

**NEBRASKA
CENTER FOR
NURSING**



2017-2018 BIENNIAL REPORT

Nebraska Center for Nursing

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The Nebraska Center for Nursing

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THE NEBRASKA CENTER OF NURSING: WHO WE ARE

The Nebraska Center for Nursing (CFN) was created via LB 1025 by the Nebraska Legislature on July 13, 2000, to monitor the nursing workforce in Nebraska including supply and demand, recruitment, retention and utilization of nurses. The Center consists of a 16-member board, composed primarily of nurses from across Nebraska appointed by the Governor (see list of board members in the Appendix). The Center is funded through nursing licensure fees and meets approximately six times a year.

The primary goals for the center are:

(1) To develop a strategic statewide plan to alleviate the nursing shortage in Nebraska by:

- (a) Establishing and maintaining a data base on nursing supply and demand in Nebraska, including current supply and demand and future projections; and
- (b) Selecting priorities from the plan to be addressed;

(2) To convene various groups representative of nurses, other health care providers, business and industry, consumers, legislators, and educators to:

- (a) Review and comment on data analysis prepared for the center;
- (b) Recommend systemic changes, including strategies for implementation of recommended changes; and
- (c) Evaluate and report the results of these efforts to the Legislature and the public;

(3) To enhance and promote recognition, reward, and renewal activities for nurses by:

- (a) Proposing and creating recognition, reward, and renewal activities; and
- (b) Promoting media and positive image-building efforts for nursing.

Source: Laws 2000, LB 1025, § 3. Effective date July 13, 2000.

The Center produces biennial and annual reports on Nursing Workforce Data. The Center has recently purchased and implemented a state-of-the-art workforce supply and demand model. This one of a kind model utilizes Nebraska nursing supply data and projects demand for nurses based on information from the nine economic regions of the state. This biennial report highlights the work of this dynamic group.

THE NEBRASKA CENTER OF NURSING: STRATEGIC PLAN

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 Focus #1: Data

The Center for Nursing will seek to become a self-sustaining organization, providing essential, reliable forecasting and workforce information resulting in equitable access and distribution of nurses

Strategic Focus #2: Collaboration

Collaborate with key stakeholders to address the nursing shortage in Nebraska

- Collaborate to build and maintain the current workforce
- Maintain competency/skill level of the current workforce

Strategic Focus #3: Promotion

Promote the value of the nursing profession

- Develop the image and the voice of the CFN

We're Building Healthier Communities through Nursing:

Nebraska's 30,000 nurses are key to promoting health and creating communities in which everyone has access to high-quality care

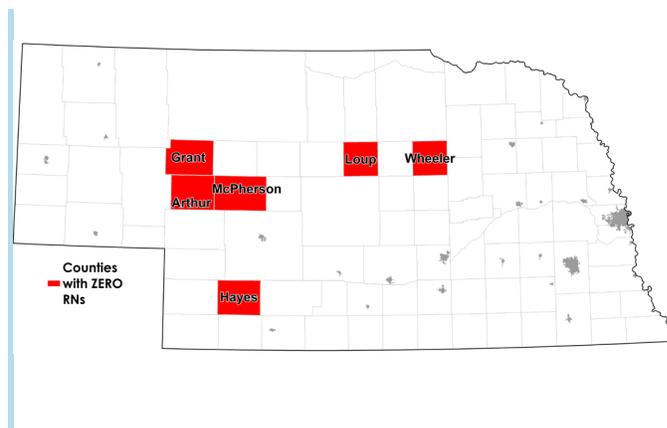
EXECUTIVE SUMMARY

THE NEBRASKA NURSING WORKFORCE

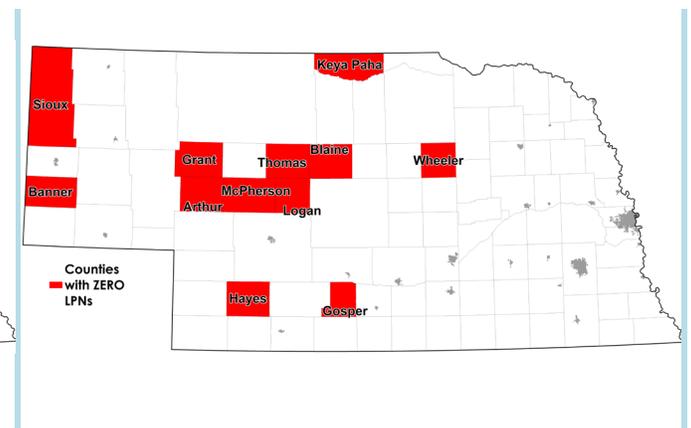
The nursing workforce continues to expand in the State of Nebraska, although at a much slower pace than the expected demand of nurses as shown by the Nebraska Multiregional Nursing Workforce model. The current nursing shortage in the State of Nebraska is **4,062**, which will increase to **5,436** in the year 2025. According to the renewal surveys, total number of RNs working in Nebraska is **23,754** (1,784 are APRNs), and LPNs totaled **5,004** whose principal employment is in Nebraska. Most of the nursing growth has been concentrated in metropolitan areas (88%), as in the cities of Lincoln and Omaha. This contrasts with rural Nebraska where there are a number of counties without a presence of nurses (RNs, APRNs or LPNs).

According to the 2016 RN Renewal Survey, six counties reported zero RNs working in them: Grant, Arthur, McPherson, Loup, Wheeler, and Hayes. And for the 2017 LPN Renewal Survey, twelve counties reported zero LPNs working in them: Sioux, Banner, Grant, Arthur, McPherson, Logan, Thomas, Blaine, Hayes, Gosper, Keya Paha, and Wheeler. There are a total of five counties with zero RNs or LPNs: Grant, Arthur, McPherson, Wheeler and Hayes.

Counties with zero RNs:



Counties with zero LPNs:



The average age of RNs has remained stable over the years, with a minimum average age of 43.3 in 2004 and a maximum average age of 44.7 in 2010. The current (2016) average age is **43.9**, and nationwide the average age is 44.6 (HRSA, 2013). The average age for LPNs is **46.1**, which is four years older than the average age ten years ago. Nationwide the average age for LPNs is 43.6.

The percentage of males that are Registered Nurses has steadily increased over the years, reaching a high of 6% in the year 2016. Male participation within the LPN workforce has historically been lower than within RNs, although in the last years male participation has grown, reaching 3.2% in the year 2017. The percentage of males within Nebraska RNs and LPNs is still lower than the national average (9.1%, and 7.6%, respectively).

RNs who are considered ethnic minorities have also increased over the years, from 3.1% in the year 2000, to **6.3%** in the year 2016. Among LPNs, minority representation has also increased over time, from 4.6% in 2003 to **12.6%** in 2017. At the state level, nearly 20% of the population is considered a minority¹. Nationwide, 33.1% of RNs and 36.8% of LPNs are considered minorities (HRSA, 2013).

In terms of education attainment, RNs with bachelor's degrees and higher have increased 12.6% from the year 2008 to the year 2016 (51.3% vs. **63.9%**, respectively). At the national level, 55% of RNs hold bachelor degrees (AACN, 2017). Also, RNs with doctoral degrees have more than doubled, from 74 RNs with doctoral degrees (DNPs, EdDs, and Ph.Ds.) in 2003 to a total of **216** RNs in 2016 (192% growth). Overall, RNs holding masters and doctoral degrees represent 11.4% of the workforce, which is similar to the national statistics (HRSA, 2013).

Nearly six out of ten RNs work in Nebraska **Hospitals** (58.9%) which is lower than the

¹ U.S. Census Bureau (2016 estimates).

national data (61.0%; U.S. Bureau of Labor Statistics, 2017²). Only 10.7% of Nebraska LPNs work in hospitals. In comparison, at the national level, 29.3% of LPNs work in hospitals. Nearly four out of ten LPNs work in Nursing Homes/Extended Care/ Assisted Living Facility (38.2%).

² <https://www.bls.gov/ooh/healthcare/Print/registered-nurses.htm>

METHODOLOGY

The 2018 Center for Nursing Biennial Report contains nursing workforce data analysis for RNs and LPNs collected through the renewal surveys from 2016 and 2017, respectively. In addition, the biennial report contains information about nursing workforce projections from the year 2017 through the year 2025 for RNs, APRNs, and LPNs based on a multiregional nursing supply and demand model for each of the nine Nebraska economic regions. This model is one of a few multiregional nursing workforce models available in the United States that projects nursing workforce at the regional level by considering degrees of urbanization (i.e., urban vs. rural/frontier) and nursing intensity factors by setting (i.e., hospital, long-term care, education).

The Nebraska Center for Nursing has been analyzing nursing workforce data since the year 2000, collected from the renewal surveys completed by Registered Nurses (RNs) and Licensed Practical Nurses (LPNs) upon renewing their respective nursing licenses. These surveys are analyzed considering only those nurses who **work in the State of Nebraska** to provide clear demographic estimates of the nursing workforce providing health care to the citizens of the State.

