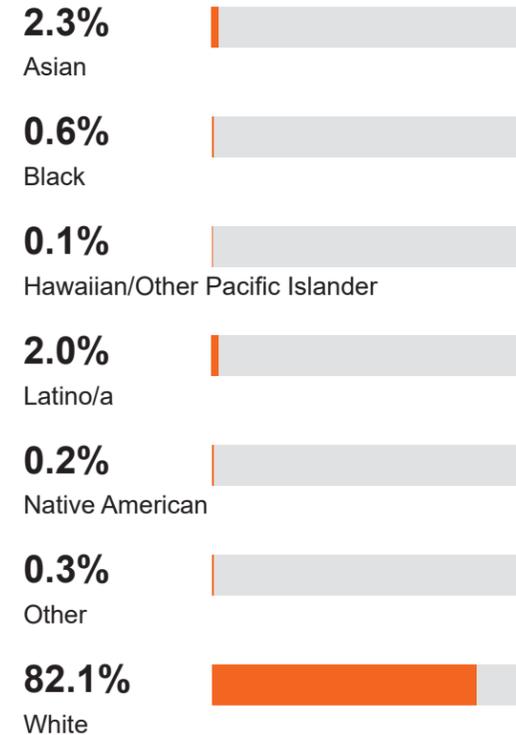


*The 2023 count excludes residents and house officers, unlike previous years' counts.

Gender

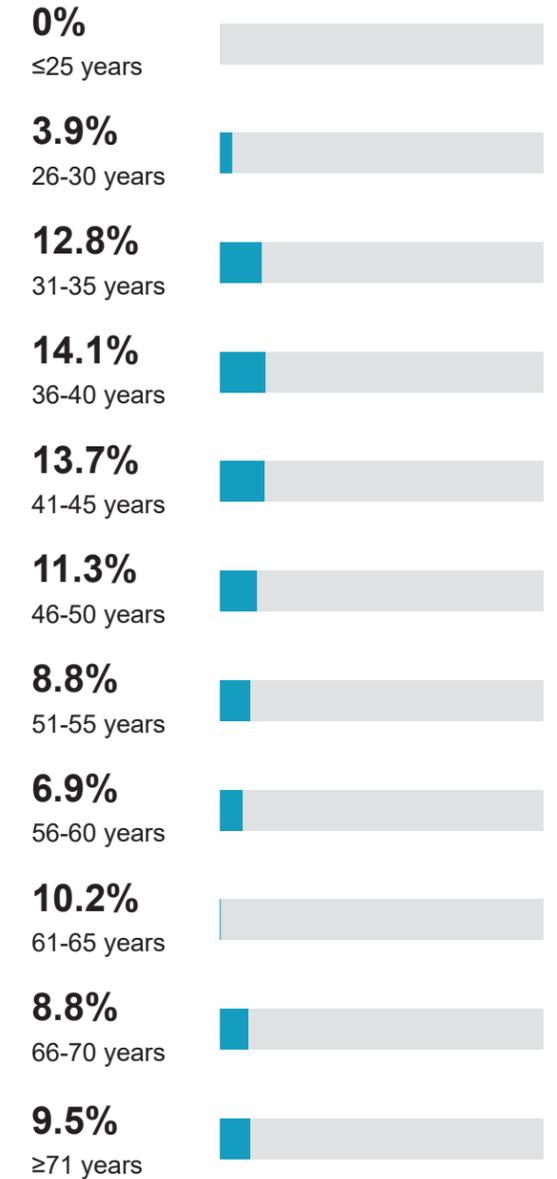


Race and Ethnicity



Note: Over 10% did not respond to race and/or ethnicity questions.

Age



OTHER CLINICAL HEALTH PROFESSIONALS

In 2023, Nebraska saw growth in the number of chiropractors, continuing a steady trend since 2017. Similarly, the number of podiatrists experienced a slight increase, returning to levels like those in 2017 and 2019. Additionally, there was growth in the number of optometrists. Most chiropractors and optometrists are aged 50 and under, while a small majority of podiatrists fall into this age group at 51%. Most chiropractors and podiatrists identify as men, whereas the gender distribution among optometrists is close to equal, with 54% men and 46% women.

Number and Type of Other Clinical Health Professionals

2017 2019 2021 2023

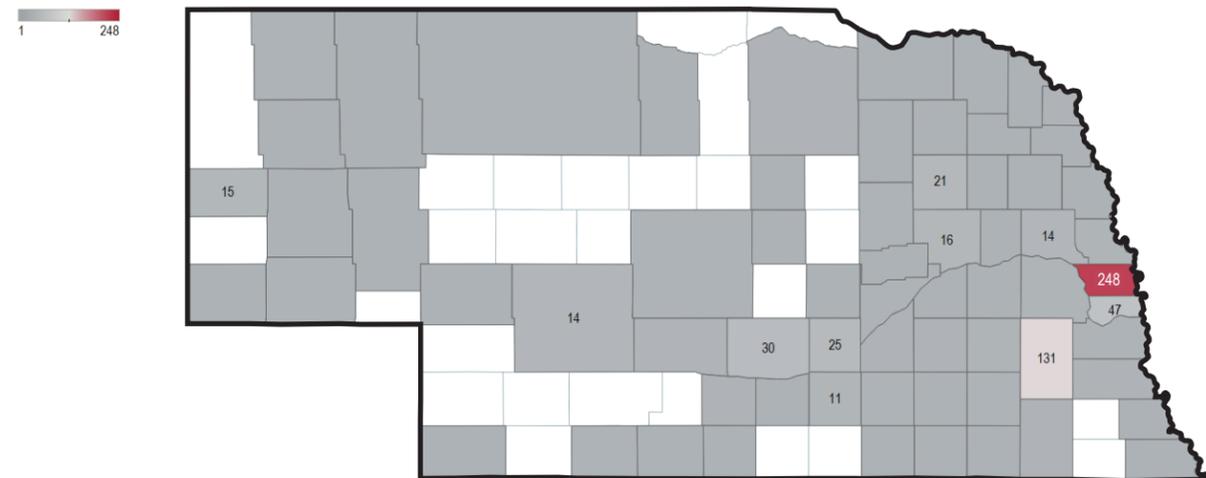
Total Other Clinical Health Professionals



Chiropractors



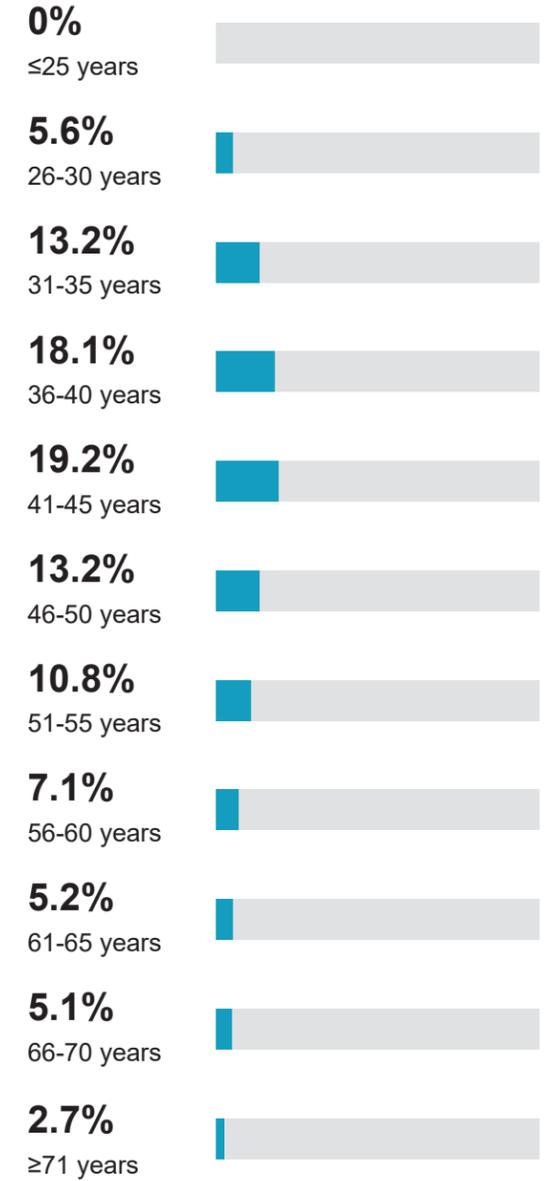
Number of Chiropractors by County | 2023



