Center *for* Rural Health

University of North Dakota
School of Medicine & Health Sciences

North Dakota Nursing Facility Workforce Survey Chartbook: 2016

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The Center for Rural Health (CRH) was established in 1980 within the University of North Dakota's School of Medicine and Health Sciences. It is one of the nation's oldest, largest, and most experienced organizations committed to providing leadership in rural health. The CRH's mission is to connect resources and knowledge to strengthen the health of people in rural communities. The CRH serves as a resource for healthcare providers, health organizations, citizens, researchers, educators, and policymakers across the state of North Dakota and the nation. CRH activities are targeted toward identifying and researching rural health issues, analyzing health policy, strengthening local capabilities, and developing community-based alternatives. Although many specific activities constitute the agenda of the Center, five core Center Divisions serve as the focus: (1) community outreach and engagement, including the designated North Dakota State Office of Rural Health; (2) education and information dissemination, including the Rural Health Information Hub website; (3) indigenous programs, including two national American Indian centers; (4) program evaluation; and (5) research.

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An electronic pdf of this chartbook is available at:
ruralhealth.und.edu/pdf/2016-nd-nursing-facility-workforce-survey-chartbook.pdf

The chartbook's charts are available in electric form at the following web address (permission to use the unchanged charts is granted):

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Introduction

Nursing facilities are vital components of North Dakota's healthcare system. In Hubert Humphrey's last speech, he made the sage observation that "… the moral test of government is how that government treats those who are in the dawn of life, the children; those who are in the twilight of life, the elderly; those who are in the shadows of life, the sick, the needy and the handicapped." For North Dakota nursing facilities to fulfill their missions of caring for the elderly, they need to have an adequate supply of clinical and other professional employees in order to function at an optimal level. The lack of nursing facility workforce information has handicapped policymakers, nursing facility leadership, and the public in making informed decisions. A workforce survey was conducted in 2016 to better understand North Dakota's workforce situation as it applies to nursing facilities.

This chartbook provides much of the information gathered from responses to the surveys from nursing facility chief executive officers (CEOs). Charts are used to illustrate the broad results from all survey questionnaire responses. Other analyses could be performed that are more focused on addressing specific issues and questions. However, this document is designed to provide a broad understanding of the entirety of North Dakota nursing facility workforce characteristics. In fact, some of the charts are likely to seem superfluous to some readers but were included in an effort to provide needed information that a large spectrum of readers would bring to examination of the chartbook. Another reason to include a broad array of information is to make it available in the future when the original data files may not be available.

The nursing facility survey was developed by Center for Rural Health (CRH) staff in close collaboration with the North Dakota Long Term Care Association (NDLTCA) staff in order to assess workforce factors for nursing facilities throughout North Dakota. More specifically, Shelly Peterson (president of the NDLTCA) and Carol Ternes (executive assistant of NDLTCA) made significant contributions to this survey project, including questionnaire preparation, mailing lists, encouragement of responses, and review of the manuscript. We appreciate the 78 nursing facility CEOs who took time from their busy schedules to fill out and return the workforce questionnaires. And finally, any errors in the chartbook are the responsibility of the three authors.

Survey Methods

A survey questionnaire was developed by the project team and fit on two sides of an 8.5-inch by 11-inch sheet of paper. There were 21 questions, some of which had multiple parts. In particular, the core of the questionnaire was a full-page workforce matrix question. The matrix questions asked about each of 24 employee types (e.g., RNs, dietitians, and laundry staff). In addition, there was a 25th employee type that could be filled in by the respondent. For each employee type, respondents were asked several questions about the number of vacant full-time equivalents (FTEs) employed internally and via outside contract, the number of vacant FTE positions currently being recruited for, how many months the longest vacant position had not been filled, and the difficulties in filling vacancies for the type of employee (i.e., very difficult, somewhat difficult, somewhat easy, and very easy). FTEs were calculated and provided by the nursing facility CEOs or their surrogates (e.g., for a CNA who works 20 hours a week, the corresponding FTE is .50 and for one who works 40 hours a week the FTE is 1.0). The matrix had 125 matrix cells in total. A copy of the survey questionnaire is available in this report's appendix.

Figure 1. North Dakota Nursing Facilities by Rural/Urban Status and Response/ Non-Response Status
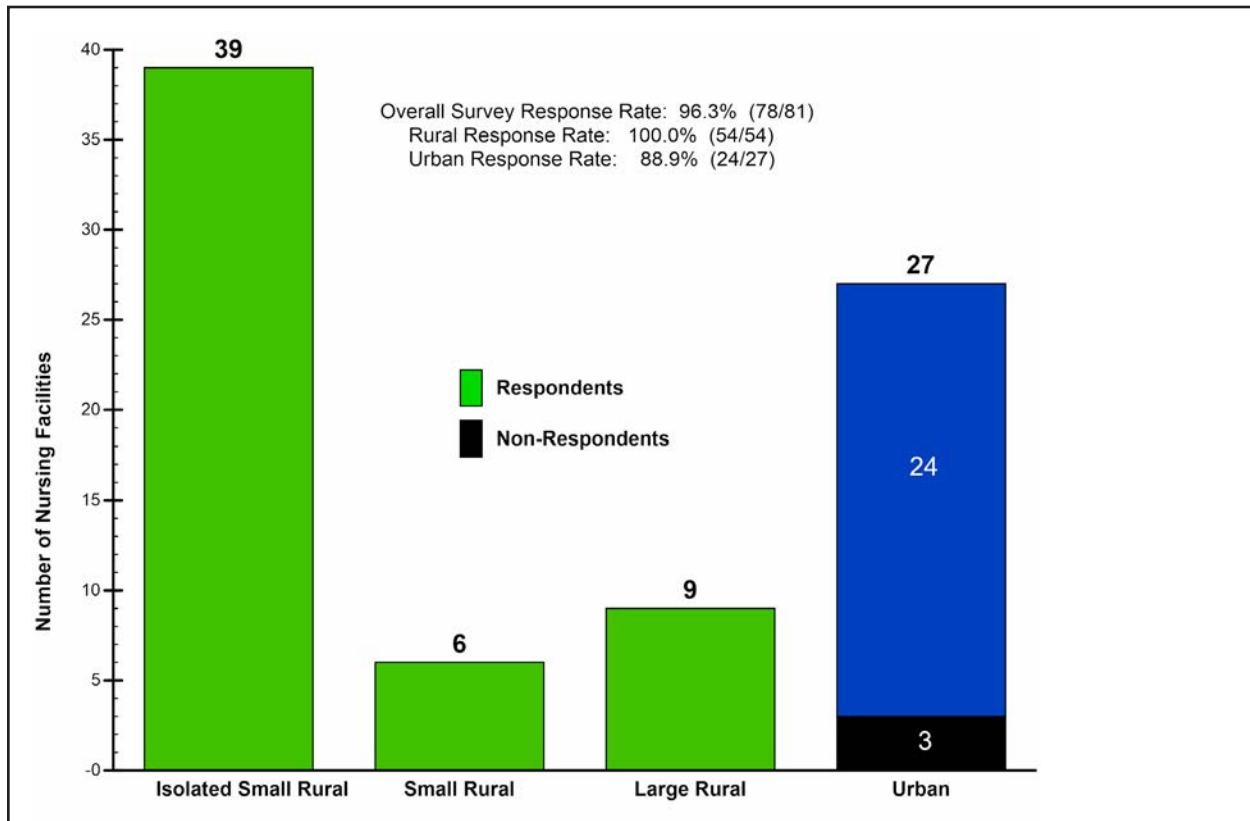
The CEOs of all 81 North Dakota nursing facilities were mailed printed questionnaires and were asked to participate (see nursing facility list in Figure 3). Two additional mailings were performed. CEOs were given the option of responding online using a Qualtrics electronic version of the questionnaire instead of the mailed paper version. The survey was performed from July 22 through December 8, 2016. Non-respondents were contacted by email and phone, with the final response rate being 96.3% (78/81 respondents). Three nursing facilities, which included a total of 261 beds, did not respond. Nursing facilities where there were responses had 5,861 beds. The bed-weighted response rate was 95.7% (5,861/6,122 times 100). Thus, there is assurance that the three urban, non-respondent nursing facilities are not disproportionately large facilities.

The respondent data were electronically entered and subsequently cleaned and prepared for further analyses. Among the responding questionnaires, there were few question-specific missing responses. Given the near total population nature of the response, the purposes of this North Dakota nursing facility workforce survey, and the descriptive nature of the findings, statistical tests are not included in this chartbook. Only meaningful differences are described in the text for the various charts, as statistical significance is reached before meaningfulness is achieved. In a case where the statistical significance between two numbers is needed, contact the authors.

Nursing facility ZIP codes were linked to the rural-urban commuting areas (RUCAs) version 3.1 that indicates whether the locations of the nursing facilities were urban (codes: 1.0, 1.1, 2.0, 2.1, 3.0, 4.1,

5.1, 7.1, 8.1, and 10.1); large rural (4.0, 5.0, and 6.0); small rural (7.0. 7.2, 8.0, and 9.0); and isolated small rural (10.0, 10.2, 10.3). The 2014 RUCAs are a widely applied national geographic taxonomy based on city/town population (Census Bureau designation as an urban place/cluster) and on work commuting patterns. As illustrated in Figure 1, 54 of the nursing facilities were located within rural areas (39 in isolated small rural communities, 6 in small rural communities, and 9 in large rural communities), while 27 were located within urban communities. All of North Dakota's rural nursing facility CEOs responded to the survey. The three non-responding CEOs were from urban nursing facilities.

In one figure (Figure 16), the provider workforce data are presented by North Dakota's four regions. The four regions are as follows: Northwest (focused on Minot), Southwest (focused on Bismarck), Northeast (focused on Grand Forks), and Southeast (focused on Fargo). The counties in each region are:

Northwest

- Bottineau County
- Burke County
- Divide County
- McHenry County
- McKenzie County
- Mountrail County
- Pierce County
- Renville County
- Rolette County
- Ward County
- Williams County

Northeast

- Benson County
- Cavalier County
- Eddy County
- Grand Forks County
- Nelson County
- Pembina County
- Ramsey County
- Towner County
- Walsh County

Southwest

- Adams County
- Billings County
- Bowman County
- Burleigh County
- Dunn County
- Emmons County
- Golden Valley County
- Grant County
- Hettinger County
- Kidder County
- Logan County
- McIntosh County
- McLean County
- Mercer County
- Morton County
- Oliver County
- Sheridan County
- Sioux County
- Slope County
- Stark County
- Wells County

Southeast

- Barnes County
- Cass County
- Dickey County
- Foster County
- Griggs County
- LaMoure County

- Ransom County
- Richland County
- Sargent County
- Steele County
- Stutsman County
- Traill County

Unless otherwise noted, the vacancy rates reported in this chartbook are not averages of nursing facility rates (means of means) but are the rates using the overall category number of vacancies and employed providers (essentially weighting these rates by FTE hospital employment counts) (e.g., Figure 4). Statewide vacancy rates were calculated by dividing the FTE vacancies by the sum of the FTE vacancies and the employed FTEs and then multiplying by 100 so that the final figure was shown as a percent vacant. Typically, healthcare provider vacancy rates are only considered of critical concern if they are above about 11% or so. They are not considered severe unless they are equal to or greater than 15%.

It is always necessary to examine high rates with a skeptical eye until the FTE denominator is taken into consideration. For example, if a statewide high vacancy rate of 30% is based on three vacancies and seven employed providers, it should not evoke great concern as very small changes in hiring and leaving positions can make those rates change dramatically as part of normal activities. However, the same vacancy rate based on 300 vacancies and 700 employed providers would be of great concern. Not only are there more vacancies in the latter, but the larger number assures that the rates are stable. All this being said, statewide vacancy rates can mask geographic and facility-specific high vacancy rates. Clearly facility vacancies are important in their own right and can be an obstacle to optimal healthcare provision. Vacancy rates can underestimate the need if, for example, nursing facility CEOs stop their efforts to recruit a provider type because of frustration from prolonged periods of being unable to fill vacancies. Sometimes CEOs change their configuration of services or their mix of providers to compensate for their inability to recruit and retain certain provider types. Because of low numbers in North Dakota for some provider types, caution in interpreting the results of the 2016 Nursing Facility Workforce Survey needs to be exercised. More specifically, the importance of results for the following patient care provider types should be carefully evaluated: NPs (21.1 FTEs statewide), PAs (12.8 FTEs), and speech therapists (26.1 FTEs). Of course, in charts where subsets of the data are reported (e.g., rural versus urban), caution should be exercised even if the overall number of FTE providers is greater than 30 (e.g., for divisions into rural and urban can make subgroups with small numbers of providers). Very low vacancy rates can be an indicator of a labor market where there is an overabundance of provider types, which can depress provider salaries.

There is enough information in this chartbook to determine the denominators of rates for nearly all the results that are shown. In some cases, a provider type might be shown in some charts and not in another. For instance, NPs are shown in Figure 23 (Number of Nurse FTEs Employed by Type and Rural/Urban Status) but not in Figure 24 (Nurse FTE Vacancy Rates by Type and Rural/Urban Status). Figure 23 provides numbers of FTEs in geographic rural and urban categories. Figure 24 provides the denominators (plus vacant FTEs) upon which vacancy rates are calculated. As seen

in this example, the NP vacancy rates are not included in the Figure 24 graph because the rates are based on 11.8, 7.0, 0.0, and 2.4 FTEs, plus small associated FTE vacancy numbers.

Workforce analysis is complicated, and policy alternatives are often difficult to choose between or even difficult to imagine. For instance, when a hospital CEO indicates that there is a significant shortage of a provider type, it can mean many things. For instance, it could mean that CEOs feel there is a shortage because they feel they have to pay too much to attract the employees they desperately require. To perform detailed workforce analyses and projects require a multitude of data items that are often not available (provider age, state outflow of providers, state inflow of providers, intrastate provider production program, retirement estimates, increased demand per growing population, changes in private and public insurance coverage, and many more). It can be misleading to equate a severe shortage with being unable to attract enough of a provider type at a wage a facility can afford. The results of this North Dakota nursing facility workforce survey are but one of the inputs necessary to create sound public policy.

A version of the nursing facility survey findings was reported in the *Fourth Biennial Report: Health Issues for the State of North Dakota, 2017* in Chapter 5. There are some differences between the figures reported in this chartbook and those in the Biennial Report because one response was added to these analyses that was not available when the Biennial Report went to print. In addition, a calculation error was corrected, and another response had its data corrected. The final figures are contained this chartbook. This chartbook has pages that are purposely blank. This was done so charts that should be viewed together face one another.

Figure 2. North Dakota Nursing Facilities

North Dakota Nursing Facilities

Source: North Dakota Long Term Care Association 2017, ESRI

- City Name (Number of Facilities)
County
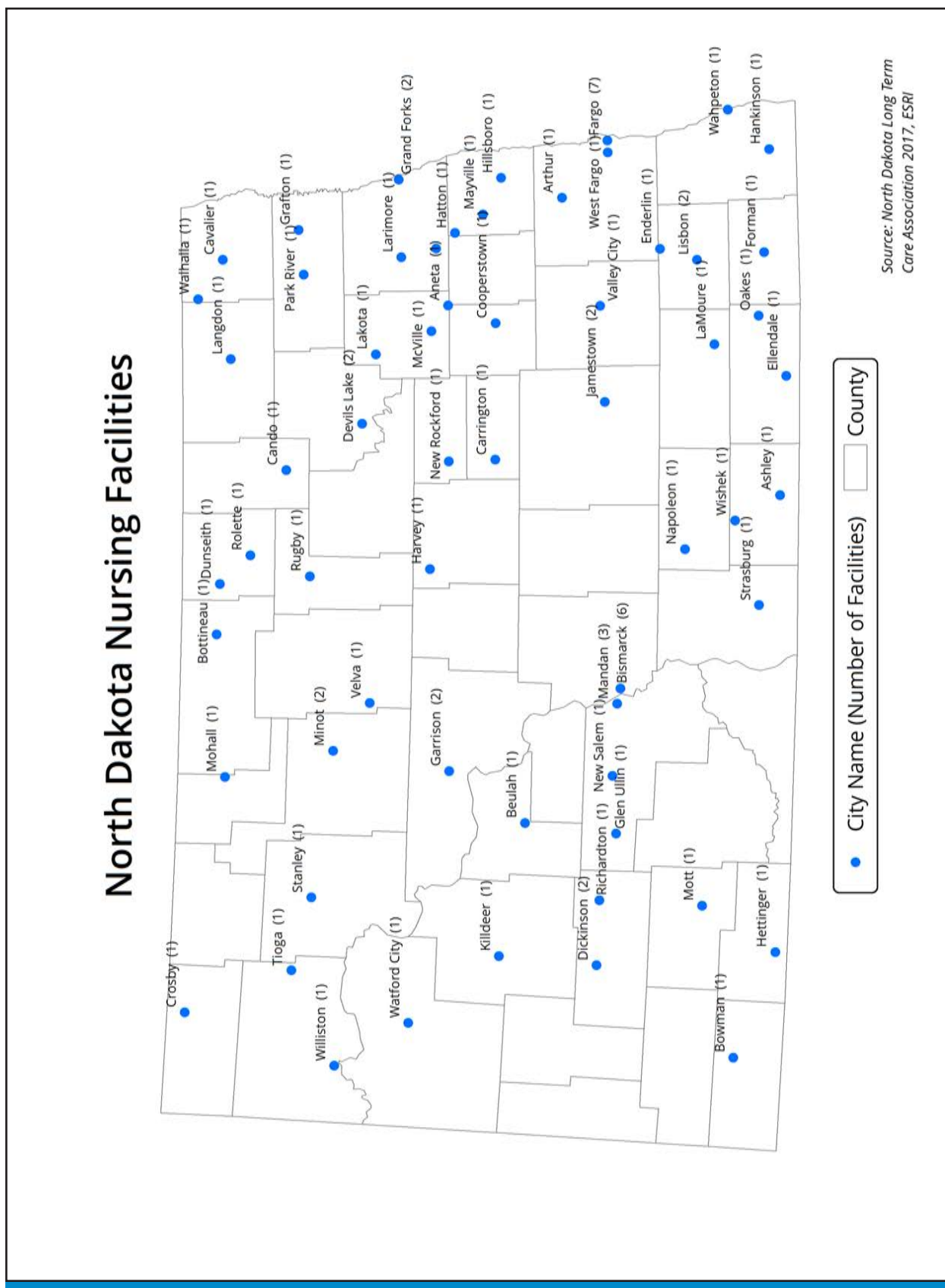
Figure 3. 2016 List of North Dakota Nursing Facilities

Nursing Facility	City/Town	RUCA Category
Aneta Parkview Health Center	Aneta	Isolated Small Rural
Good Samaritan Society - Arthur	Arthur	Urban
Ashley Medical Center & Nursing Home	Ashley	Isolated Small Rural
Knife River Care Center	Beulah	Small Rural
Baptist Health Care Center	Bismarck	Urban
Missouri Slope Lutheran Care Center	Bismarck	Urban
Sanford Health St. Vincent's Continuing Care Center	Bismarck	Urban
St. Gabriel's Community	Bismarck	Urban
Good Samaritan Society - Bismarck	Bismarck	Urban
CHI St. Alexius - TCU	Bismarck	Urban
Good Samaritan Society - Bottineau	Bottineau	Isolated Small Rural
Southwest Healthcare Services	Bowman	Isolated Small Rural
Towner County Living Center	Cando	Isolated Small Rural
Golden Acres Manor	Carrington	Isolated Small Rural
Wedgewood Manor	Cavalier	Isolated Small Rural
Griggs County Care Center	Cooperstown	Isolated Small Rural
St. Luke's Sunrise Care Center	Crosby	Isolated Small Rural
Good Samaritan Society - Devils Lake	Devils Lake	Small Rural
Eventide Devils Lake	Devils Lake	Small Rural
St. Luke's Home	Dickinson	Large Rural
St. Benedict's Health Center	Dickinson	Large Rural
Dunseith Community Nursing Home	Dunseith	Isolated Small Rural
Prince of Peace Care Center	Ellendale	Isolated Small Rural
Maryhill Manor	Enderlin	Isolated Small Rural
Manor Care of Fargo ND, LLC	Fargo	Urban
Elim - A Caring Community	Fargo	Urban
Rosewood on Broadway	Fargo	Urban
Villa Maria	Fargo	Urban
Eventide Fargo	Fargo	Urban
Bethany on 42nd Skilled Care	Fargo	Urban
Bethany on University Skilled Care	Fargo	Urban
Four Seasons Healthcare Center	Forman	Isolated Small Rural
CHI St. Alexius - Garrison	Garrison	Isolated Small Rural
Benedictine Living Center of Garrison	Garrison	Isolated Small Rural
Marian Manor Healthcare Center	Glen Ullin	Urban
Lutheran Sunset Home	Grafton	Small Rural
Valley Eldercare Center Grand Forks	Grand Forks	Urban