The renewal surveys are collected by the Nebraska DHHS Licensure Unit both in digital and paper formats, gathering information that includes demographic data, job location, work settings, and satisfaction levels regarding the nursing profession and workplaces. The renewal surveys are in compliance with the minimum dataset developed by the National Forum of State Nursing Workforce Centers. Both RN and LPN renewal surveys contain nearly 30 questions, which can be cross-tabulated, enriching the statistical analysis of the workforce data. The Nebraska Center for Nursing invites nurses and the general public interested in these databases to request additional information by directly contacting the Executive Director of the Center, Ann Oertwich, at ann.oertwich@nebraska.gov.

THE NEBRASKA REGISTERED NURSE & LICENSED PRACTICAL NURSE WORKFORCE

Workforce Size and Distribution

A total of 23,754 surveys from RNs (2016) and 5,004 surveys from LPNs (2017) were analyzed as they represent nurses who indicated that they work in the State of Nebraska. Six counties reported zero RNs working in them: Grant, Arthur, McPherson, Loup, Wheeler, and Hayes. The highest number of RNs was reported in Douglas County ($n = 10,235$), followed by Lancaster County ($n = 4,349$). Six counties reported having just one RN working in them: Sioux, Banner, Thomas, Keya Paha, Logan, and Blaine.

Twelve counties reported zero LPNs working in them: Sioux, Banner, Grant, Arthur, McPherson, Logan, Thomas, Blaine, Hayes, Gosper, Keya Paha, and Wheeler. The highest number of LPNs was reported in Douglas County ($n = 1,072$), followed by Lancaster County ($n = 787$). Two counties reported having just one LPN working in them: Loup and Frontier.

The total per capita number of RNs (2016) and LPNs (2017) is **1,300.6** and **260.6** per 100,000 people, respectively. See Appendix for details. The table below shows the RN and LPN workforce and the total number of inhabitants by county in 2016 and 2017 (U.S. Census Bureau population estimates). Counties highlighted in red show a lower number of RNs per capita compared to the state average. These counties total 84 out of the 93 counties in the State of Nebraska. See **Table 1** and **Figure 1** below.

Table 1: Nebraska Nursing Workforce

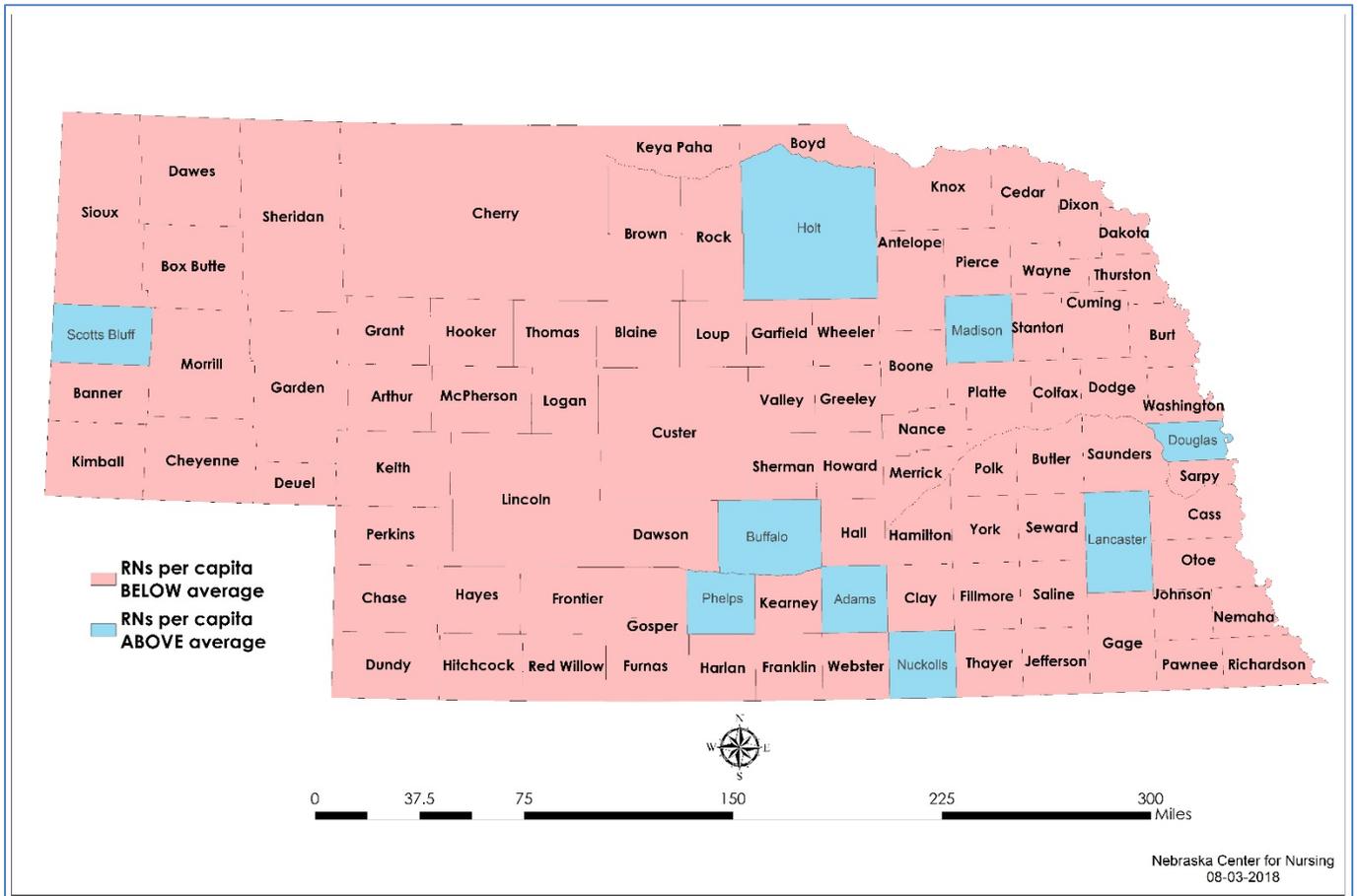
County	2016 Total Population	2017 Total Population	RNs - 2016	LPNs - 2017	RNs per 100,000	LPNs per 100,000
Adams	31364	31678	533	80	1699.4	252.5
Antelope	6685	6362	62	22	927.4	345.8
Arthur	460	457	0	0	0.0	0.0
Banner	690	742	1	0	144.9	0.0
Blaine	478	482	1	0	209.2	0.0

County	2016 Total Population	2017 Total Population	RNs - 2016	LPNs - 2017	RNs per 100,000	LPNs per 100,000
Boone	5505	5352	69	45	1253.4	840.8
Box Butte	11308	10886	86	74	760.5	679.8
Boyd	2099	1977	17	5	809.9	252.9
Brown	3145	3014	24	8	763.1	265.4
Buffalo	46102	49732	930	206	2017.3	414.2
Burt	6858	6535	30	15	437.4	229.5
Butler	8395	8053	48	29	571.8	360.1
Cass	25241	25889	56	28	221.9	108.2
Cedar	8852	8530	35	18	395.4	211.0
Chase	3966	3971	37	17	932.9	428.1
Cherry	5713	5818	49	15	857.7	257.8
Cheyenne	9998	9676	84	35	840.2	361.7
Clay	6542	6205	15	11	229.3	177.3
Colfax	10515	10585	45	19	428.0	179.5
Cuming	9139	9042	80	28	875.4	309.7
Custer	10939	10897	79	46	722.2	422.1
Dakota	21006	20186	30	6	142.8	29.7
Dawes	9182	8890	62	16	675.2	180.0
Dawson	24326	23709	154	72	633.1	303.7
Deuel	1941	1883	7	4	360.6	212.4
Dixon	6000	5754	13	8	216.7	139.0
Dodge	36691	36707	399	112	1087.5	305.1
Douglas	517110	561620	10235	1072	1979.3	190.9
Dundy	2008	1801	17	10	846.6	555.2
Fillmore	5890	5582	59	44	1001.7	788.2
Franklin	3225	2990	14	10	434.1	334.4
Frontier	2756	2631	3	1	108.9	38.0
Furnas	4959	4780	39	24	786.4	502.1
Gage	22311	21601	199	149	891.9	689.8
Garden	2057	1906	15	14	729.2	734.5
Garfield	2049	2016	9	12	439.2	595.2
Gosper	2044	2028	3	0	146.8	0.0
Grant	614	649	0	0	0.0	0.0
Greeley	2538	2374	4	4	157.6	168.5
Hall	58607	61519	719	223	1226.8	362.5
Hamilton	9124	9207	63	25	690.5	271.5
Harlan	3423	3443	24	11	701.1	319.5
Hayes	967	893	0	0	0.0	0.0
Hitchcock	2908	2834	5	7	171.9	247.0
Holt	10435	10202	155	50	1485.4	490.1
Hooker	736	674	5	5	679.3	741.8
Howard	6274	6437	48	14	765.1	217.5
Jefferson	7547	7178	49	33	649.3	459.7
Johnson	5217	5185	29	20	555.9	385.7
Kearney	6489	6530	38	29	585.6	444.1
Keith	8368	8072	51	9	609.5	111.5