Gender

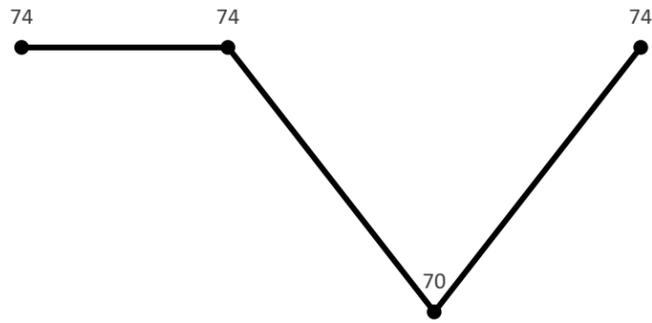


Age

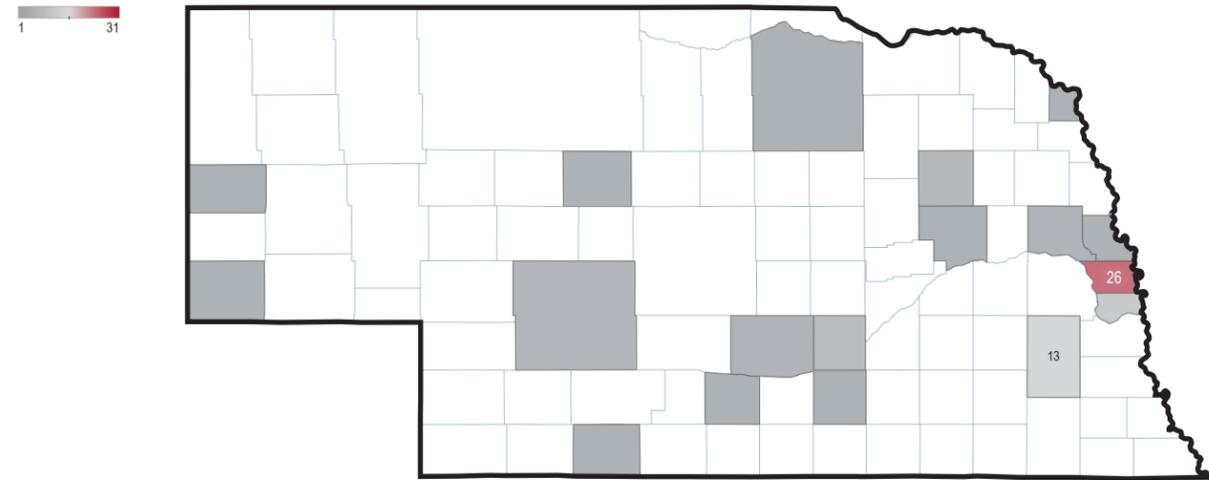


2017 2019 2021 2023

Podiatrists



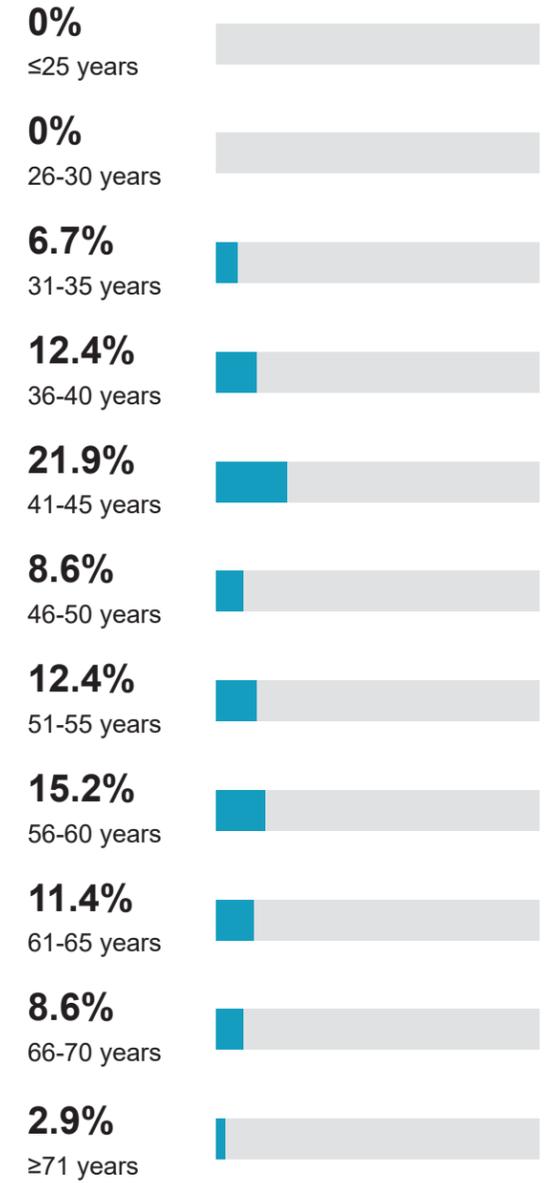
Number of Podiatrists by County | 2023



Gender

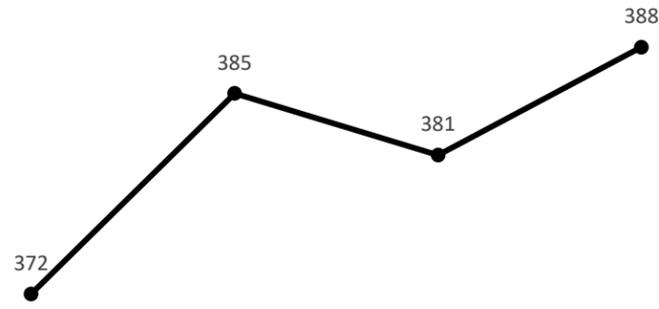


Age

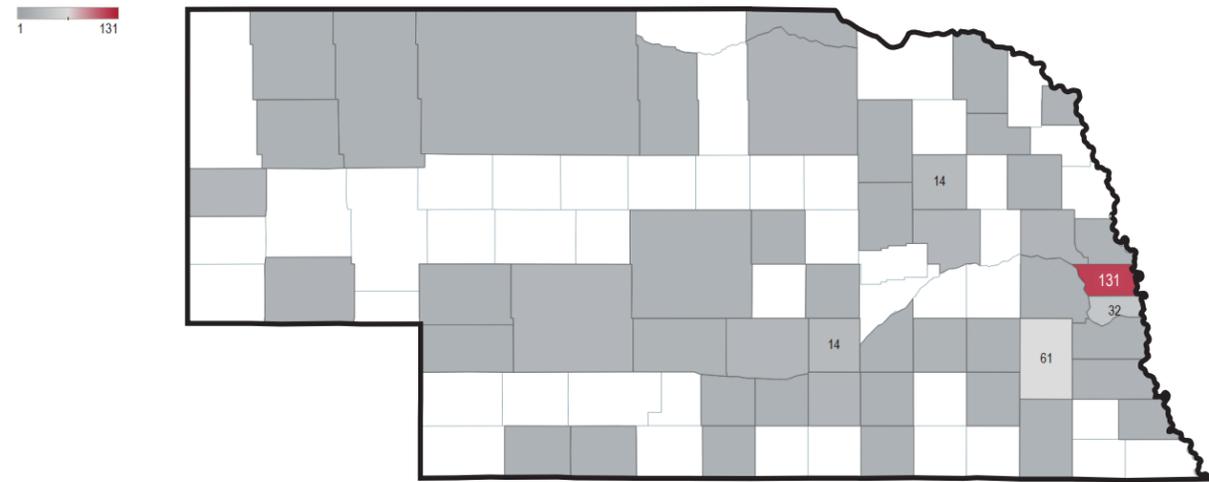


2017 2019 2021 2023

Optometrists



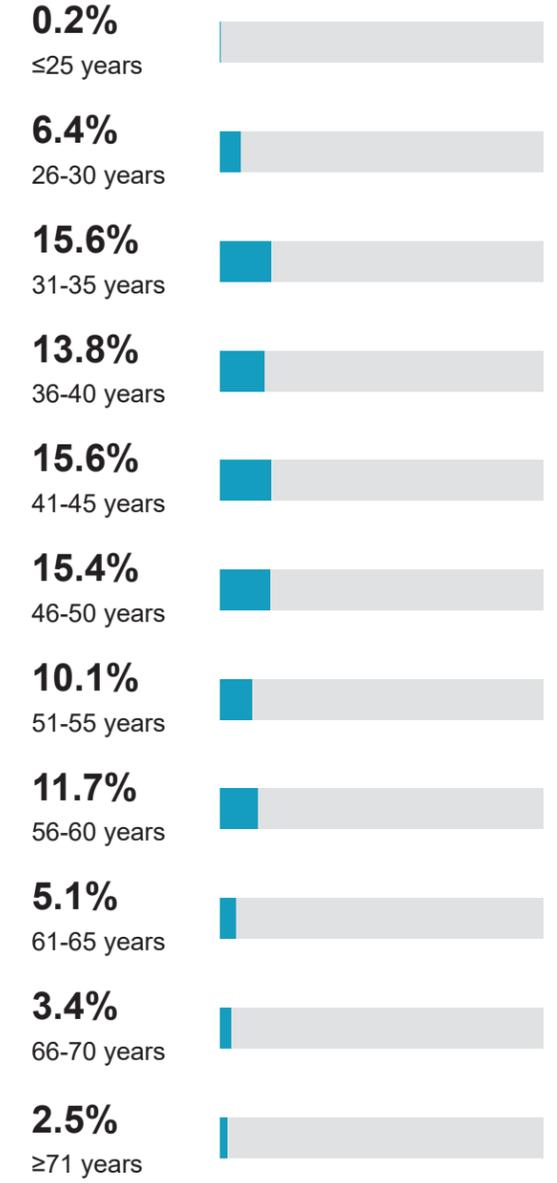
Number of Optometrists by County | 2023



Gender



Age



EMERGENCY MEDICAL TECHNICIANS

Emergency medical technicians (EMTs) include basic, intermediate, and advanced EMTs, emergency medical service responders, and paramedics. In 2023, the total number of EMTs in Nebraska experienced a slight decline from 2021. EMTs are present in every county of Nebraska. The majority of EMTs are aged 50 and under and identify as men. As of 2021, just over a quarter of emergency medical services professionals in Nebraska were volunteers. Attrition due to retirement or discontinued volunteerism could potentially impact the future workforce in this sector.⁸

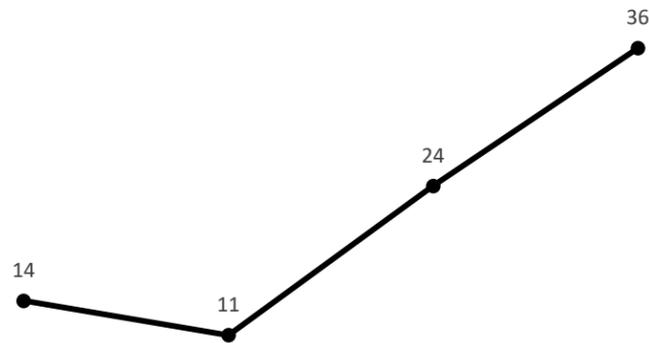
Number and Type of Emergency Medical Technicians

2017 2019 2021 2023

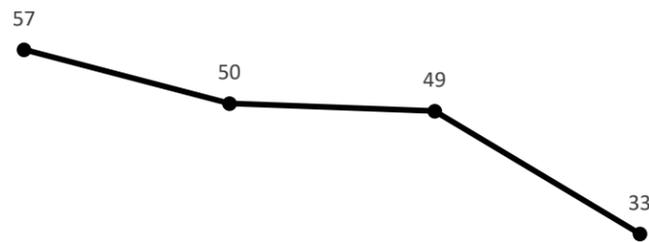
Total Emergency Medical Technicians (EMTs)



Advanced EMTs



Intermediate EMTs



Gender

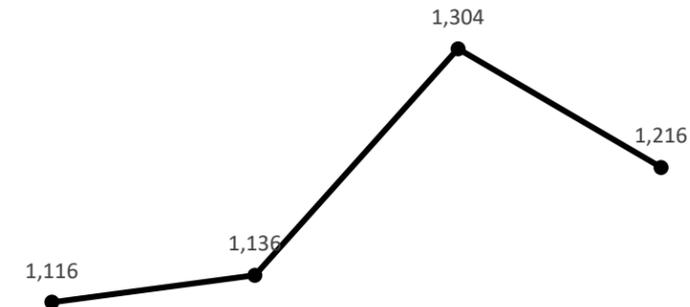


2017 2019 2021 2023

Basic EMTs



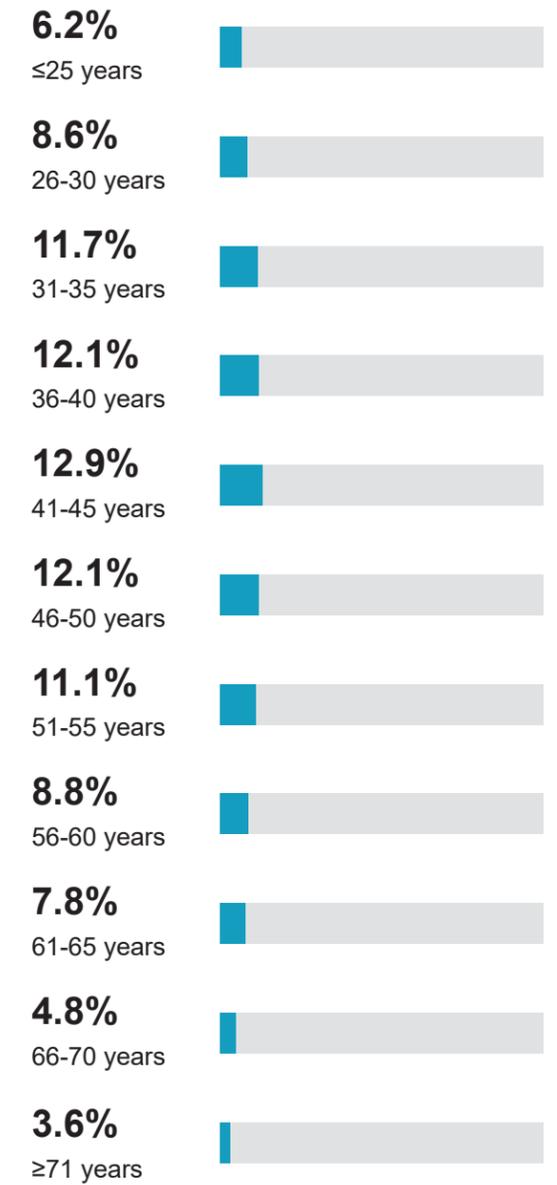
Paramedics



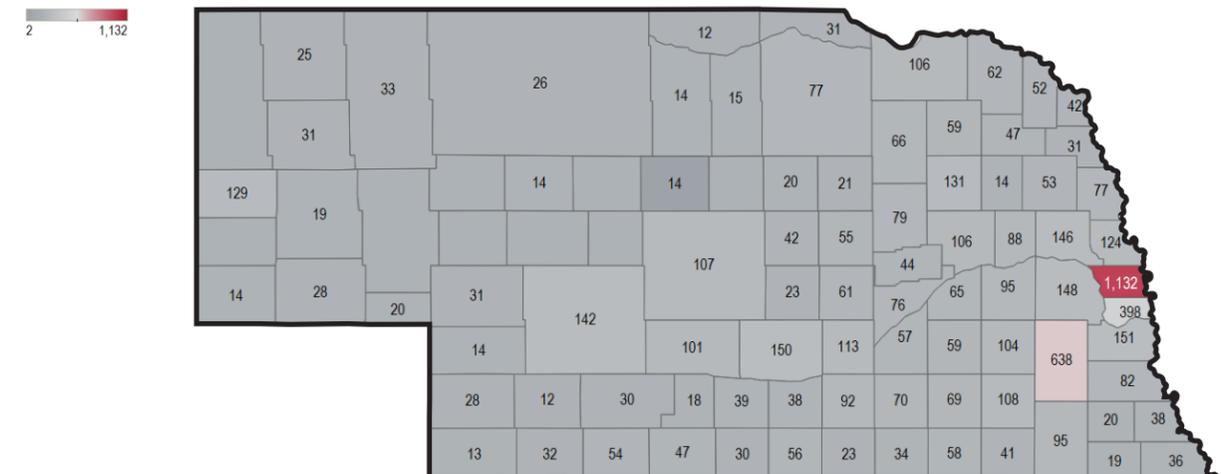
Emergency Medical Responders



Age



Number of Emergency Medical Technicians by County | 2023



⁸ Cash, R. E., Rivard, M. K., Chrzan, K., Mercer, C. B., Camargo Jr, C. A., & Panchal, A. R. (2021). Comparison of volunteer and paid EMS professionals in the United States. *Prehospital Emergency Care*, 25(2), 205-212.

OTHER ALLIED HEALTH PROFESSIONALS

In 2023, Nebraska saw an increase in the total number of other allied health professionals, encompassing physical therapists, occupational therapists, licensed medical nutrition therapists, respiratory care practitioners, speech-language pathologists, audiologists, and medical radiographers. Most of these professionals are aged 50 and under and identify as women.

