Nurse Workforce Projections, 2021-2036

March 2024

This brief contains highlights of workforce projections for the nursing workforce in the United States.

These estimates were generated using HRSA's Health Workforce Simulation Model (HWSM) and start with the year 2021 and go through 2036. The primary function of the HWSM is to assess the adequacy of the nation's projected workforce supply to meet the demand.[1] Full data on the workforce projections are available in the Workforce Projections Dashboard.

About the National Center for Health Workforce Analysis

The National Center for Health Workforce Analysis provides analysis to inform health workforce policy by expanding and improving the data available on the health workforce, projecting the supply and demand for health workers, and disseminating workforce data to the public.

For more information, visit the Health Workforce Analysis webpage.

Key Results and Takeaways

These projections were generated using historical data up to and including some data from 2021. The COVID-19 pandemic impacted the nursing workforce, which may only be partially captured in the available data. Data are shown at 5-year intervals (2026, 2031, and 2036) throughout this analysis.

- **At the national level, there are shortages projected until 2036**. Specifically, there is a projected 10% shortage of registered nurses (RNs) in 2026 and 2031. By 2036, the shortage is 9% (a shortage of 337,970 full-time equivalent [FTE] RNs). See *Exhibits 1a-1c*.[2] These projections assume that historical patterns of attrition, graduation, and labor force participation remain the same over the forecast period.[3]
- Non-metro areas are projected to have a higher shortage of RNs than metro areas in each of the three interval years: 14% vs 8% in 2036, 18% vs 9% in 2031, and 22% vs 8% in 2026.
- The demand for licensed practical and vocational nurses (LPNs) is projected to grow faster than supply between 2021 and 2036, resulting in a projected shortage (99,070 LPN FTEs) in 2036. Nationwide, the projected supply of LPNs in 2036 is sufficient to meet just 88% of the demand for LPNs, compared to 93% in 2026. See *Exhibits 1a-1c*.
- At the national level, the supply of nurse practitioners (NPs) is projected to exceed demand over the projection period; however, distribution remains the most important issue.

[1] For a detailed explanation of the data, methods, and assumptions of the model, including the definitions of supply and demand, refer the HWSM technical documentation.
[2] An FTE is defined as working 40 hours per week.
[3] NCHWA also reports projections under alternative scenarios of supply, such as varying graduation rates, and of demand including improved access to care. The projected estimates under each scenario are available at Workforce Projections Dashboard.

Exhibit 1a. Projected National Supply and Demand for Selected Nursing Occupations, 2026

Projection Estimates	Registered Nurses	Licensed Practical Nurses	Nurse Practitioners	Nurse Anesthetists	Nurse Midwives
Supply	3,043,050	646,380	413,170	59,560	13,190
Demand	3,393,590	693,300	312,550	56,900	12,620
Percent Adequacy	90%	93%	132%	105%	105%

Exhibit 1b. Projected National Supply and Demand for Selected Nursing Occupations, 2031

Projection Estimates	Registered Nurses	Licensed Practical Nurses	Nurse Practitioners	Nurse Anesthetists	Nurse Midwives
Supply	3,228,710	677,980	537,470	65,460	15,700
Demand	3,586,880	748,610	327,800	58,930	12,720
Percent Adequacy	90%	91%	164%	111%	123%

Exhibit 1c. Projected National Supply and Demand for Selected Nursing Occupations, 2036

Projection Estimates	Registered Nurses	Licensed Practical Nurses	Nurse Practitioners	Nurse Anesthetists	Nurse Midwives
Supply	3,421,640	705,080	652,870	71,250	17,840
Demand	3,759,610	804,150	340,830	60,470	12,830
Percent Adequacy	91%	88%	192%	118%	139%

Notes: Demand and supply estimates and projections are in full-time equivalents (FTEs), defined as working 40 hours a week. FTE estimates may differ from estimates of the headcounts of the health workforce. Percent adequacy is calculated by taking projected supply divided by projected demand.

- Despite national shortages of RNs and LPNs, significant geographic maldistribution remains a large issue for the nursing profession. Projected **supply adequacy of RNs varies considerably across states**, ranging from a shortage of 29% in Georgia to a projected 42% oversupply in North Dakota in 2036.

- The **ten states with the largest projected RN shortages in 2036** are: Georgia (29%), California (26%), Washington (26%), New Jersey (25%), North Carolina (23%), New Hampshire (23%), South Carolina (21%), Maryland (20%), Michigan (19%), and Oregon (16%).[4] See *Exhibit 2*.

- As with RNs, the projected adequacy of supply for LPNs varies considerably across states, ranging from 25% (a 75% shortage) in Maine to 165% (a 65% oversupply) in Oklahoma in 2036.

[4] For state-level projections, see the Workforce Projections Dashboard. Shortage percentages are calculated as 1 minus supply adequacy, which is calculated as projected supply divided by projected demand.

Exhibit 2. States with the Largest Projected Shortages of RNs, 2036

State	Projected Shortage (%)	Projected Shortage (FTEs)
Georgia	29%	-34,800
California	26%	-106,310
Washington	26%	-22,700
New Jersey	25%	-24,450
North Carolina	23%	-31,350
New Hampshire	23%	-4,120
South Carolina	21%	-13,570
Maryland	20%	-14,700
Michigan	19%	-21,870
Oregon	16%	-7,410

Notes: Demand and supply estimates and projections are in full-time equivalents (FTEs), defined as working 40 hours a week. FTE estimates may differ from estimates of the headcounts of the health workforce. Shortage percentages are calculated as 1 minus supply adequacy, which is calculated as projected supply divided by projected demand.

These projections were generated using some data from the period of the COVID-19 pandemic. The pandemic impacted the population seeking care, the workforce providing care, and the data available for both. These projections should be interpreted with caution as the behavior of those seeking care and the size and composition of the workforce providing care during the pandemic may not be fully reflected in these projections. See the HWSM technical documentation for details on the methodology and datasets used to generate these projections.

For full data on the workforce projections, see the Workforce Projections Dashboard. You can access a webinar about the Workforce Projections Dashboard that shows how to use it. You can also download the data from the dashboard in spreadsheet form.