County	2016 Total Population	2017 Total Population	RNs - 2016	LPNs - 2017	RNs per 100,000	LPNs per 100,000
Keya Paha	824	793	1	0	121.4	0.0
Kimball	3821	3619	19	12	497.3	331.6
Knox	8701	8472	64	23	735.5	271.5
Lancaster	285407	314358	4349	787	1523.8	250.4
Lincoln	36288	35280	461	122	1270.4	345.8
Logan	763	768	1	0	131.1	0.0
Loup	632	609	0	1	0.0	164.2
Madison	34876	35144	656	210	1880.9	597.5
McPherson	539	499	0	0	0	0.0
Merrick	7845	7882	33	21	420.7	266.4
Morrill	5042	4836	34	19	674.3	392.9
Nance	3735	3607	21	14	562.2	388.1
Nemaha	7248	6949	45	25	620.9	359.8
Nuckolls	4500	4275	64	17	1422.2	397.7
Otoe	15740	16027	115	42	730.6	262.1
Pawnee	2773	2641	22	9	793.4	340.8
Perkins	2970	2903	37	12	1245.8	413.4
Phelps	9188	9060	122	55	1327.8	607.1
Pierce	7266	7138	60	30	825.8	420.3
Platte	32237	33175	307	109	952.3	328.6
Polk	5406	5328	35	20	647.4	375.4
Red Willow	11055	10728	133	42	1203.1	391.5
Richardson	8363	7969	67	43	801.1	539.6
Rock	1526	1436	15	11	983.0	766.0
Saline	14200	14441	93	39	654.9	270.1
Sarpy	158840	181439	856	175	538.9	96.5
Saunders	20780	21057	79	45	380.2	213.7
Scotts Bluff	36970	36363	583	160	1577.0	440.0
Seward	16750	17161	97	40	579.1	233.1
Sheridan	5469	5289	30	22	548.5	416.0
Sherman	3152	3086	17	5	539.3	162.0
Sioux	1311	1203	1	0	76.3	0.0
Stanton	6129	5988	10	6	163.2	100.2
Thayer	5228	5045	56	35	1071.2	693.8
Thomas	647	725	1	0	154.6	0.0
Thurston	6940	7223	85	13	1224.8	180.0
Valley	4260	4209	46	20	1079.8	475.2
Washington	20234	20721	107	27	528.8	130.3
Wayne	9595	9318	56	20	583.6	214.6
Webster	3812	3524	17	19	446.0	539.2
Wheeler	818	818	0	0	0.0	0.0
York	13665	13806	150	63	1097.7	456.3
Total population	1826341	1920076	23754	5004	1300.6	260.6

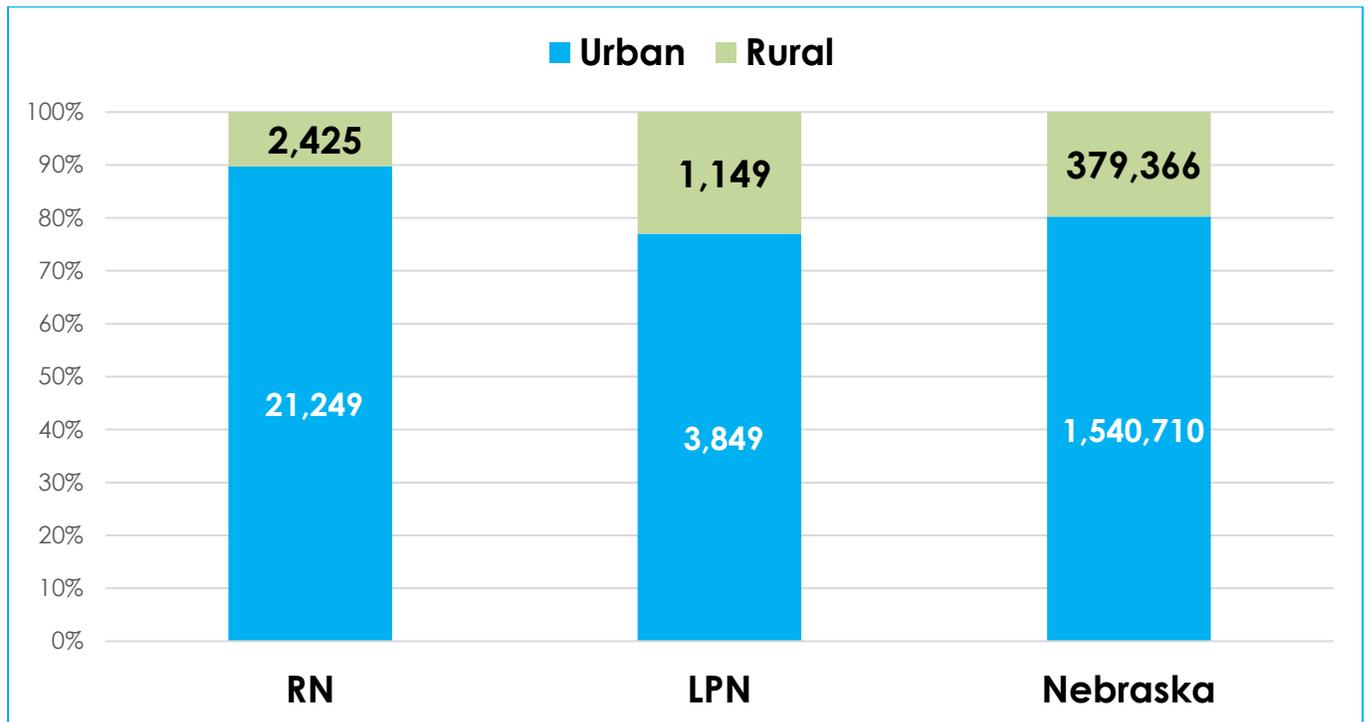
“Per capita [nursing] supply does not take into account differences in population age, disease prevalence, [intensity factors] or the number of hospital beds that must be staffed. Still, it is informative because it illustrates that [state]-level information masks substantial local-level differences.” Adapted from HRSA report (2013).

Figure 1: Counties (highlighted in red) that have RNs per capita below the state average



reference, nearly 20% of the total population in Nebraska live in rural counties (American Community Survey, 5-year estimates, 2012-2016). **Figure 4** shows the nursing workforce distribution in rural and urban areas of Nebraska.

Figure 4: Nebraska Nursing Workforce Distribution in Rural and Urban Areas



Counties classified as urban by the U.S. Census Bureau present the highest number of RNs per capita in Nebraska. On average, there are 1,473 RNs per capita in urban counties compared to 632 RNs in rural counties.

Counties classified as rural by the U.S. Census Bureau present the highest number of LPNs per capita in Nebraska. On average, there are 303 LPNs per capita in rural counties compared to 250 RNs in rural counties. These results are similar to nationwide data.

Table 2 compares the per capita number of RNs and LPNs that work in urban vs. rural counties in Nebraska.

Table 2: RN and LPN per capita by Urban and Rural Counties in Nebraska

Nurse Type:	Urban County per capita	Rural County per capita
RNs	1,473	632
LPNs	250	303

RNs in urban areas are more likely to hold a bachelor's degree or higher than RNs working in rural areas (66.3% vs. 42.3%, respectively). RNs working in rural counties are more likely to be over 51 years of age in comparison to RNs working in urban counties (45.4% vs. 35.6%, respectively). On average, RNs working in rural counties are 3.2 years older than RNs working in urban counties. RNs in rural counties are less likely to work in hospitals and more likely to work in Nursing Homes/Extended Care Facilities when compared to RNs working in urban counties.

LPNs working in rural areas are more likely to be white non-Hispanic when compared to LPNs working in urban counties (95.0% vs. 85.2%, respectively). LPNs in rural counties are more likely to work in Nursing Homes/Extended Care Facilities than LPNs working in urban counties (45.7% vs. 29.2%, respectively). The following **Tables 3 and 4** show demographics and employment characteristics for RNs and LPNs by urban and rural areas in Nebraska.