Other Allied Health Professions

2017 2019 2021 2023

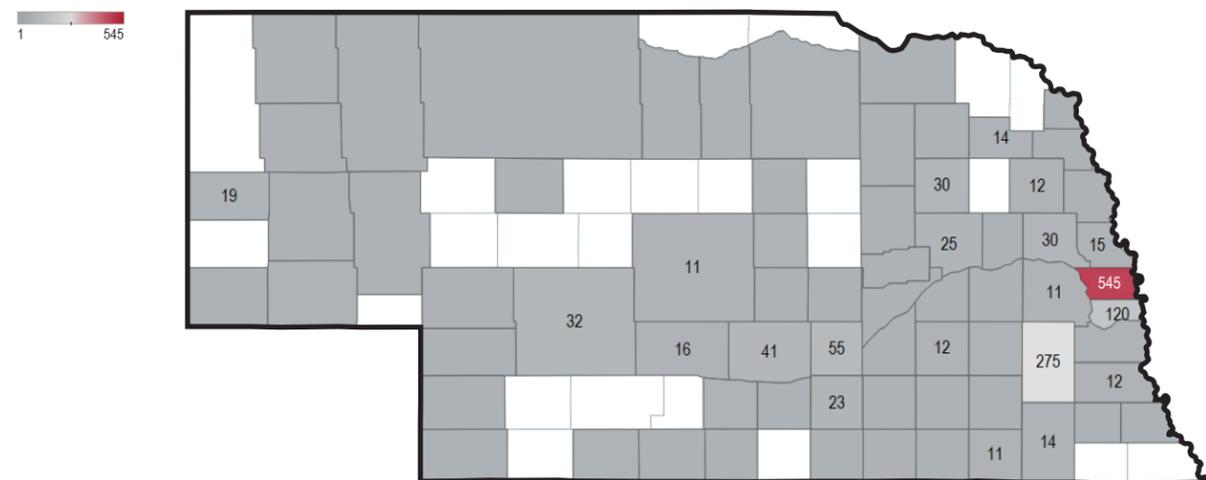
Total Other Allied Health Professionals



Physical Therapists



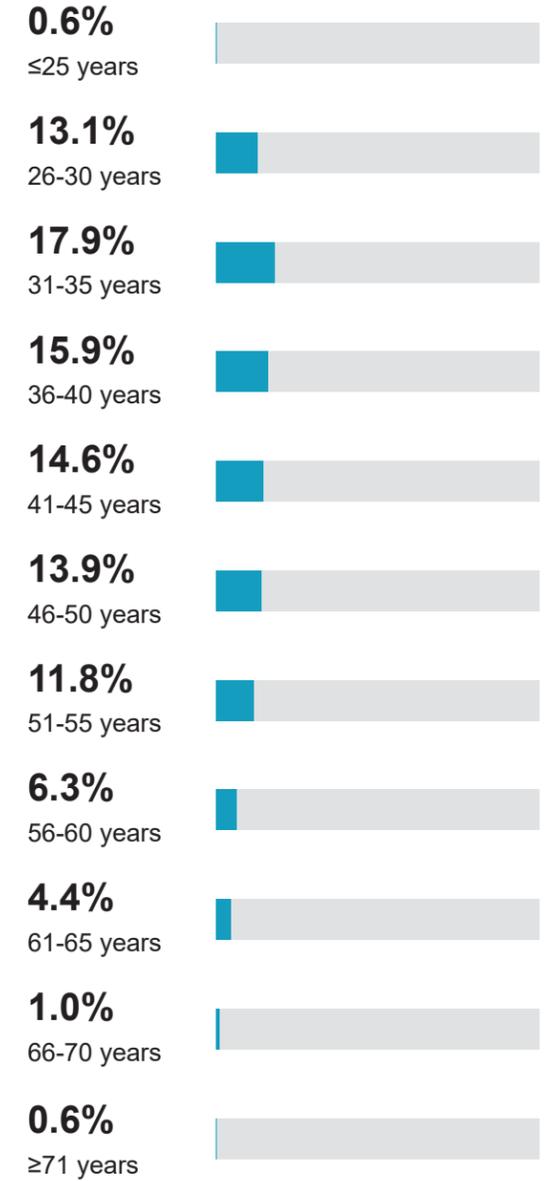
Number of Physical Therapists by County | 2023



Gender



Age

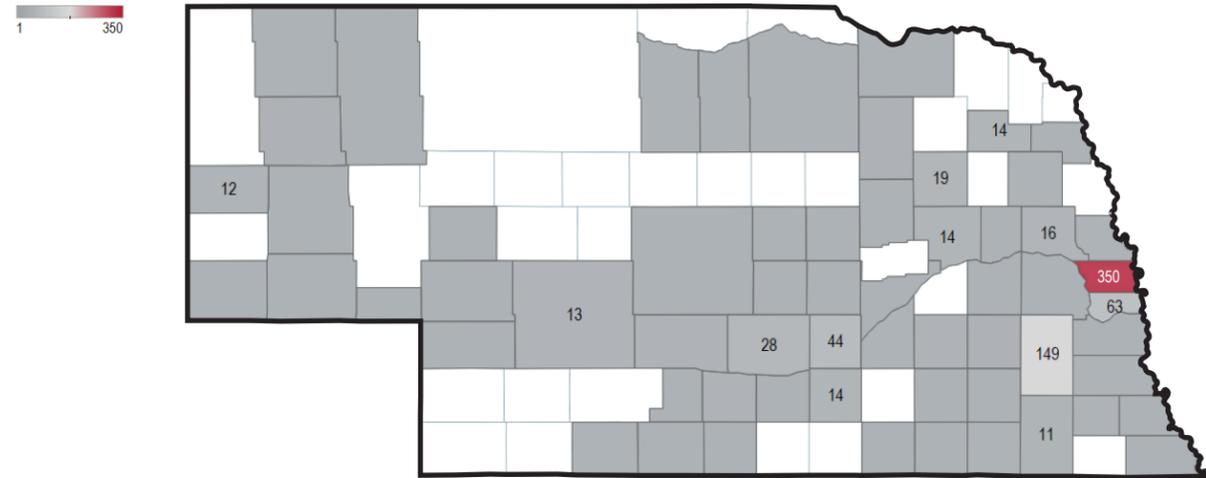


2017 2019 2021 2023

Occupational Therapists



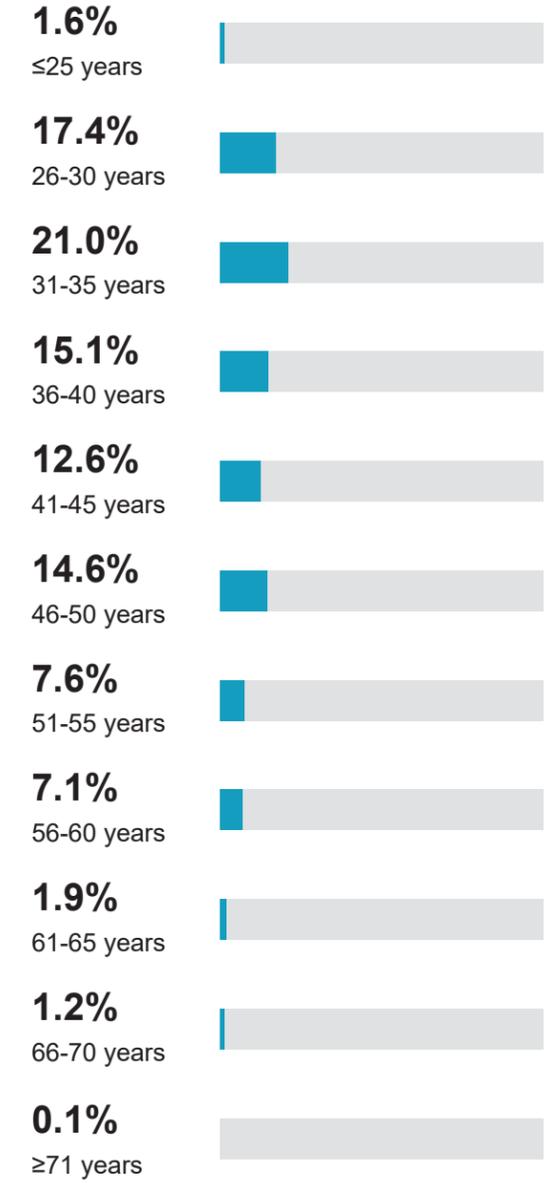
Number of Occupational Therapists by County | 2023



Gender



Age



Future of the **Healthcare Workforce**



DATA SOURCES AND METHODS

The next section of this report explores the outlook for Nebraska's healthcare workforce, leveraging historical data and current workforce attributes such as opportunities, earnings, retirement, migration, and education.

To project the number of healthcare practitioners through 2030, we utilized detailed data on various professions. First we calculated the annual percentage change from 2017 to 2023 and averaged these percentages to derive an estimated change applicable to each year. This process generated forecasts for each subsequent year. It's important to note that our projections may differ from others due to the use of different methodologies. Additionally, our results solely offer a projection of the number of practitioners. We do not estimate the required workforce to meet demand and ensure the well-being of Nebraskans. It is worth noting that several reports, some of which we will reference, focus on examining gaps in services rather than solely the number of professionals, as we do.

For instance, the Nebraska Nursing Workforce Shortage¹ report by the Nebraska Hospital Association predicts a shortage of 5,435 nurses by 2025, attributed to factors such as an aging population and insufficient resources for education and training.

In addition to forecasting the number of professionals, we wanted to delve deeper into the potential sources of change in the demand and availability of healthcare professionals. To explore attributes that could influence the future of the healthcare workforce, this section also incorporates data from the United States Census Bureau's American Community Survey for 2022, five-year estimates and microdata provided by IPUMS² for 2010, 2012, 2014, 2016, 2018, 2020, and 2021. From this data, two occupational groups of interest were identified and used in the analysis, health diagnosing and treating practitioners, and health technologists and technicians, as defined on the next page.



Healthcare Professional Classification from the U.S. Census Bureau

Health Diagnosing or Treating Practitioners	Health Technologists and Technicians
<ul style="list-style-type: none"> • Physicians • Chiropractors • Dentists • Dietitians and nutritionists • Optometrists • Pharmacists • Surgeons • Physician assistants • Podiatrists • Audiologists • Occupational therapists • Radiation therapists • Recreational therapists • Respiratory therapists • Speech-language pathologists • Therapists, all other • Veterinarians • Registered nurses • Nurse anesthetists • Nurse practitioners • Acupuncturists • Health diagnosing or treating practitioners, all other 	<ul style="list-style-type: none"> • Clinical laboratory technologists and technicians • Dental hygienists • Cardiovascular technologists and technicians • Diagnostic medical sonographers • Radiologic technologists and technicians • Magnetic resonance imaging technologists • Nuclear medicine technologists and medical dosimetrists • Emergency medical technicians • Paramedics • Pharmacy technicians • Psychiatric technicians • Surgical technologists • Veterinary technologists and technicians • Dietetic technicians and ophthalmic medical technicians • Licensed practical and licensed vocational nurses • Medical records specialists • Opticians, dispensing • Miscellaneous health technologists and technicians

¹ Nebraska Nursing Workforce Shortage https://www.nebraskahospitals.org/file_download/inline/59fe69a8-0508-4580-b2fc-a8f-e8c09d0d8.

² IPUMS, formerly known as "Integrated Public Use Microdata Series," provides microdata from the U.S. American Community Surveys. It may be accessed at www.ipums.org.

FORECASTING THE HEALTHCARE WORKFORCE TO 2030

The results of the forecasting efforts are predominantly positive for the healthcare workforce, with most areas expected to experience growth, except for two notable exceptions. By 2030, the number of primary care physicians is anticipated to decrease by 9%, and dental health professionals are expected to decline by 1%. Other professions exhibit varying growth rates, with emergency medical technicians (EMTs) forecasted to see a modest 1% increase, while advanced practice registered nurses (APRNs) could experience substantial 127% growth. Again, it is important to note that these figures represent projections of practitioner numbers only and do not estimate the required workforce to meet demand and ensure Nebraskans' well-being. Thus, despite an increase in professionals, critical shortages may persist in meeting healthcare needs. Below are the forecasted changes in growth rates for selected healthcare professions.

2017 2019 2021 2023 2024 2026 2028 2030

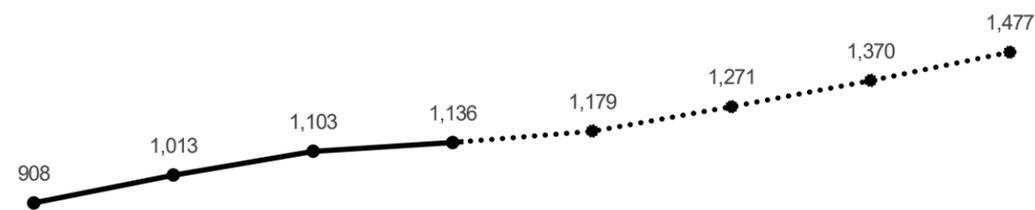
Primary Care Physicians -9%



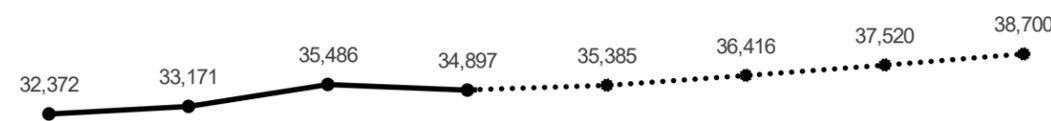
Total Physicians +19%



Physician Assistants +63%

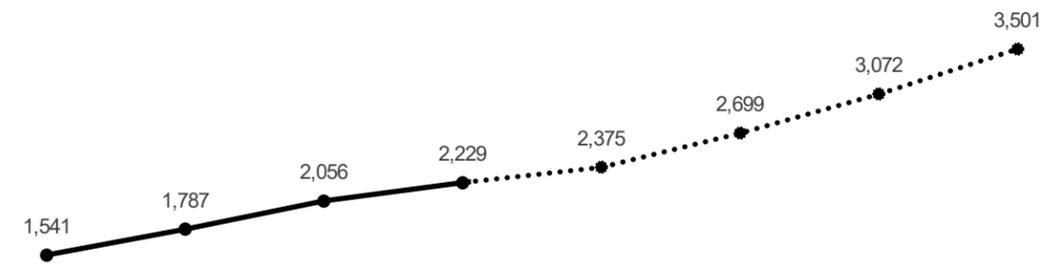


Total Registered Nurses and Licensed Practical Nurses +20%

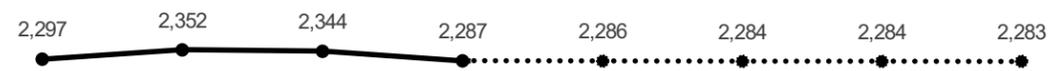


2017 2019 2021 2023 2024 2026 2028 2030

Total Advanced Practice Registered Nurses +127%



Total Dental Professionals +87%



Total Other Clinical Health Professionals +20%



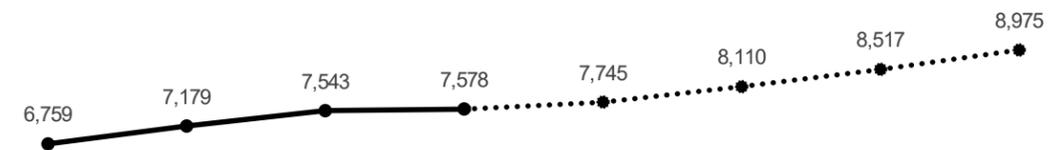
Total Pharmacy Professionals +6%



Total Emergency Medical Technicians +1%



Total Other Allied Health Professionals +33%



Workforce Opportunity

Workforce opportunity refers to the potential for employment and career growth within an individual's chosen profession. We explore workforce opportunity in a few different ways, including, employment rates, density, and demand.