Nursing Facility	City/Town	RUCA Category
Woodside Village	Grand Forks	Urban
St. Gerard's Community of Care	Hankinson	Isolated Small Rural
St. Aloisius Medical Center	Harvey	Isolated Small Rural
Hatton Prairie Village	Hatton	Urban
Western Horizons Care Center	Hettinger	Isolated Small Rural
Sanford Health Hillsboro Care Center	Hillsboro	Urban
Ave Maria Village	Jamestown	Large Rural
Eventide Jamestown	Jamestown	Large Rural
Hill Top Home of Comfort	Killdeer	Isolated Small Rural
Good Samaritan Society - Lakota	Lakota	Isolated Small Rural
St. Rose Care Center	LaMoure	Isolated Small Rural
Maple Manor Care Center	Langdon	Isolated Small Rural
Good Samaritan Society - Larimore	Larimore	Urban
North Dakota Veterans Home	Lisbon	Isolated Small Rural
Parkside Lutheran Home	Lisbon	Isolated Small Rural
Dakota Alpha	Mandan	Urban
Miller Pointe, A Prospera Community	Mandan	Urban
Sunset Drive - A Prospera Community	Mandan	Urban
Luther Memorial Home	Mayville	Isolated Small Rural
Nelson County Health System Care Center	McVille	Isolated Small Rural
Minot Health and Rehab	Minot	Large Rural
Trinity Homes	Minot	Large Rural
Good Samaritan Society - Mohall	Mohall	Isolated Small Rural
Good Samaritan Society - Mott	Mott	Isolated Small Rural
Napoleon Care Center	Napoleon	Isolated Small Rural
Lutheran Home of the Good Shepherd	New Rockford	Isolated Small Rural
Elm Crest Manor	New Salem	Urban
Northwood Deaconess Health Center	Northwood	Urban
Good Samaritan Society - Oakes	Oakes	Isolated Small Rural
Good Samaritan Society - Park River	Park River	Isolated Small Rural
Richardton Health Center	Richardton	Isolated Small Rural
Rolette Community Care Center	Rolette	Isolated Small Rural
Heart of America Medical Center	Rugby	Small Rural
Mountrail Bethel Home	Stanley	Isolated Small Rural
Strasburg Care Center	Strasburg	Urban
Tioga Medical Center Long Term Care	Tioga	Isolated Small Rural
Sheyenne Care Center	Valley City	Small Rural
Souris Valley Care Center	Velva	Large Rural

Nursing Facility	City/Town	RUCA Category
Benedictine Living Community of Wahpeton/ St. Catherine	Wahpeton	Large Rural
Pembilier Nursing Center	Walhalla	Isolated Small Rural
McKenzie County Health Care Systems	Watford City	Isolated Small Rural
Sheyenne Crossings Care Center	West Fargo	Urban
Bethel Lutheran Nursing & Rehab Center	Williston	Large Rural
Wishek Living Center	Wishek	Isolated Small Rural

Figure 4. Statewide Nursing Facility Workforce FTE Vacancy Rates

Registered Nurses (RNs) 13.1
Nurse Practitioners (NPs) TFF
Licensed Practical Nurses (LPNs) 10.5
Certified Nurse Assistants (CNAs) 8.9
Nurse Managers 4.1
Physician Assistants (PA) TFF
Physical Therapists 3.9
Occupational Therapists 4.5
Speech Therapists TFF
Dietitians 10.1
Dietary Staff 4.3
Feeding Assistants 2.3
Social Service Staff 3.9
Activity Staff 2.9
Other Clinical & Service Managers 2.1
Chaplain Staff 6.3
Medical Records & Ward Clerk Staff 2.1
Human Resources Staff 1.5
Business Office Staff 2.0
Housekeeping Staff 3.6
Laundry Staff 4.3
Maintenance Staff 3.9
Grounds Keeping Staff TFF
Administration (LTC facility management) 0.8
Other 2.2

Commonly considered optimal vacancy rate range

FTE Vacancy Rates (%)

TFF = Too Few FTEs

Note: These vacancy rates are not averages of nursing facility rates (means of means) but are the rates using the overall category number of vacancies and employed providers (essentially weighting these rates by FTE hospital employment counts).

The overall North Dakota vacancy rates for employee types are illustrated in Figure 4. The clinical provider vacancy rates were highest for RNs (13.1%), LPNs (10.5%), and dietitians (10.1%). These vacancy rates should be evaluated in terms of the total number of FTE vacancies for each case (i.e., 88.5/589.0, 86.1/732.4, and 6.0/53.5). There were 40.7 FTE vacancies for dietary staff (vacancy rate of 4.3%) and 299.0 FTE vacancies for CNAs (vacancy rate of 8.9% of 3,077.1 total FTE positions). Clearly, having 489.5 total FTE nursing vacancies (Figure 5) is of great concern to the quality operations of North Dakota's nursing facilities.

Figure 5. Statewide Nursing Facility Workforce FTE Vacancies by Position Type
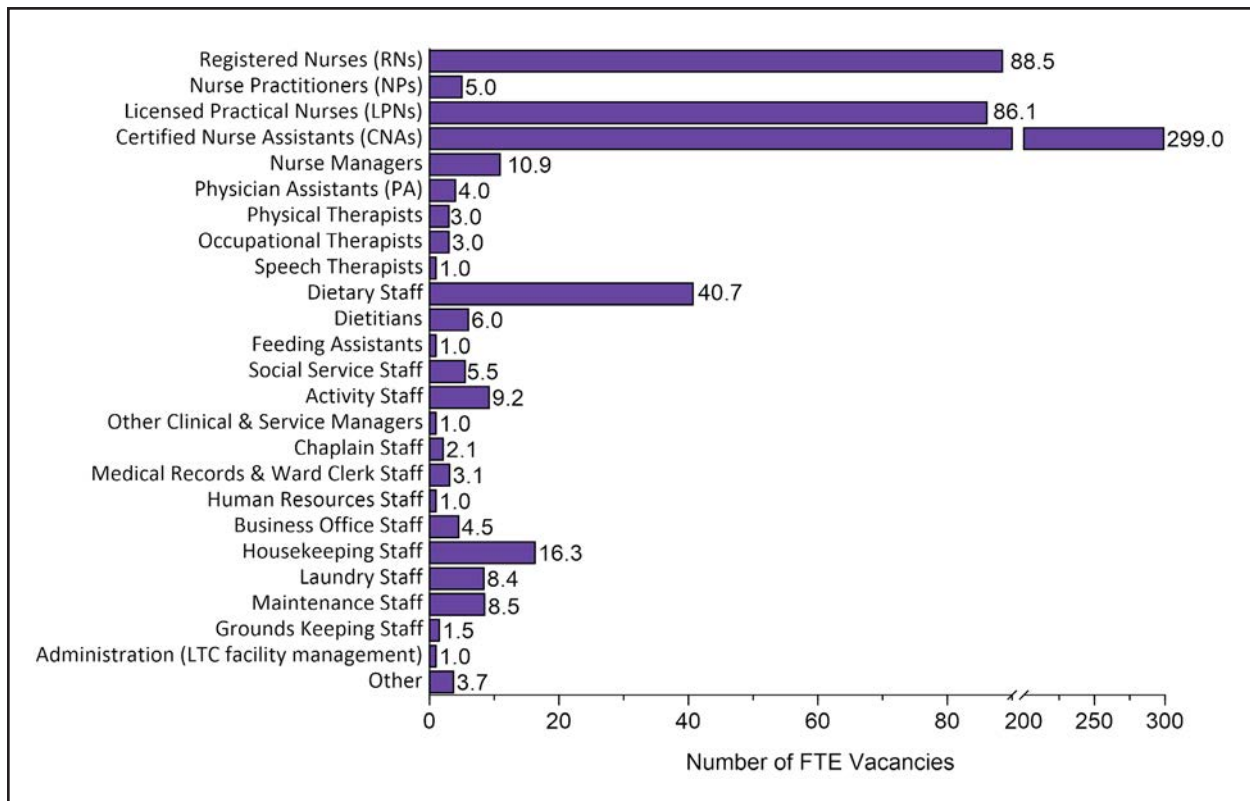
The statewide total nursing facility FTE vacancies are shown in Figure 5 for the various provider types. By far, CNAs had the most vacancies at 299.0 – more than three times as many as RNs (88.5 FTEs) and LPNs (86.1 FTEs). When all the FTE vacancies for patient care providers were totaled, they constituted 566.0 FTEs. There were also 48.0 FTE vacancies for other nursing facility support employees (e.g., housekeeping and maintenance staff).

Figure 6. Nursing Facility Workforce FTE Internal/Contract Employees by Position Type
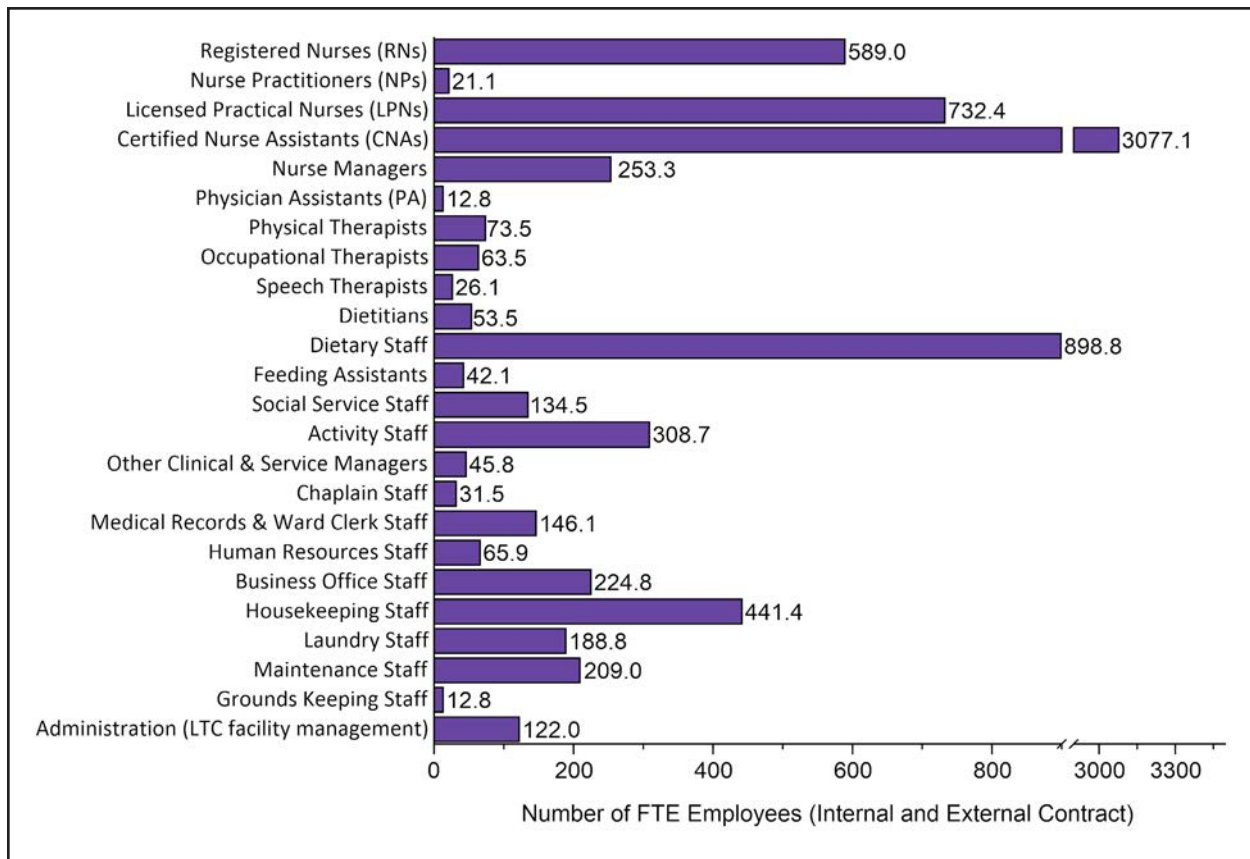
The total FTE nursing facility positions (both internal employees and outside contract employees) by type are shown in Figure 6. The most numerous provider type positions by FTEs were: CNAs (3077.1 FTEs), dietary staff (898.8 FTEs), LPNs (732.4 FTEs), RNs (589.0 FTEs), housekeeping staff (441.4 FTEs), and activity staff (308.7 FTEs). North Dakota's nursing facility patient care staff employed only 21.1 FTEs of NPs, 12.8 FTEs of PAs, and 26.1 FTEs of speech therapists along with 73.5 FTEs of physical therapists, 63.5 FTEs of occupational therapists, 53.5 dieticians, and 42.1 feeding assistants.

Figure 7. Nursing Facility Workforce FTE Internal Employees, Contract Employees, and Vacancies by Type
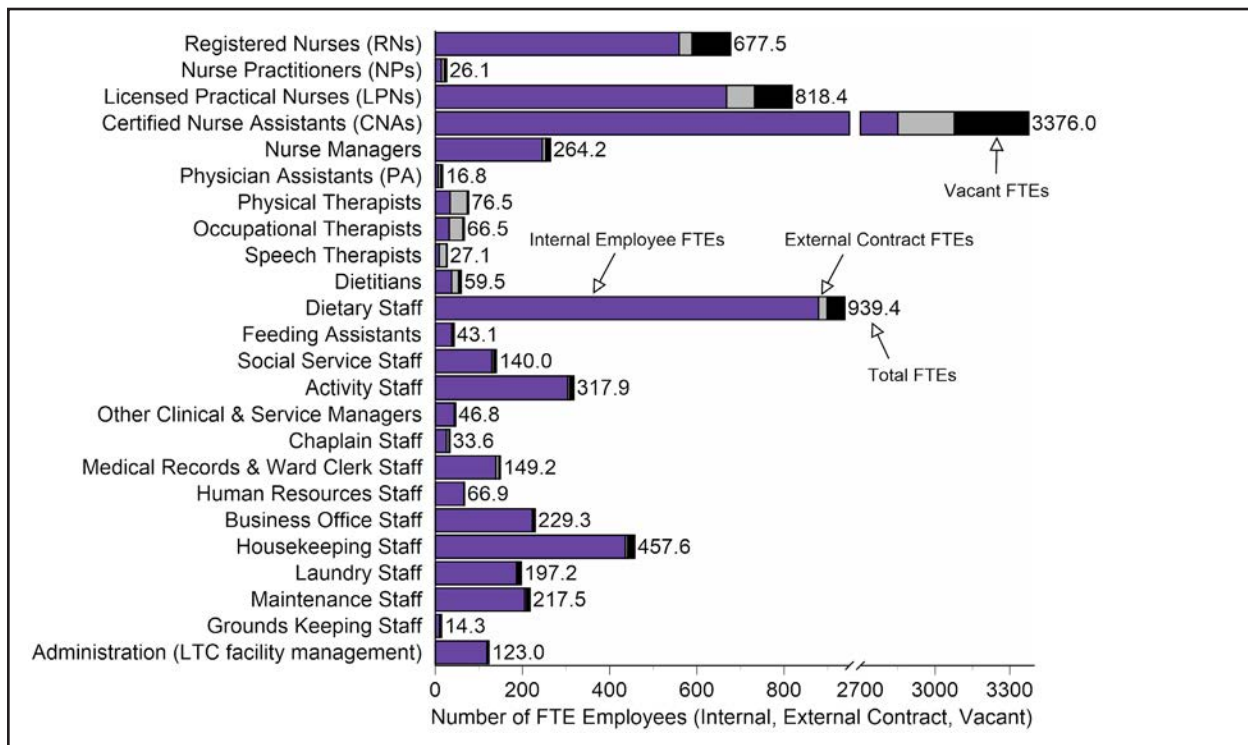
In Figure 7, an additional dimension is added to the information contained in Figures 5 and 6. North Dakota nursing facilities have two types of employees: internal employees and external (outside) contract employees. The internal employees are employed directly by the nursing facility. External contract employees are those who are contracted to work for the nursing facility either by a third-party service company or by the person contracting to work.

The bars in Figure 7 potentially have three FTE segments each: internal employees, external contract employees, and vacant FTEs (for which active recruitment is current). A graphical representation of the contribution of external contract employees in comparison to vacancies and internal employees is provided in the figure. The largest groups of external contract employees were for CNAs, LPNs, physical therapists, occupational therapists, and RNs. The FTEs of external contract employees are shown by employee type in Figure 8.

External contract employees are generally hired for two reasons: 1) because the local market for a provider type makes it difficult for the nursing facility to hire the employees it needs, and 2) because the local nursing facility only needs a fraction of an FTE (e.g., 45% of an FTE). In the latter case, it may not be possible for a remote nursing facility to share a provider (e.g., physical therapist). The use of significant FTEs for external contract employees may be a symptom of geographic provider shortages, but it can also be associated with other factors, such as the inability of a nursing facility to pay higher wages, among other things. This use of external contract employees can often be seen as a symptom of a tight labor market. Nursing facilities that use external contract employees face the consequence of spending much more on these employees than they do for internal employees.

Figure 8. Statewide Nursing Facility Workforce FTE Contract Employees by Position Type
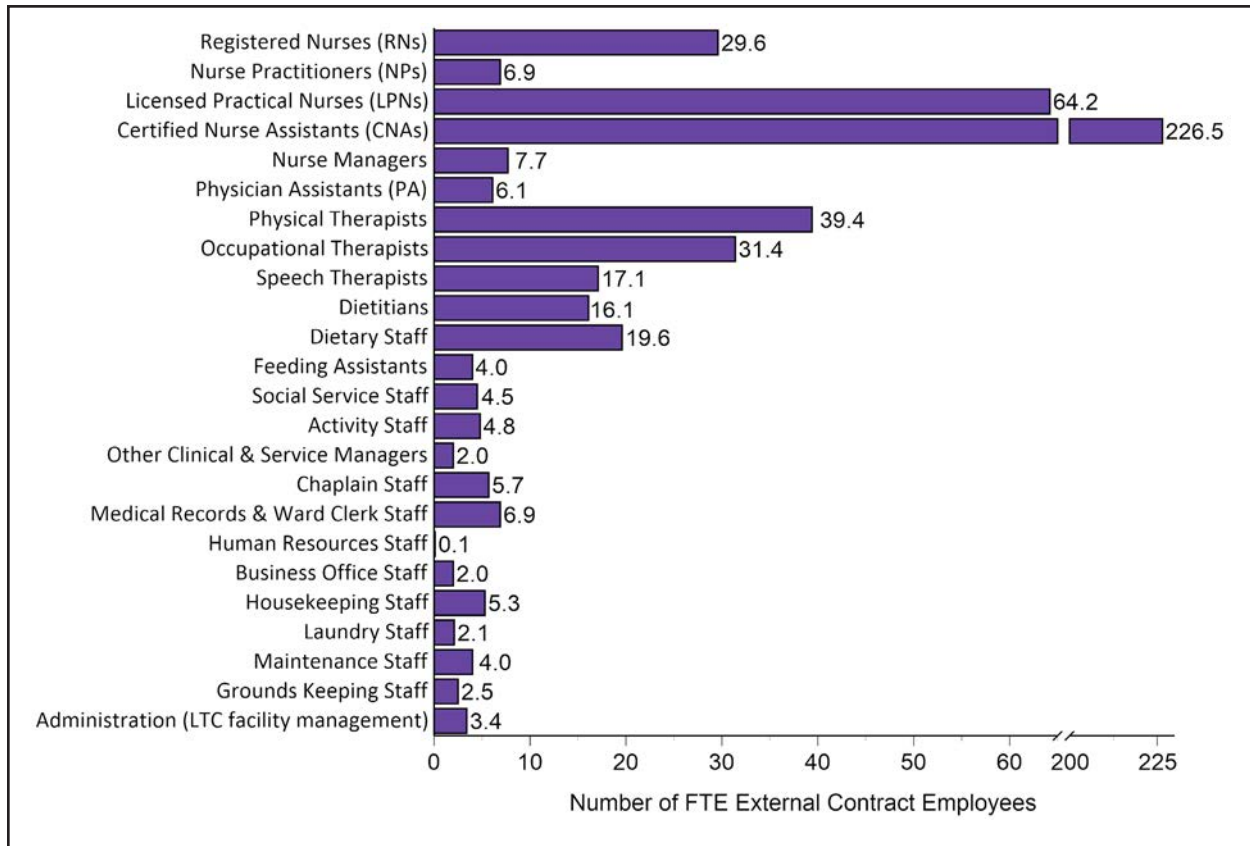
The nursing facility FTEs of external contract employees by employee category are shown in Figure 8. The most frequent employed FTE provider types were CNAs (226.5 FTEs), LPNs (64.2 FTEs), physical therapists (39.4 FTEs), occupational therapists (31.4 FTEs), and RNs (29.6 FTEs). In total, nursing facilities had 511.9 FTEs of external contract employees. This represents 6.7% of all employees.