Table 3: Residential Distribution of the RN Workforce across Urban and Rural Areas in Nebraska

Age	Urban Areas (%)	Rural Areas (%)	All Areas (%)
25 or younger	5.3%	2.7%	5.0%
26-30	13.3%	10.3%	13.0%
31-35	15.1%	12.5%	14.8%
36-40	12.0%	10.4%	11.8%

41-45	10.0%	10.3%	10.0%
46-50	8.7%	8.5%	8.7%
51-55	10.1%	11.5%	10.2%
56-60	10.6%	13.0%	10.8%
61-65	9.7%	11.9%	9.9%
66-70	3.7%	6.6%	4.0%
71 or older	1.6%	2.4%	1.7%
Total	100%	100%	100%
Average age	43.6	46.8	43.9
Race/Ethnicity			
White	93.3%	97.3%	93.7%
Black/African American	1.8%	0.3%	1.6%
Hispanic/Latino	2.4%	1.2%	2.3%
Asian	1.3%	0.2%	1.2%
American Indian/Alaska Native	0.2%	0.6%	0.2%
Native Hawaiian or Other Pacific Islander	0.1%	0.1%	0.1%
Other	0.8%	0.3%	0.8%
Total	100%	100%	100%
Gender			
Percent Female	93.7%	96.2%	94.0%
Percent Male	6.3%	3.8%	6.0%
Total	100%	100%	100%
Education (highest degree attained)			
RN Diploma	11.4%	19.1%	12.2%
Associate's	22.3%	38.5%	24.0%
Bachelor's	53.4%	35.3%	51.5%
Master's	11.0%	6.2%	10.5%
Post Master's	1.0%	0.4%	0.9%
Doctoral	1.0%	0.4%	0.9%
Total	100%	100%	100%
Setting			
Academic Setting	2.0%	0.4%	1.9%
Ambulatory Care Setting (Clinic)	10.5%	6.2%	10.1%
Assisted Living Facility	0.6%	1.6%	0.7%
Community Health	2.0%	2.1%	2.0%
Correctional Facility	0.4%	0.6%	0.4%

Dialysis	0.7%	0.1%	0.6%
Home Health	3.8%	3.9%	3.8%
Hospice	1.2%	0.5%	1.1%
Hospital	59.7%	51.7%	58.9%
Insurance Claims/Benefits	1.7%	0.2%	1.5%
Nursing Home/Extended Care	6.5%	22.5%	8.1%
Occupational Health	0.8%	0.6%	0.7%
Other	1.8%	0.9%	1.7%
Physicians' Office/Health Clinic	3.1%	2.8%	3.0%
Policy/Planning/Regulatory/Licensing Agency	0.3%	0.0%	0.2%
Public Health	1.4%	1.5%	1.4%
School Health Service	1.8%	3.8%	2.0%
School of Nursing	1.2%	0.3%	1.1%
Self-employed	0.7%	0.4%	0.6%
Total	100%	100%	100%

Table 4: Residential Distribution of the LPN Workforce across Urban and Rural Areas in Nebraska

Age	Urban Areas (%)	Rural Areas (%)	All Areas (%)
25 or younger	3.9%	4.1%	4.0%
26-30	9.4%	8.4%	9.2%
31-35	11.4%	10.1%	11.1%
36-40	14.3%	11.0%	13.5%
41-45	10.2%	10.8%	10.3%
46-50	11.1%	10.3%	10.9%
51-55	10.6%	13.2%	11.2%
56-60	13.0%	13.7%	13.1%
61-65	11.1%	12.0%	11.3%
66-70	3.7%	4.6%	3.9%
71 or older	1.3%	2.0%	1.5%
Total	100%	100%	100%
Average age	45.7	47.4	46.1

Race/Ethnicity			
White	85.2%	95.0%	87.4%

Black/African American	7.2%	0.9%	5.7%
Hispanic/Latino	4.7%	2.6%	4.2%
Asian	1.0%	0.3%	0.8%
American Indian/Alaska Native	0.4%	0.4%	0.4%
Native Hawaiian or Other Pacific Islander	0.2%	0.1%	0.2%
Other	1.3%	0.7%	1.1%
Total	100%	100%	100%
Gender			
Percent Female	96.7%	97.5%	96.9%
Percent Male	3.3%	2.5%	3.1%
Total	100%	100%	100%
Setting			
Academic Setting	0.6%	0.0%	0.5%
Ambulatory Care Setting (Clinic)	24.3%	16.7%	22.6%
Assisted Living Facility	5.5%	4.1%	5.2%
Community Health	3.9%	3.1%	3.7%
Correctional Facility	1.8%	1.1%	1.6%
Dialysis	0.5%	0.1%	0.4%
Home Health	6.9%	2.0%	5.8%
Hospice	0.9%	0.3%	0.8%
Hospital	8.6%	17.8%	10.7%
Insurance Claims/Benefits	0.8%	0.1%	0.6%
Nursing Home/Extended Care	29.2%	45.7%	33.0%
Occupational Health	1.0%	0.3%	0.8%
Other	11.8%	5.5%	10.3%
Public Health	1.7%	1.4%	1.6%
School Health Service	2.4%	1.9%	2.3%
Total	100%	100%	100%

Nebraska Nursing Workforce by Demographic Cohort

Figures 5 and 6 show the age frequency of RNs and LPNs by demographic cohort. Table 5 shows the percentage of RNs and LPNs that belong to each generation. As a whole, “Generation X” (born 1965-1981) represents the highest concentration of nurses in the State of Nebraska (36%), followed by 33% “Baby Boomers” (born 1946-1964). “Millennials” represent 30% of the total nursing workforce.