In Nebraska, workforce opportunity for **health diagnosing and treating practitioners** is high. We find that over 90% of those in the profession are employed, the highest percentage among all occupation groups, suggesting there are no issues finding employment and staying employed. High levels of employment exist in both metropolitan and nonmetropolitan areas of the state.

Employment Rate of Health Diagnosing and Treating Practitioners in Nebraska by Year



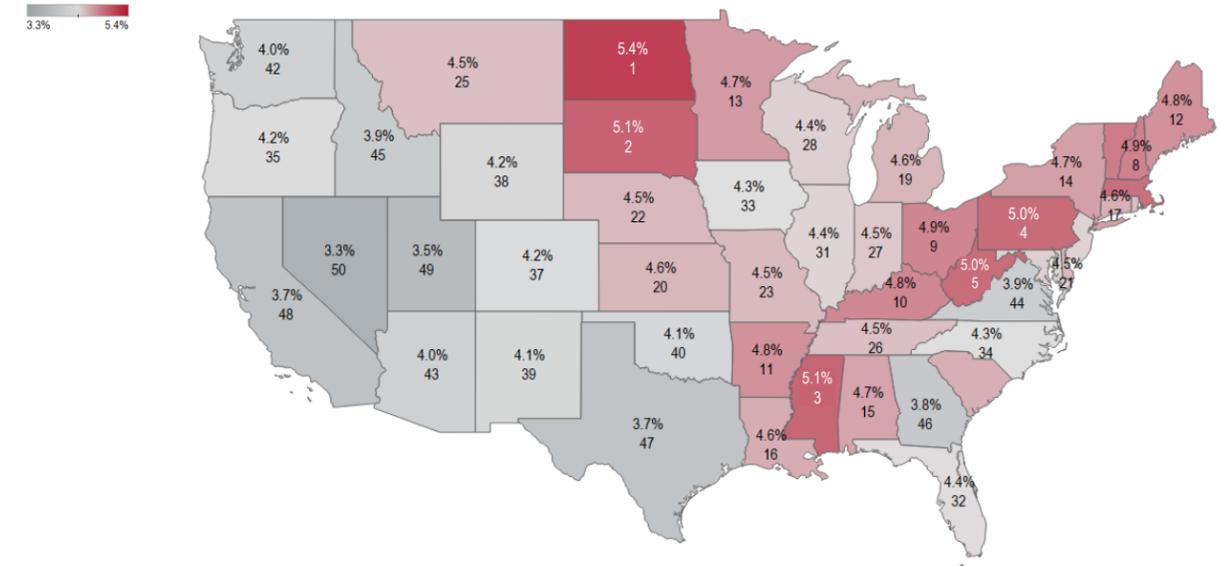
Employment Rate by Occupational Group in Nebraska

Health Diagnosing and Treating Practitioners	90.1%
Computer, Engineering, and Science	88.3%
Management, Business, and Finance	88.0%
Installation, Maintenance, and Repair	87.5%
Production	86.3%
Education, Legal, Community Service, Arts, and Media	84.1%
Healthcare Support and Service	84.0%
Healthcare Technical Support	83.7%
Construction and Extraction	83.3%
Office and Administrative Support	83.1%
Protective Service	81.1%
Sales and Related	80.2%
Transportation and Material Moving	79.3%
Service	74.6%
Farming, Fishing, and Forestry	68.9%

DENSITY

Additionally, Nebraska ranks 22nd in the country for the percentage of the workforce that is employed as a health diagnosing and treating practitioner, 4.5%, suggesting there is a dense workforce. A dense workforce means there is a high concentration of similar workers in an area. A dense workforce often has a positive multiplier impact, generating increased innovation, collaboration, and growth. However, the overall size of the workforce at 46,105 ranks 36th in the country, a function of our small population. The percentage of the workforce in Nebraska that is health diagnosing and treating practitioners has increased 18% since 2010.

Percent of the Workforce that is a Health Diagnosing and Treating Practitioner by State and 50 State Rank



Source: U.S. Census Bureau, American Community Survey, 5-year Estimates 2022

Health Diagnosing and Treating Practitioners by Number and Percent of the Nebraska Workforce

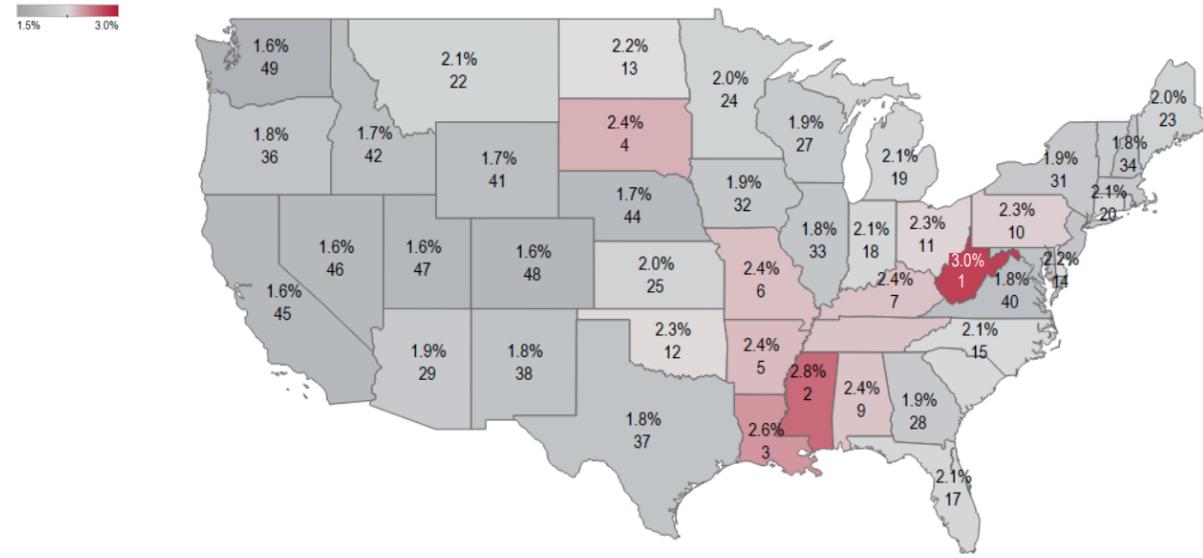


While the workforce opportunities for health diagnosing and treating professionals are plentiful in Nebraska, they are slightly less so for **health technologists and technicians**.

About 84% of those in the profession are employed, which is not a low rate but ranks 8th among all occupation groups in Nebraska. The employment rates are similar in metropolitan and nonmetropolitan areas of the state.

Nebraska ranks 44th in the country for the percentage of the workforce that is employed as a health technologist or technician, 1.7%. The overall size of the workforce at 17,109 ranks 37th in the country. The percentage of the workforce in Nebraska that is a health technologist or technician is unchanged since 2010. Together these statistics suggest that other states have growing, larger, and denser opportunities for health technologists or technicians.

Percent of the Workforce that is Health Technologist or Technician by State and 50 State Ranking



Source: U.S. Census Bureau, American Community Survey, 5-year Estimates 2022

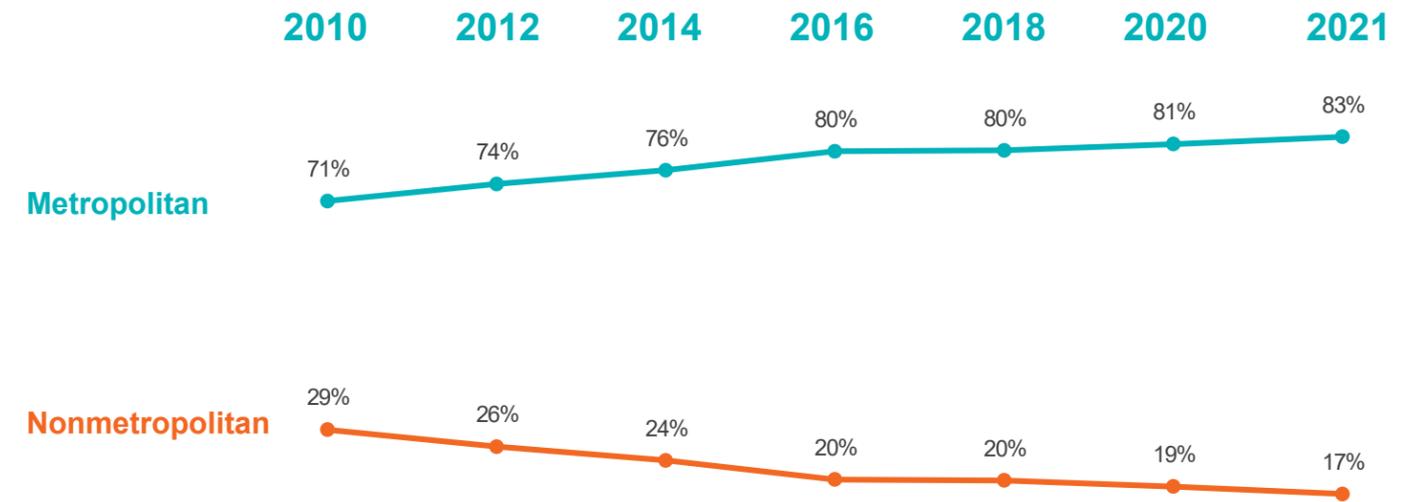
Health Technologists and Technicians by Number and Percent of the Nebraska Workforce



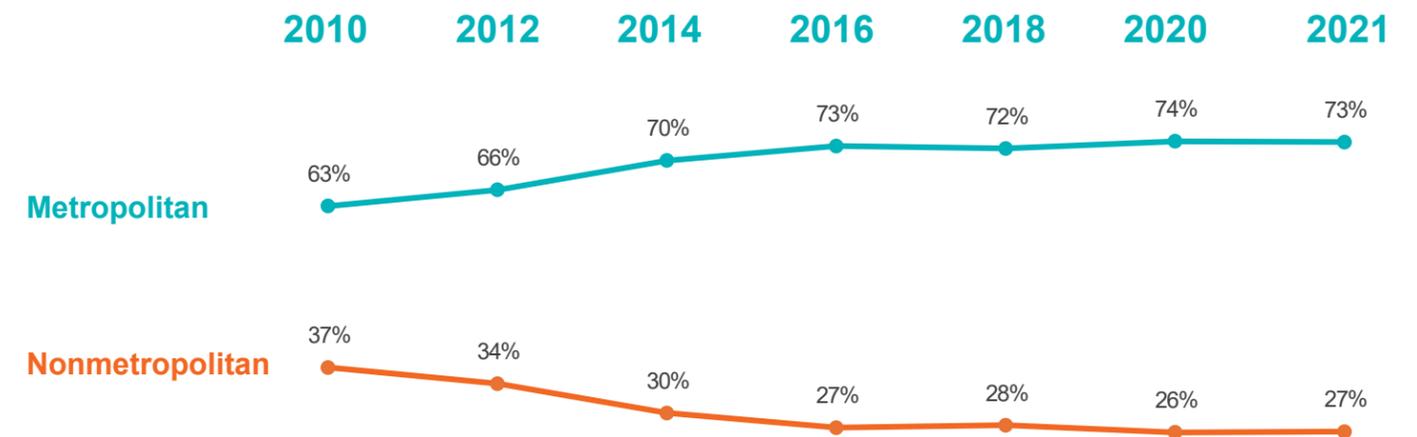
DENSITY IN METROPOLITAN AND NONMETROPOLITAN AREAS

In Nebraska, healthcare workforce opportunities are unevenly distributed. Since at least 2010, there has been a noticeable trend of a growing concentration of healthcare professionals in the metropolitan areas including Omaha, Lincoln, Grand Island, and Kearney, in contrast to nonmetropolitan regions. Although the state's population has also gravitated towards urban areas, this shift is particularly pronounced within the healthcare sector. As of 2021, 83% of health diagnosing and treating practitioners are based in metropolitan areas, while only about 65% of the state's population resides there. This implies that 35% of the population relies on merely 17% of healthcare professionals. Hence, when assessing changes in workforce opportunities over time, it is imperative to account for metropolitan status.

