Nebraska's Multi-Regional Nursing Workforce Model

The National Forum of State Nursing Workforce Centers - June 2019

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Funded by the Nebraska Board of Nursing

Nebraska Center For Nursing: Background

- Created by the Nebraska Legislature July 13, 2000 (Sect. 71-1796 – 71-1799)
- C4N was established to monitor the nursing workforce in Nebraska including supply and demand, recruitment, retention and utilization of nurses
- C4N is funded through nursing licensure fees

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Center for Nursing Mission/Vision

Vision

Nebraska Nurses: when and where we need them

Mission

The Nebraska Center for Nursing drives change in the nursing workforce through data, education, and policy development

Strategic Initiatives

Data, Collaboration, Promotion

https://center4nursing.nebraska.gov/resources

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Supply Data

- RN renewal in even years, LPN in odd years
- Workforce survey is attached to renewal
- Built from minimum data set
- Most nurses believe they must complete
- Return rate 90% annually

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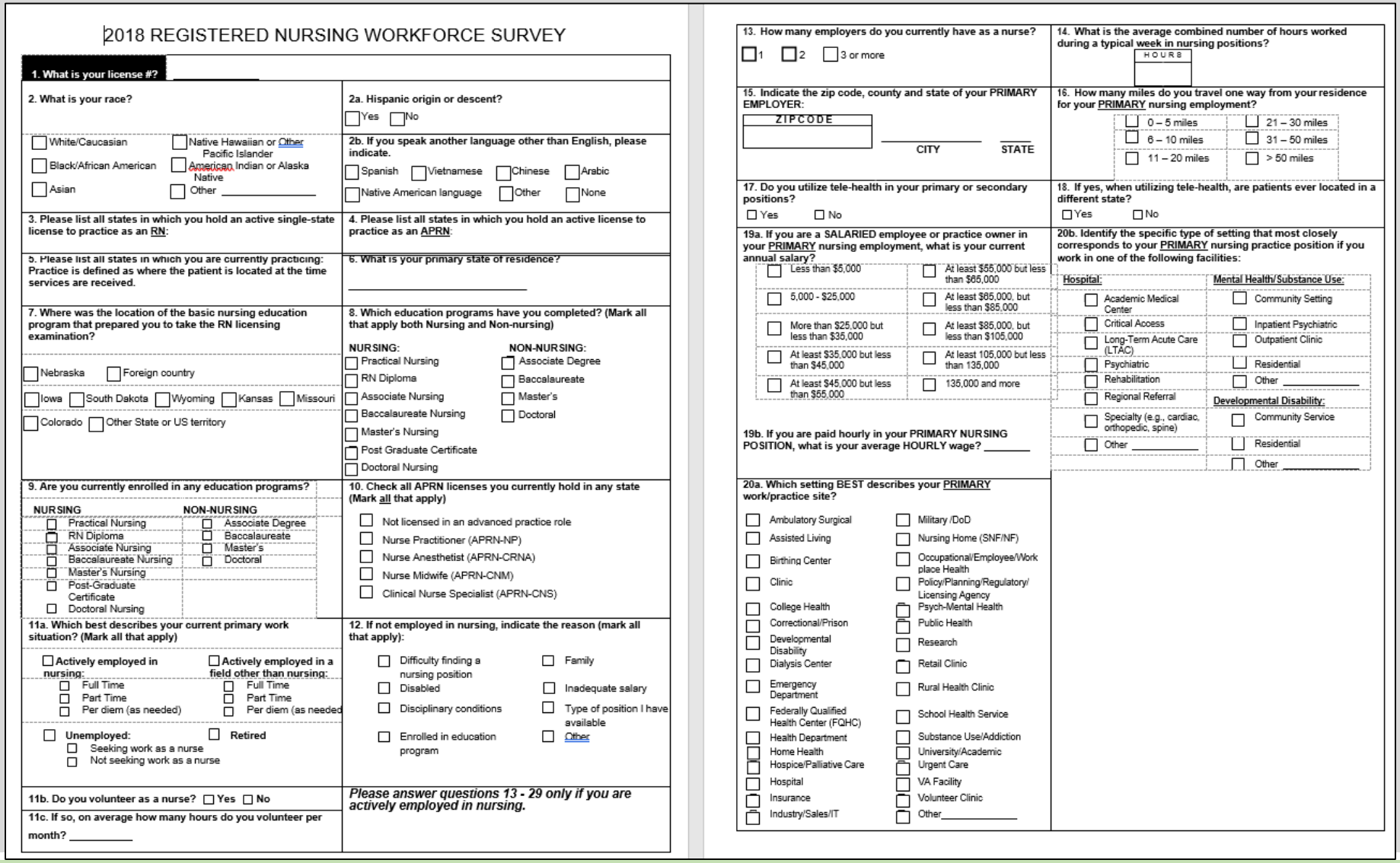
Data Collection through Renewal Surveys (RNs & LPNs)



2018 REGISTERED NURSING WORKFORCE SURVEY

1. What is your license #? _____

2. What is your race?

- ☐ White/Caucasian
- ☐ Black/African American
- ☐ Asian
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ American Indian or Alaska Native
- ☐ Other _____

2a. Hispanic origin or descent?

☐ Yes ☐ No

2b. If you speak another language other than English, please indicate.

☐ Spanish ☐ Vietnamese ☐ Chinese ☐ Arabic ☐ Native American language ☐ Other ☐ None

3. Please list all states in which you hold an active single-state license to practice as an RN:

4. Please list all states in which you hold an active license to practice as an APRN:

5. Please list all states in which you are currently practicing: Practice is defined as where the patient is located at the time services are received.

6. What is your primary state of residence?

_____

7. Where was the location of the basic nursing education program that prepared you to take the RN licensing examination?

- ☐ Nebraska ☐ Foreign country
- ☐ Iowa ☐ South Dakota ☐ Wyoming ☐ Kansas ☐ Missouri
- ☐ Colorado ☐ Other State or US territory

8. Which education programs have you completed? (Mark all that apply both Nursing and Non-nursing)

NURSING:	NON-NURSING:
☐ Practical Nursing	☐ Associate Degree
☐ RN Diploma	☐ Baccalaureate
☐ Associate Nursing	☐ Master's
☐ Baccalaureate Nursing	☐ Doctoral
☐ Master's Nursing	
☐ Post Graduate Certificate	
☐ Doctoral Nursing	

9. Are you currently enrolled in any education programs?

NURSING	NON-NURSING
☐ Practical Nursing	☐ Associate Degree
☐ RN Diploma	☐ Baccalaureate
☐ Associate Nursing	☐ Master's
☐ Baccalaureate Nursing	☐ Doctoral
☐ Master's Nursing	
☐ Post-Graduate Certificate	
☐ Doctoral Nursing	

10. Check all APRN licenses you currently hold in any state (Mark all that apply)

- ☐ Not licensed in an advanced practice role
- ☐ Nurse Practitioner (APRN-NP)
- ☐ Nurse Anesthetist (APRN-CRNA)
- ☐ Nurse Midwife (APRN-CNM)
- ☐ Clinical Nurse Specialist (APRN-CNS)

11a. Which best describes your current primary work situation? (Mark all that apply)

☐ Actively employed in nursing:	☐ Actively employed in a field other than nursing:
☐ Full Time	☐ Full Time
☐ Part Time	☐ Part Time
☐ Per diem (as needed)	☐ Per diem (as needed)

- ☐ Unemployed:
  - ☐ Seeking work as a nurse
  - ☐ Not seeking work as a nurse
- ☐ Retired

12. If not employed in nursing, indicate the reason (mark all that apply):

- ☐ Difficulty finding a nursing position
- ☐ Disabled
- ☐ Disciplinary conditions
- ☐ Enrolled in education program
- ☐ Family
- ☐ Inadequate salary
- ☐ Type of position I have available
- ☐ Other

11b. Do you volunteer as a nurse? ☐ Yes ☐ No

11c. If so, on average how many hours do you volunteer per month? _____

Please answer questions 13 - 29 only if you are actively employed in nursing.