Figure 9. FTE Rural and Urban Contract Rate (Percentage of All Employees Contract) by Rural and Urban Status
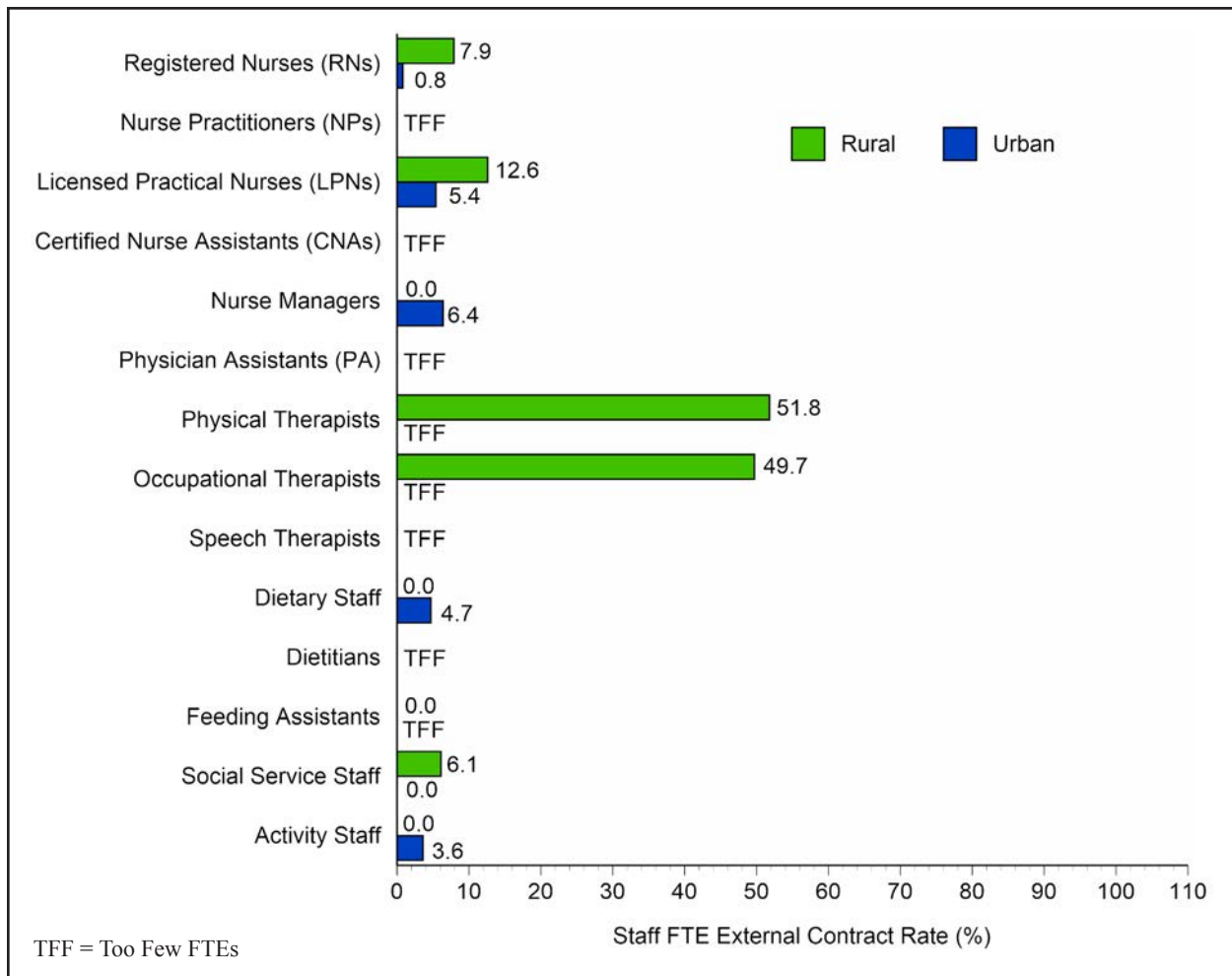
By provider type, Figure 9 illustrates the percentage of employed FTEs that were filled by external contract employees (i.e., contract employee FTEs divided by total FTE employees — internal and contract — and then multiplied by 100 to obtain a percentage). As can be seen from Figure 9, many of the percentages are not displayed, owing to denominators less than 30, which is associated with unstable estimates. The percentage of provider types that were contract workers (where both the rural and urban FTEs were 30 or greater) and where rural had more contract workers than urban areas includes RNs (rural: 7.9%; urban: 0.8%), LPNs (rural: 12.6%; urban: 5.4%), and social service staff (rural: 6.1%; urban: 0.0%). Urban had higher percentages of contract workers for nurse managers (rural: 0.0%; urban: 6.4%), dietary staff (rural: 0.0%; urban: 4.7%), and activity staff (rural: 0.0%; urban: 3.6%). Across all North Dakota nursing facilities (including those not shown in Figure 9), 6.7% of employee FTEs are external contract employees.

Figure 10. Nursing Vacancy Rates: Vacancies Versus Vacancies and External Contract Employees
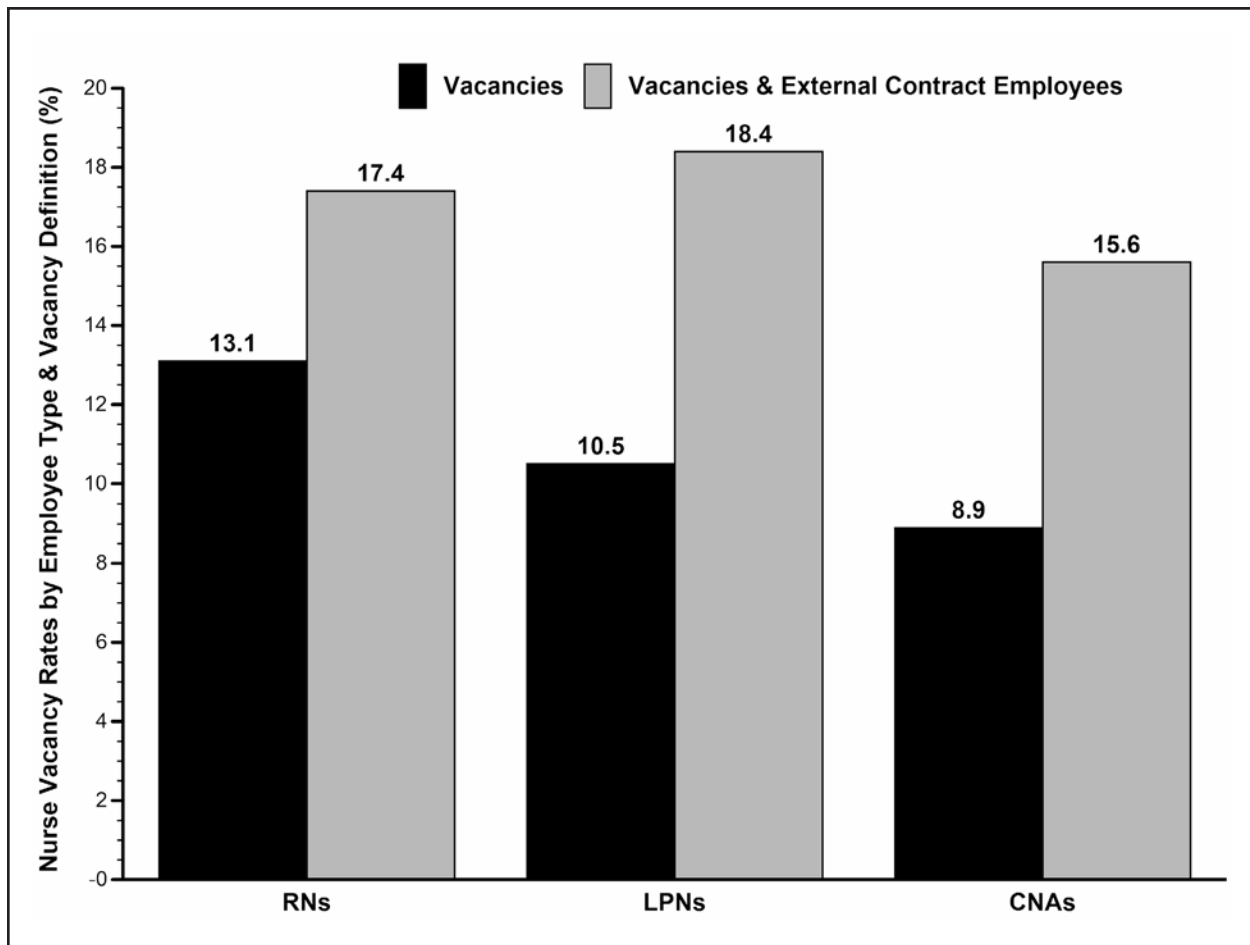
The difference in nursing vacancy rates based on just FTE vacancies and based on vacancies plus external contract employees is illustrated in Figure 10. This comparison can be relevant if it is assumed that North Dakota's nursing facilities used FTE external contract employees because they were unable to hire internal employees for their facilities. This is important because nursing facilities had significantly higher expenditures for contract employees as compared to internal employees. While it is possible to present such vacancy rate comparisons for other provider types, they are not presented because, in many cases, nursing facilities hire contract employees for other reasons (e.g., they only need parts of FTEs – only need 0.5 FTE for a PT).

As shown in Figure 10, the vacancies and external contract employee-based vacancy rates were higher than those based on just vacancies (i.e., RNs: 17.4% versus 13.1%; LPNs: 18.4% versus 10.5%; and CNAs: 15.6% versus 8.9%). The external contract employee rates were the following percentages higher than the associated vacancy-based rates: 32.8%, 75.2%, and 75.3%. If the external contract employees' vacancy rates are close to the reality, then the adjusted rates indicate more of a shortage of local nurses than just the vacancy-based rates indicate. For example, an LPN rate of near 18.4% can be considered a significant problem. These findings may also be explained by geographic nursing supply shortages.

Figure 11. Statewide Number of Nurse FTEs Employed by Type and Rural/Urban Status
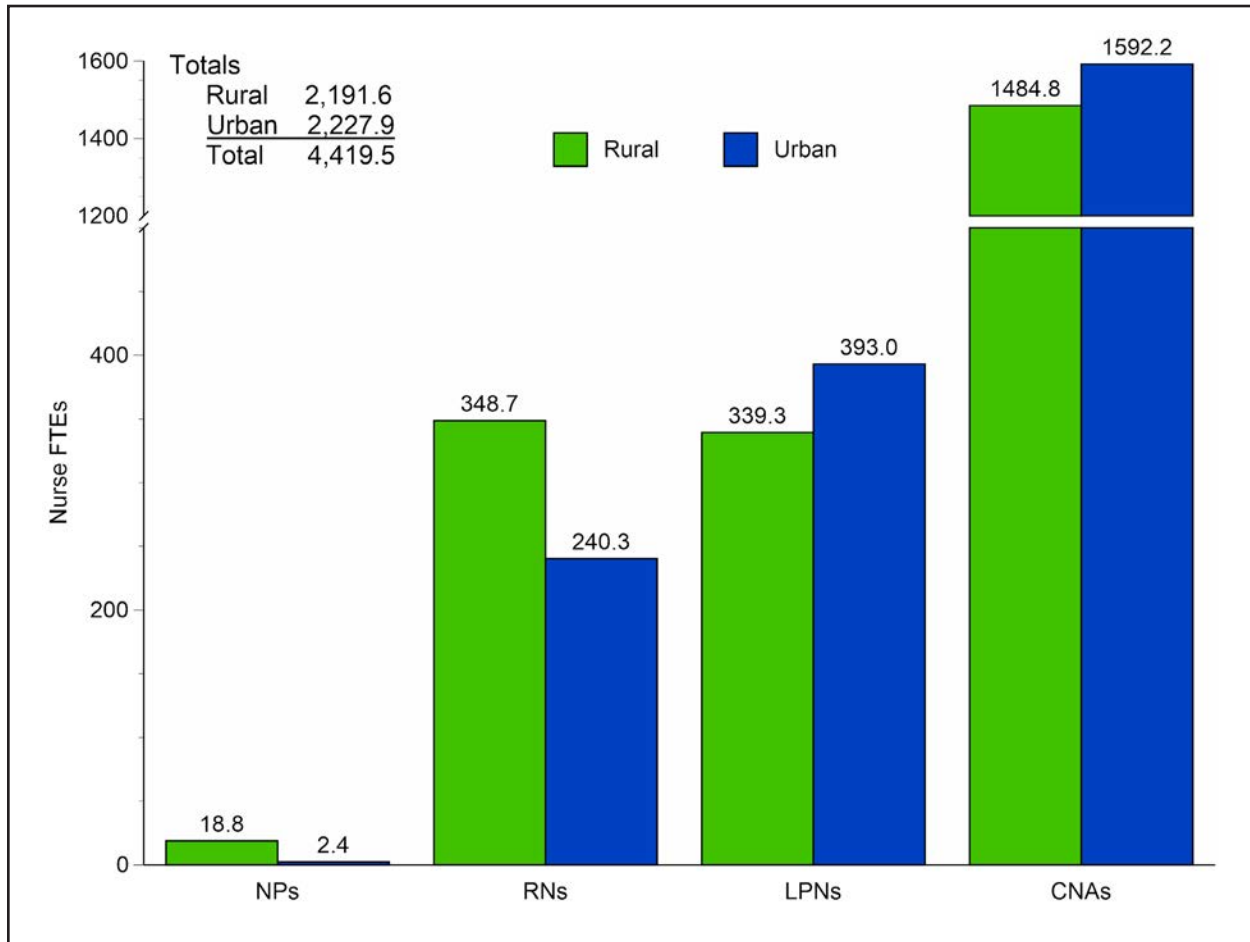
Interestingly, rural North Dakota nursing facilities were employing more RN FTEs, according to the 2016 nursing facility survey, than were urban nursing facilities (348.7 versus 240.3 FTEs) (Figure 11). However, for both LPNs and CNAs, urban nursing facilities employed more FTEs than their rural counterparts (393.0 versus 339.3 FTEs and 1,592.2 versus 1,484.8 FTEs).

Figure 12. Total Employed RN, LPN, Nurse Manager, CNA, NP, and PA Nursing Facility FTEs
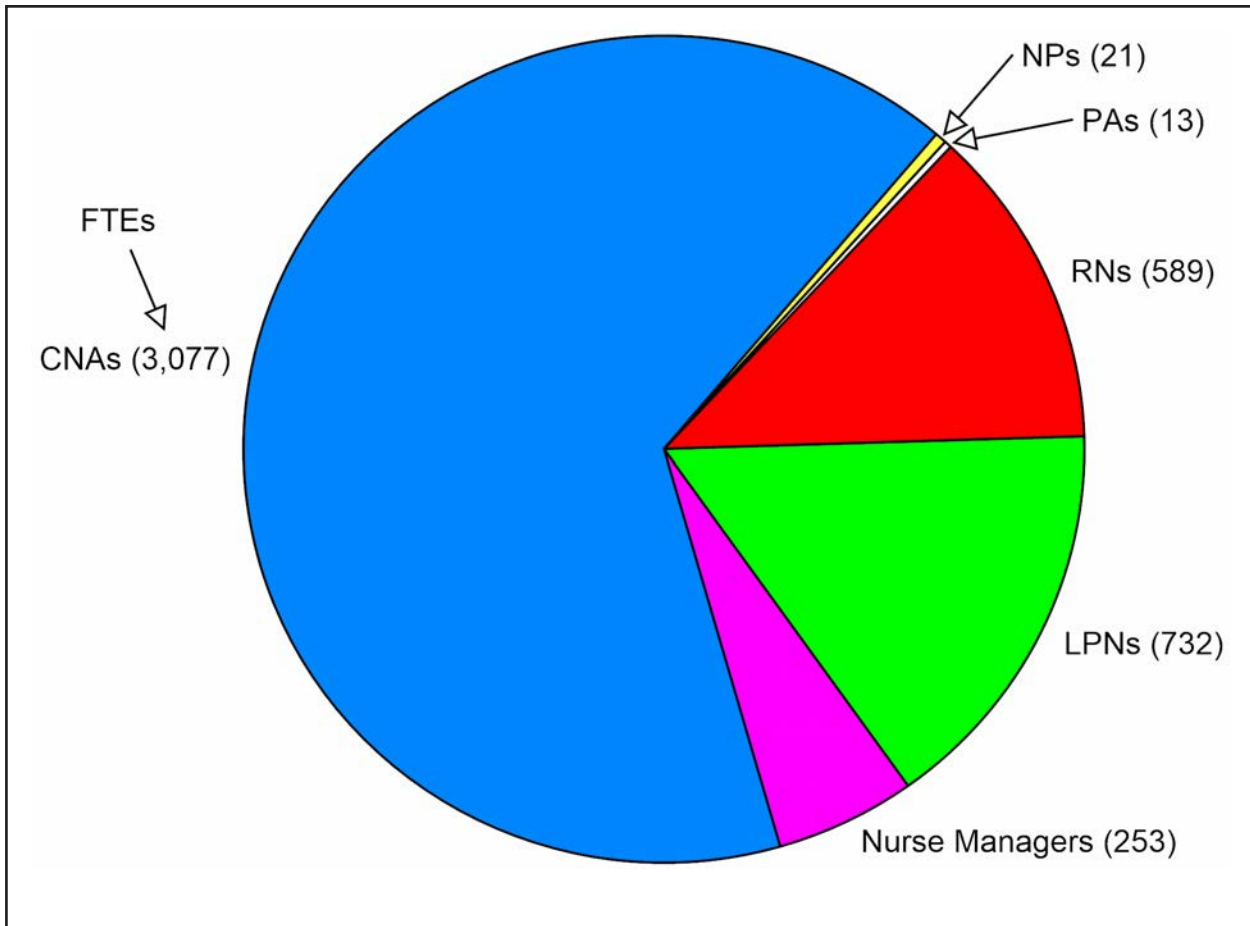
The nursing facilities' FTEs for RNs, LPNs, nurse managers, CNAs, NPs, and PAs are shown in Figure 12 to illustrate their comparative numbers. At the time of the 2016 survey, these six provider types accounted for 4,685 FTEs of the employed (both internal employees and external contract employees) at North Dakota's nursing facilities. The number does not include the reported 494 FTE vacancies. This number also does not include those FTEs of the three nursing facilities for whom there was not a survey response. A simple extrapolation of the total FTEs for the six provider types based on their numbers of beds would indicate that the actual population number of FTEs would be increased by approximately 209 FTEs to 4,894.