Percent of Health Diagnosing and Treating Practitioners that Practice in Metropolitan and Nonmetropolitan Areas of the State by Year



Percent of Health Technologists and Technicians that Practice in Metropolitan and Nonmetropolitan Areas of the State by Year

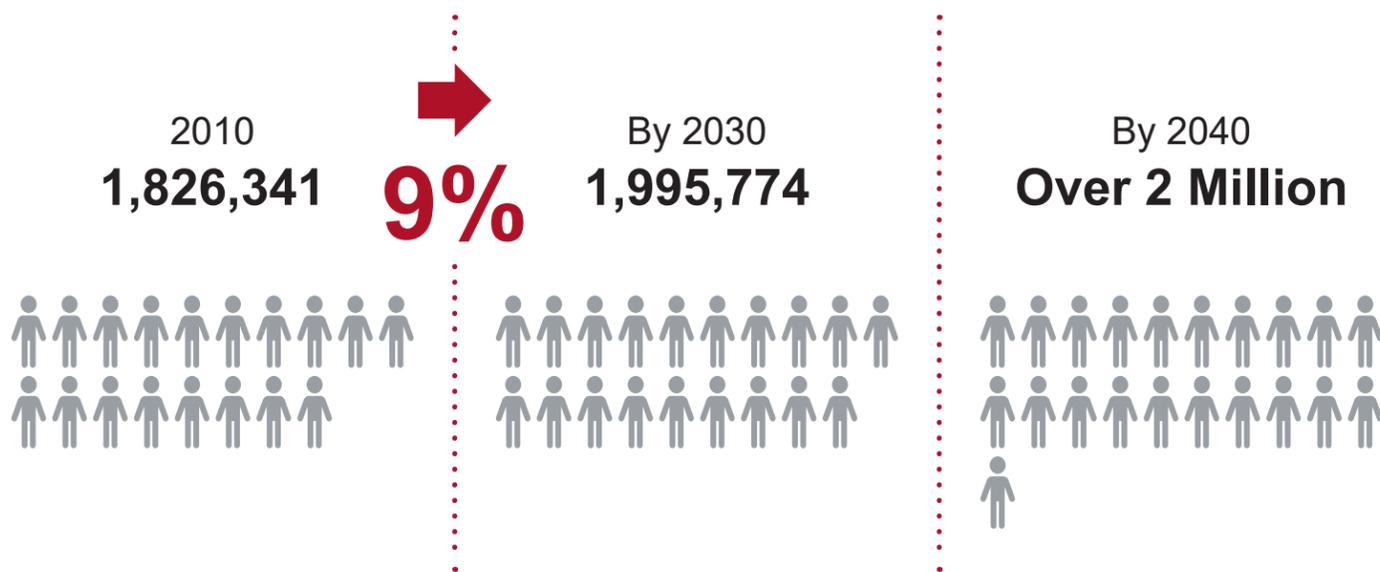


DEMAND

Another aspect of workforce opportunity is the demand for services provided. The demand for healthcare professionals in Nebraska will remain strong due to the state's ongoing population growth, aging demographic, and continual advancements in healthcare.

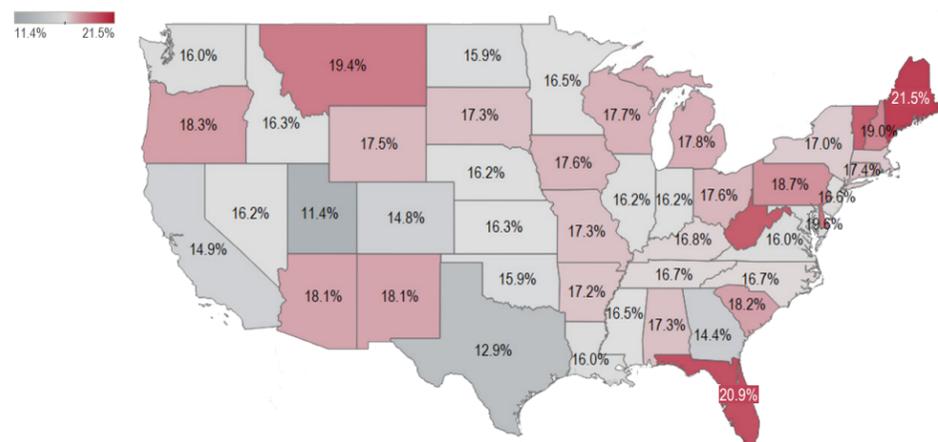
Nebraska Population Projections 2010 to 2040

By 2030, according to projections from UNO CPAR, the state population is expected to reach 1,995,774 and surpass 2 million by 2040. This represents a 9% population growth between 2010 and 2030. With such population growth, at least a corresponding increase in the demand for healthcare services can be anticipated.³



Additionally, 16.2% of the population is over age 65, a percentage that has grown 13.4% from 2010. An aging population in Nebraska and nationally⁴ will also increase demand for the healthcare workforce. Notably, several states, including states in the region, have higher rates of population age 65 and over.

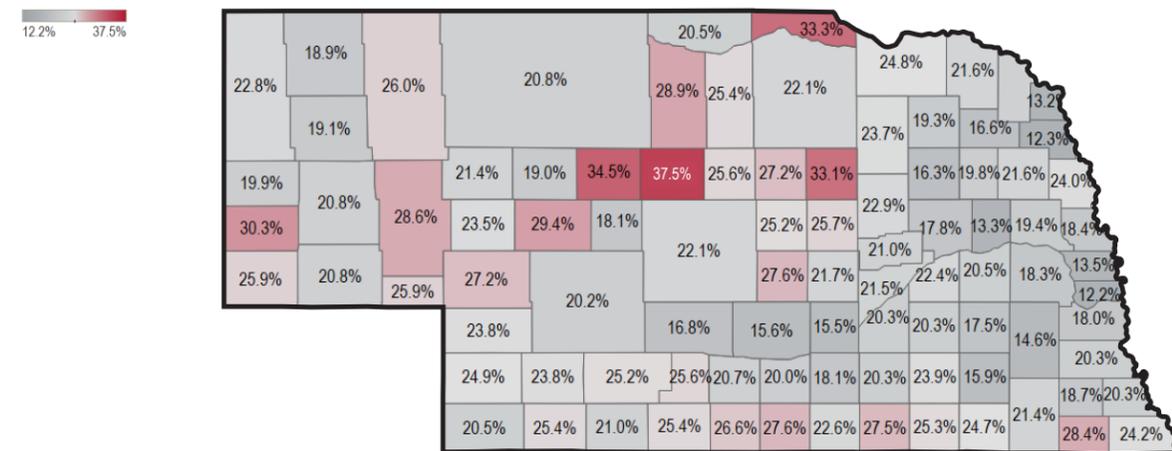
Percent of the Population Age 65 and Over by State



Source: U.S. Census Bureau, American Community Survey 5-Year Estimates. 2022

However, it is important to note that growth and change in the total population and the percent of the population that are age 65 and over are not equal across the state.

Percent of Population Age 65 and Over by Nebraska County



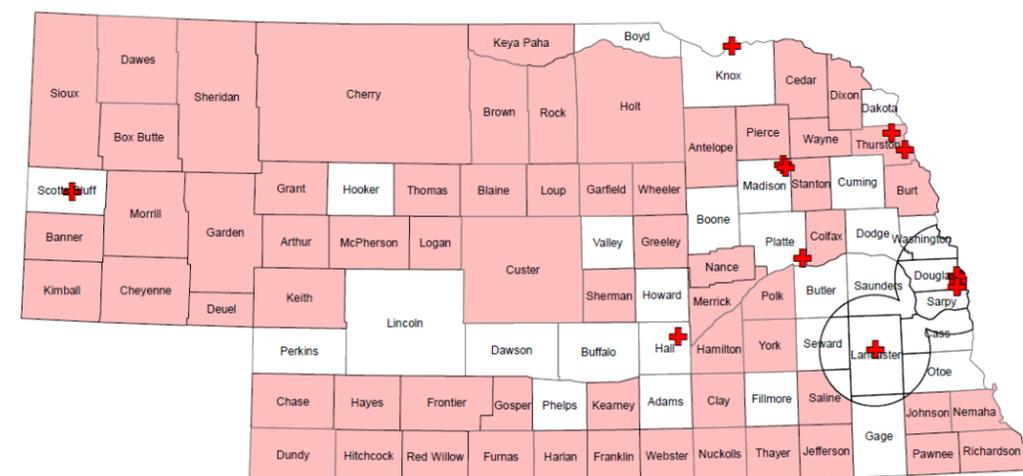
Source: U.S. Census Bureau, American Community Survey 5-Year Estimates 2022

As demand increases, areas of the state that currently have a shortage of healthcare workers are likely to have continued gaps in access to healthcare.

Much of the state today is experiencing gaps in access to healthcare⁵ as can be seen in the map of state-designated shortage areas for family/general practice physicians from the Nebraska Department of Health and Human Services.

State-Designated Shortage Areas Family Practice⁶

State Shortage Area Not State Shortage Area Community Health Center and Indian Health Services Sites



Source: Rural Health Advisory Commission, DHHS - Nebraska Office of Rural Health

³ <https://www.unomaha.edu/college-of-public-affairs-and-community-service/center-for-public-affairs-research/documents/population-projections-for-nebraska-counties-2020-2050.pdf>

⁴ <https://www.census.gov/newsroom/press-releases/2023/population-estimates-characteristics.html>

⁵ Nebraska State-Designated Shortage Area Guidelines, [https://dhhs.ne.gov/RH/Documents/Nebraska State-Designated Shortage Area Guidelines \(04-19\).pdf](https://dhhs.ne.gov/RH/Documents/Nebraska%20State-Designated%20Shortage%20Area%20Guidelines%20(04-19).pdf)

⁶ [https://dhhs.ne.gov/RH%20Documents/State%20Shortage%20Areas%20Family%20Practice%20\(04-19\).pdf](https://dhhs.ne.gov/RH%20Documents/State%20Shortage%20Areas%20Family%20Practice%20(04-19).pdf)

Earnings

The current and expected earnings of a healthcare professional are critical factors for predicting where someone will practice and, consequently, the growth of the healthcare workforce in Nebraska over time. Competitive pay can attract and retain individuals to the workforce.

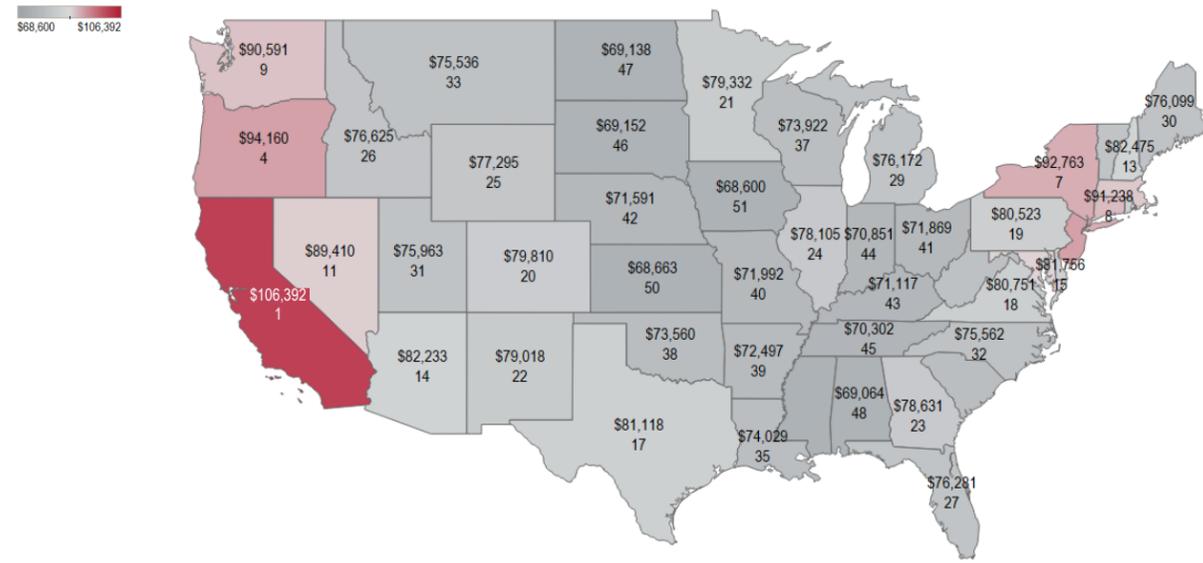
Median annual earnings for **health diagnosing and treating practitioners** in Nebraska for 2022 was \$71,591, an increase of 40% from 2010.

Median Earnings for Health Diagnosing and Treating Practitioners in Nebraska



Compared to states in the region including Iowa, Kansas, and South Dakota, earnings are strong; however, compared to other states, Nebraska median wages ranked 42nd. These numbers do not account for differences in the cost of living across states.

Median Earnings for Health Diagnosing and Treating Practitioners by State and 50 State Ranking



Source: U.S. Census Bureau, American Community Survey, 5-year Estimates 2022

The regional strength of wages should bode well for the growth of the healthcare workforce; however, there is strong national demand for the healthcare workforce.⁷ As a result, wages in other states may rise faster to compete for this workforce.

⁷ <https://www.mercer.com/content/dam/mercer/assets/content-images/north-america/united-states/us-healthcare-news/us-2021-healthcare-labor-market-whitepaper.pdf>

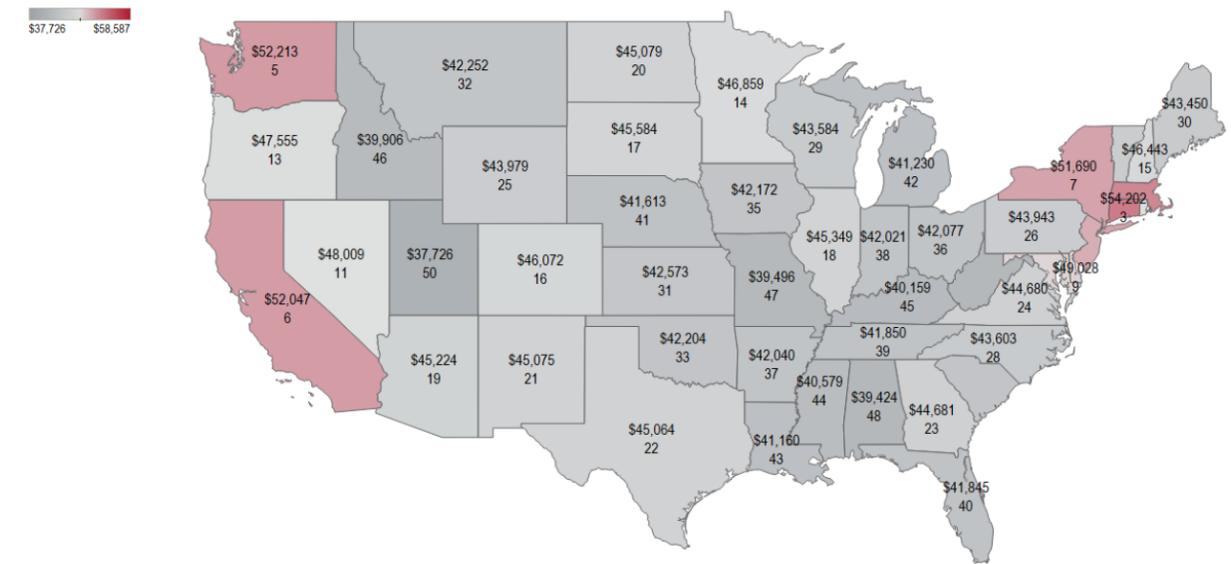
Median annual earnings for **health technologists and technicians** in Nebraska for 2022 was \$41,613, a 36% increase since 2010.