Figure 5: Nebraska RN Age Frequency (2016) by Demographic Cohort

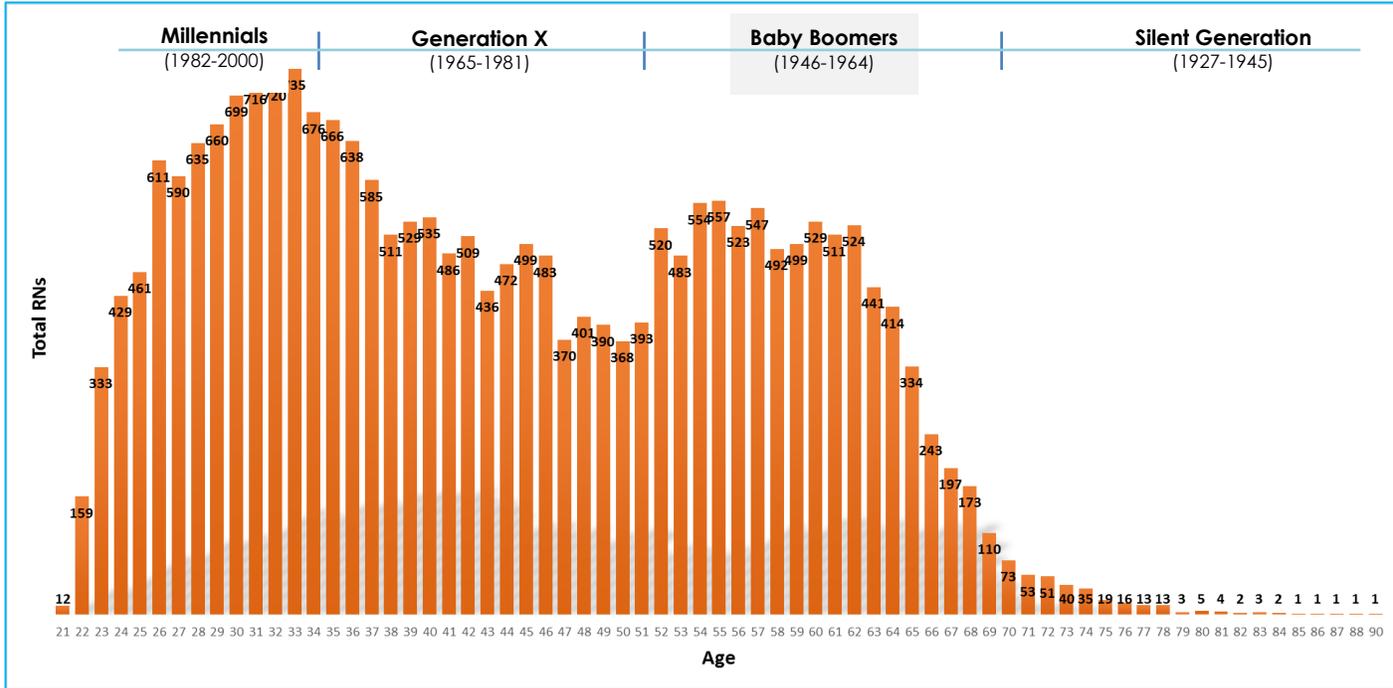


Figure 6: Nebraska LPN Age Frequency (2017) by Demographic Cohort

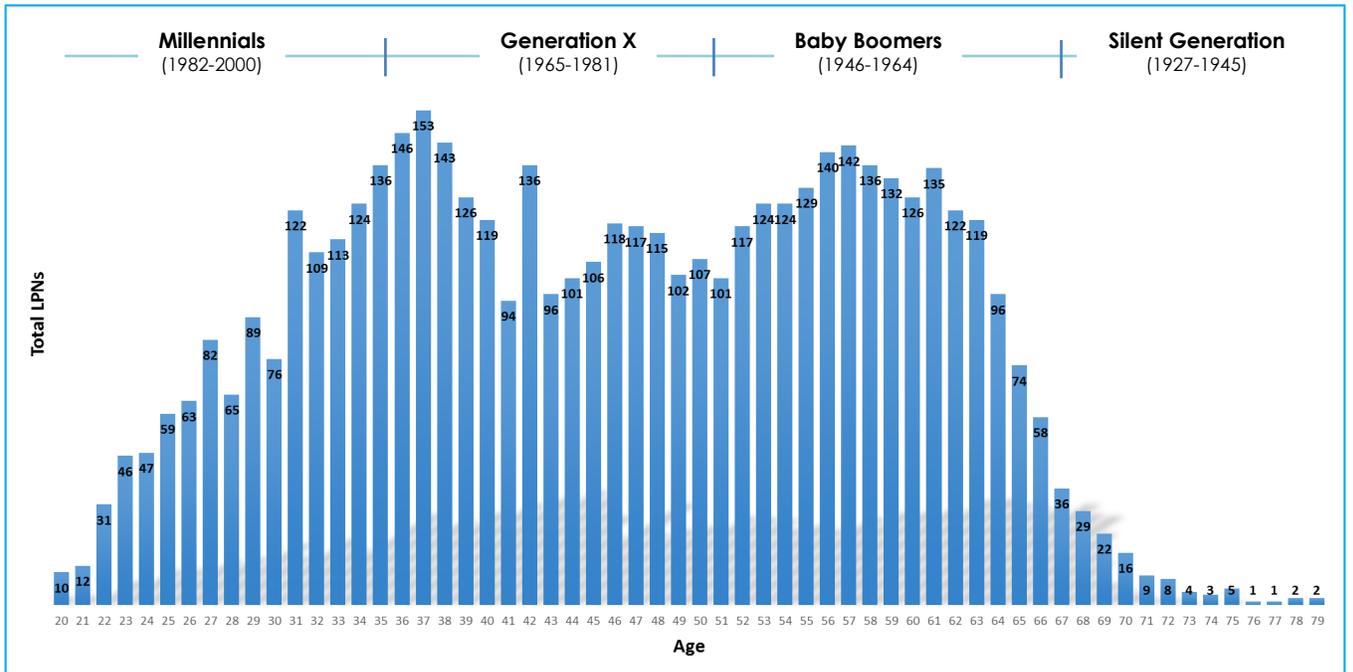


Table 5: Nebraska Representation of the Nursing Workforce in Percentage by Generation

Generation:	RN	LPN	All Nebraska Nurses
Millennials	31%	24%	30%
Generation X	35%	40%	36%
Baby Boomers	32%	35%	33%
Silent Generation	1%	1%	1%
Total	100%	100%	100%

Satisfaction Levels with the Nursing Profession

Historically nurses in Nebraska have shown high levels of satisfaction with their nursing profession. The following charts (**Figures 7 and 8**) show the satisfaction levels with “nursing as a career” for RNs in 2016 and for LPNs in 2017.

Figure 7: RN satisfaction levels with their nursing career

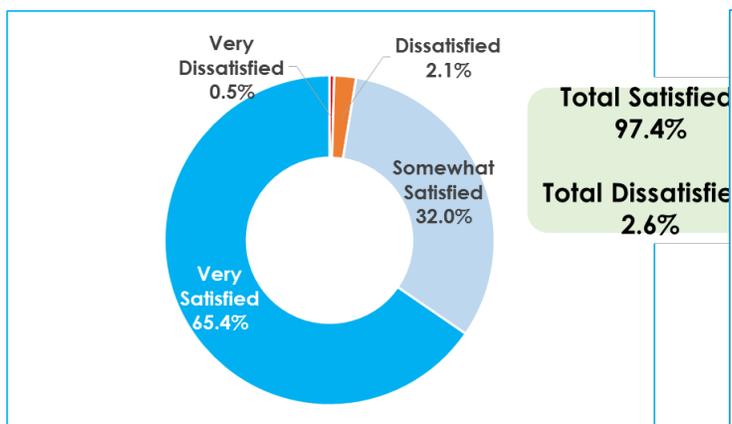
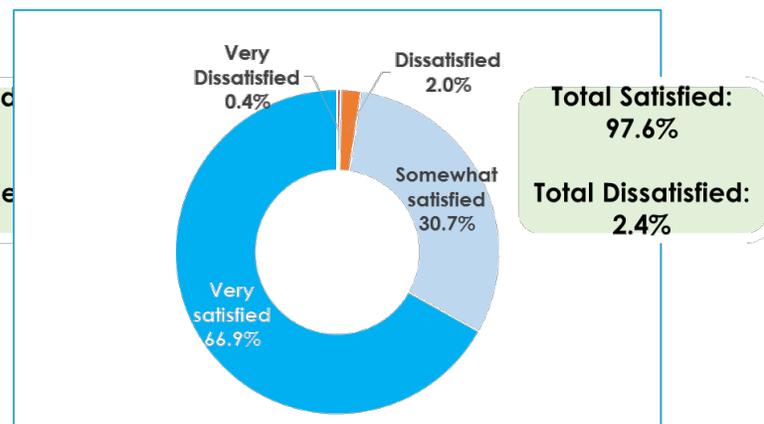


Figure 8: LPN satisfaction levels with their nursing career



NURSING WORKFORCE PROJECTIONS

Nursing Workforce Model

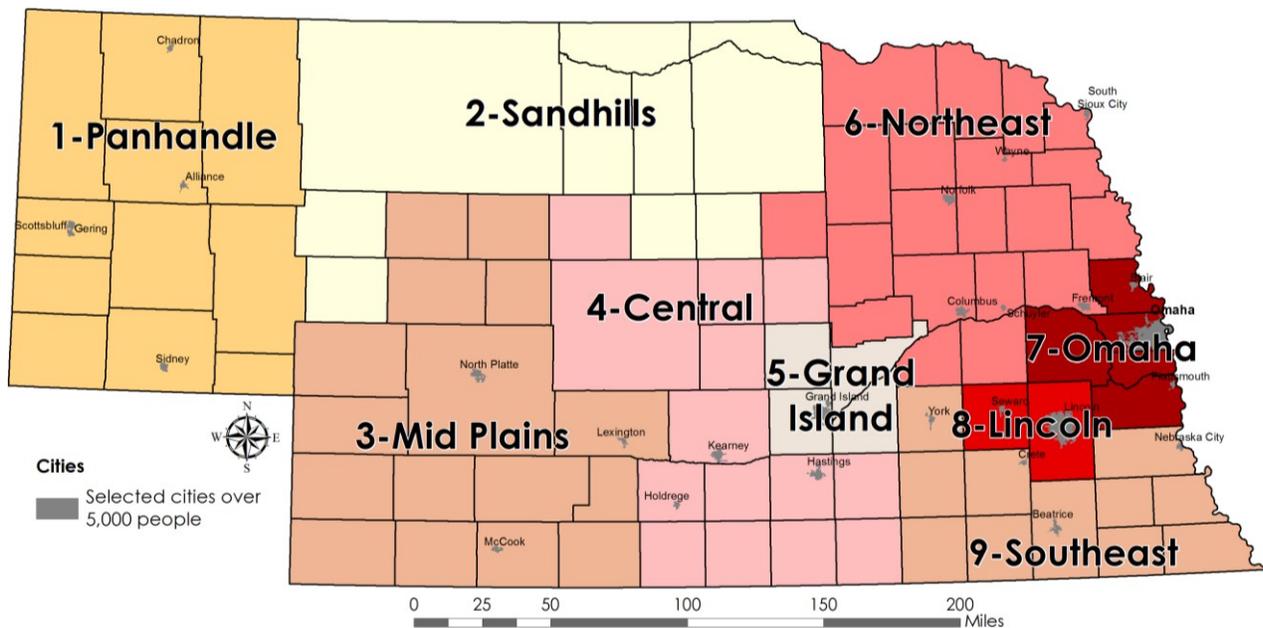
Purpose: The Nursing Workforce Model is used to predict nursing workforce supply and demand for Registered Nurses (RNs), Advanced Practice Registered Nurses (APRNs), and Licensed Practical Nurses (LPNs) until the year 2025.

What it is: The Nursing Workforce Model is a forecasting **policy tool** that provides a picture of the alternative future supply and demand under different scenarios and simulations for the nine economic regions defined by the Nebraska Department of Labor (DOL). The forecasting models use these regions as geographic areas to identify nursing workforce needs over time.

Economic Regions: The Nebraska nursing workforce model uses the nine economic regions as geographic units to project the supply and demand of nurses (RNs, APRNs, and LPNs).

The Nebraska DOL uses employer and employee 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. See **Figure 9**.