As seen in Figure 12, the most FTEs were accounted for by CNAs (3,077 [65.7%]). The other five provider types represented the following FTE percentages: LPNs (15.6%), RNs (12.6%), nurse managers (5.4%), NPs (0.4%), and PAs (0.3%). Clearly, few FTEs of NPs and PAs during 2016 were employed in North Dakota's nursing facilities. Only 9.0 FTE vacancies (NPs: 5.0, PAs: 4.0) were reported by survey respondents.

Figure 13. Statewide Number of Nurse FTE Vacancies by Type and Rural/Urban Status
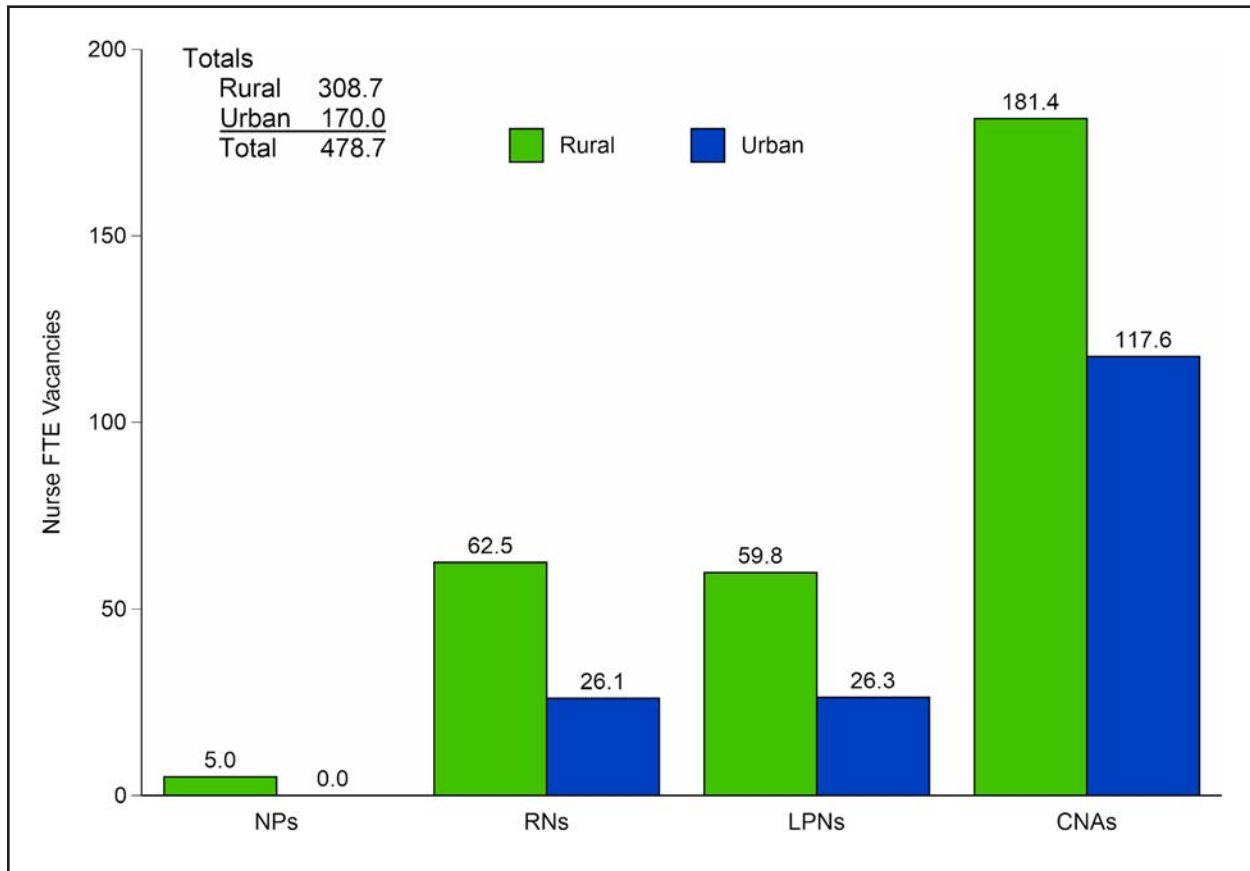
This figure shows the overall vacant FTEs for four types of nurses, comparing rural and urban areas across the state. Across all of these nursing positions, there were a total of 478.7 FTE vacancies, with far more rural nursing vacancies (308.7 FTEs) than there were in urban areas (170.0 FTEs). Within rural and urban areas, the highest number of vacancies were found for rural CNAs (181.4 FTEs), followed by their urban counterparts (117.6 FTEs). There were only 5.0 NP vacancies.

Figure 14. Statewide Nurse FTE Vacancy Rates by Type and Rural/Urban Status
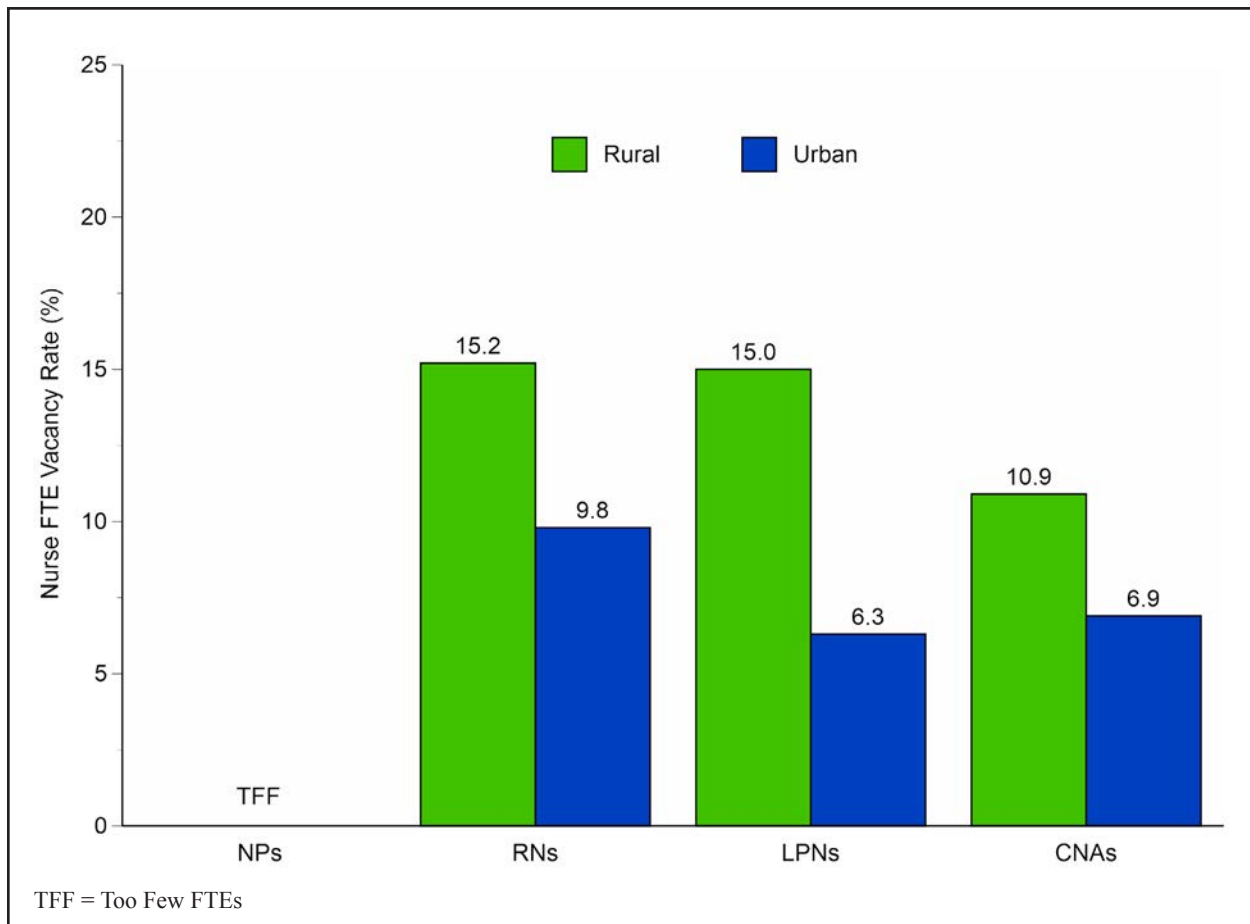
Statewide nursing vacancy rates by nurse type are displayed in Figure 14. As seen, the vacancy rates for NPs were excluded from the graph because there were too few FTEs to be meaningful (see Figure 13, which shows the small number of FTEs for NPs across the rural/urban status categories). The most obvious observation from Figure 14 is that the rural vacancy rates were higher than those of the urban nursing facilities for all three nursing types (i.e., RNs, LPNs, and CNAs). In all cases, the differences were not trivial. The largest difference was among LPN vacancy rates between rural and urban at 8.7 FTEs (i.e., 15.0 minus 6.3 FTEs).

Figure 15. Statewide Nurse Vacancy Rates by Type and Number of FTEs and Rural/Urban Status

NPs: 0.0% Vacancy * (2.4 FTEs) — 21.1% Vacancy * (23.8 FTEs)

RNs: Rural 15.2% Vacancy (411.2 FTEs); Urban 9.8% Vacancy (266.2 FTEs)

LPNs: Rural 15.0% Vacancy (399.1 FTEs); Urban 6.3% Vacancy (419.3 FTEs)

CNAs: Rural 10.9% Vacancy (1666.2 FTEs); Urban 6.9% Vacancy (1709.9 FTEs)

Size of bars is proportional to number of FTEs (employed plus vacancies)

Nurse Vacancy Rates (%)

*The FTEs are too low to be stable. These are not shown in other charts but are shown here for illustrative purposes.

Figure 15 shows the number of FTE vacancies for each of the four nursing types. In addition, the rural and urban nursing facility bar widths (volumes) add the dimension of showing the total number of FTEs (employed and vacant positions) upon which the vacancy rates are based. For instance, for the urban CNA vacancy percentage of 10.9%, the bar's size is proportional to 1,666.2 FTEs.

The rural and urban NP vacancy rates are included in this chart for illustrative purposes, because the rates are based on very small FTEs and are not shown in other chartbook charts. This chart was included to emphasize the differences in the FTEs upon which vacancy rates can be based. Clearly the NP rates are based on few FTEs and are prone to be unstable.

Excluding NPs, the highest vacancy rates are for rural RNs and LPNs (15.2% and 15.0%). The much larger total FTE CNA categories had lower rates at 10.9% and 6.9% for rural and urban.

Figure 16. Statewide Nurse FTE Vacancy Rates by Type and by Region
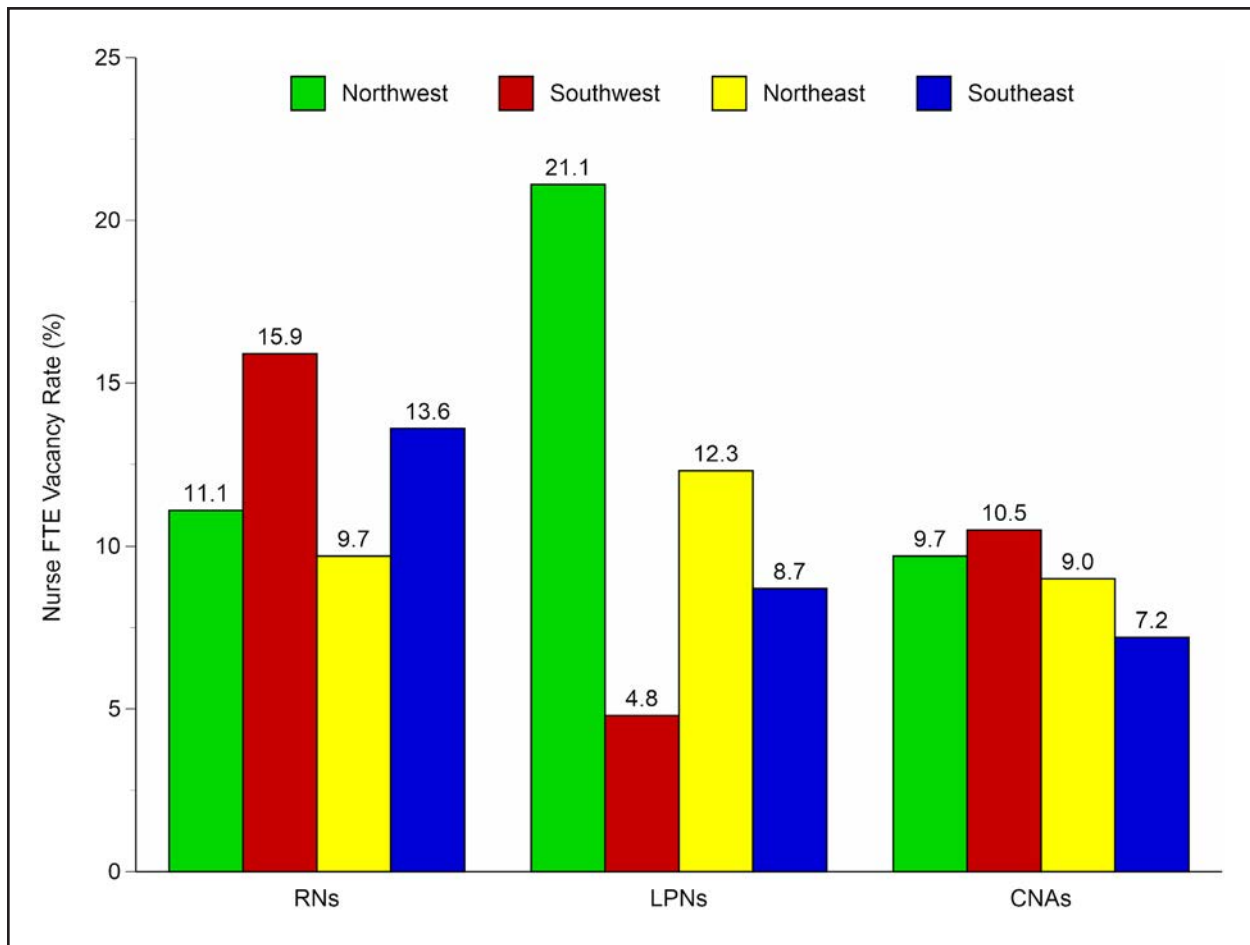
Figure 16 shows nursing facility vacancy rates for RNs, LPNs, and CNAs by four North Dakota regions (Northwest, Southwest, Northeast, and Southeast). The highest vacancy rate was for Northwest LPNs and the lowest for Southwest LPNs. The vacancy rates for CNAs only varied from 7.2% through 10.5% across the four regions. RN vacancy rates were highest for the Southwest (15.9%) and lowest for the Northeast (9.7%). The other regional RN vacancy rates were 11.1% for the Northwest and 13.6% for the Southeast. NPs were not included in this figure because their numbers were too small to be stable.

Figure 17. FTE Internal Employee/External Contract Employee RNs by Individual Nursing Facilities and Rural/Urban Status
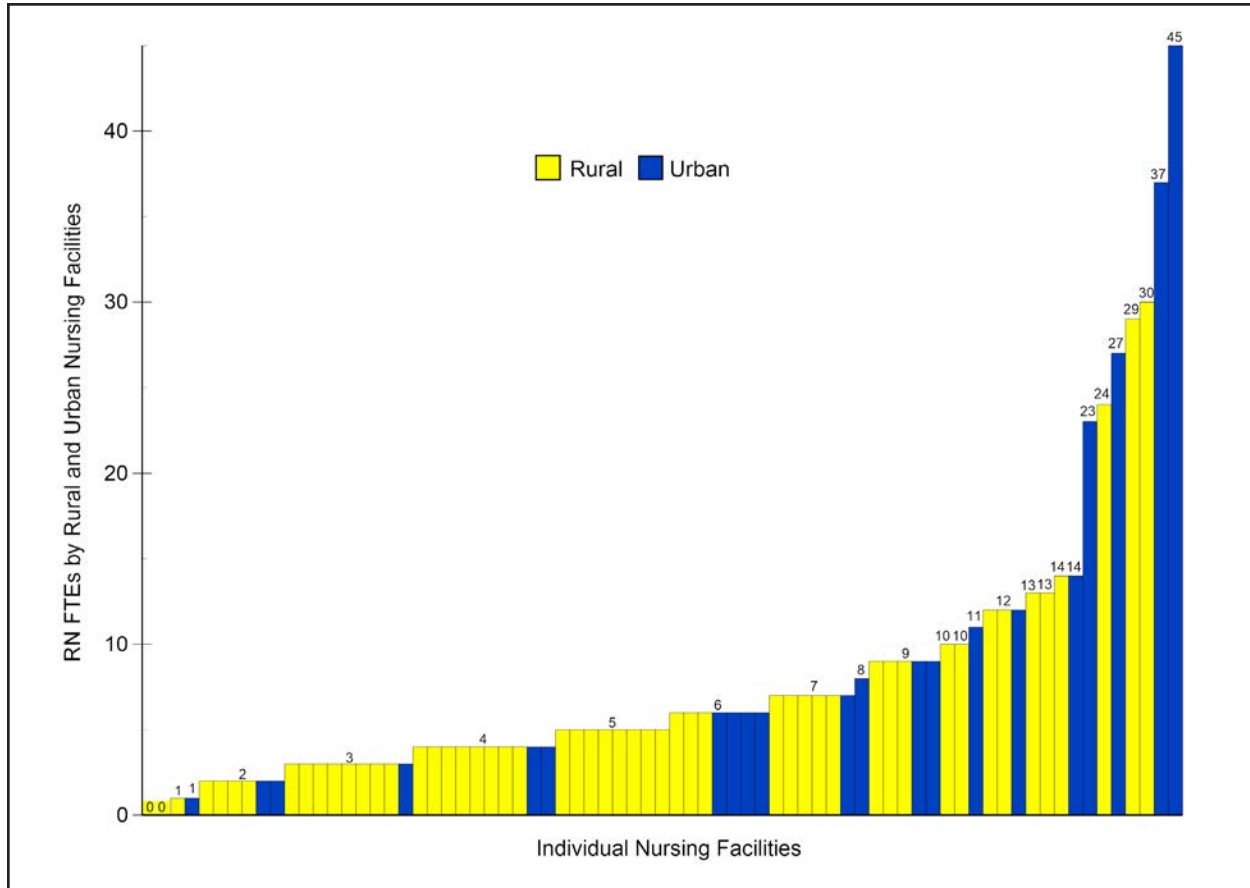
Figure 17 is different than the previous charts in that it does not deal with statewide rates and percentages. Instead, it shows nursing facility information for the responding facilities. In Figure 17, each column represents a nursing facility related to the number of RN internal employee and external contract employee FTEs, colored by rural and urban status. The numbers ranged from 0 to 45 total RN FTEs. The figure shows there were both rural and urban facilities at the low range of the total FTEs and at the high range. Among the facilities with the most RN FTEs (23-45 FTEs), there were four urban and three rural nursing facilities. The two nursing facilities with the most RN FTEs were urban.