Median Earnings for Health Technologists and Technicians in Nebraska



Earnings for health technologists and technicians in Nebraska lag behind most neighbor states, except Missouri. In the nation, median earnings for this profession ranks 41st.

Median Earnings for Health Technologists and Technicians by State and 50 State Ranking



Source: U.S. Census Bureau, American Community Survey, 5-year Estimates 2022

Within Nebraska, median earnings differ in metropolitan and nonmetropolitan areas of the state. For 2022, median earnings were higher for both health diagnosing and treating practitioners and health technologists and technicians in metropolitan areas of the state as compared to nonmetropolitan areas.

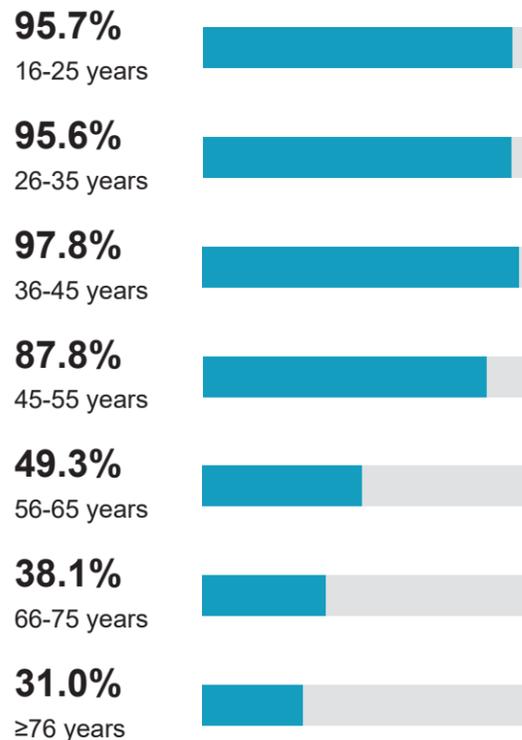
Median Earnings for Health Diagnosing and Treating Practitioners and Health Technologists and Technicians by Metro and Nonmetro Areas of Nebraska



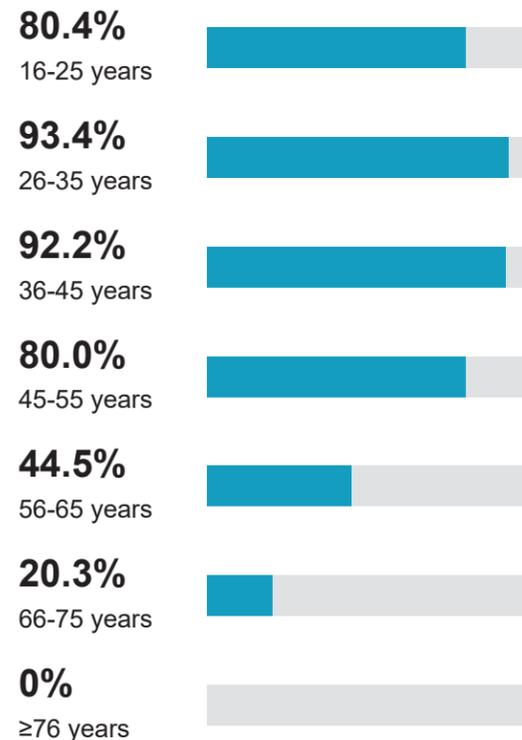
Retirement

As healthcare professionals age, they tend to exit the labor force. The charts below illustrate the labor force participation rates of two occupational groups, **health diagnosing and treating practitioners**, and **health technologists and technicians**, across age groups. For example, among health diagnosing and treating practitioners aged 36 to 45, 97.8%, out of 100%, are in the labor force, a high rate. However, the percentage in the labor force declines notably after age 55, indicating many professionals retire. By age 76, only 31% of professionals remain in the labor force. Similarly, health technologists and technicians exhibit increased retirement rates after age 55. While it's common for individuals to retire as they age, these charts, combined with the average age of professionals currently in the field, indicate an imminent retirement boom. We can estimate approximately 500 to 800 health diagnosing and treating practitioners are expected to retire within the next five to 10 years, constituting 1% to 2% of the workforce. Despite new practitioners entering these fields, this retirement wave will impact the healthcare workforce throughout the state.

Percent of Health Diagnosing and Treating Practitioners in the Labor Force by Age

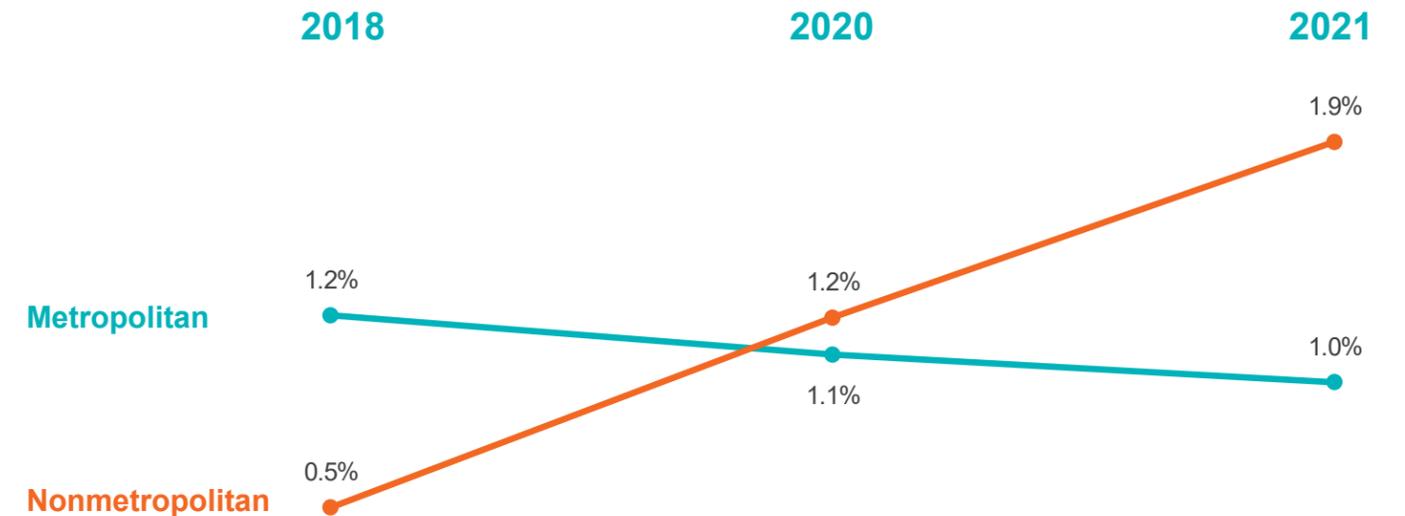


Percent of Health Technologists and Technicians in the Labor Force by Age



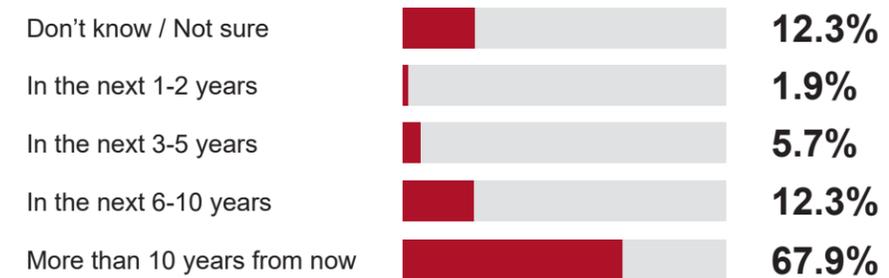
Notably, the percentage of **health diagnosing and treating practitioners** over the age of 75 has been growing more rapidly in nonmetropolitan areas compared to metropolitan areas of the state. As a result, we can expect a larger share of the workforce to be closer to retirement in nonmetropolitan areas of the state compared to metropolitan areas. Paired with the fact that there are fewer numbers of health diagnosing and treating practitioners in nonmetropolitan areas the coming retirement boom may leave a significant portion of the state's geography with fewer practitioners in the near future.

Percent of Health Diagnosing and Treating Practitioners Age 75 and Over in Metropolitan and Nonmetropolitan Areas in Nebraska 2018 to 2021



The HPTS data also asks a select group of healthcare specialists about the likely timing of their retirement. According to this self-reported data, 19.9% of responding physicians said they would retire in the next 10 years.

HPTS Survey Responses for Plans for Retirement Among Physicians

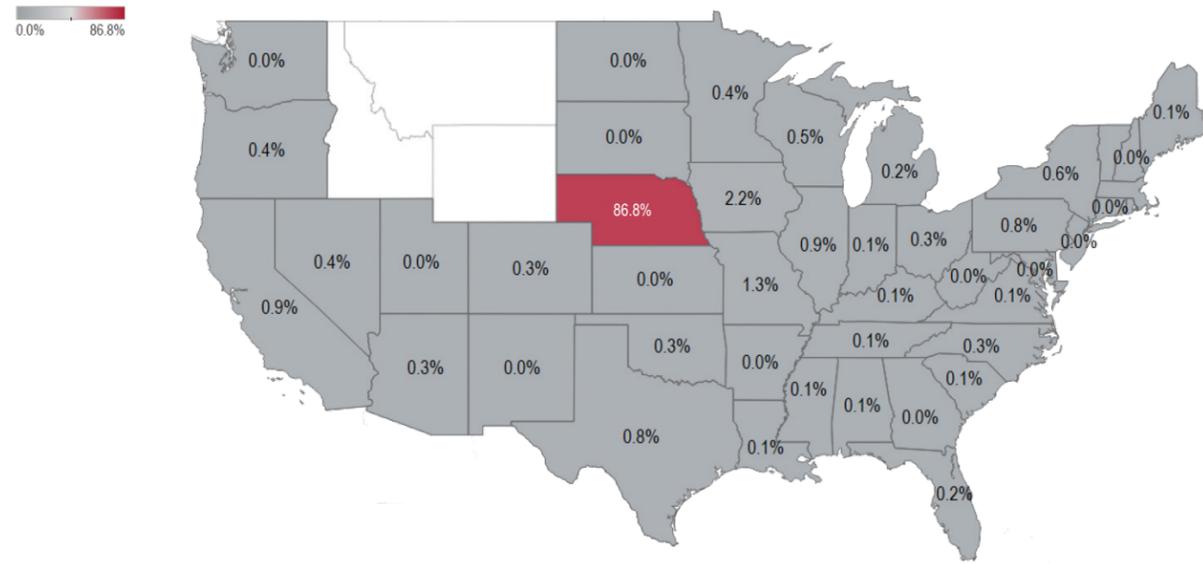


Education

Where a healthcare professional pursues their education will influence their likelihood to stay and practice in that state.⁸ While in the state, healthcare practitioners will build professional networks, gain familiarity with the local healthcare system, and build personal networks — all of which will contribute to their willingness to stay in the state after their education. Growing enrollment in Nebraska bodes well for the future of the healthcare workforce, as many who pursue their education in Nebraska tend to stay and practice in Nebraska.

In Nebraska, a striking 86.6% of actively practicing dentists completed their dental education within the state. This percentage reflects solely those who pursued dental education within Nebraska, excluding undergraduate or residency education.

Percent of Dentists that are Active in Nebraska by State they Completed their Dental Education

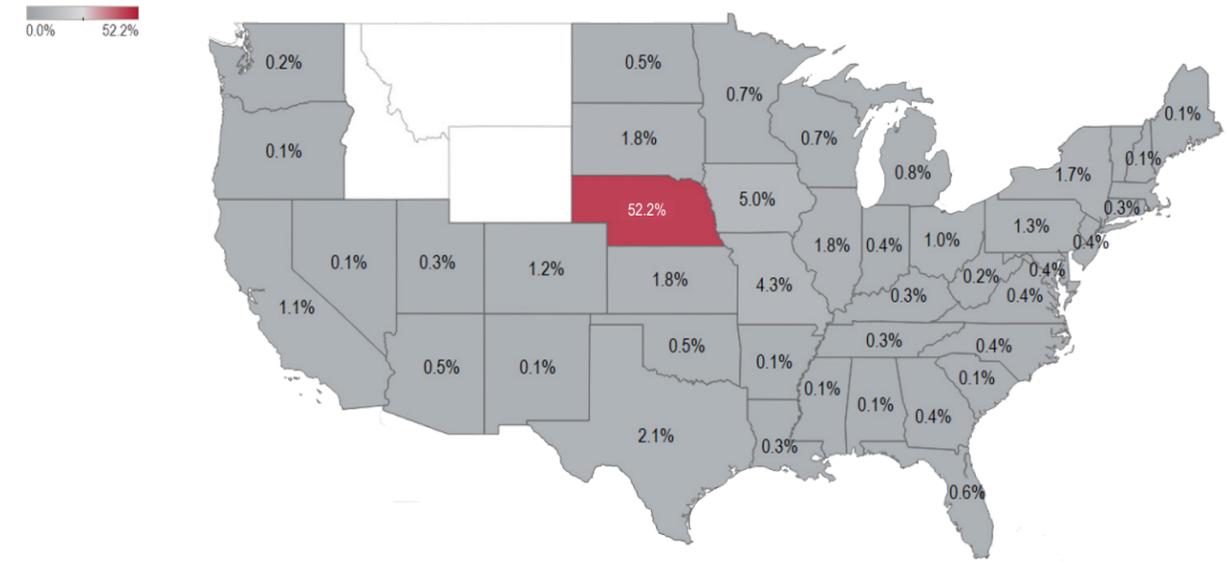


Source: HPTS 2023

⁸ <https://www.aamc.org/data-reports/workforce/report/state-physician-workforce-data-report>

Similarly, 52.2% of physicians actively practicing in Nebraska completed their medical education within the state.

