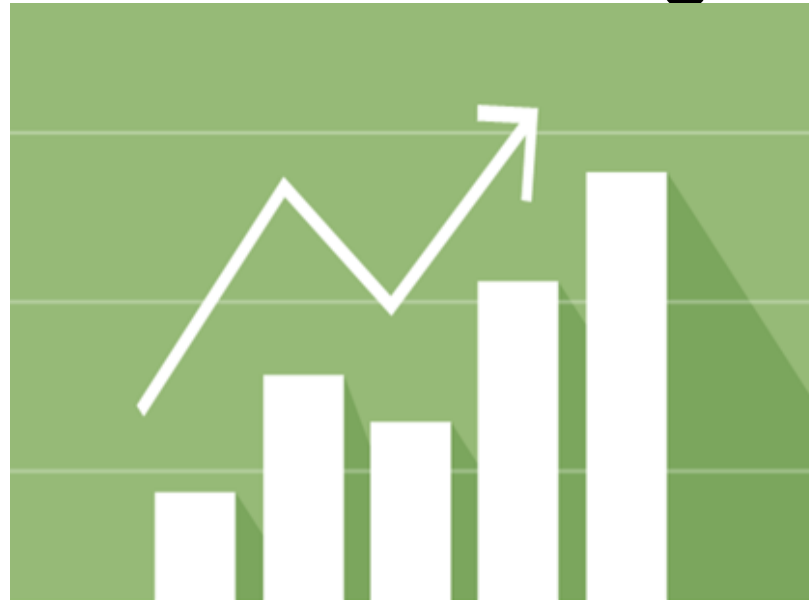# Projected Demand and Supply of Selected Healthcare Professions in Virginia

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AcademyHealth Health Workforce Interest Group (HWIG) Webinar
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Goal

To update projections of health professionals in Virginia

Possible Demand Data

US Bureau of Labor/ Virginia Economic Commission – short- and long-term employment projection

Virginia claims database

HRSA projections

Supply

Licensure database and survey provided number of licensees, workforce, FTEs, & new and expired licenses

Projected new and expired licensees; estimated based on equation of best fit

Supply FTE= previous year's supply FTE + FTE Conversion rate*(new licensees – old licensees)

Supply Scenarios

Low growth: This is a scenario in which the number of new licenses increased by 3% such as increased enrollment.

High growth: This is a scenario in which the number of expired licenses declined by 5% such as delayed retirement and increased participation in VA workforce.

Retention: This is a scenario in which the number of expired licenses declined by 3% such as delayed retirement.

Demand

Demand FTEs: This was obtained by dividing the projected supply FTEs by HRSA's adequacy rate.

HRSA Adequacy rate = HRSA estimated supply/HRSA estimated demand

Demand Scenarios

Reduced demand: This is a scenario in which the demand declines by 3% such as due to better health behavior.

Increased insurance access: This is a scenario in which access to insurance increased and results in a 5% increase in demand.

Regional Estimates

Supply data readily available by region

Demand data estimated from regional proportion of morbidity and disease surveillance data from the Virginia Department of Health