Figure 18. RN Vacancy Rates by Individual Nursing Facilities and Rural/Urban Status
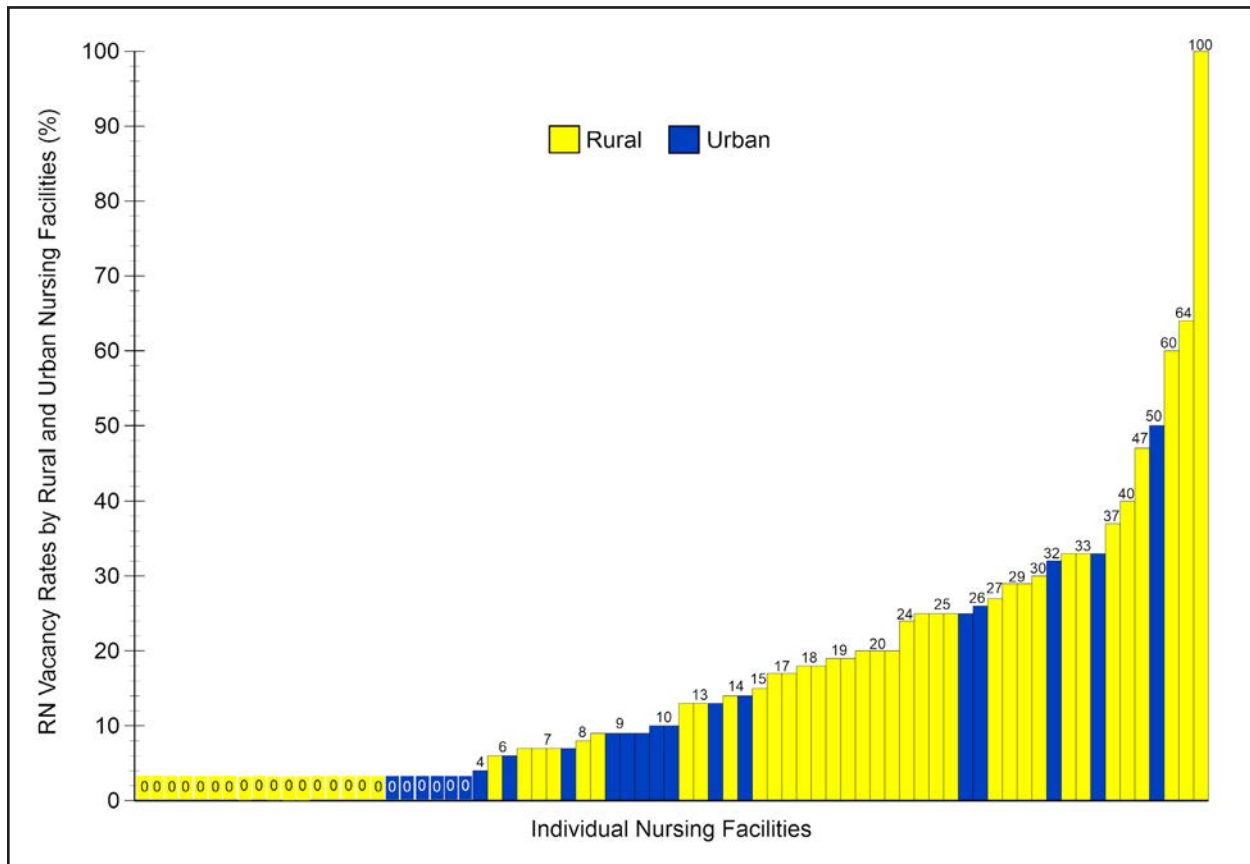
The nursing facility-specific RN vacancy rates are depicted in Figure 18. The vacancy percentages ranged from a low of 0% to a high of 100%. From observation of the distribution of facility vacancy percentages, rural nursing facilities were more likely to have higher percentages. The 100% was based on a facility that only had 1.5 FTEs of RNs – all of which were vacant. Specifically, across each of the nursing facilities, the number of vacant FTEs ranged from 0 through 6. The median nursing facility vacancy percentage was 10% (rural: 14.5%, urban: 9%). At the time of the survey, 50 North Dakota nursing facilities had one or more RN vacancies. This chartbook's convention of only showing vacancy rates that are based on greater than or equal to 30 FTEs is suspended here so that the actual facility-related vacancy rates can be viewed.

Figure 19. FTE Internal Employee/External Contract Employee LPNs by Individual Nursing Facilities and Rural/Urban Status

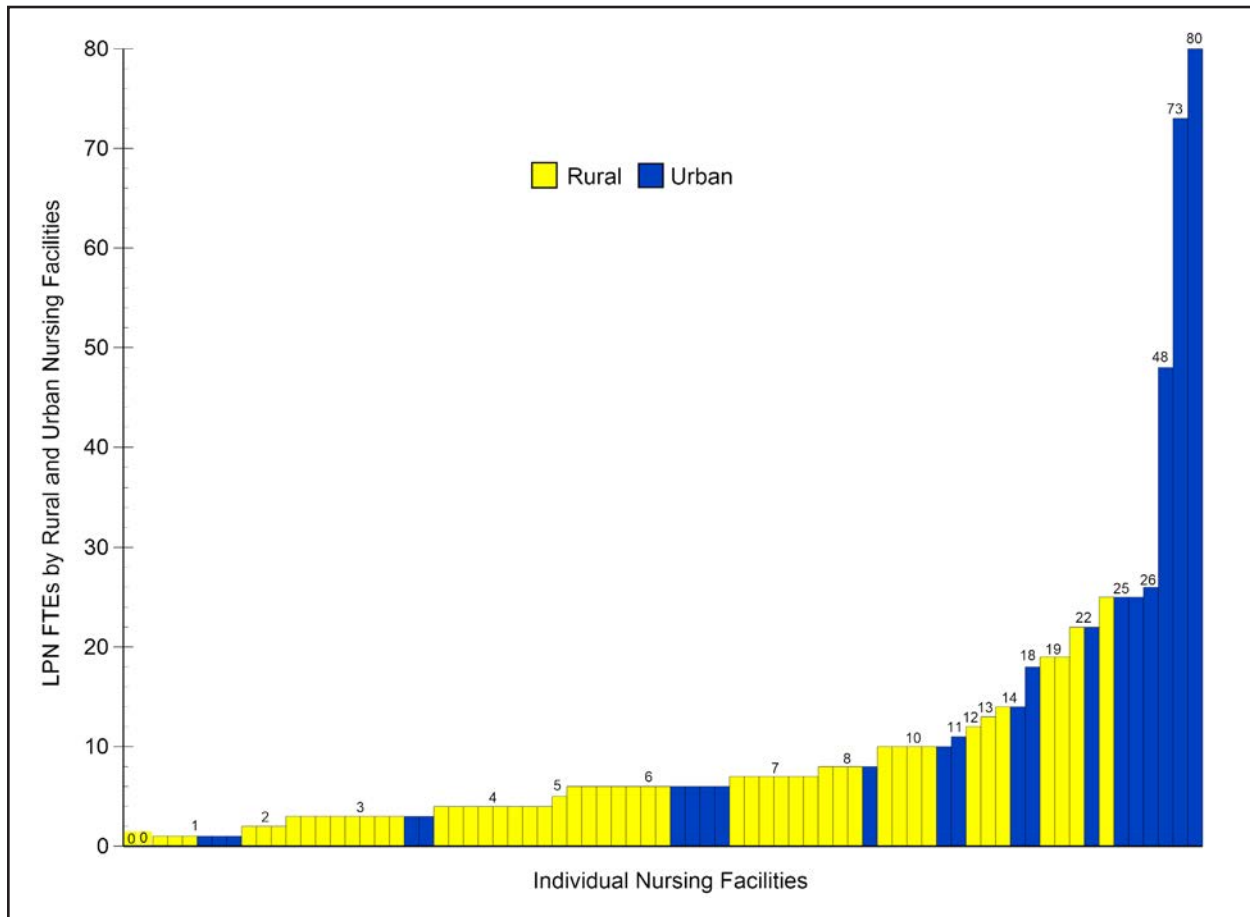The number of LPN FTEs for each of North Dakota's nursing facilities by rural and urban status is illustrated in Figure 19. Across the state, the number of facility LPN FTEs ranged from 0 to 80. Generally, urban facilities reported employing greater numbers of LPNs, while facilities in rural areas typically employed lower numbers. Six of the seven nursing facilities with the greatest number of LPN FTEs are urban (ranging from 25 through 80 FTEs).

Figure 20. LPN Vacancy Rates by Individual Nursing Facilities and Rural/Urban Status
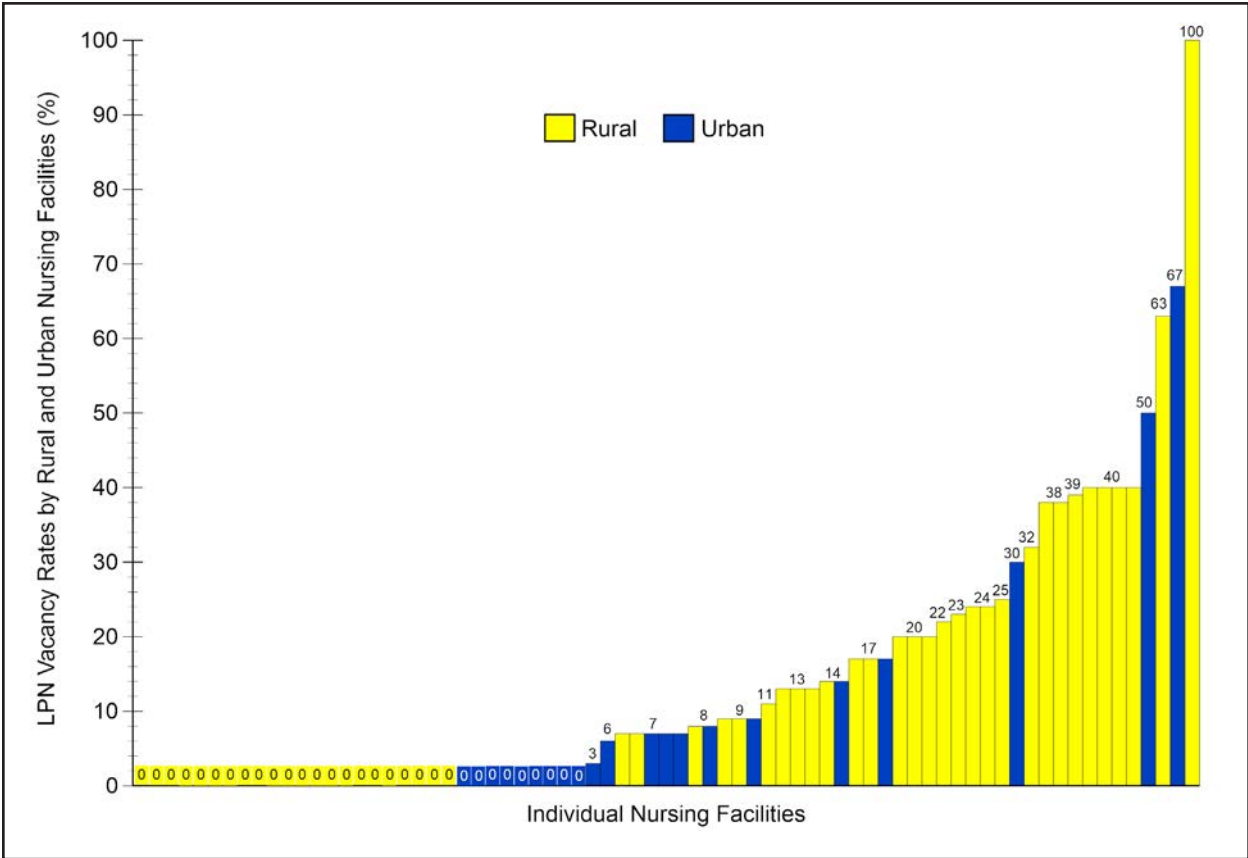
LPN vacancy rates for each of the state's nursing facilities by rural and urban status are depicted in Figure 20. Overall, facilities in rural areas were more likely to report higher vacancy rates than their urban counterparts. Rural/urban vacancy rates ranged from 0% through 100%. The rural vacancy rate of 100% for LPNs was based on a facility that only had a total of 1.5 FTEs, all of which were vacant. Across each of the nursing facilities, the number of vacant FTEs ranged from 0 through 9. The median nursing facility vacancy percentage was 7% (rural: 9%, urban: 6%). At the time of the survey, 42 North Dakota nursing facilities had one or more LPN vacancies. This chartbook's convention of only showing vacancy rates that are based on greater than or equal to 30 FTEs is suspended here so that the actual facility-related vacancy rates can be viewed.

Figure 21. FTE Internal Employee/External Contract Employee CNAs by Individual Nursing Facilities and Rural/Urban Status
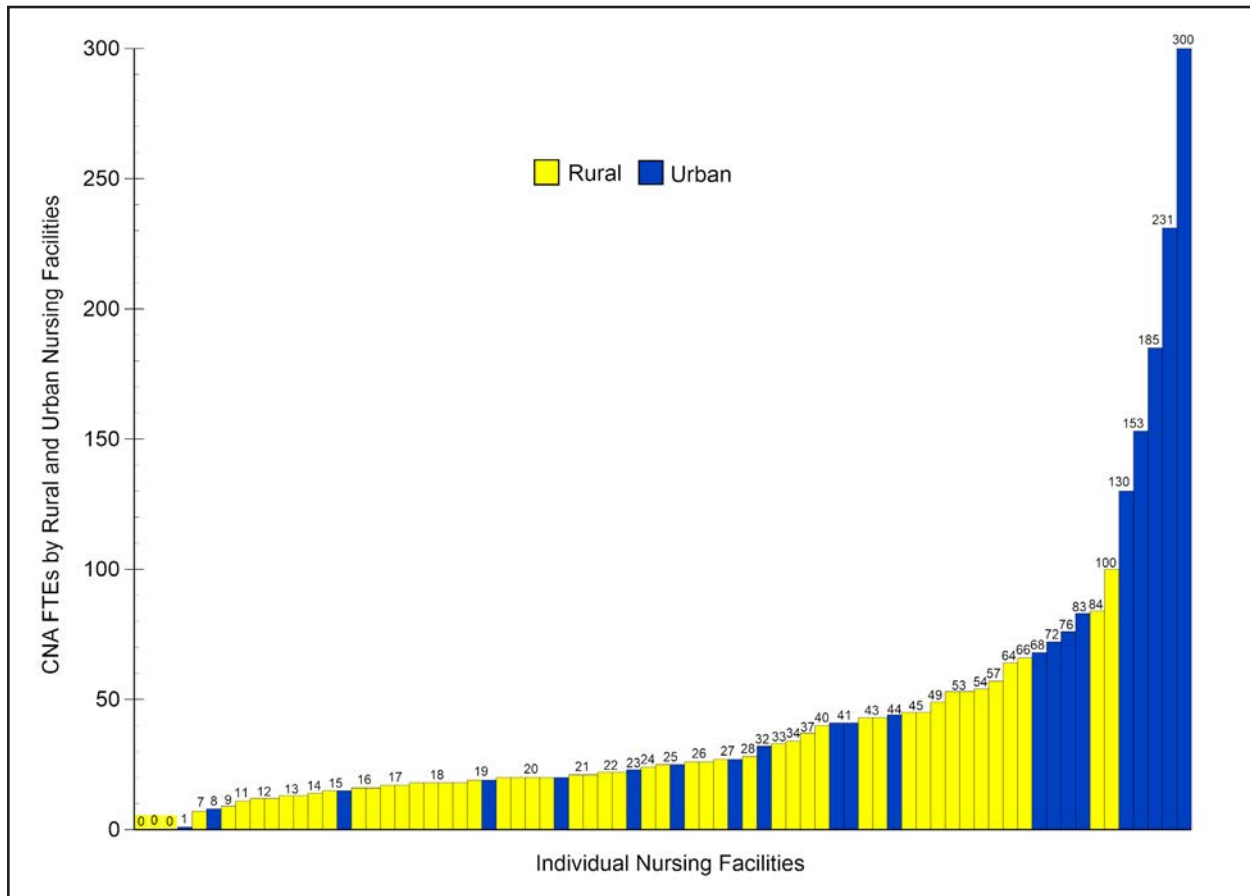
The total number of CNA FTEs for each nursing facility is displayed in Figure 21. Across the state, CNA FTEs varied from 0 to as high as 300. The five facilities with the greatest number of CNAs were all urban. Plainly, from the distribution, rural facilities had fewer CNA FTEs than their urban counterparts.

Figure 22. CNA Vacancy Rates by Individual Nursing Facilities and Rural/Urban Status
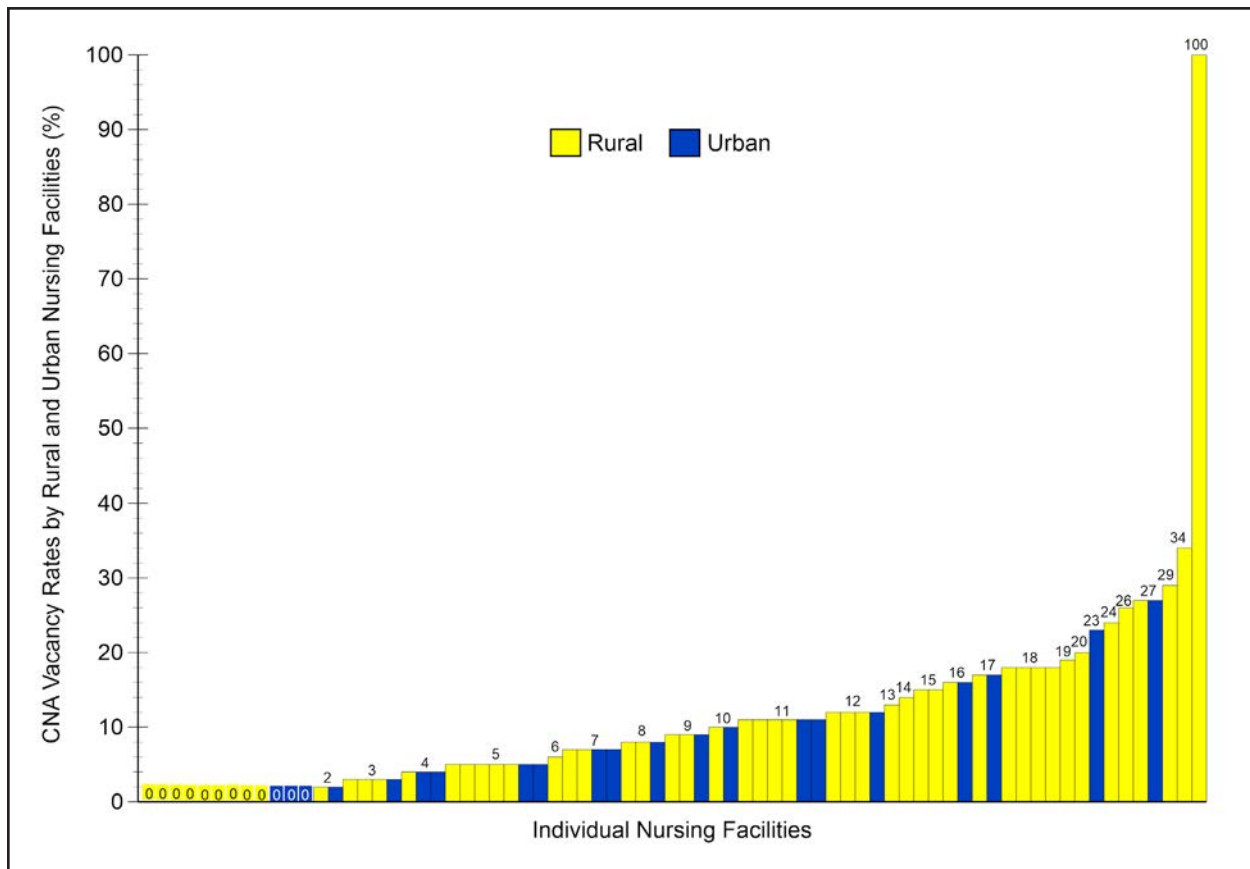
Figure 22 shows CNA vacancy rates for each of North Dakota's responding nursing facilities by rural and urban status. Overall, facilities in rural areas were more likely to report vacancies than urban facilities (21 of the 26 highest vacancy percentages). Overall the vacancy rates ranged between 0% and 100%, although such rates are dependent upon, in many cases, a small number of vacancies. For example, the vacancy rate of 100% was based on a facility with only three FTEs, all of which were vacant. Statewide, across each of the nursing facilities, the number of vacant FTEs ranged from 0 to 20. The median nursing facility vacancy percentage was 9% (rural: 9.5%, urban: 7%).

At the time of the survey, 61 North Dakota nursing facilities had one or more CNA vacancies. This chartbook's convention of only showing vacancy rates that are based on greater than or equal to 30 FTEs is suspended here so that the actual facility-related vacancy rates can be viewed.