Percent of Physicians that are Active in Nebraska by State they Completed their Medical Education



Source: HPTS 2023

These retention rates surpass national benchmarks. For instance, as per the 2021 State Physician Workforce Report, nationally only 47.6% of physicians actively practice in the same state where they completed their graduate medical education.⁹

The University of Nebraska Medical Center (UNMC) has witnessed a remarkable 23 consecutive years of enrollment growth.¹⁰ In 2023, fall enrollment reached 4,555, marking a 3% increase from the previous year. Spanning across five campuses covering 500 miles from Omaha to Scottsbluff-Gering, with Lincoln, Kearney, and Norfolk in between, UNMC houses various colleges and programs, including:

- UNMC Omaha (Main Campus) includes the Fred & Pamela Buffett Cancer Center, the Center for Healthy Living, the Stanley M. Truhlsen Eye Institute, and the homes of the College of Medicine, College of Pharmacy, College of Allied Health Professions, the Omaha Division of the College of Nursing, and the College of Public Health.
- UNMC Lincoln is home to a division of the College of Nursing, as well as the College of Dentistry.
- UNMC Kearney features a division of the College of Nursing, the College of Allied Health Professions, the new Health Science Education Complex, and pre-professional programs to prepare for further studies at UNMC.
- UNMC Norfolk is home to a division of the College of Nursing.
- UNMC Scottsbluff-Gering is home to divisions of the College of Nursing and College of Dentistry.

Additionally, other healthcare education institutions across Nebraska also report growing enrollment, indicating a promising future for the state's healthcare workforce.¹¹

⁹ https://store.aamc.org/downloadable/download/sample/sample_id/506/, pg. 68

¹⁰ <https://www.unmc.edu/newsroom/2023/09/07/unmc-enrollment-increases-for-23rd-straight-year/>

¹¹ <https://www.creighton.edu/news/creighton-white-coat-ceremonies-launch-record-class-medical-students>

SUMMARY

The healthcare workforce plays a pivotal role in Nebraska, ensuring the well-being and vitality of our communities while significantly contributing to our state and local economies. This report presents evidence of the healthcare sector's significance to Nebraska and delves into its status, scale, and scope. Additionally, it peers into the future of the sector, highlighting key opportunities and significant challenges, such as workforce shortages, which threaten access to quality care statewide. Through this exploration, the report aims to provide a comprehensive understanding of the current status of the healthcare sector and opportunities for advancement in the future.

The data used to evaluate the status of the healthcare workforce are from the University of Nebraska Medical Center (UNMC) Health Professions Tracking Services (HPTS) and State of Nebraska licensure data for 2023. The status report, as in previous editions, includes the following health professions:

- Physicians
- Physician Assistants
- Registered Nurses, Licensed Practical Nurses, and Advanced Practice Registered Nurses
- Dentists and Dental Hygienists
- Chiropractors
- Podiatrists
- Optometrists
- Pharmacists and Pharmacy Technicians
- Emergency Medical Technicians
- Physical Therapists
- Occupational Therapists
- Medical Nutrition Therapists
- Respiratory Care Practitioners
- Speech-Language Pathologists
- Audiologists
- Medical Radiographers

Nebraska behavioral health workforce data and analysis are available through the Behavioral Health Education Center of Nebraska (BHECN) at www.unmc.edu/bhecn.

In addition to the status of the workforce today, this report provides context on the dynamic factors that contribute to our assessment of the future of the healthcare workforce, including employment, earnings, migration, retirement, and education trends. Assessment of these factors suggests both opportunities and challenges for the future of the healthcare workforce.

Positively, workforce opportunities for health diagnosing and treating practitioners are abundant. Healthcare professionals are employed at high rates and there is high demand for the healthcare workforce in both rural and urban areas of the state. In short, there is no shortage of opportunities for anyone trained and prepared to work throughout the healthcare sector. To meet the high demand for this workforce, we were not surprised to find that earnings had increased over time. The regional strength of wages, particularly for health diagnosing and treating practitioners, should bode well for the state's recruitment and retention efforts.

Despite several optimistic projections regarding the future of the healthcare workforce, this report also highlights concerning trends, such as an anticipated decline in the number of primary care physicians by 9% and dental professionals by 1%. These figures indicate challenges to sustain and expand the healthcare workforce in Nebraska. One overarching challenge lies in the increasing national demand for a highly skilled healthcare workforce. As healthcare needs evolve and populations grow and age, we should expect increased efforts to attract Nebraska's healthcare workforce, including offering higher wages. Currently, healthcare professionals are not

moving away from Nebraska at high rates, compared to other occupation groups. Yet, the rates of out-migration are increasing year-to-year, thus efforts to quell this trend now are of paramount importance. Additionally, the coming retirement boom estimated in this report will impact the scale of the healthcare workforce. Notably, this challenge is greater in rural compared to urban areas of the state.

Rural communities encounter significant obstacles in both attracting and retaining healthcare professionals in Nebraska. **Currently, 83% of all health diagnosing and treating practitioners are concentrated in metropolitan areas of the state, despite only approximately 65% of the population residing in these areas.** This glaring discrepancy means that 35% of the state's population has access to only 17% of healthcare professionals, leading to a concerning imbalance in healthcare access. Consequently, rural regions of the state are grappling with a progressively severe shortage of healthcare practitioners. Moreover, our analysis indicates that nonmetropolitan areas of the state will bear the brunt of the impending retirement boom, exacerbating the already widening gap in healthcare availability across the state's geographic landscape.

Our analysis has uncovered several additional factors that could impact patient access to high-quality healthcare. One notable finding is that many healthcare professionals already dedicate 40 hours or more per week to their work, indicating limited capacity for providers to accommodate new patients. Furthermore, it is worth noting that numerous practitioners likely extend their services across multiple counties to meet existing demand, leaving minimal room for them to take on additional workloads. This trend mirrors a recent national study which revealed that physicians, on average, work 10 hours per week more than individuals in other professions.¹² Another challenge lies in the current racial and ethnic makeup of the healthcare workforce. **Presently, the demographic diversity among healthcare professionals does not mirror the diverse composition of the state population. The majority of healthcare professionals identify as White, non-Latino/a. In contrast, Nebraska's overall population is a bit more diverse, with 23% identifying as persons of color. Ensuring a healthcare workforce that reflects the diversity of the population it serves is crucial.** Such representation could lead to improved outcomes for groups more susceptible to experiencing negative health disparities. A 2021 report from UNMC, "Barriers and Opportunities for Promoting Health Professions Careers Among African Americans, Latinxs, and Native Americans in Nebraska," provides more information on racial and ethnic disparities in the healthcare workforce, related implications, and recommendations.¹³

Fortunately, Nebraska offers ample opportunities for education and training in healthcare professions. An increase in the number of students completing training within the state is likely to translate into a rise in practitioners, given that a significant percentage of those trained in Nebraska choose to practice here. While many health education programs are experiencing growth, innovative initiatives are also emerging to further bolster the healthcare ecosystem.

¹² According to a 2020-2021 study of physicians and other working people in U.S., physicians worked an average of 10 hours per week more than workers in other fields, for averages of 50.8 hours and 40.7 hours, respectively. Shanafelt, et. Al., At-Risk Work Hours Among U.S. Physicians and Other U.S. Workers, American Journal of Preventive Medicine, <https://doi.org/10.1016/j.amepre.2023.03.020> (accessed February 14, 2024).

¹³ University of Nebraska Medical Center, "Barriers and Opportunities for Promoting Health Professions Careers Among African Americans, Latinxs, and Native Americans in Nebraska," https://www.unmc.edu/publichealth/crhd/_documents/UNMC-COPH_URM-Barriers-and-Opportunities-for-Promoting-Health-Report_rev04.2021.pdf (accessed February 18, 2024).

UNMC, in collaboration with other institutions, offers several programs to facilitate pathways to a career in healthcare. One such example is the Rural Health Opportunity Program (RHOP) with Wayne State College, which aims to recruit and establish avenues for rural residents into healthcare professions. Additionally, the Kearney Health Opportunities Program (KHOP), a collaboration with the University of Nebraska at Kearney, will provide enhanced training opportunities for rural residents, leveraging a modern facility currently under construction in Kearney. The Urban Health Opportunities Program (UHOP) is another collaborative effort between UNMC and the University of Nebraska at Omaha, focused on preparing the healthcare workforce to effectively serve medically underserved populations in urban Nebraska. Together, these programs play a crucial role in the development of the state's healthcare workforce.

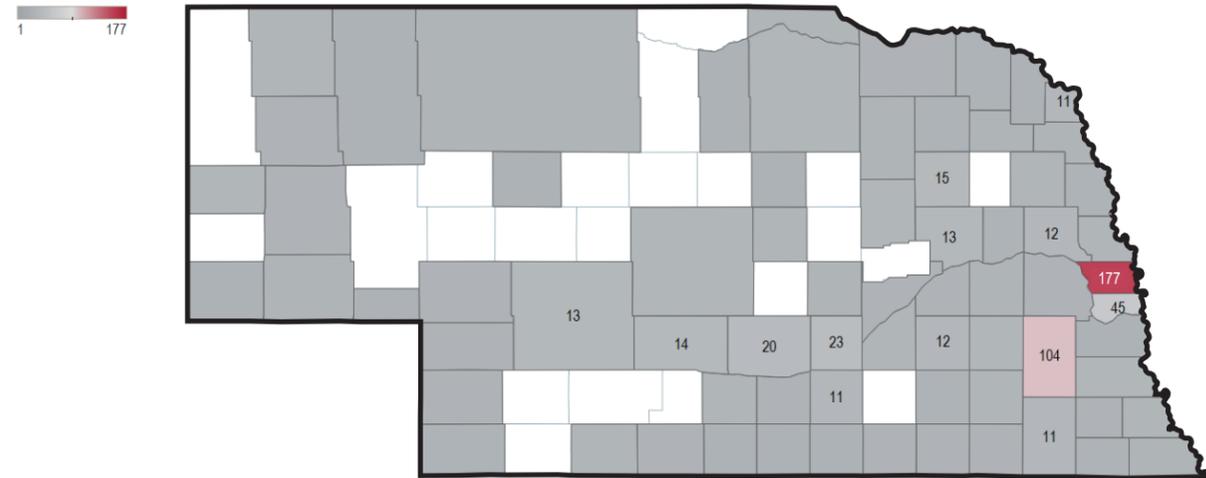
Drawing upon the findings here, we include several policy and practice recommendations to mitigate current and future challenges for the Nebraska healthcare workforce.

1. Ensure adequate resources to prepare the next generation of healthcare professionals. Resources are needed in several areas, including for qualified health professions faculty, clinical sites, classroom sites and space, and clinical preceptors necessary to boost the number of students and faculty.
2. Enhance existing pipeline programs and education initiatives targeting rural and underserved urban populations. Such programs incentivize individuals to become healthcare professionals and practice in these communities, particularly for professions with significant shortages.
3. Enhance the availability of scholarships and loan repayment programs for healthcare students and practitioners, particularly for health professions with significant shortages, to recruit and retain the needed healthcare workforce.
4. Increase the number of medical residency programs in rural and underserved urban areas.
5. Expand incentive programs to encourage practitioner retention in rural and underserved urban areas.
6. Expand the capacity of telecommunications infrastructure to support the use of telehealth. Adoption of telehealth improves patient access to healthcare, while also improving access to mentoring and support for healthcare students and professionals.
7. Establish and streamline existing public-private partnerships in the healthcare sector, including in the areas of education, workforce development, and healthcare delivery.

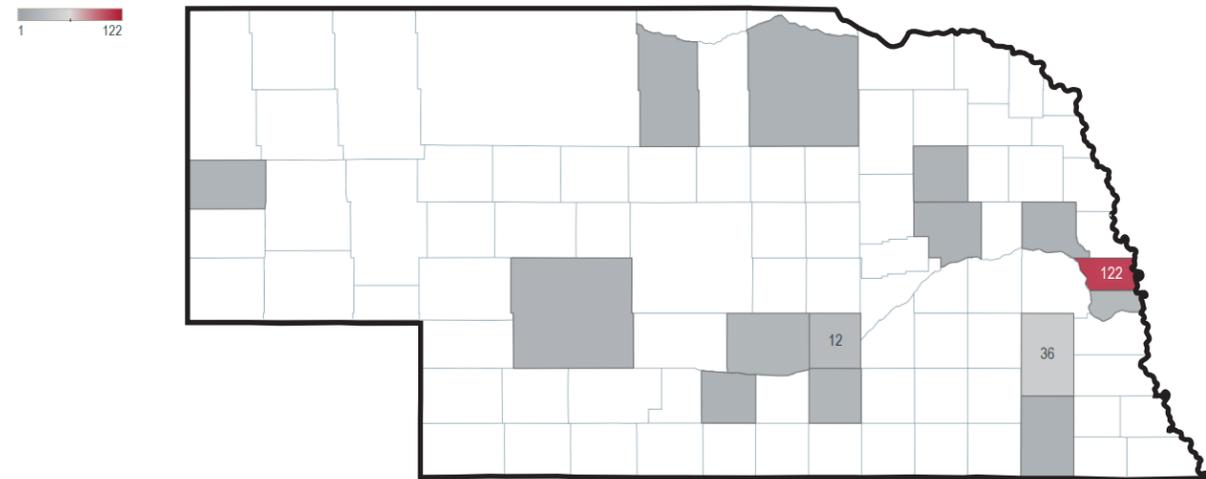
In conclusion, healthcare access stands as a cornerstone of thriving communities. The current healthcare workforce showcases remarkable resilience and adaptability in meeting the current demands. Despite optimistic assessments of future projections indicating a promising expansion in the healthcare workforce, significant challenges persist. These challenges include anticipated declines in certain professions, disparities in access, especially in rural areas, and gaps between demand and availability. Addressing these obstacles is crucial to ensure equitable access to healthcare services for all individuals, regardless of their location or background, including concerted efforts to attract and retain healthcare professionals, enhance workforce diversity, and improve access to education and training opportunities. By tackling these obstacles and leveraging available opportunities, Nebraska can cultivate a resilient and inclusive healthcare workforce primed to address the evolving needs of our communities.