13. How many employers do you currently have as a nurse?

☐ 1 ☐ 2 ☐ 3 or more

14. What is the average combined number of hours worked during a typical week in nursing positions?

HOURS _____

15. Indicate the zip code, county and state of your PRIMARY EMPLOYER:

ZIPCODE _____ CITY _____ STATE _____

16. How many miles do you travel one way from your residence for your PRIMARY nursing employment?

☐ 0 – 5 miles	☐ 21 – 30 miles
☐ 6 – 10 miles	☐ 31 – 50 miles
☐ 11 – 20 miles	☐ > 50 miles

17. Do you utilize tele-health in your primary or secondary positions?

☐ Yes ☐ No

18. If yes, when utilizing tele-health, are patients ever located in a different state?

☐ Yes ☐ No

19a. If you are a SALARIED employee or practice owner in your PRIMARY nursing employment, what is your current annual salary?

☐ Less than $5,000	☐ At least $55,000 but less than $65,000
☐ 5,000 - $25,000	☐ At least $65,000, but less than $85,000
☐ More than $25,000 but less than $35,000	☐ At least $85,000, but less than $105,000
☐ At least $35,000 but less than $45,000	☐ At least 105,000 but less than 135,000
☐ At least $45,000 but less than $55,000	☐ 135,000 and more

19b. If you are paid hourly in your PRIMARY NURSING POSITION, what is your average HOURLY wage? _____

20a. Which setting BEST describes your PRIMARY work/practice site?

☐ Ambulatory Surgical	☐ Military /DoD
☐ Assisted Living	☐ Nursing Home (SNF/NF)
☐ Birthing Center	☐ Occupational/Employee/Work place Health
☐ Clinic	☐ Policy/Planning/Regulatory/ Licensing Agency
☐ College Health	☐ Psych-Mental Health
☐ Correctional/Prison	☐ Public Health
☐ Developmental Disability	☐ Research
☐ Dialysis Center	☐ Retail Clinic
☐ Emergency Department	☐ Rural Health Clinic
☐ Federally Qualified Health Center (FQHC)	☐ School Health Service
☐ Health Department	☐ Substance Use/Addiction
☐ Home Health	☐ University/Academic
☐ Hospice/Palliative Care	☐ Urgent Care
☐ Hospital	☐ VA Facility
☐ Insurance	☐ Volunteer Clinic
☐ Industry/Sales/IT	☐ Other_____

20b. Identify the specific type of setting that most closely corresponds to your PRIMARY nursing practice position if you work in one of the following facilities:

Hospital:	Mental Health/Substance Use:
☐ Academic Medical Center	☐ Community Setting
☐ Critical Access	☐ Inpatient Psychiatric
☐ Long-Term Acute Care (LTAC)	☐ Outpatient Clinic
☐ Psychiatric	☐ Residential
☐ Rehabilitation	☐ Other _____
☐ Regional Referral	**Developmental Disability:**
☐ Specialty (e.g., cardiac, orthopedic, spine)	☐ Community Service
☐ Other _____	☐ Residential
	☐ Other _____

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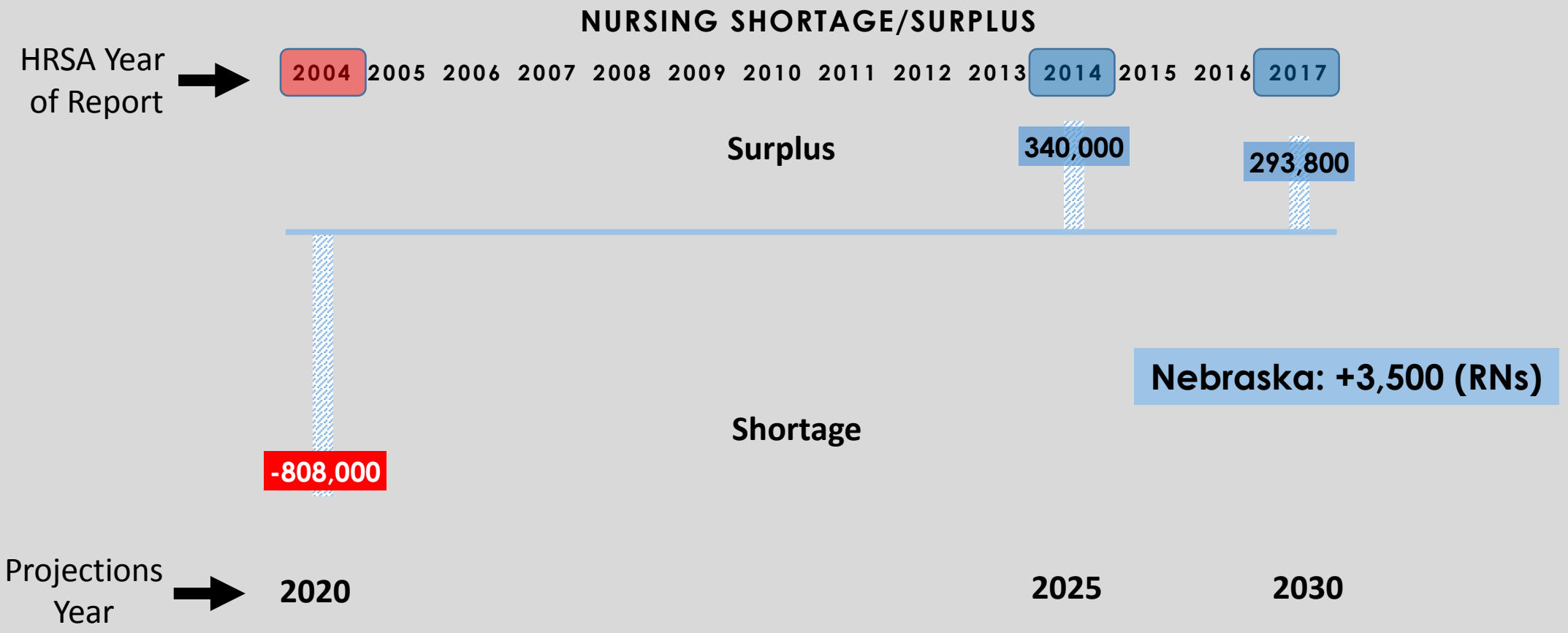
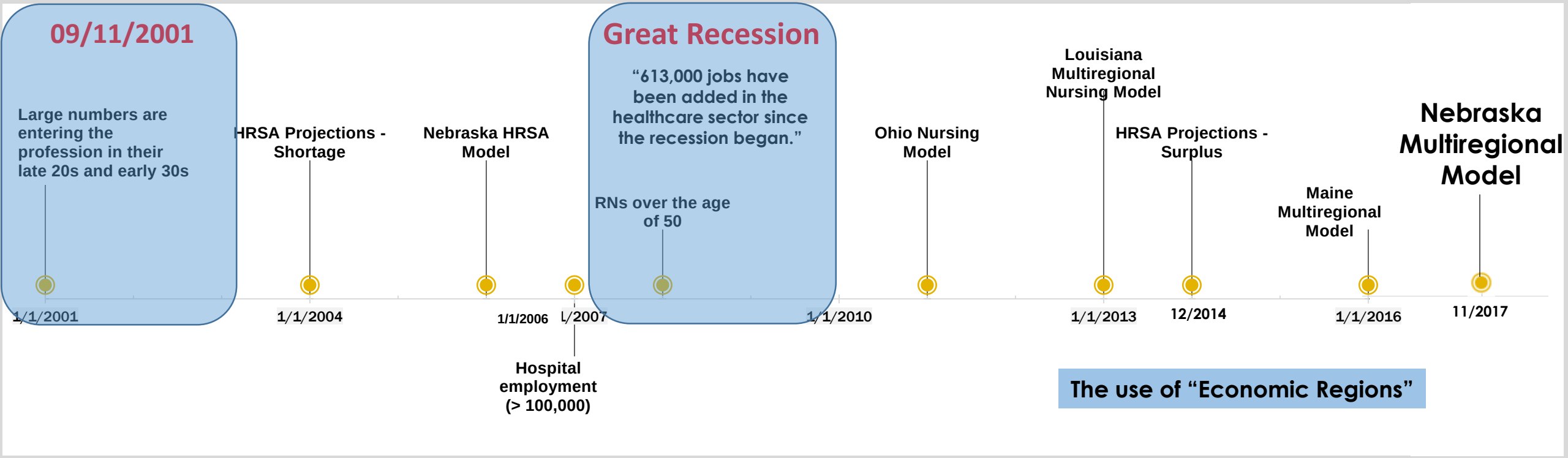
Nursing Projections