Figure 23. Number of Nurse FTEs Employed by Type and Rural/Urban Status
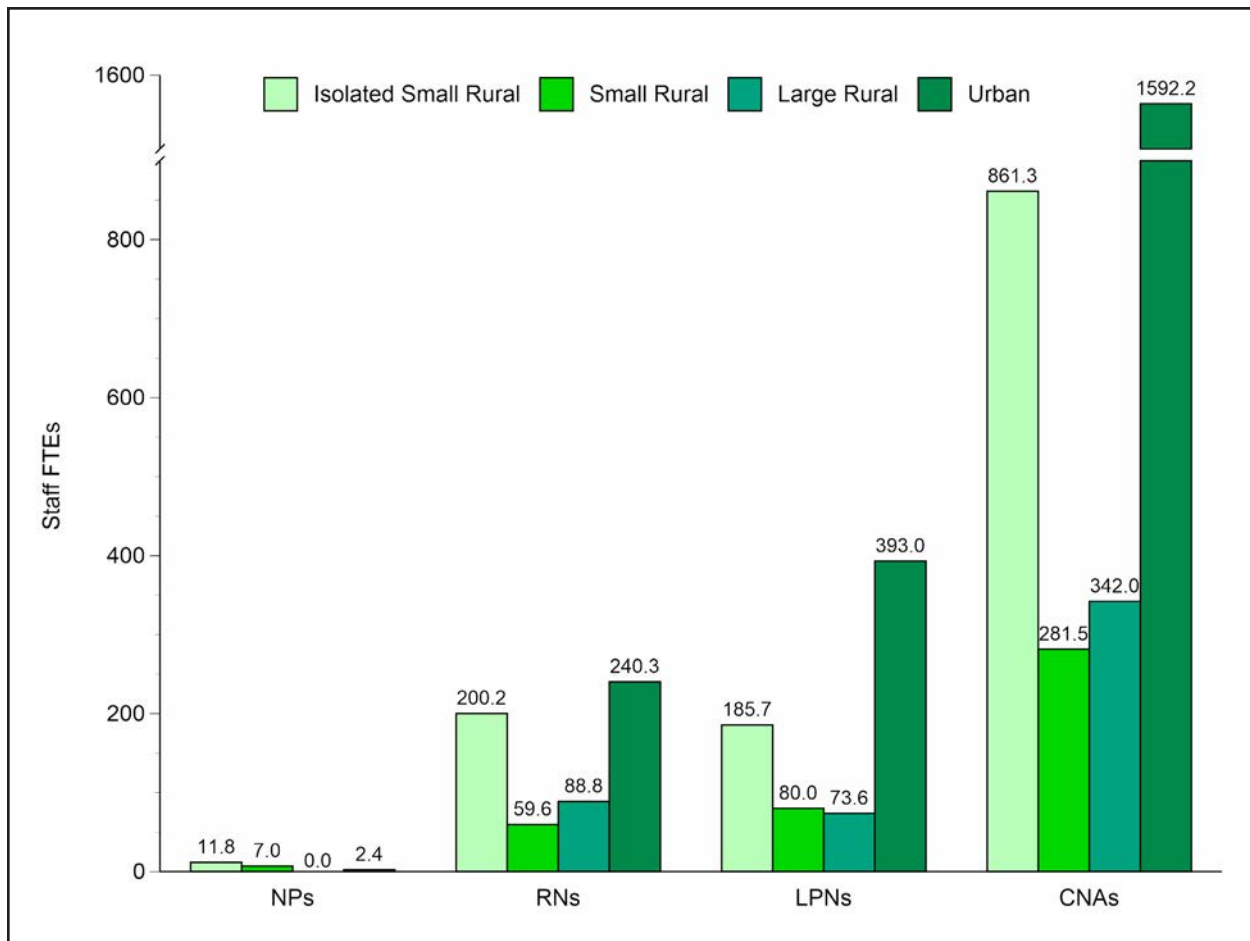
Figure 23 depicts overall FTEs for each nursing employee type based on rural/urban status. Rural status is divided into three categories (large rural, small rural, and isolated small rural). The FTEs for NPs are very low across the four geographic categories. In looking at other rural/urban status differences, urban areas employed the greatest number of FTE employees in each nursing employee type. For RNs, LPNs, and CNAs, the second most FTEs behind urban for the three geographic categories was isolated small rural areas (e.g., 861.3 FTEs of CNAs). Of course, there were many more isolated small rural nursing facilities (39) than small rural (6) and large rural facilities (9).

Figure 24. Nurse FTE Vacancy Rates by Type and Rural/Urban Status
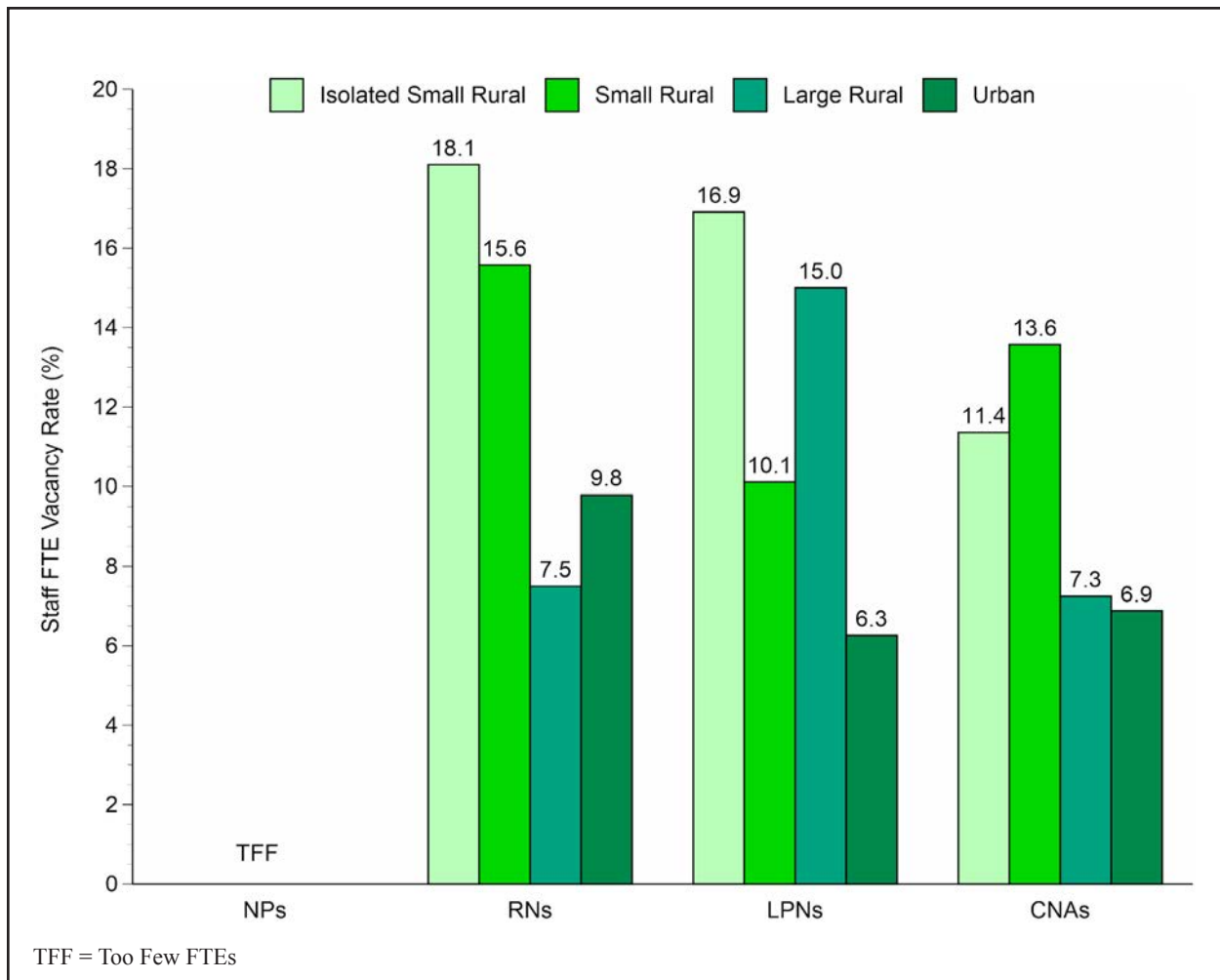
Vacancy rates for types of nurses based on rural/urban status are presented in Figure 24. Rural status is divided into three categories (large rural, small rural, and isolated small rural). NPs were not included because there were too few FTEs to produce meaningful rates (see Figure 23). The overall vacancy rate among rural areas differed based on nurse type. RNs and LPNs had the highest rates of vacancies in isolated small rural areas, whereas CNAs had the greatest vacancy rates in small rural areas. Urban nursing facilities had the lowest vacancy rates for two of the three nursing types (LPNs and CNAs) and the second lowest in the other (RNs).

Figure 25. Statewide Number of Other Clinical Provider FTEs Employed by Type and Rural/ Urban Status
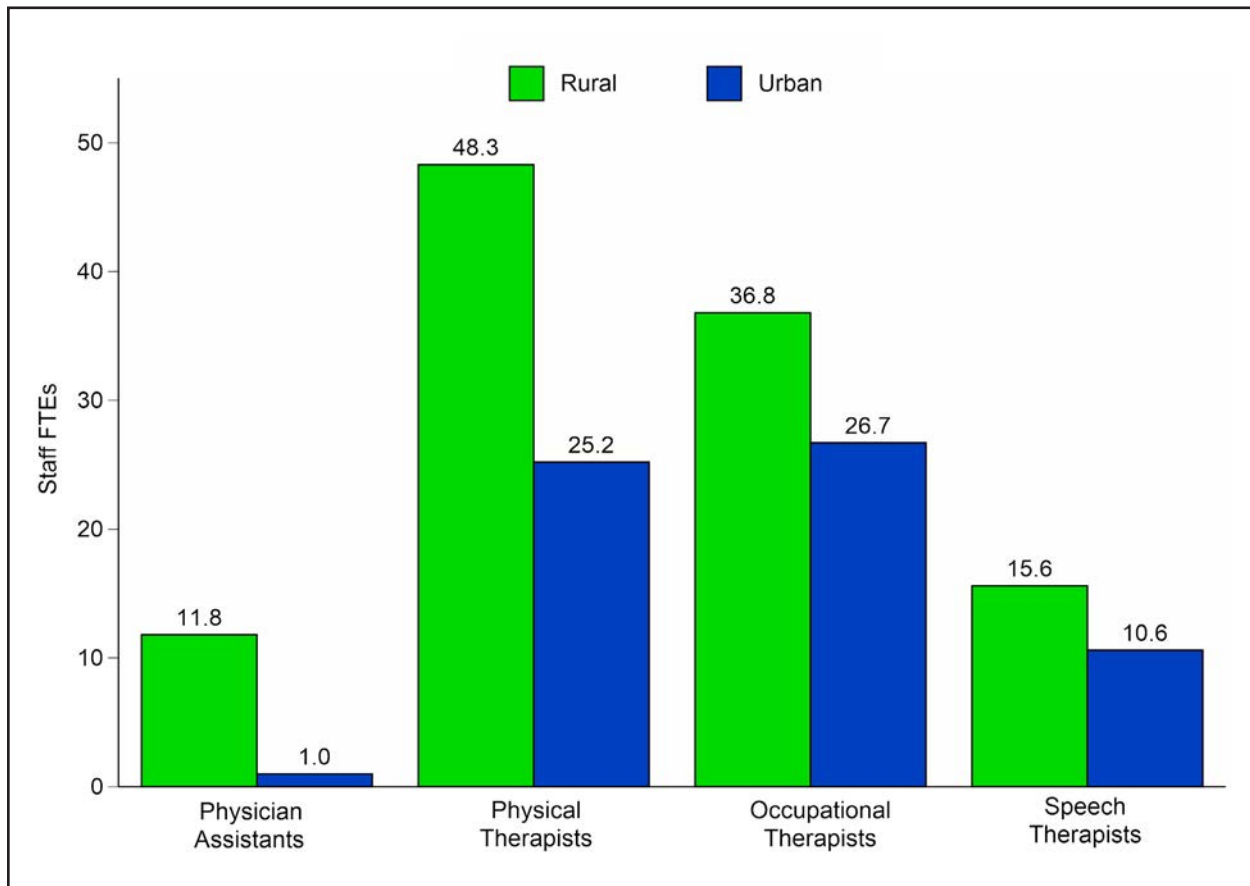
Total employed FTEs for PAs, physical therapists (PTs), occupational therapists (OTs), and speech therapists (STs) are displayed by rural and urban status in Figure 25. For all four provider types, the rural-employed FTEs were higher than their urban counterparts. The largest FTE difference between rural and urban was 23.1 (48.3 minus 25.2) in favor of PTs.

Figure 26. Statewide Other Clinical Provider FTE Vacancy Rates by Type and Rural/Urban Status
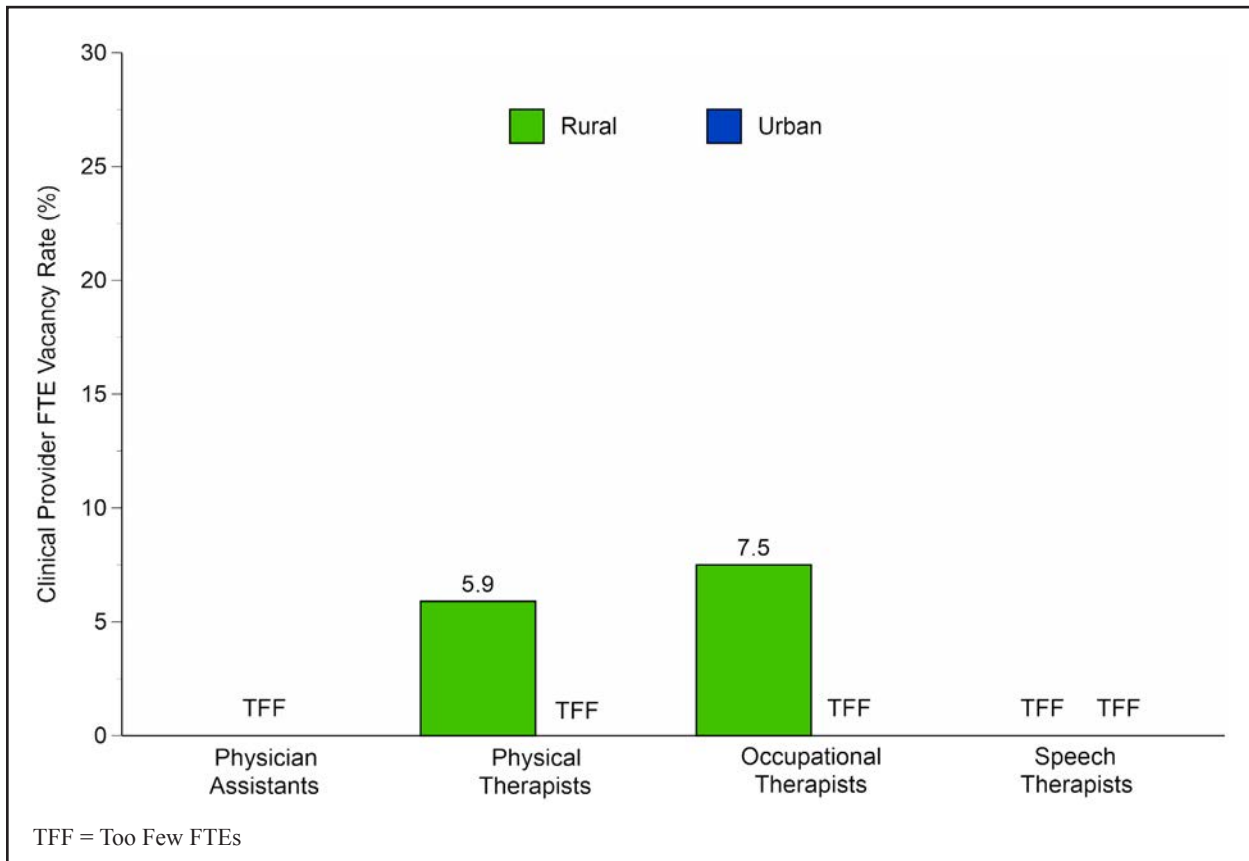
Because of the small numbers of FTEs, few of the vacancy rates are based on 30 or greater FTEs and are shown. Vacancy rates based on fewer than 30.0 FTEs are more unstable and are not reported. The two rates that are shown are both low.

Figure 27. FTE Internal Employee/External Contract Employee PTs by Individual Nursing Facilities and Rural/Urban Status
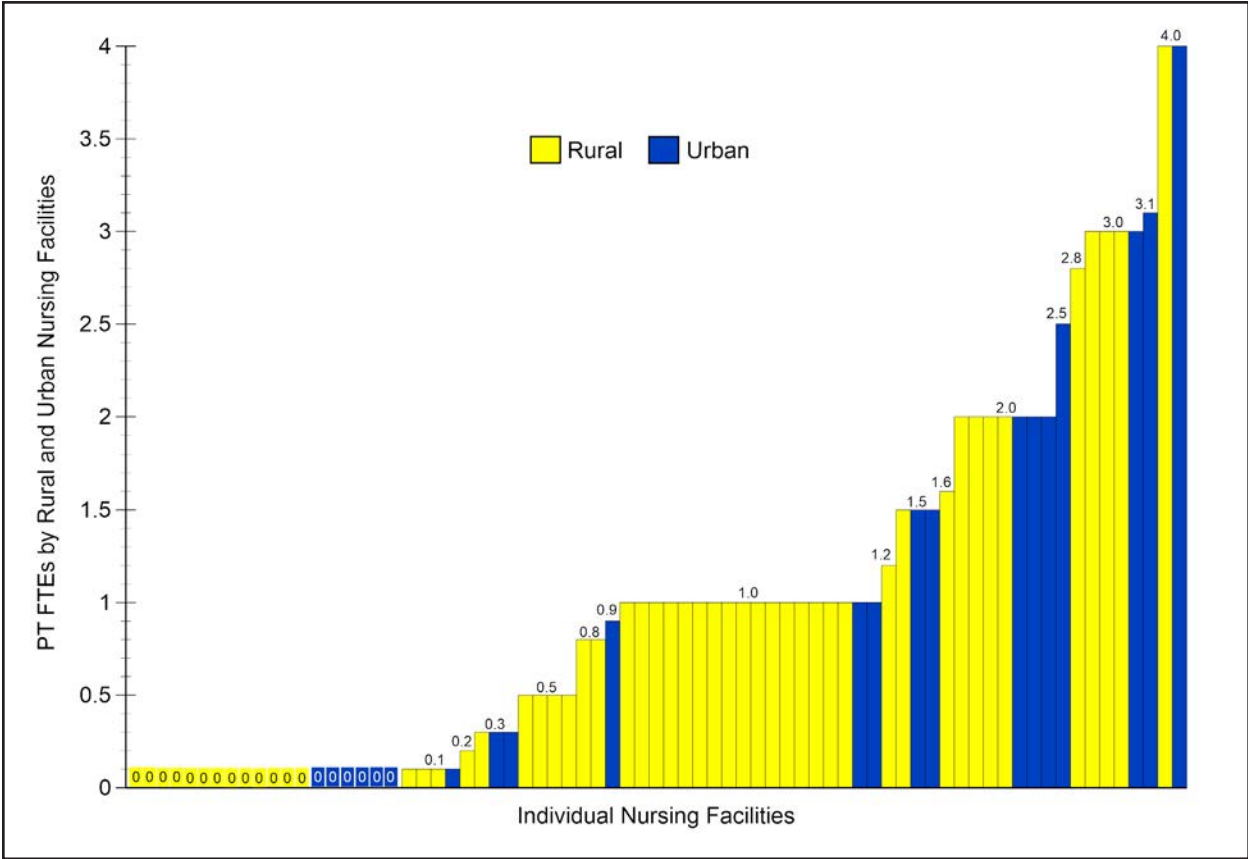
Figure 27 shows the number of PT FTEs for each of the nursing facilities by rural and urban status for the individual facilities. Across the state, the number of facility PT FTEs varied from 0 to 4. The two facilities with the most employed PT FTEs were a rural facility and an urban facility. Of the nursing facilities, 19 did not employ any PTs.