APPENDIX

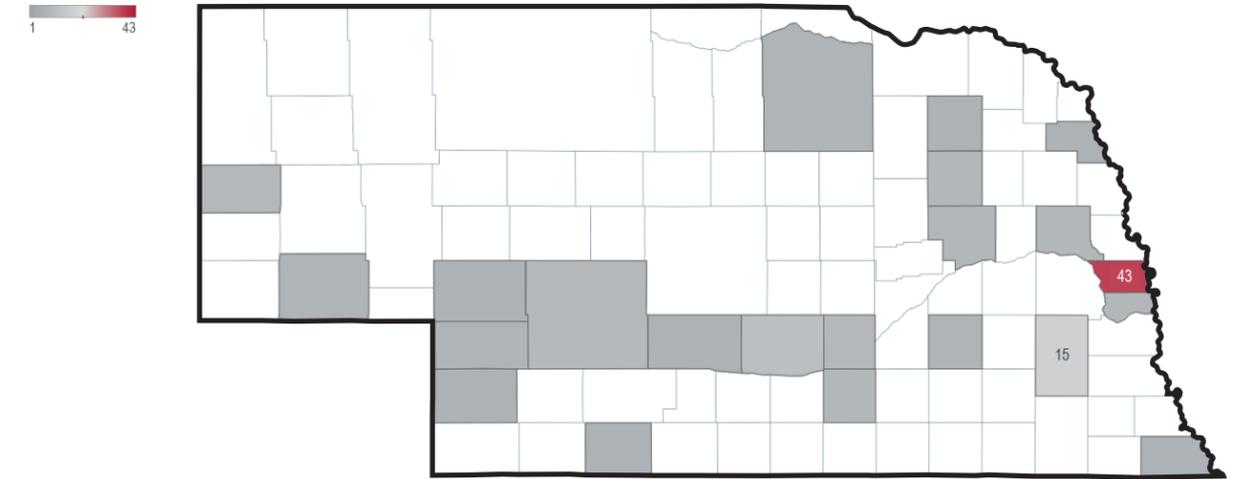
Number of Family Medicine Physicians by County | 2023



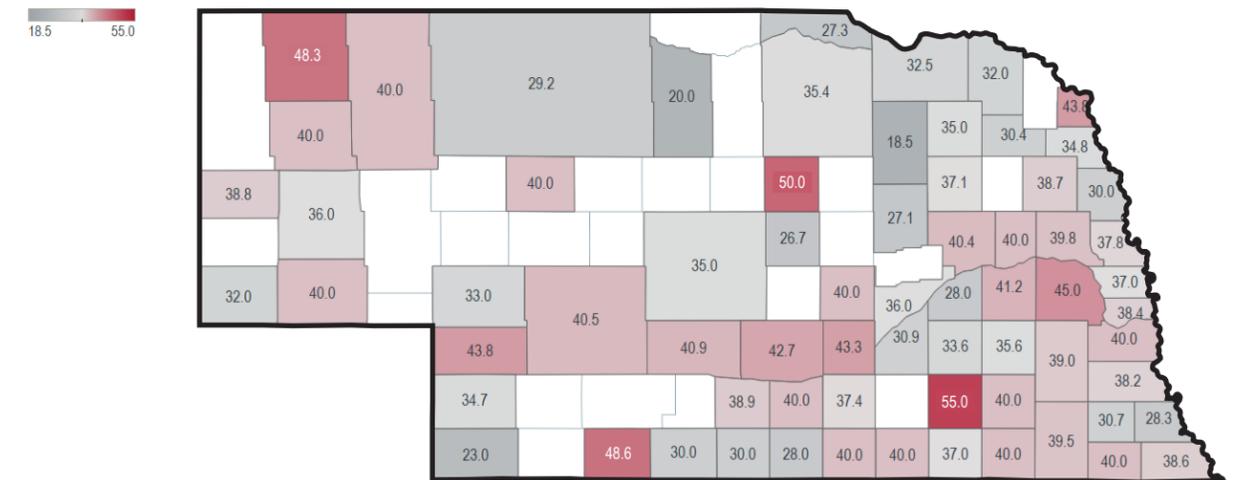
Number of Internal Medicine Physicians by County | 2023



Number of General Surgeons by County | 2023

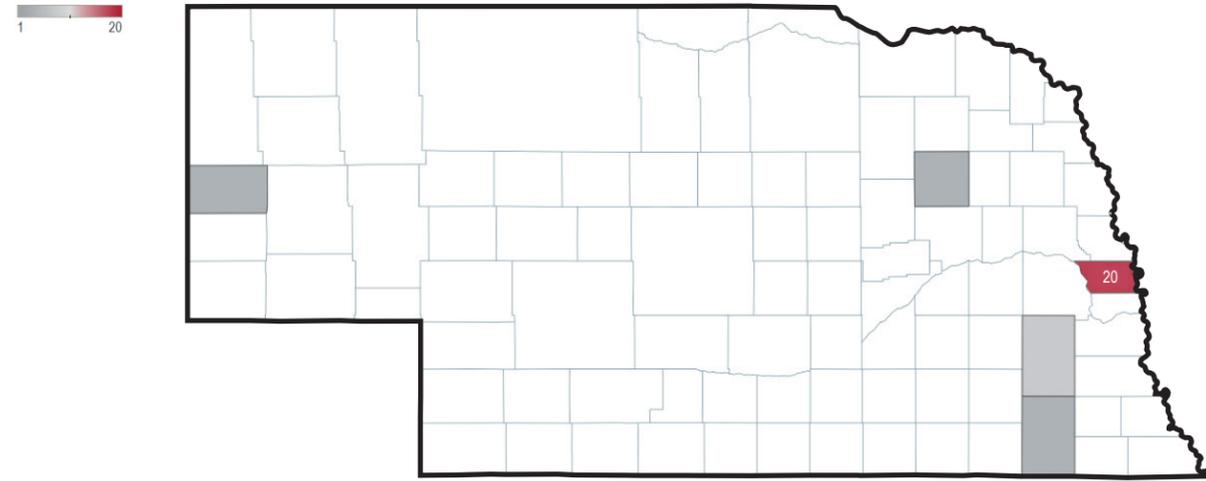


Average Hours Worked Per Week of Primary Care Physicians by County | 2023

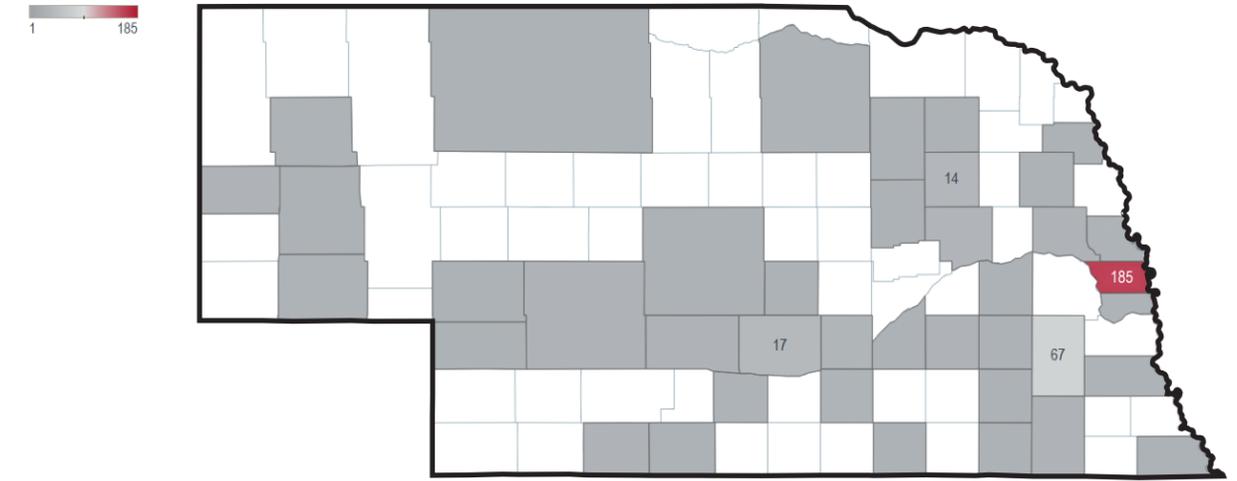


Note: Primary care includes, general practice, family medicine, internal medicine, OB/GYN, and pediatrics.

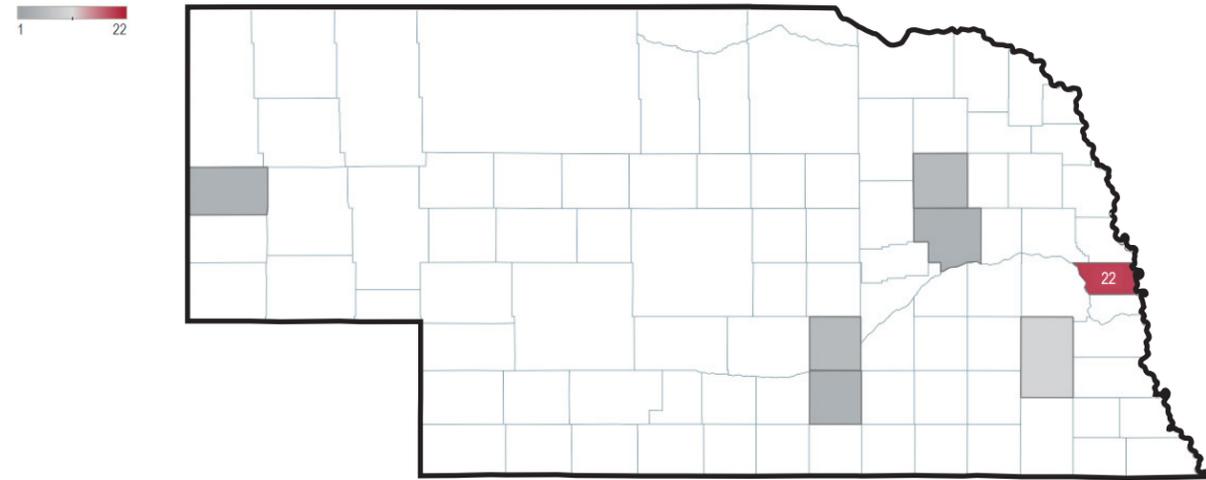
Number of Certified Nurse Midwives (CNMs) by County | 2023



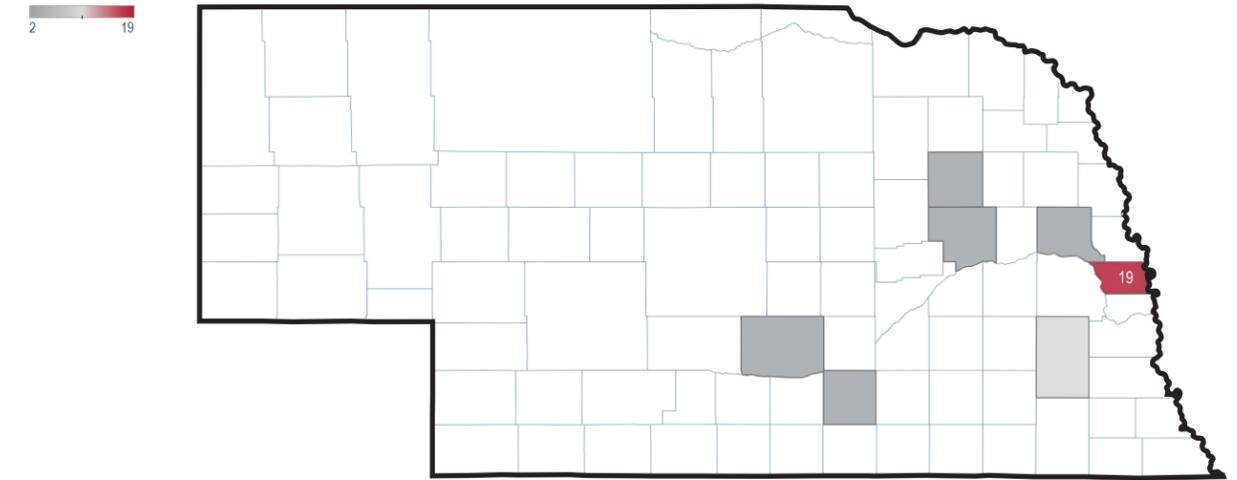
Number of Certified Registered Nurse Anesthetists (CRNAs) by County | 2023



Number of Certified Nurse Specialists (CNSs) by County | 2023



Number of MDs/DDSs by County | 2023



Number of Other Clinical Health Professionals by County | 2023