HRSA Projections: From Nursing Shortage to Nursing Surplus



Timeline: Nursing Workforce Trends & Projections

Collaboration with Dr. Craig Moore



The use of "Economic Regions"

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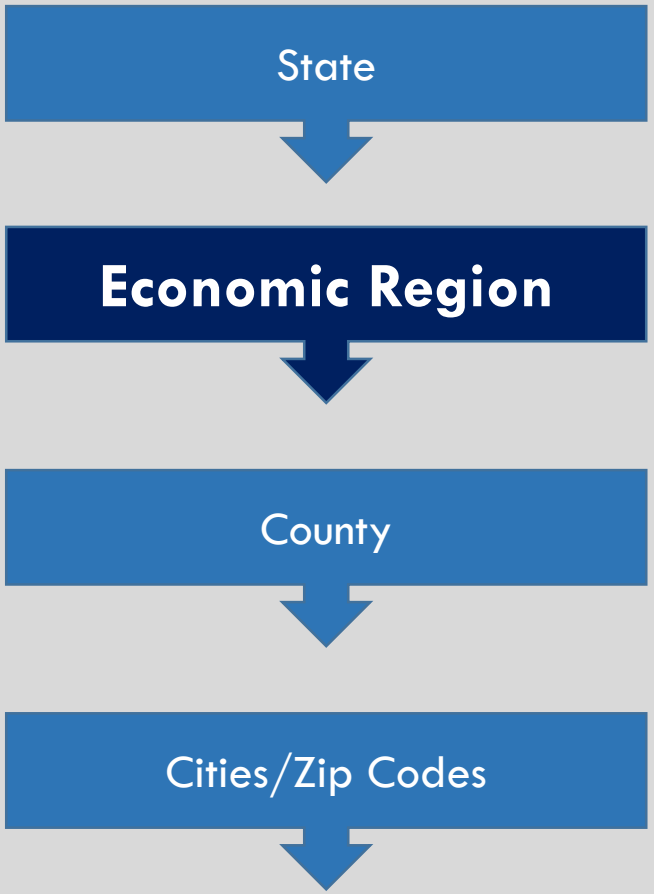
"Economic Regions"

The Nebraska DOL uses employers and employees information to create **job flows** known as "Local Employment Dynamics (LED)."

The **Economic Development Regions** defined by DOL are based on work commuting patterns (LED) across cities and counties, along with demographics and employment data.

The **forecasting models** use these regions as geographic areas to identify nursing workforce needs over time.

"Economic Regions"



Nursing demographics from Renewal Surveys

Allows to forecast nursing workforce by geography (metro areas vs. rural) and connect that information to overall status of the economy (i.e., jobs growth)

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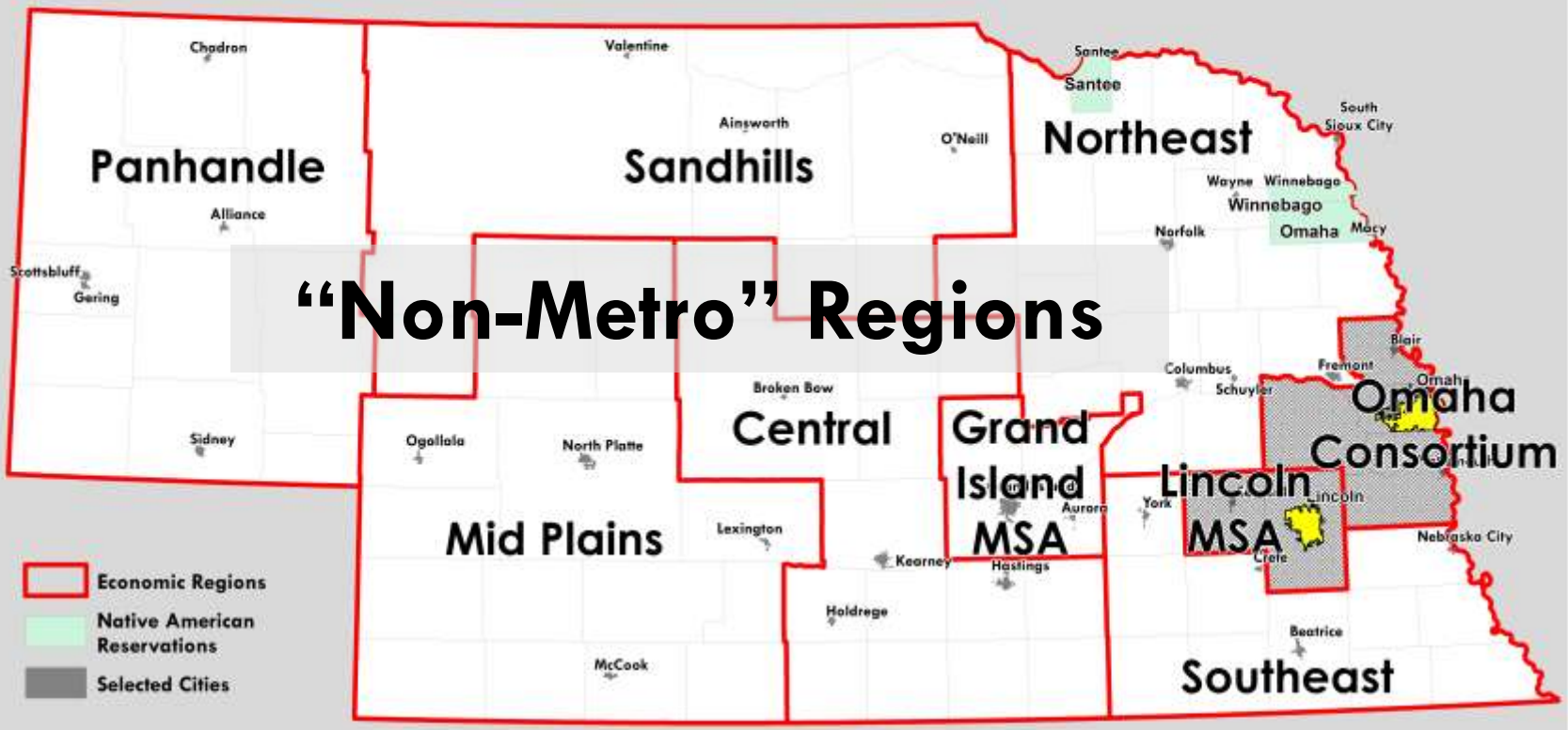
Metro vs. Non-Metro Economic Regions