Figure 28. FTE Internal Employee/External Contract Employee OTs by Individual Nursing Facilities and Rural/Urban Status
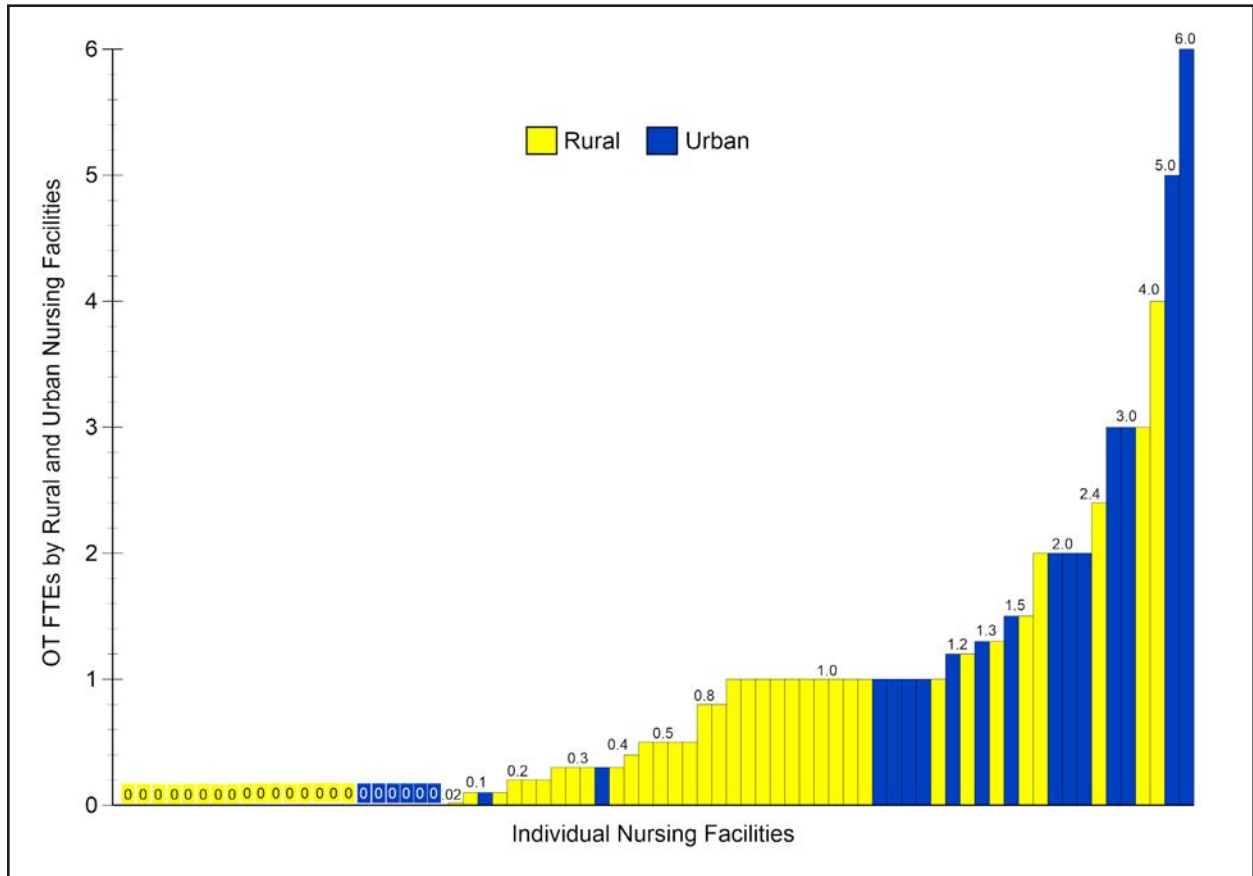
Rural nursing facilities employed slightly more OTs than did those located in urban areas, as shown in Figure 28. Of the nursing facilities, 22 did not employ any OTs. Facility OT FTEs ranged from 0 to 6 FTEs across the state.

Figure 29. Number of Other Clinical Provider FTEs by Employee Type and Rural/Urban Status
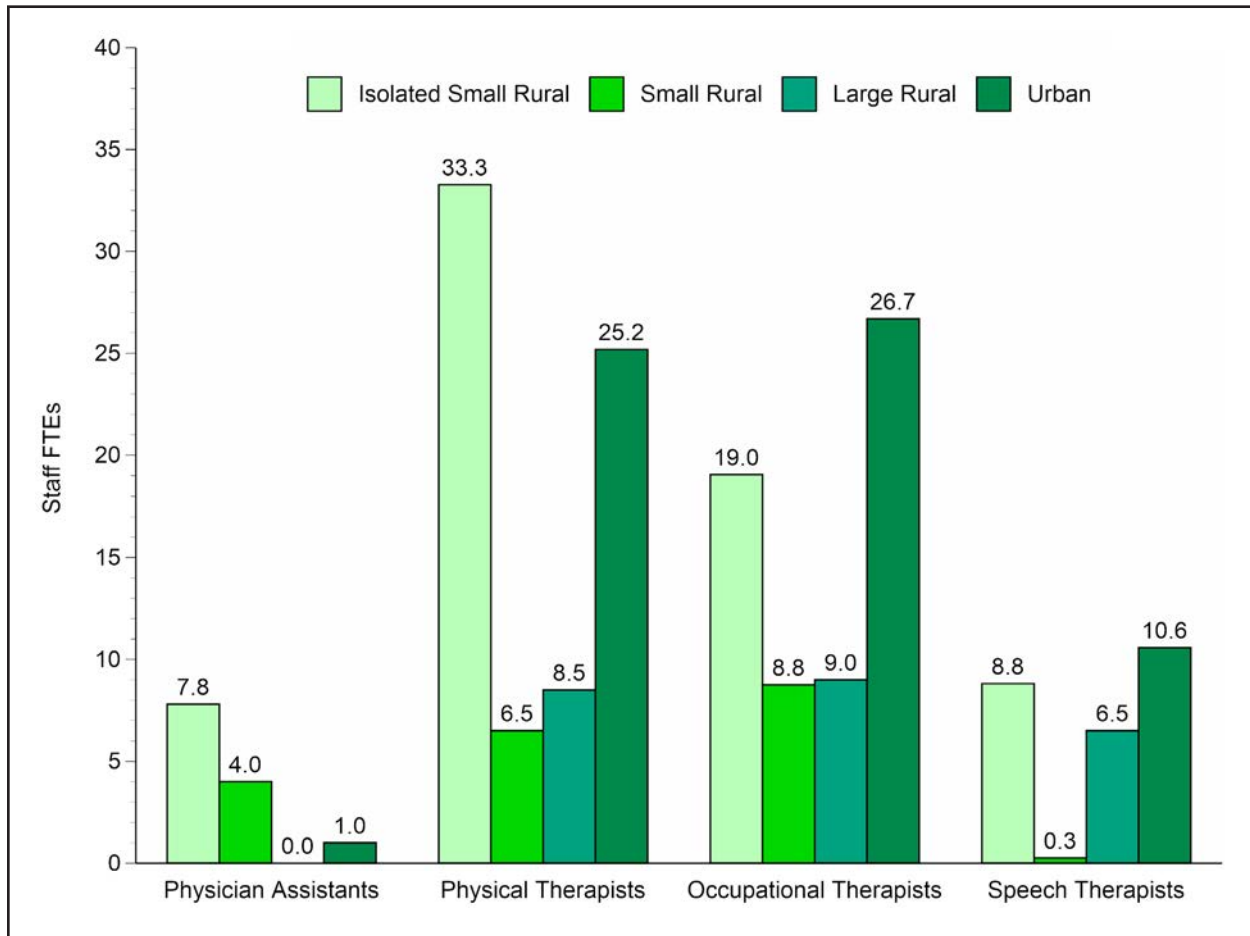
Figure 29 shows FTEs for PAs, PTs, OTs, and speech therapists based on rural/urban status. Rural status is divided into three categories (large rural, small rural, and isolated small rural). As a whole, each of these four clinical provider types were most likely to be working in isolated small rural or urban areas. Isolated small rural nursing facilities had the most PT FTEs (33.3 FTEs) and the second most OTs (19.0 FTEs) and speech therapists (8.8 FTEs). Urban areas had the most FTEs of OTs (26.7 FTEs) and speech therapists (10.6 FTEs) and the second most numerous FTEs regarding PTs (25.2 FTEs). There were only 12.8 PA FTEs across all geographies.

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Figure 30. Statewide Number of Staff FTEs Employed by Type and Rural/Urban Status
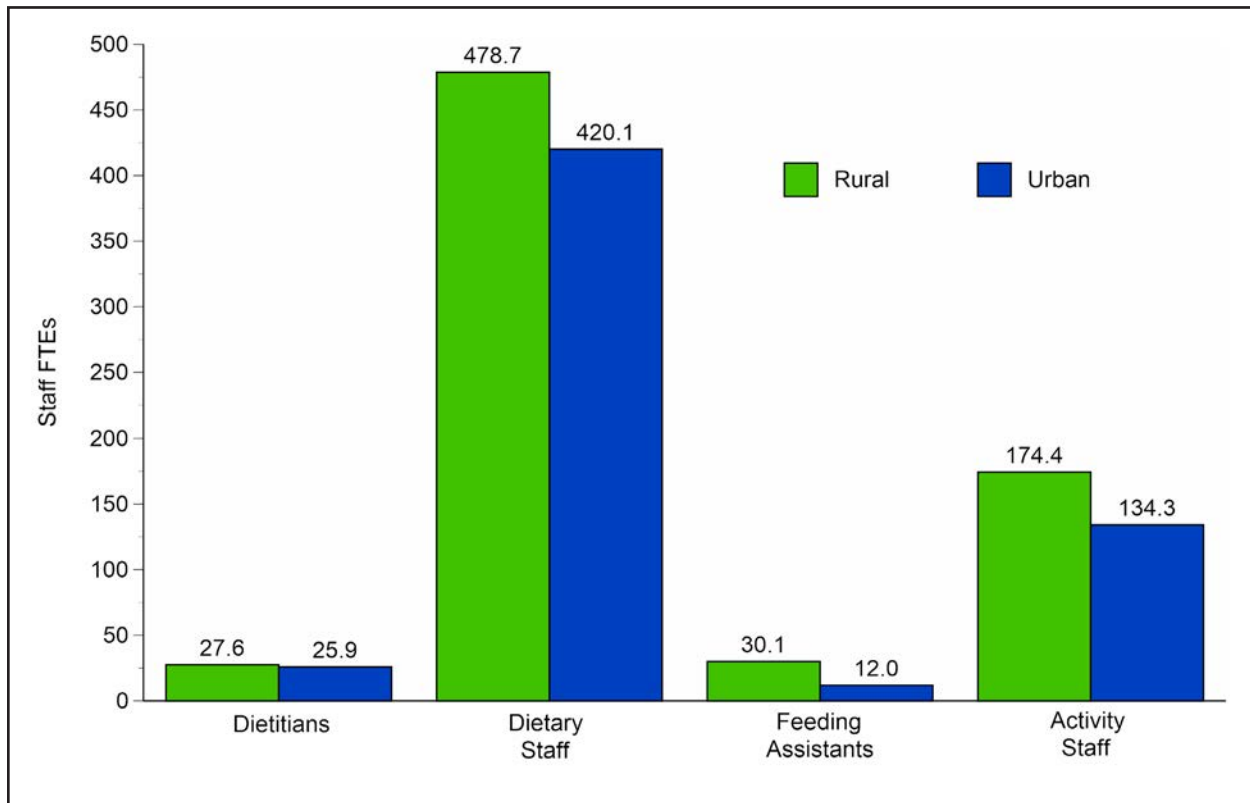
The statewide FTE number of dietitians, dietary staff, feeding assistants, and activity staff are presented in Figure 30. The most numerous FTEs were in rural and urban dietary staff (478.7 and 420.1). There were relatively few dietitians and feeding assistants but more activity staff (rural: 174.4; and urban: 134.3).

Figure 31. Statewide Staff FTE Vacancy Rates by Type and Rural/Urban Status
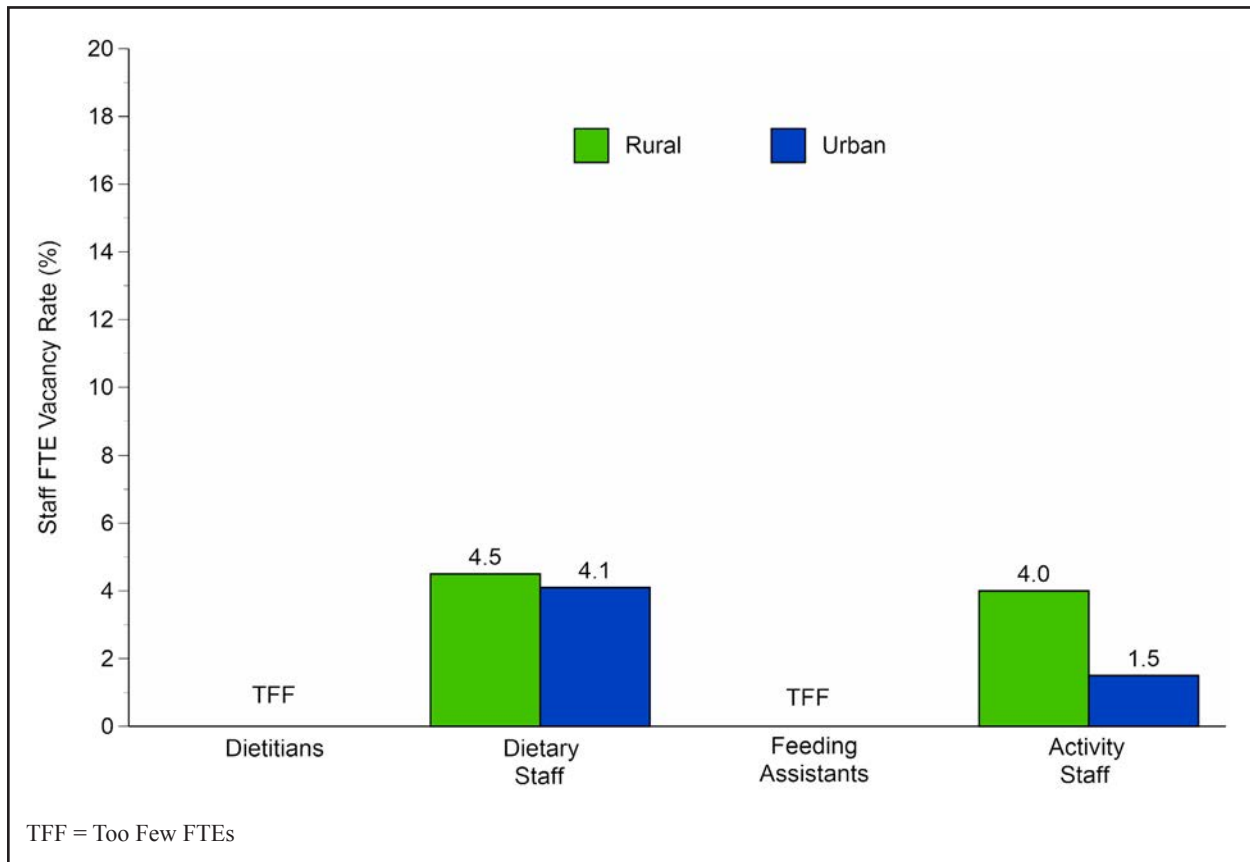
The vacancy rates for the two provider types from Figure 30 are displayed in Figure 31. The vacancy rates for dietitians and feeding assistants were not shown because there were too few FTEs to provide dependable rates. The rural and urban vacancy rates for dietary staff and activity staff were low, ranging from 1.5% through 4.5%. The rural/urban differences were also small, with the largest being 2.5% (rural: 4.0%, urban: 1.5%) for activity staff.

Figure 32. Number of Other Care Staff FTEs Employed by Type and Rural/Urban Status
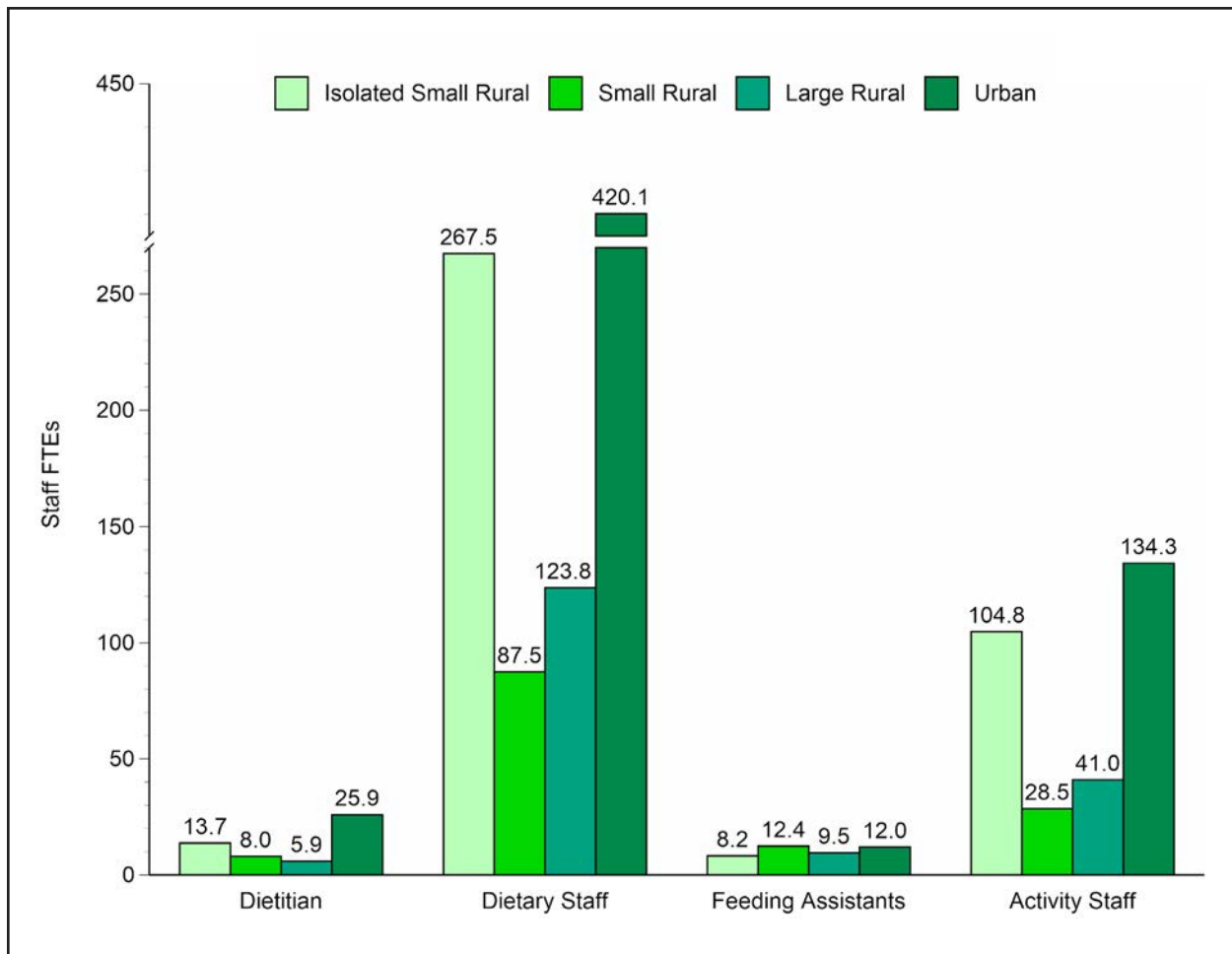
The employed FTEs of dietitians, dietary staff, feeding assistants, and activity staff by rural/urban nursing facility location are illustrated in Figure 32. Rural status is divided into three categories (large rural, small rural, and isolated small rural). North Dakota's nursing facilities had few FTEs of dietitians (total: 53.5 FTEs across the four geographic categories) and feeding assistants (42.1 FTEs). Dietary staff (898.9 FTEs) were much more numerous, with activity staff (308.6) being halfway between the former and latter. Urban-located nursing facilities had the most FTEs for dietary and activity staff (420.1 FTEs and 134.3 FTEs). The second most numerous FTEs for dietary and activity staff (267.5 FTEs and 104.8 FTEs) were in isolated small rural located nursing facilities, which has by far the most rural nursing facilities.

