Nurse Workforce Projections, 2022-2037

November 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 2022 and go through 2037. 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](#).

Key Results and Takeaways

These projections were generated using historical data up to and including some data from 2022. 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 (2027, 2032, and 2037) throughout this analysis.

- **At the national level, there are shortages projected until 2037**. Specifically, there is a projected 10% shortage of registered nurses (RNs) in 2027. By 2037, the shortage is 6% (a shortage of 207,980 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]

- Nonmetro areas are projected to have a higher shortage of RNs than metro areas in each of the three interval years: 13% vs 5% in 2037, 19% vs 6% in 2032, and 24% vs 7% in 2027.

- The demand for licensed practical and vocational nurses (LPNs) is projected to grow faster than supply between 2022 and 2037, resulting in a projected shortage (302,440 LPN FTEs) in 2037. Nationwide, the projected supply of LPNs in 2037 is sufficient to meet just 64% of the demand for LPNs, compared to 80% in 2027. 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.

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[1] For a detailed explanation of the data, methods, and assumptions of the model, including the definitions of supply and demand, refer to 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, 2027

Projection Estimates	Registered Nurses	Licensed Practical Nurses	Nurse Practitioners	Nurse Anesthetists	Nurse Midwives
Supply	2,921,480	592,960	465,150	63,790	13,450
Demand	3,228,490	739,670	369,050	61,840	12,990
Percent Adequacy	90%	80%	126%	103%	104%

Exhibit 1b. Projected National Supply and Demand for Selected Nursing Occupations, 2032

Projection Estimates	Registered Nurses	Licensed Practical Nurses	Nurse Practitioners	Nurse Anesthetists	Nurse Midwives
Supply	3,124,480	570,780	593,380	69,370	15,880
Demand	3,398,660	795,750	388,540	63,860	13,160
Percent Adequacy	92%	72%	153%	109%	121%

Exhibit 1c. Projected National Supply and Demand for Selected Nursing Occupations, 2037

Projection Estimates	Registered Nurses	Licensed Practical Nurses	Nurse Practitioners	Nurse Anesthetists	Nurse Midwives
Supply	3,337,000	545,870	712,010	74,680	17,930
Demand	3,544,980	848,310	405,150	65,300	13,260
Percent Adequacy	94%	64%	176%	114%	135%

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 22% in North Carolina to a projected 77% oversupply in Wyoming in 2037.

- The ten states with the largest projected RN shortages in 2037 are: North Carolina (22%), Washington (22%), Maryland (20%), South Carolina (19%), Michigan (19%), New Mexico (19%), Oklahoma (18%), California (18%), Idaho (17%) and Georgia (17%).[4] See Exhibit 2.

- As with RNs, the projected adequacy of supply for LPNs varies considerably across states, ranging from 20% (an 80% shortage) in Maine to 117% (a 17% oversupply) in West Virginia in 2037.

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[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, 2037

State	Projected Shortage (%)	Projected Shortage (FTEs)
North Carolina	22%	28,850
Washington	22%	18,940
Maryland	20%	13,590
South Carolina	19%	11,860
Michigan	19%	21,290
New Mexico	19%	3,920
Oklahoma	18%	8,120
California	18%	65,000
Idaho	17%	3,590
Georgia	17%	18,990

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 also download the data from the dashboard in spreadsheet form.