"Metro Regions"

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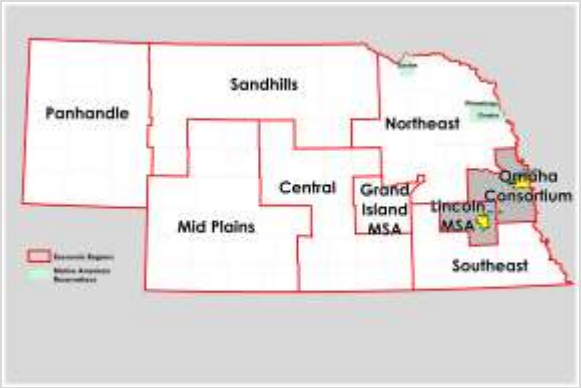
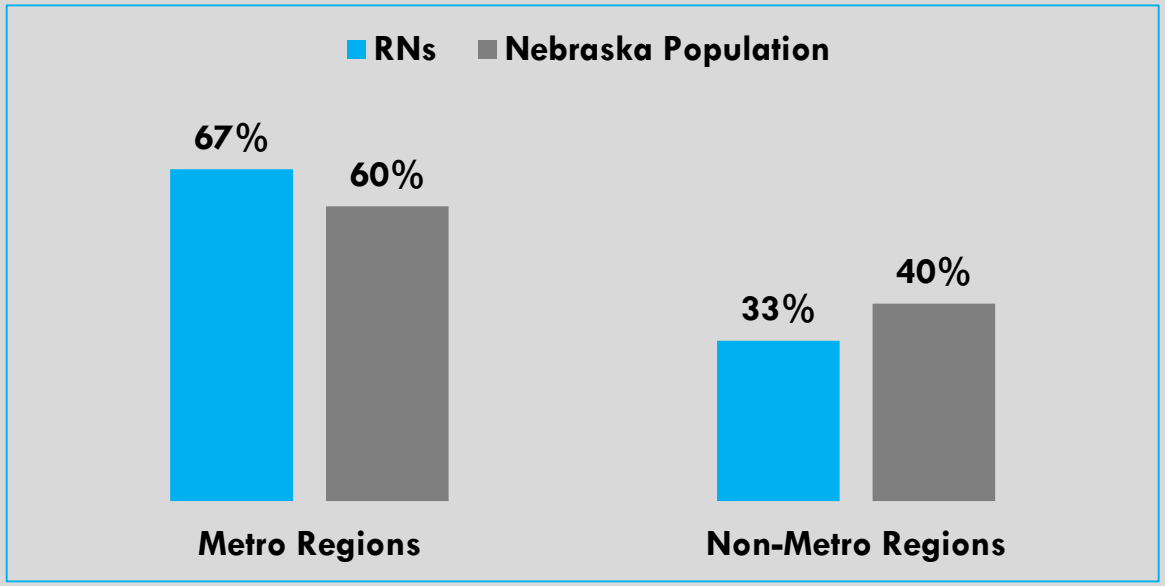
2018 Nursing Workforce



Percentage of RNs by Region:



Sources: 2018 Nebraska RN Renewal Survey. American Community Survey (Population Estimates, 2018. Table PEPANNRES)

Metro: 1,333 RNs per 100,000
Non-Metro: 961 RNs per 100,000

Definitions

☞"A **FORECAST** is focused on the future supply and demand for nursing given the current trends and standards of care."

In contrast:

☞"A **WORKFORCE MODEL** is a **policy tool** that provides a picture of the alternative future supply and demand for nursing under different scenarios - simulation."

- A model can determine by how much a policy variable would have to change to affect a desired outcome – sensitivity analysis
- A model is flexible and can be easily updated as new developments take place (e.g. a new healthcare facility opening, a new nursing program starting, a change in regulations, etc.).

Source: Dr. Craig Moore

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What Can Models Do?

- Accounts for shifts in the demographic make-up of the region and other factors affecting demand for health care services.
- Account for changes in the way nurses are utilized in various health settings.
- Changes in the volume of non-resident patients treated in the region.
- Changes in the number of nurses recruited from outside the region.

Source: Dr. Craig Moore

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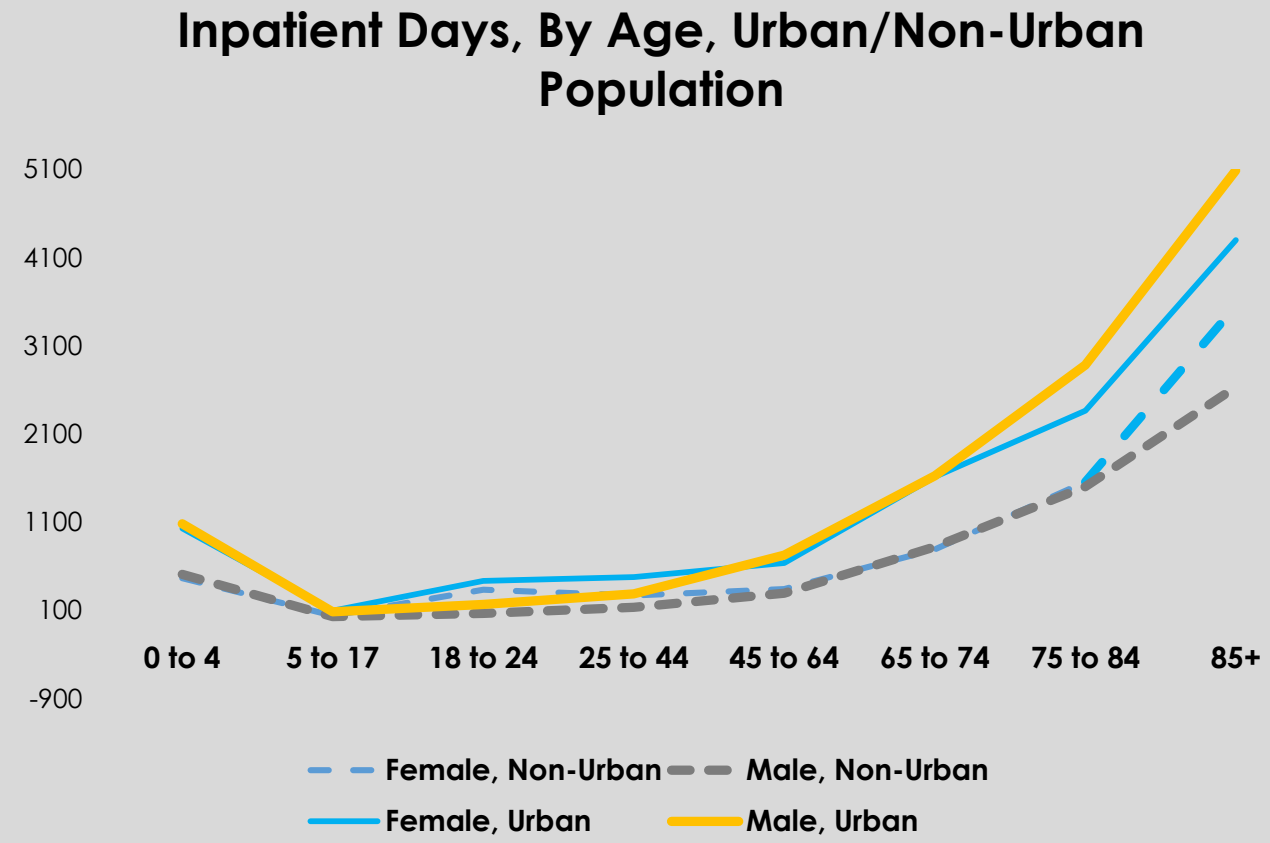
Demographics Drives the Demand for Nursing