Figure 9: The "9 Economic Regions"



The following table shows counties that belong to each of the nine economic regions:

Table 6: Nebraska Economic Regions and Respective Counties

Economic Region	Counties
1. Panhandle	Banner, Box Butte, Cheyenne, Dawes, Deuel, Garden, Kimball, Morrill, Scotts Bluff, Sheridan, Sioux
2. Sandhills	Arthur, Boyd, Brown, Cherry, Garfield, Grant, Holt, Keya Paha, Loup, Rock
3. Mid Plains	Chase, Dawson, Dundy, Frontier, Furnas, Gosper, Hayes, Hitchcock, Hooker, Keith, Lincoln, Logan, McPherson, Perkins, Red Willow, Thomas
4. Central	Adams, Blaine, Buffalo, Clay, Custer, Franklin, Greeley, Harlan, Kearney, Nuckolls, Phelps, Sherman, Valley, Webster
5. Grand Island	Hall, Hamilton, Howard, Merrick
6. Northeast	Antelope, Boone, Burt, Butler, Cedar, Colfax, Cuming, Dakota, Dixon, Dodge, Knox, Madison, Nance, Pierce, Platte, Polk, Stanton, Thurston, Wayne, Wheeler
7. Omaha Consortium	Cass, Douglas, Sarpy, Saunders, Washington
8. Lincoln MSA	Lancaster, Seward
9. Southeast	Fillmore, Gage, Jefferson, Johnson, Nemaha, Otoe, Pawnee, Richardson, Saline, Thayer, York

Major Findings

Overall, the nursing supply and demand model projects a nursing shortage of **5,436 nurses** through the year 2025. It is expected that the nursing workforce in the State of Nebraska will grow by 18.2% between 2017 and 2025. The highest growth will be experienced by RNs (21.3%), followed by APRNs (12.1%), and then by LPNs (9.6%). **Table 7** shows the expected growth and nursing workforce gap for each type of nurse in the State of Nebraska through the year 2025.

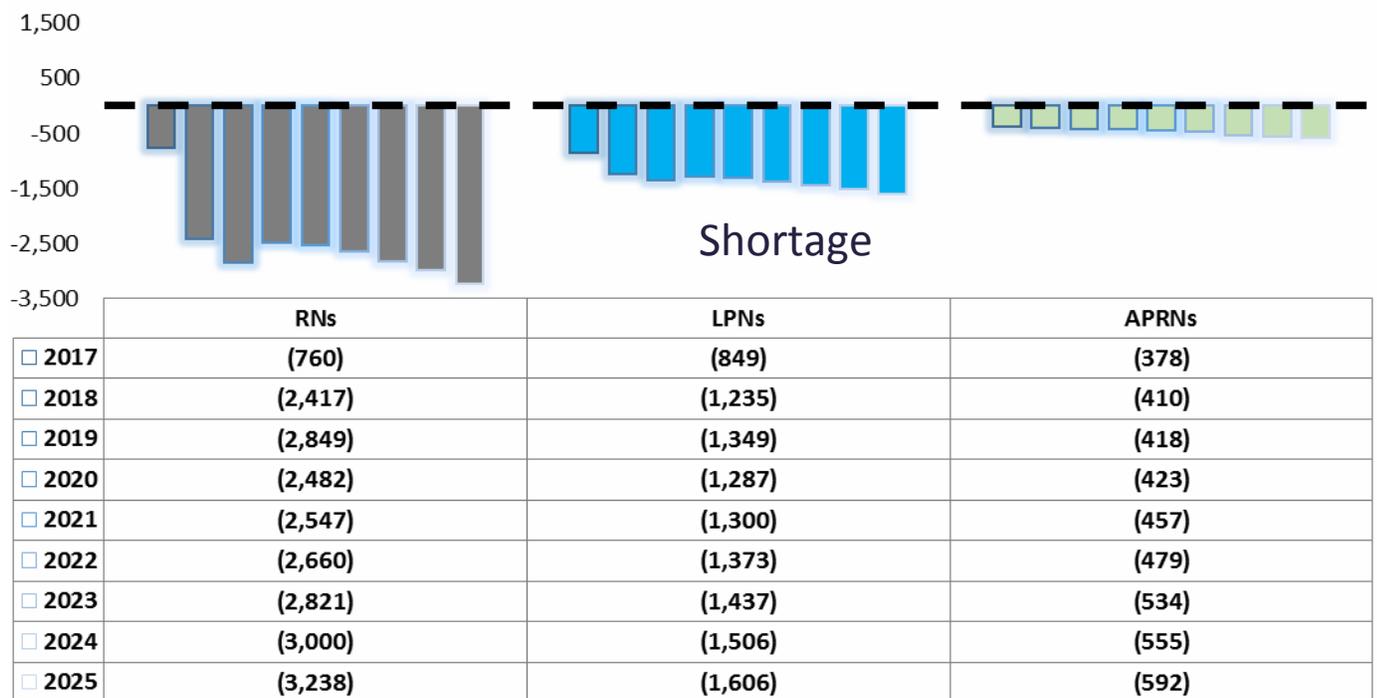
Table 7: Nursing Workforce Projections and supply gaps (unfilled FTE positions) for RNs, APRNs, and LPNs

NURSE TYPE:	GROWTH, 2017-2025*	2025 EXPECTED NURSING WORKFORCE GAP
RN	11.8%	-3,238
APRN	12.1%	-592
LPN	9.6%	-1,606
Total Nursing Workforce Expected Growth	11.3%	-5,436

* Based on demand

However, according to the multiregional model, nursing supply (FTE³) will experience a decline of 0.6% between 2017 and 2025. **Figure 10** shows that all nurse types will experience a workforce shortage that will deepen each year from 2017 through 2025.

Figure 10: Expected unfilled FTE positions (nursing gap) by type of nurse from 2017 to 2025

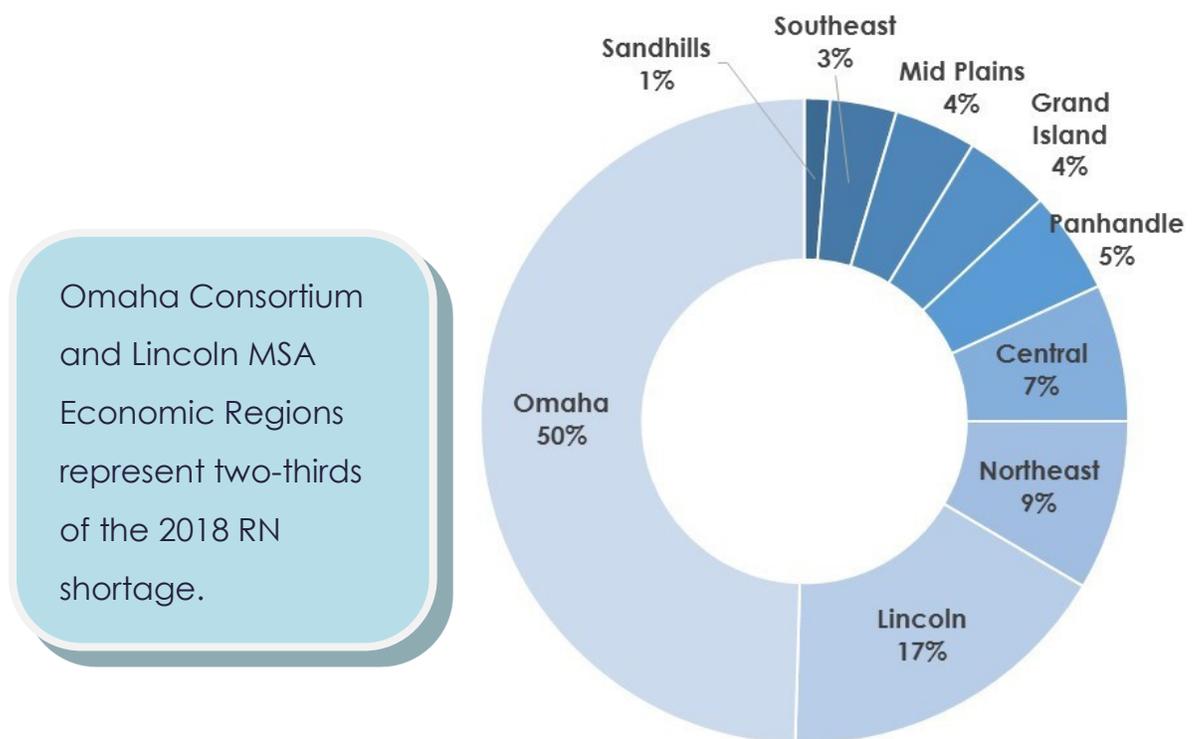


³ Full-Time Equivalent

Nursing Workforce Gap by Economic Region

As expected, economic regions that contain the highest number of nurses will experience the highest demand for additional nurses to meet the nursing workforce needs from the population. The Omaha Consortium (Douglas, Sarpy, Washington, and Cass counties) and Lincoln Metropolitan Statistical Area - MSA (Seward and Lancaster counties) Economic Regions encompass two-thirds of the total RN shortage in the year 2018. **Figure 11** shows the gap proportion for unfilled RN positions in each economic region.

Figure 11: 2018 Proportion of unfilled RN positions in relation to the total by economic region



The following tables show the total number of unfilled FTE nursing positions (RNs, APRNs, and LPNs) in the years 2018 and 2025 (**Tables 8 and 9**).