In progress…only one profession (RN) done so far

Department of Health Professions

Dashboard

Virginia Department of
Health Professions

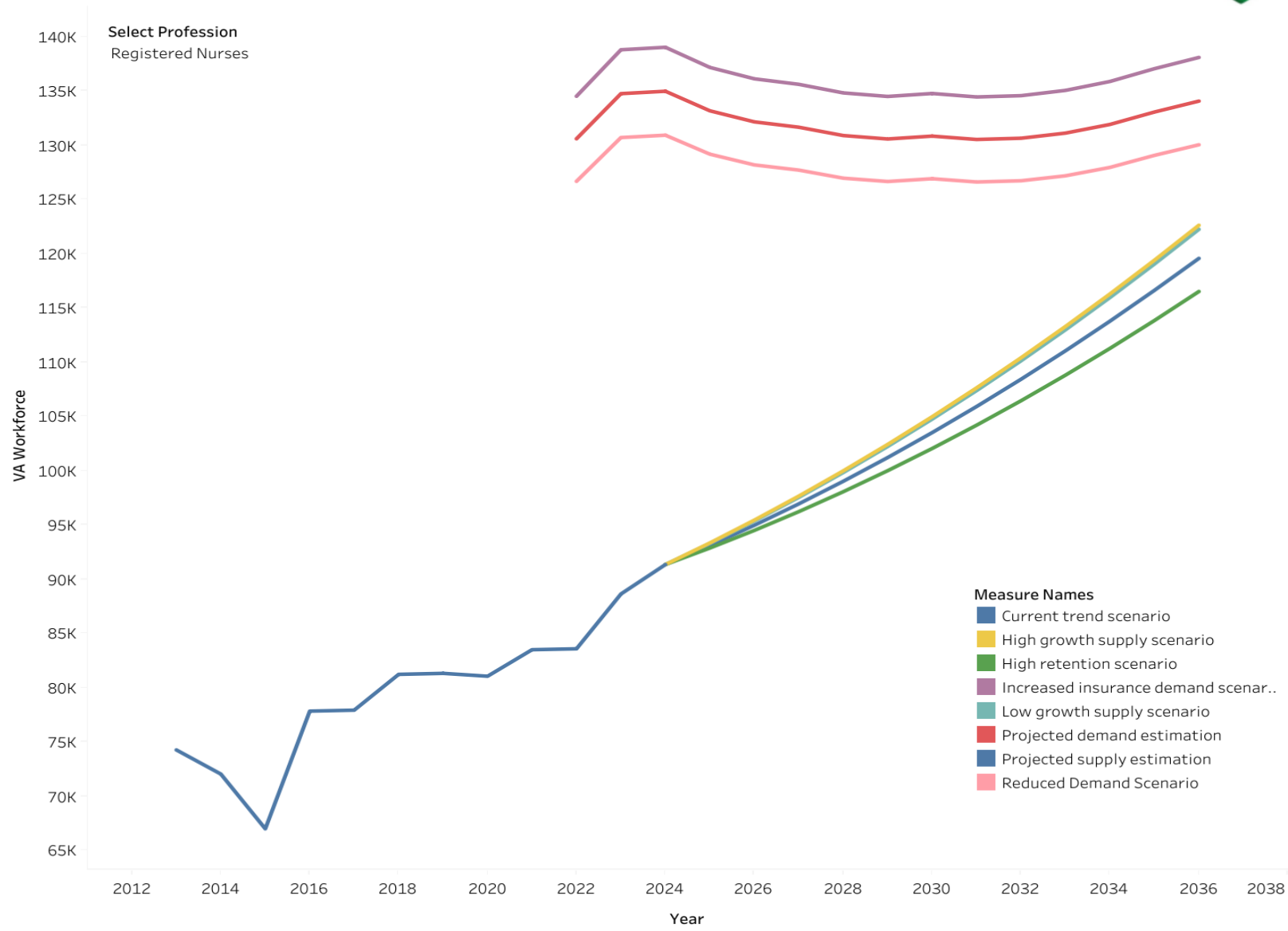# Healthcare Workforce Data Center

Projected Demand and Supply of Selected Healthcare Professions in Virginia

This dashboard presents the supply and demand trends and projections for selected healthcare professions in the Commonwealth of Virginia. As the National Center for Workforce Analysis (NCWA) under the Department of Health and Human Services, Health Resources and Services Administration updates its projections, which are used as the foundation for the demand estimates, more professions will be added. Click through the storybook to estimate projected supply and demand until 2036, and explore various hypothetical scenarios.
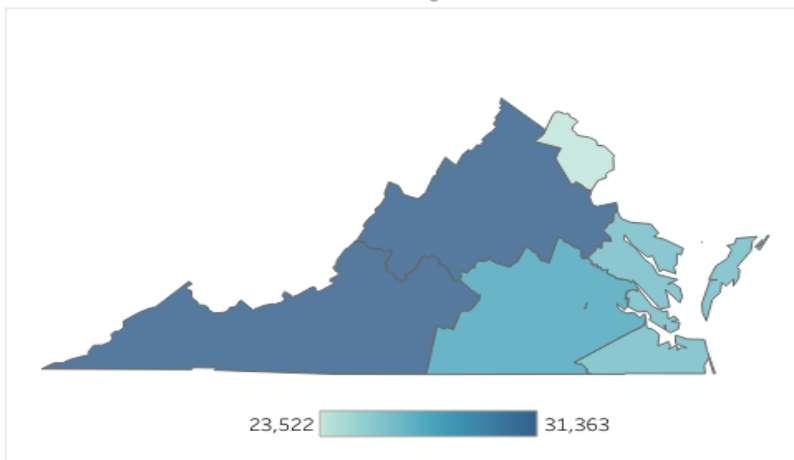
Supply and Demand Projections of Selected Healthcare Professions in Virginia

Select Profession
Registered Nurses

VA Workforce

Measure Names
- Current trend scenario
- High growth supply scenario
- High retention scenario
- Increased insurance demand scenar..
- Low growth supply scenario
- Projected demand estimation
- Projected supply estimation
- Reduced Demand Scenario

Year

Demand

Profession
Registered Nurses

Supply

Year
2032

23,522 ▬ 31,363

14,901 ▬ 22,590
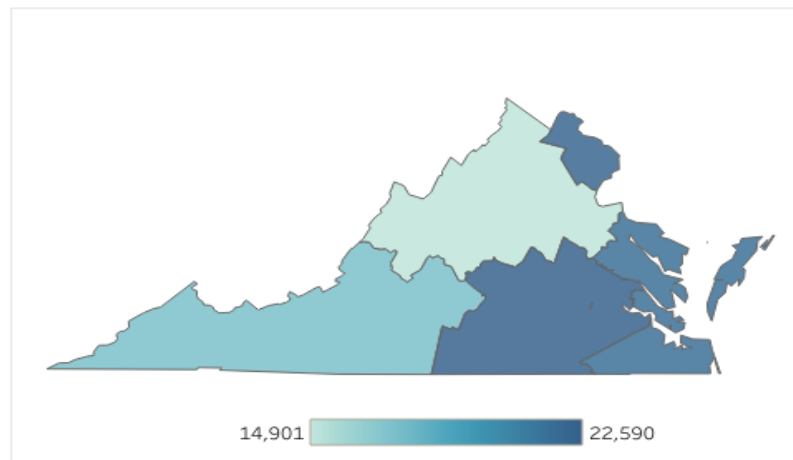
Trends

Health Districts
All

Measure Names
- Current trend scenario
- High retention scenar...
- Low growth supply sc...
- Projected supply esti...
- High growth supply s...
- Increased insurance d...
- Projected demand est...
- Reduced demand sce...

Methodology

This dashboard presents the trends and projections for the demand and supply of selected healthcare professions in the commonwealth of Virginia.

Supply
Licensure data for each profession provided the number of licensees that expire every year (for those with annual renewal) and every biennial (for those who renew every two years). Licensure data also include the number of new licensees every year. The numbers from the licensure database projected forward to 2036 in individual charts to obtain an equation that best captures the data trend. In deciding the line of best fit, the R-squared of the trend lines and logical expectation of future trends were both considered. Information on the ratio of FTEs provided by the workforce to the number of licensees were used to estimate average production rate and this rate, which ranged from 0.58 to 0.90, was used in calculating projected supply.

Current trend: This is the full time equivalency units (FTEs) provided by the profession over the years.

Projections: This was obtained by adding the previous year's FTEs to the product of the production rate and the difference between the number of new licensees and expired licensees.

Low growth: This is a scenario in which the number of new licenses increased by 3%.