Source: Dr. Craig Moore

Actuarial data shows that the older one gets, the more healthcare they likely need and the pattern of healthcare demand for males and females vary during most of their lives because of child bearing and other factors.

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Rural Versus Metropolitan Demand

Rural : < 2,500 people

Urban: > 2,500 people

Frontier: < 7 people per square mile

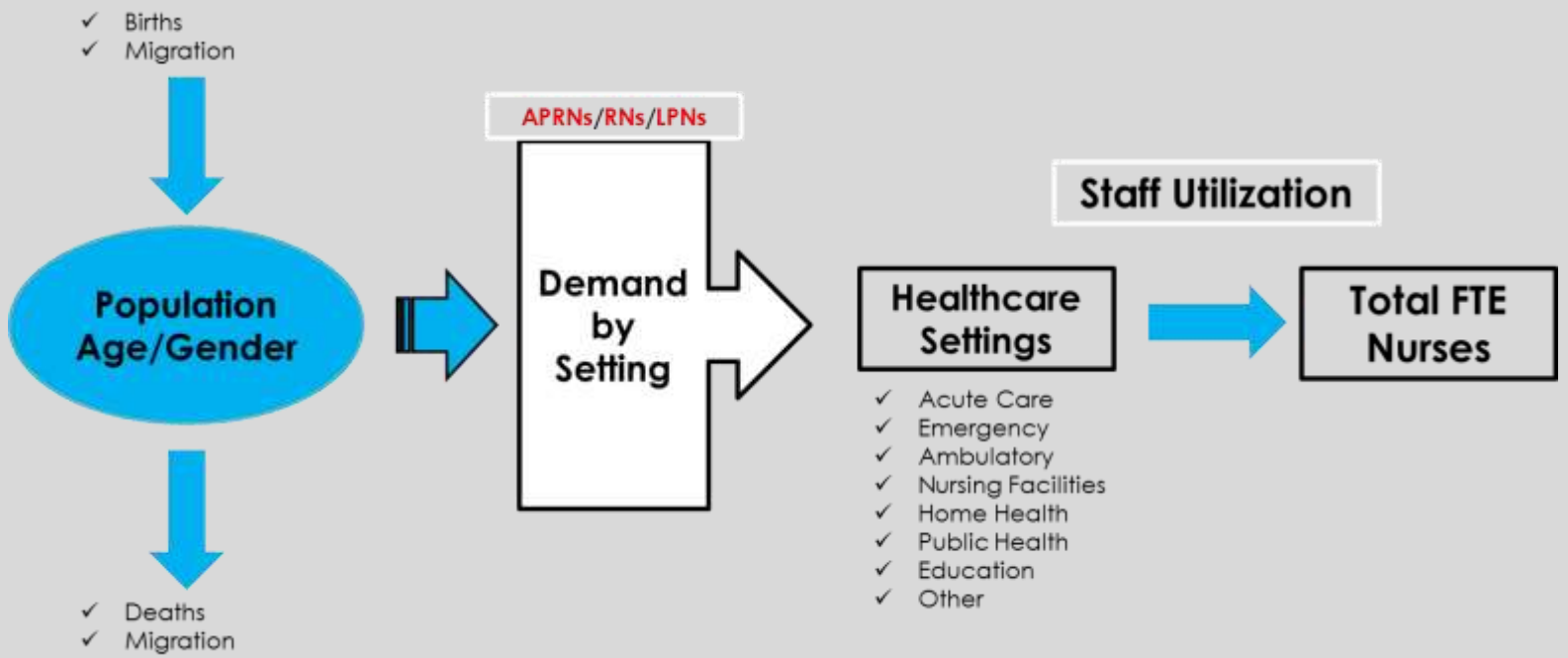
2010 U.S. Census Bureau

☞**Rural/frontier patients frequently have to be treated for major medical problems in a larger hospital outside their region.**

☞**The general health of rural/frontier patients, however, is better and they require fewer hospitalizations.**

☞**Metropolitan areas may have large numbers of people without health insurance who are reluctant to seek care.**

Demand for Nurses



☞Utilization rates for each healthcare setting can be changed to simulate what would happen if the ratio of nurses to patient care were to increase or decrease.

☞This utilization rate is checked against national norms to insure that the figures are reasonable.