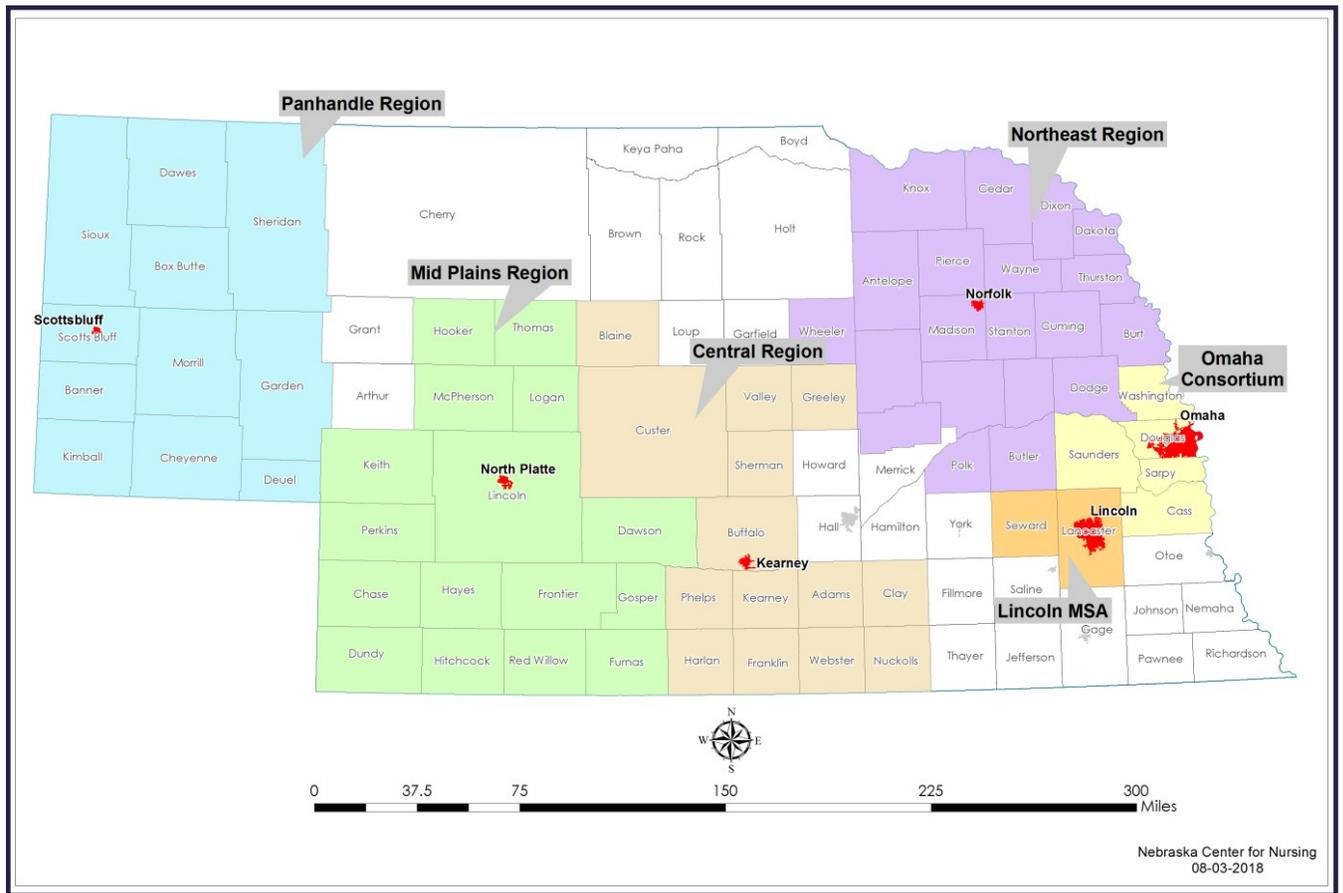
- RN workforce shortage will deepen by 34.0% between 2018 and 2025
- APRN workforce shortage will deepen by 44% between 2018 and 2025
- LPN workforce shortage will deepen by 30% between 2018 and 2025

**Overall, total FTE nursing shortage will deepen by
33.8% between 2018 and 2025**

Nursing Workforce Dialogues

Ann Oertwich, Executive Director of the Board of Nursing, Lisa Walters, President of the Nebraska Center for Nursing, Dr. Craig Moore, consultant, a national expert on nursing workforce models and the author of the Nebraska Multiregional Nursing Workforce Model, and Juan-Paulo Ramírez, independent consultant with the Nebraska Center for Nursing, traveled the State of Nebraska during the month of July 2018, to present and discuss the nursing supply and demand projections by economic regions. Cities visited included: Scottsbluff (Panhandle Economic Region), North Platte (Mid Plains Economic Region), Kearney (Central Economic Region), Lincoln (Lincoln MSA Economic Region), Norfolk (Northeast Economic Region), and Omaha (Omaha Consortium Region). **Figure 13** shows the location of each site visited. More than 150 participants attended these nursing workforce dialogues.

Figure 13: Cities and Economic Regions visited during the Nursing Workforce Dialogues



Throughout these dialogues, nurses, CEO/administrators, CNO/DON, CFO, health educators, public officials (or elected officials) were informed of the expected nursing supply and demand, the nursing workforce gap for RNs, APRNs, and LPNs projected to the year 2025, and visualized results of a simulation (“what if” scenario) for each economic region. After the presentations, attendants were asked to participate in a focus group addressing three key questions:

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 Nebraska Center for Nursing do to help or partner?**

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 emerged on how the CFN can best support nursing and work to alleviate the shortage in Nebraska.

Figure 14: Speakers and attendees of the Nursing Workforce Dialogues - July 23-26, 2018



From right to left: Ann Oertwich, Dr. Moore, and attendees in Scottsbluff (Regional West Services; Panhandle Economic Region).



Dr. Moore, Ann Oertwich, and Lisa Walters in the background in North Platte (Great Plains Health; Mid Plains Economic Region).



Dr. Moore giving a presentation in Kearney. Ann Oertwich is portrayed in the background (Younes Center; Central Economic Region).



Attendees at the Lincoln MSA Economic Region Nursing Workforce Dialogue (Bryan Health Plaza, Lincoln).



Lisa Walters conducting a focus groups with attendees at Faith Regional Health Center (Norfolk; Northeast Economic Region).



Dr. Moore, State Senators, and general public attending the Nursing Workforce Dialogue (Thompson Center at UNO. Omaha Consortium Economic Region).

ACKNOWLEDGMENTS

Organizations:

- Nebraska Center for Nursing and its Board of Directors
- Nebraska Board of Nursing
- Nebraska Hospital Association
- Nebraska Organization of Nurse Leaders
- Regional West Services (Scottsbluff)
- Great Plains Health (North Platte)
- Bryan Health (Lincoln)
- Faith Regional Health Services (Norfolk)

Individuals:

- Craig L. Moore, Ph.D., Principal Investigator
- Ann Oertwich, Ph.D., Executive Director, Nebraska Board of Nursing
- Lisa Walters, President of the Nebraska Center for Nursing
- Becky Wisell, Nebraska DHHS Licensure Unit
- Jacci Reznicek, MSN, RN, ANP-BC, DHHS Nurse Consultant
- Kathy Hoebelheinrich MSN, APRN-NP, ANP-BC, BC-ADM, CDE, DHHS Nurse Consultant
- Juan-Paulo Ramírez, Ph.D.
- Linda Stones, former member, Nebraska Center for Nursing
- Liane Connelly, former member, Nebraska Center for Nursing
- Cynthia Bienemy, Executive Director Louisiana Center for Nursing
- Kevin Conway, Vice President, Health Information, Nebraska Hospital Association
- David Drozd, Nebraska State Data Center, University of Nebraska at Omaha
- Jodie Meyer, Nebraska Department of Labor
- The staff of the Nebraska Center for Nursing for their support

APPENDIX

Chart 1 shows Nebraska per capita supply of RNs which varies from a high of 2,017 in Buffalo County, to a low of 76 in Sioux County.

Chart 2 shows Nebraska per capita supply of LPNs which varies from a high of 841 in Boone County, to a low of 30 in Dakota County.