High Retention: This is a scenario in which the number of expired licenses declined by 5%.

Moderate Retention: This is a scenario in which the number of expired licenses declined by 3%.

Demand
The National Center for Workforce Analysis (NCWA) under the Department of Health and Human Services, Health Resources and Services Administration, provides state-specific current and future adequacy rates for each profession. This adequacy rates were used to obtain the demand estimates between 2022 and 2036. For more information about the projections by NCWA, please visit https://data.hrsa.gov/topics/health-workforce/nchwa/workforce-projections

Demand: This was obtained by dividing the projected supply by the adequacy rate. Adequacy rate = HRSA estimated supply/HRSA estimated demand

Reduced demand: This is a scenario in which the demand declines by 3%.

Increased insurance access: This is a scenario in which access to insurance increased and results in a 5% increase in demand.
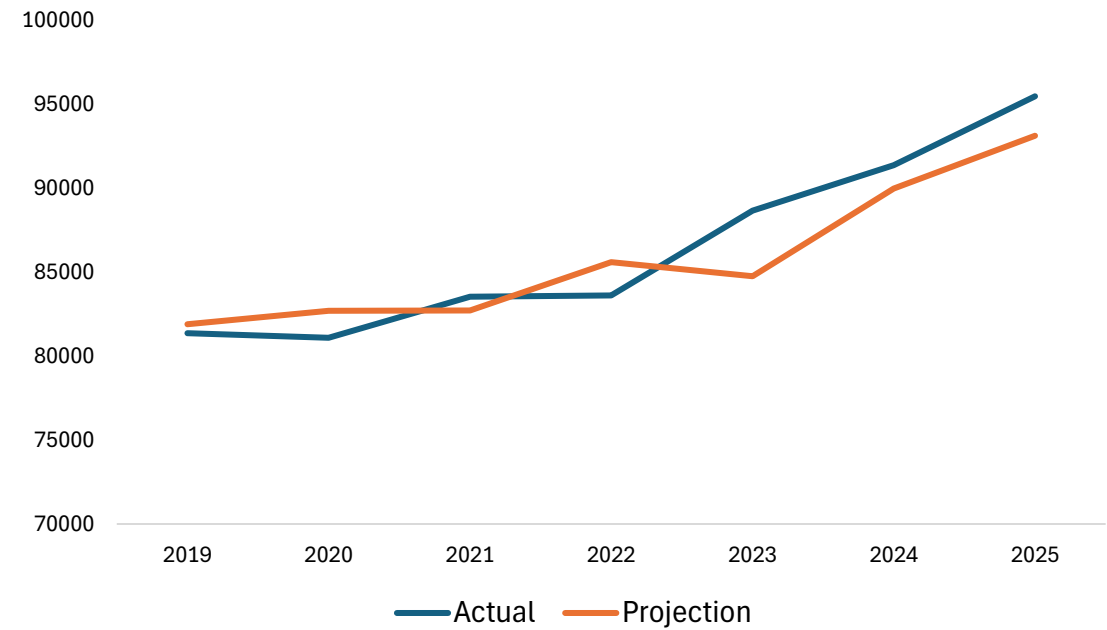
Checks

Checked using historical data

Estimates were within 4% of actuals

Actual versus Projection - RNs

Limitations

HRSA does not have data on all professions; Demand only as good as the underlying HRSA simulation model developed

Assumption of stable trends in the future; any disruption to past trends will affect the accuracy of the estimate

Demand and supply in some professions are interrelated (e.g. RN and LPN)

Conclusion

Projection outcomes are profession specific
- 5% retention rate resulted in highest projected supply for RN but 3% increase in new licensees resulted in highest supply for APRNs

Projected supply meets demand for APRNs, dentists, OT, OTAs, pharmacy technicians, PTs, and PTAs but not for dental hygienists, LPNs, physicians, RNs, respiratory therapists, PAs, and pharmacists

Geographical variations and maldistribution appear to be significant

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