Source: Dr. Craig Moore

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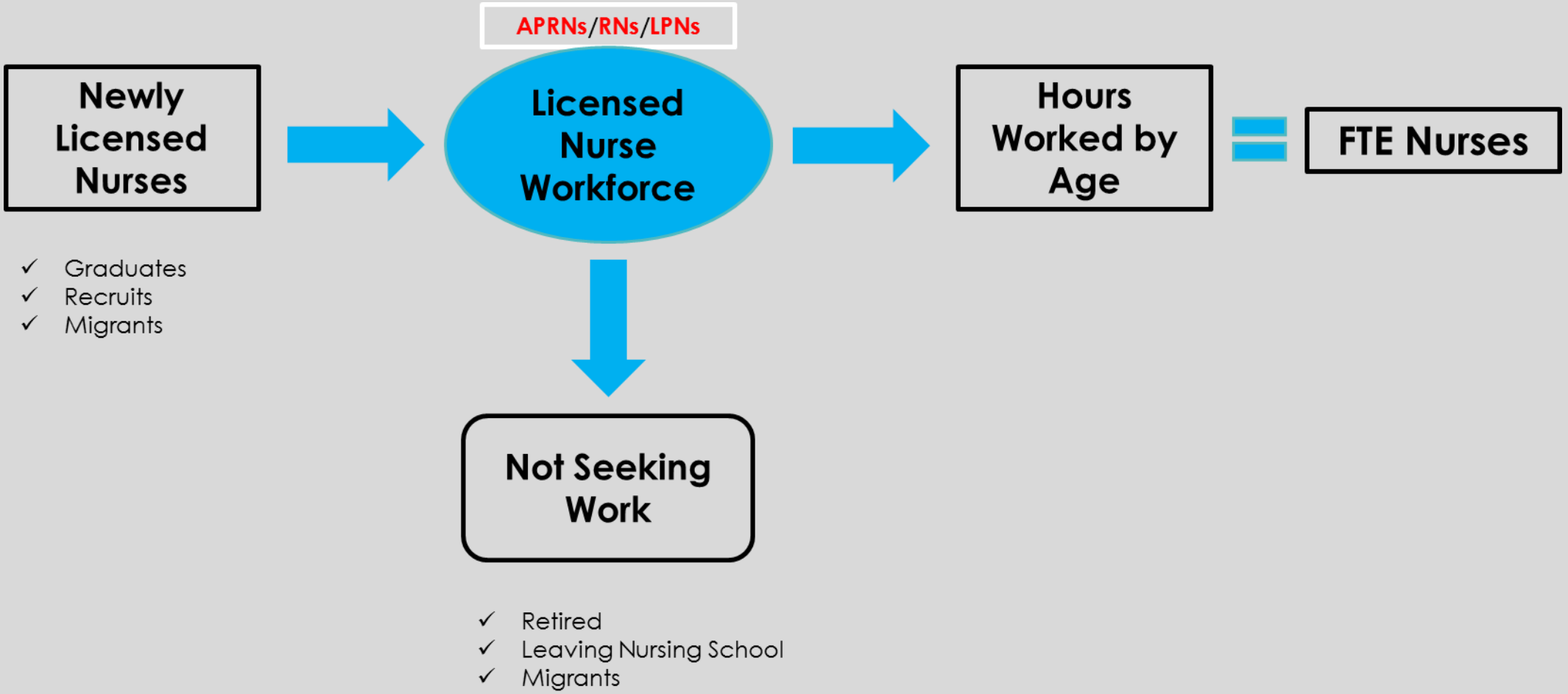
Supply for Nurses



Source: Dr. Craig Moore

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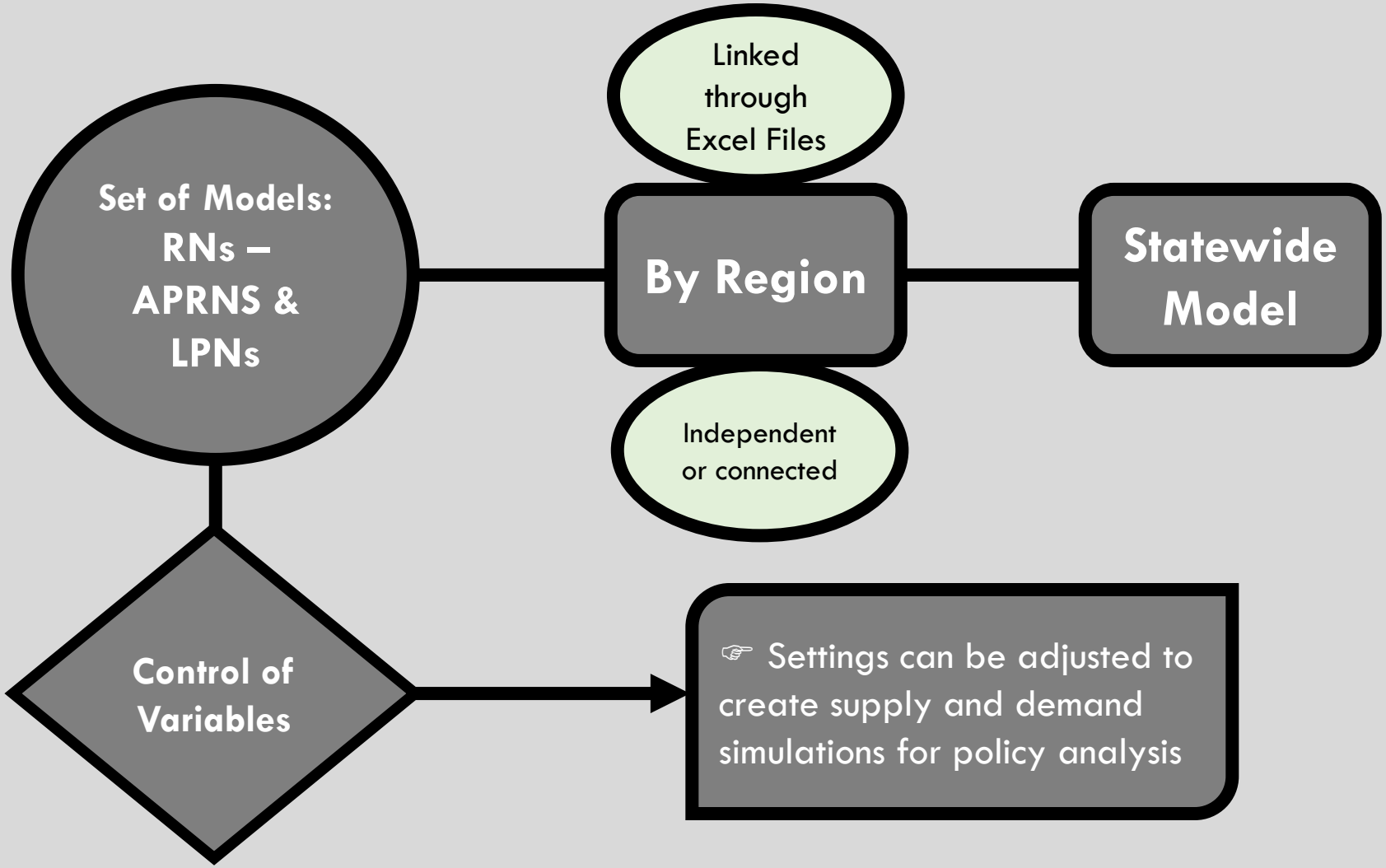
The Models – Characteristics & Functions



Nebraska Nursing Supply & Demand Forecast

NE Workforce Data

Nebraska Nursing Supply & Demand Forecast

☞ 2019 shows a statewide shortage of nurses:

RNs: 2,849
shortage

APRNs: 418
shortage

LPNs: 1,349
shortage

Total Nursing Shortage:

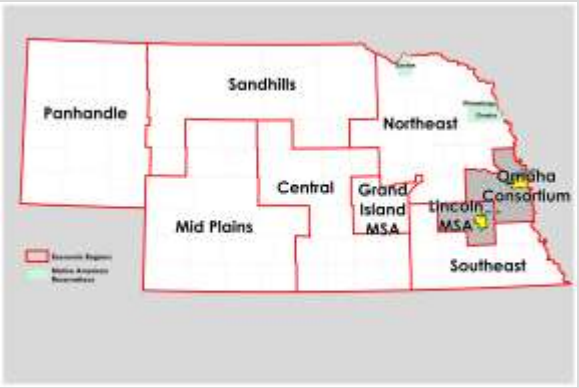
4,616 FTE nurses

☞**By 2025, a nursing shortage of 5,435 FTE nurses is expected.**

Source: Nebraska Center for Nursing – Nursing Supply and Demand Model (2017-2025).