Chart 1: Nebraska per Capita RN Workforce, Ranked by County

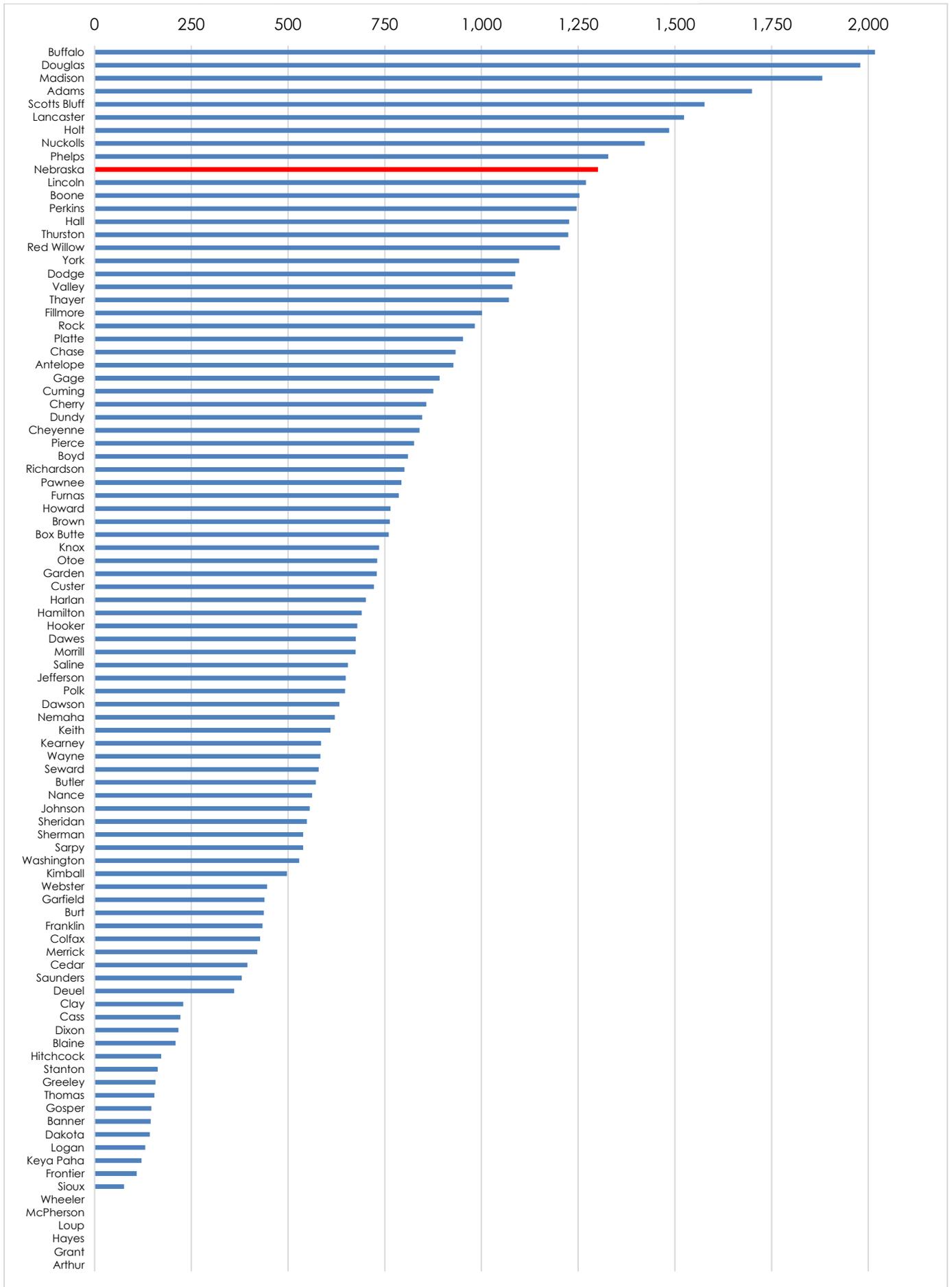
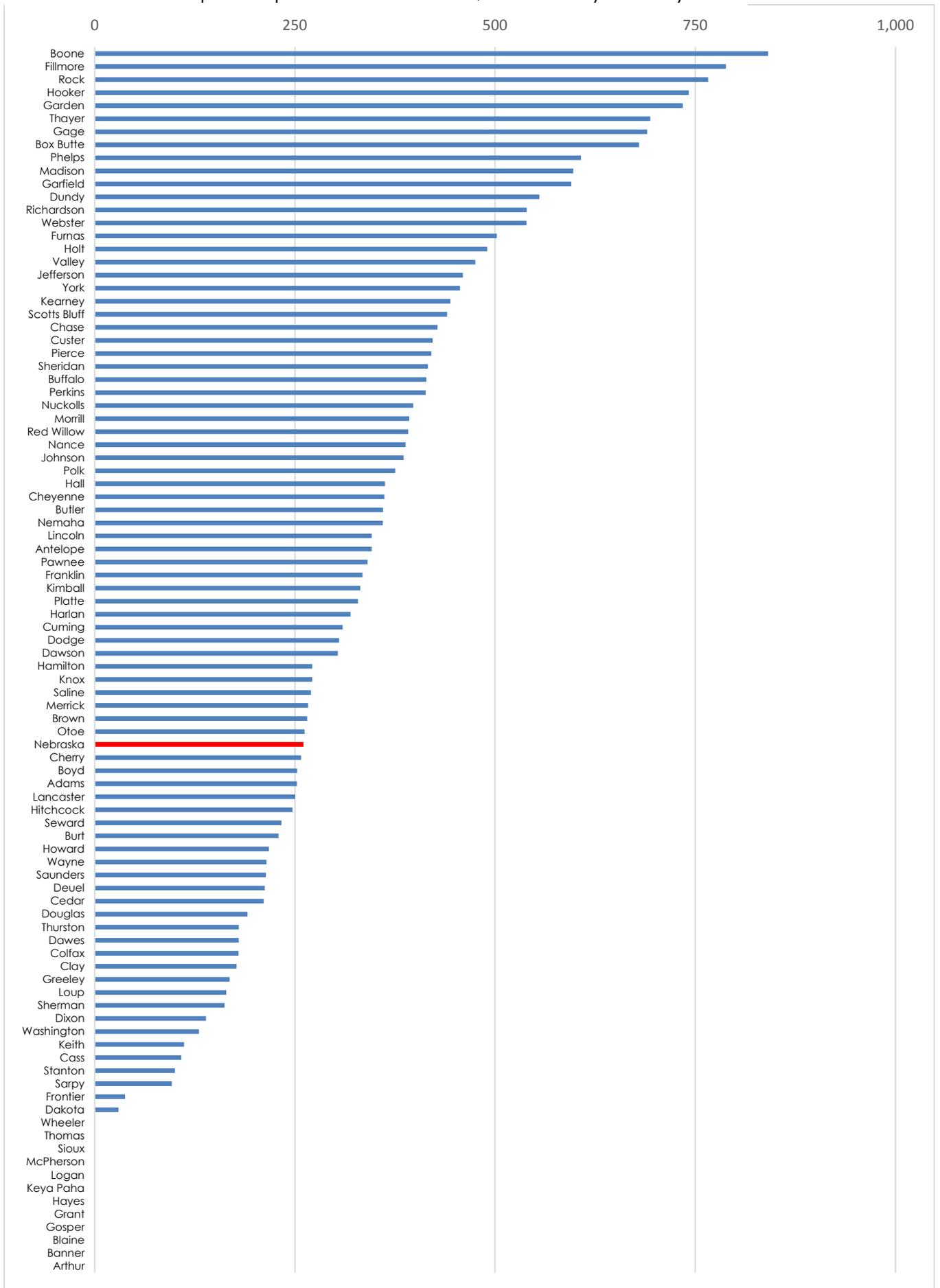


Chart 2: Nebraska per Capita LPN Workforce, Ranked by County



Nebraska Center for Nursing - List of board members (as of 10/05/2018):

Name	Effective Date of First Term	Current Term Expires	Board position
Tamara Allen	06/30/17	06/21/20*	Member Selected by Governor
Sheila Bjerrum	09/21/18	06/21/21*	Recommended by the State Board of Health
Lina Bostwick (secretary)	08/31/16	06/21/19*	Selected by Governor
Kathy Bowman	08/19/14	06/21/20	Hospital Industry Representative Selected by Governor
Beth Burbach	07/27/18	06/21/21*	Nurse Educator Recommended by Board of Regents of the University of Nebraska
Suzanne Deyke	03/10/15	06/21/20	RN, Selected by Governor
Kayleen Dudley	06/22/13	06/21/20	Selected by Governor
Charity Ebert	08/31/16	06/21/19*	Long-Term Care Industry Representative Selected by Governor
Teresa Faith	08/31/16	06/21/19*	LPN, Selected by Governor
Christi Glesmann	08/31/16	06/21/19*	Nurse Educator Recommended by the Nebraska Association of Independent Colleges and Universities
Kathy Harrison	04/14/15	06/21/20	Nurse Educator Recommended by the Nebraska Community College Association
Anna May	06/22/13	06/21/19	RN, Selected by Governor
Joan Nelson	04/19/18	06/21/21	Recommended by the Board of Health
D. J. Scrivner	04/10/2017	06/21/21	Member Recommended by State Board of Health
Pamela Uhlir (Vice-Chair)	06/22/13	06/21/19	RN, Selected by Governor
Lisa Walters (Chair)	08/19/14	06/21/20	Selected by Governor

*Member is serving first term and may be eligible for reappointment to a second term.

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