Nebraska Nursing Supply & Demand Forecast

☞All nursing types are experiencing shortages that will be increased over the following years.



☞The Panhandle and Sandhills Regions have the highest proportion of unmet demand for RNs.

☞The Omaha Region has the highest proportion of unmet demand for LPNs.

☞There is a higher demand for LPNs in proportion to the demand for RNs in the Southeast Region.

Source: Nebraska Center for Nursing – Nursing Supply and Demand Model (2017-2025).

Nebraska Nursing Supply & Demand Forecast

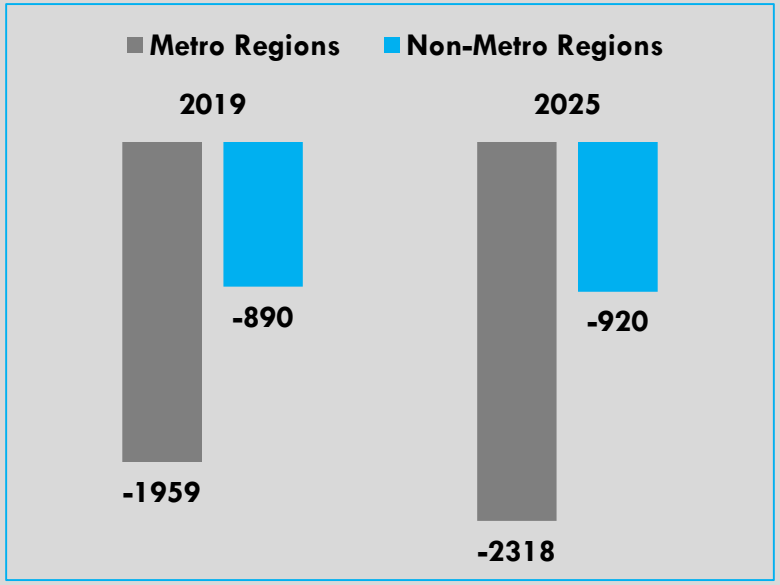
Nursing Shortages % change 2019-2025

RNs
Metro Regions: 18.3%
Non-Metro Regions: 3.3%

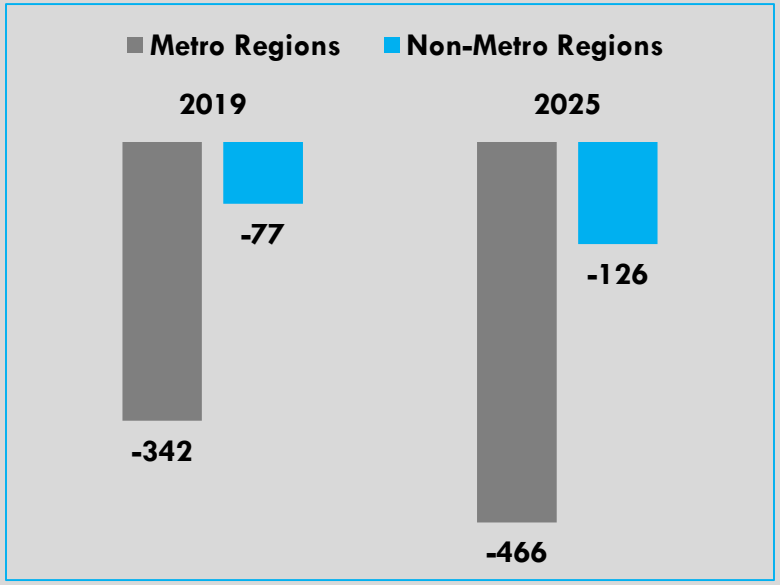
APRNs
Metro Regions: 36.3%
Non-Metro Regions: 64.1%

LPNs
Metro Regions: 36.9%
Non-Metro Regions: -0.6%

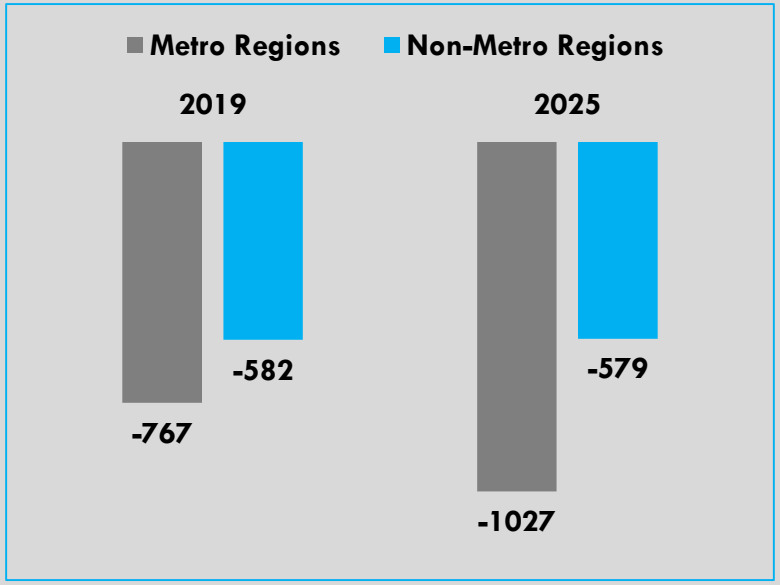
RN - Shortages 2019 & 2025 by Region



APRN - Shortages 2019 & 2025 by Region



LPN - Shortages 2019 & 2025 by Region



Source: Nebraska Center for Nursing – Nursing Supply and Demand Model (2017-2025).

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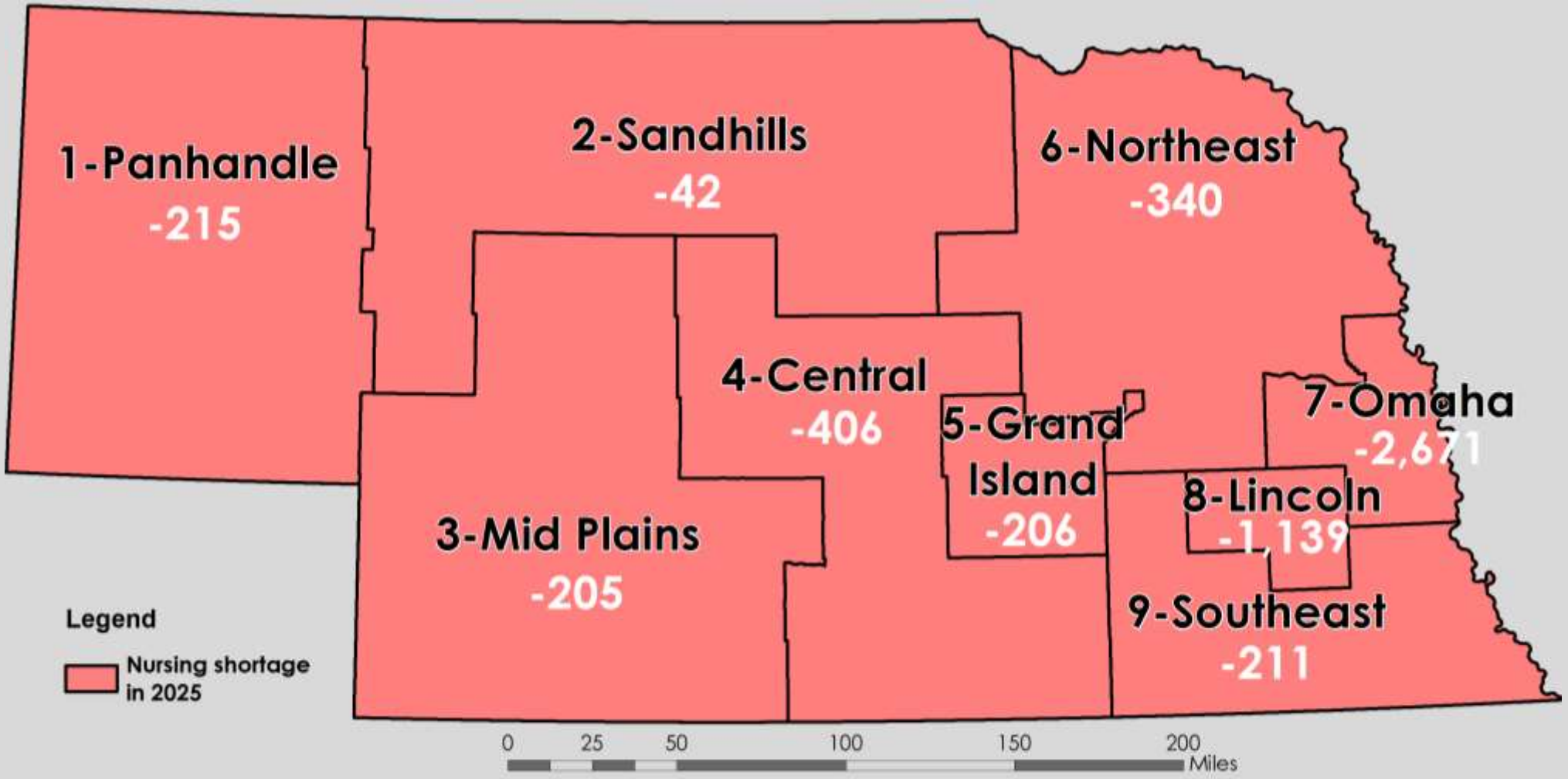
Projected Nursing Shortages (all type of nurses) by Region in 2025



Using the Model for Policy Analysis

Simulation

What if….the New VA Facility in Kearney Starts Operations in 2019?

	2017	2018
Regional Demand	1,689	1,698
Growth - New beds	1,689	2,183

☞The new VA facility in Kearney will add 225 beds to the system. What increase in RN demand will result by adding this new facility in the Central Economic Region?

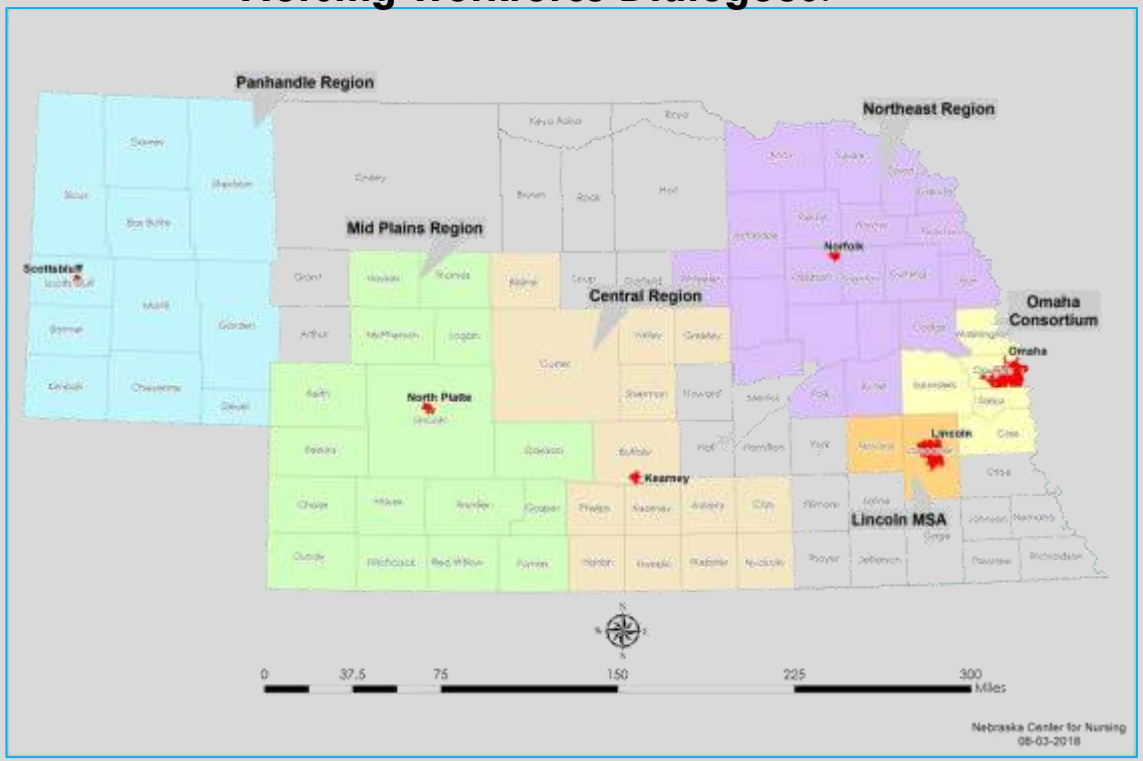
☞Without the VA facility, there is a shortage of 128 RNs in the Central Region. By adding this facility, the shortage will increase to 613 RNs, a difference of 485 RNs.

Dissemination of Data

Regional Dialogues

Nursing Workforce Dialogues

Cities and Economic Regions visited during the Nursing Workforce Dialogues:



1. What do you know? Does this data match with what you are seeing?
2. What have you done? What efforts have you made to help alleviate the shortage in your area?
3. What can the Nebraska Center for Nursing do to help or partner?

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Nursing Workforce Dialogues

- Six dialogues with nurses, CEO/administrators, CNO/DON, CFO, health educators, public officials and elected officials
- Informed of expected nursing supply and demand, the nursing workforce gap for LPNs, RNs, and APRNs projected to 2025 for each economic region.

Themes from the Dialogues

- The dialogues validated results of the models with the current nursing workforce needs present at each site, and informed about current strategies used to alleviate the nursing shortage.
- Themes clustered around generational issues, recruitment, retention, education, faculty shortage, clinical sites, new care delivery models and more

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Conferences

Nursing Educator Conference (June 7, 2019) Lincoln, Nebraska.

Dialogues with nurse faculty to identify nursing workforce challenges for educators:

- **Question 1:** Tell me about your faculty? Shortage?
- **Question 2:** What Prevents Programs from Full Enrollment? (Are there empty seats?, Applicant qualifications, faculty shortages, physical space, clinical sites?)
- **Question 3:** Creative Solutions?

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Themes and Strategies

- Informed CFN Strategic Plan
- Validates current workforce shortage
- Provides data for grant work and for policy formation
- Sets stage for collaboration with other nursing organizations
- Has projected the CFN as The Center for Nursing workforce data

Acknowledgments

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- Nebraska Board of Nursing
- Nebraska Hospital Association
- Nebraska Healthcare Association
- Nebraska Organization of Nurse Leaders

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