Figure 33. Other Care Staff FTE Vacancy Rates by Employee Type and Rural/Urban Status

TFF = Too Few FTEs
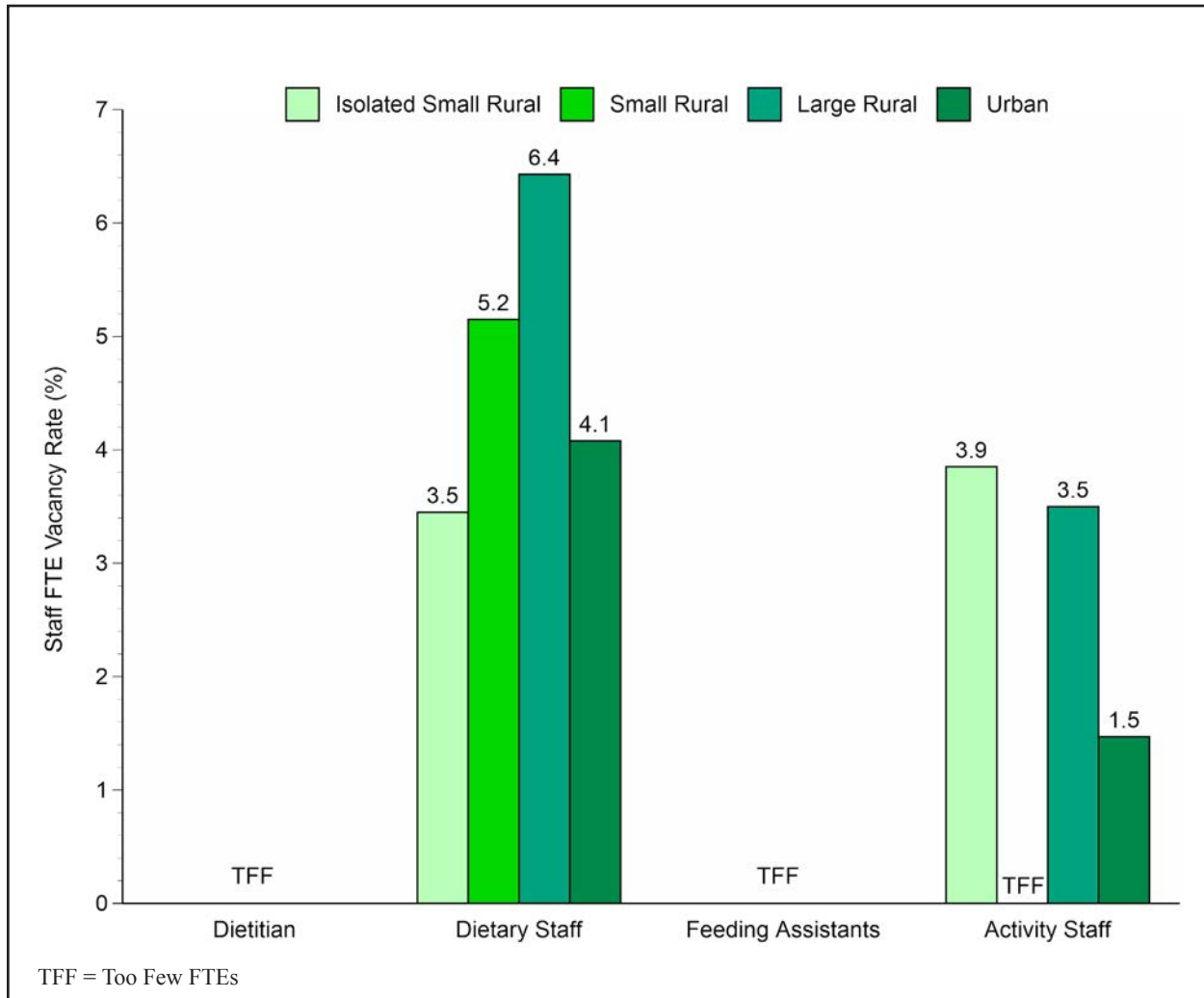
Figure 33 shows the vacancy rates for the employee types based on rural/urban status. Rural status is divided into three categories (large rural, small rural, and isolated small rural). The vacancy rates for dietitians and feeding assistants are conspicuously absent from Figure 33. Observation of the previous figure (Figure 32) shows these two employee types had few employed dietitians (53.5 FTEs across the rural/urban categories) and feeding assistants (42.1 FTEs). They were not included in Figure 33 because they may be misleading, not meaningful, and subject to wide variation with small changes in employment. For dietary and activity staff, the rural/urban category vacancy rates were low and did not vary greatly. They ranged from 3.5% through 6.4% for dietary staff and from 1.5% through 3.9% for activity staff. The highest vacancy rate was for large rural nursing facility dietary staff at 6.4%.

Figure 34. Statewide Number of Staff FTEs Employed by Type and Rural/Urban Status
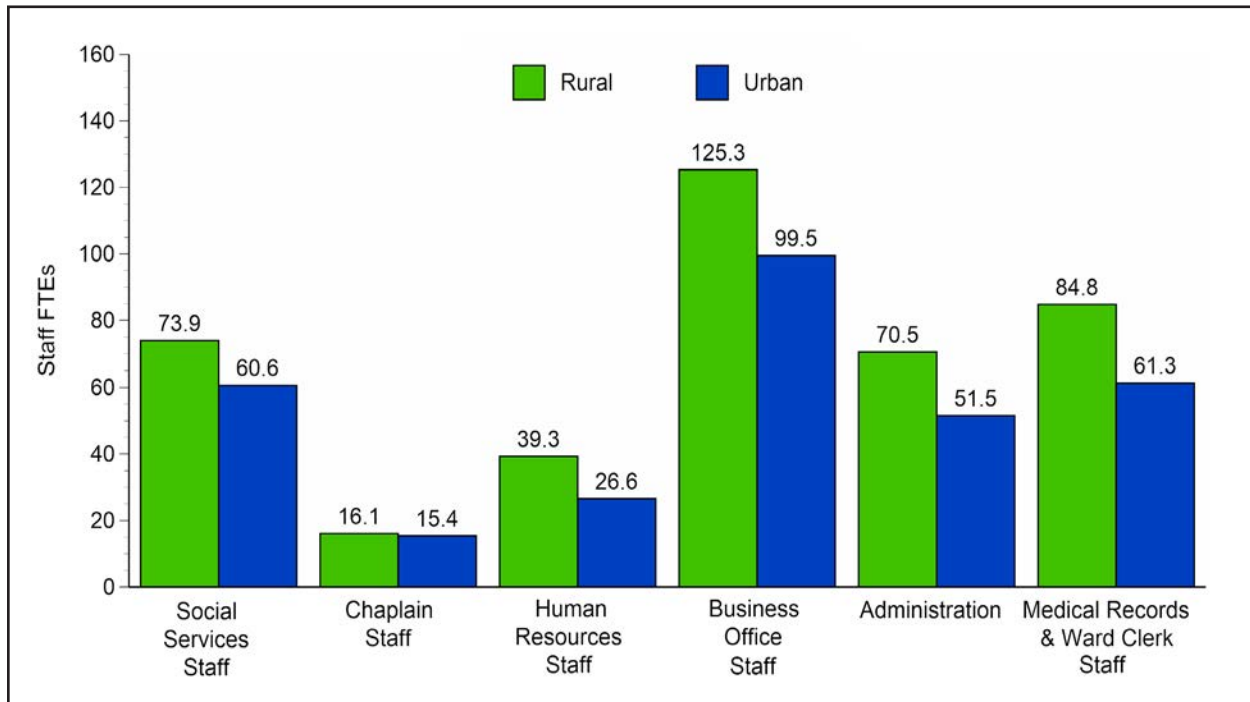
Figure 34 shows other staff FTEs for rural and urban areas, including social services, chaplain, human resources, business office, administration, and medical records and ward clerk staff. Business staff had the highest numbers of FTEs (125.3 in rural and 99.5 in urban areas), followed by medical records and ward clerk staff (84.8 in rural and 61.3 in urban areas). For each position type listed, nursing facilities in rural areas had greater FTEs than urban facilities, although such discrepancies were particularly small among positions such as chaplains and human resources staff. The largest absolute difference between rural and urban was business office staff (25.8 FTEs favoring rural), followed by medical records and ward clerk staff (23.5 FTEs favoring rural).

Figure 35. Statewide Staff FTE Vacancy Rates by Type and Rural/Urban Status

The vacancy rates for the five employee types portrayed in Figure 35 were all of very modest magnitude. The rural and urban vacancy rates for chaplain staff were not presented because there were too few FTEs to produce dependable rates. With the exception of medical records/ward clerk staff, rural nursing facilities had greater vacancy rates than their urban counterparts. For three employee types, there were zero urban vacancy rates (i.e., social service, business office, and administration staff).

**Figure 36. Number of Staff FTEs Employed by Type and Rural/Urban Status**
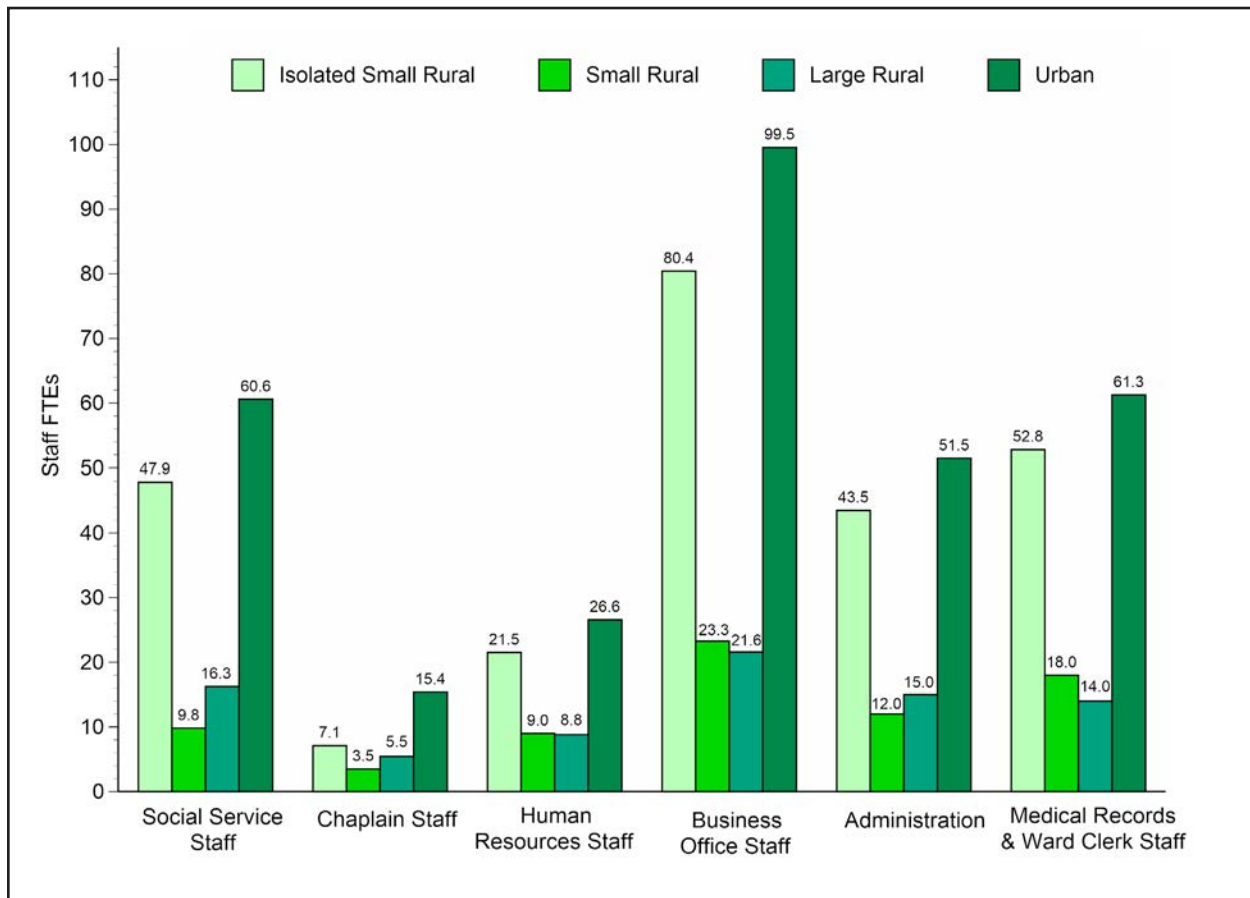
Figure 36 shows the FTEs for several types of staff based on rural/urban status. Rural status is divided into three categories (large rural, small rural, and isolated small rural). Urban nursing facilities employed the most FTEs in each of the six categories, with the greatest FTE count for business office staff at 99.5 FTEs. The second highest FTE count was for facilities located in isolated small rural communities (80.4 FTEs). In fact, the FTE counts for isolated small rural nursing facilities were second to urban totals for all six of the graphed employee types (social service staff, chaplain staff, human resources staff, business office staff, administration, and medical records/ward clerk staff). The two employee types with the lowest employee FTEs were chaplain staff and human resources staff.

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Figure 37. Statewide Number of Staff FTEs Employed by Type and Rural/Urban Status
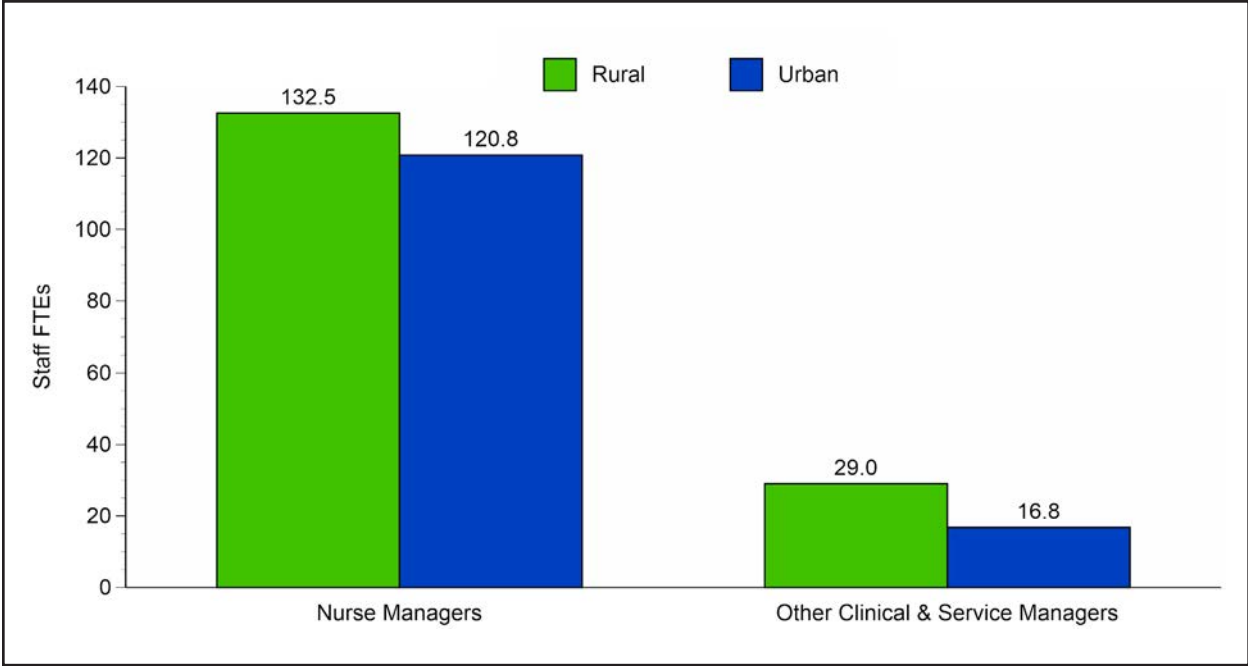
Clinical nurse managers are often difficult to recruit and retain. Figure 37 exhibits the rural and urban FTE number of nurse managers and other clinical service managers employed by North Dakota's nursing facilities. There were 132.5 FTEs of rural nurse managers and 120.8 FTEs of urban nurse managers. Regarding other clinical service managers, there were 29.0 FTEs in rural nursing facilities and 16.8 FTEs in urban facilities.

Figure 38. Statewide Staff FTE Vacancy Rates by Type and Rural/Urban Status

TFF = Too Few FTEs
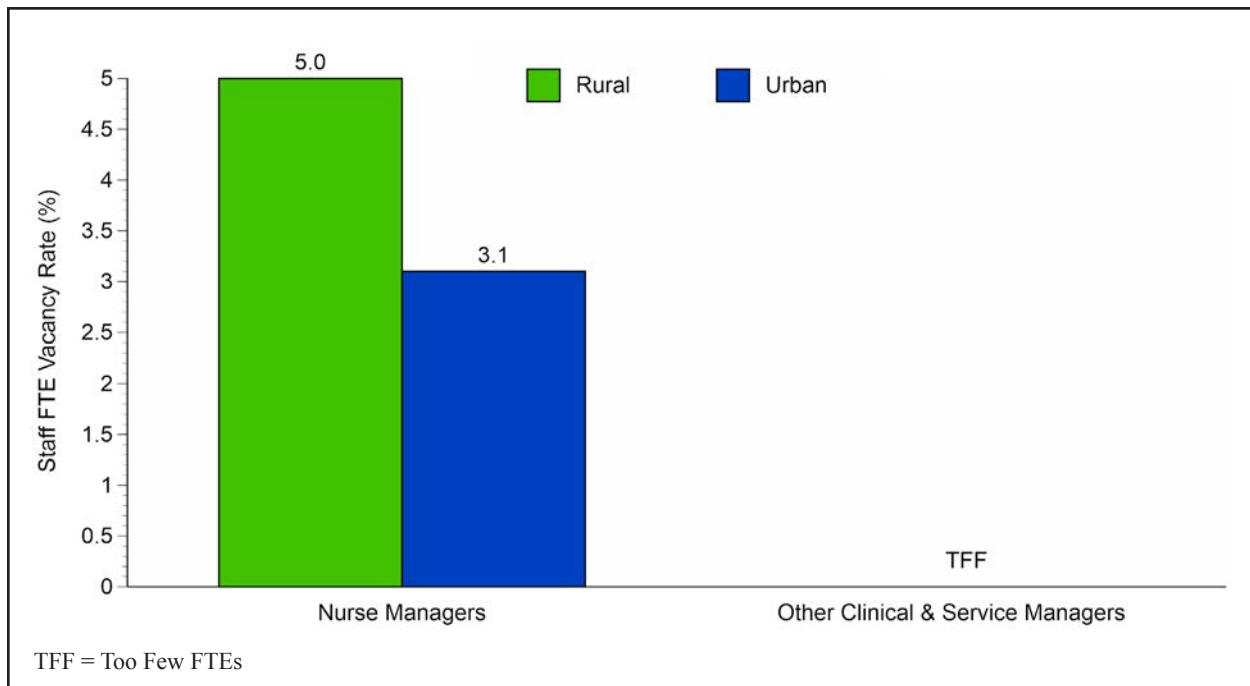
As can be seen in Figure 38, the vacancy rate for nurse managers was 5.0% in rural nursing facilities, compared to 3.1% in urban facilities. These vacancy rates were low and the absolute difference was only 1.9%. The vacancy rate for other clinical/service managers for rural nursing facilities is not shown because the rates, which are based on low numbers, are subject to large variations because of small changes in employment.

Figure 39. Number of Clinical Management Staff FTEs Employed by Type and Rural/Urban Status
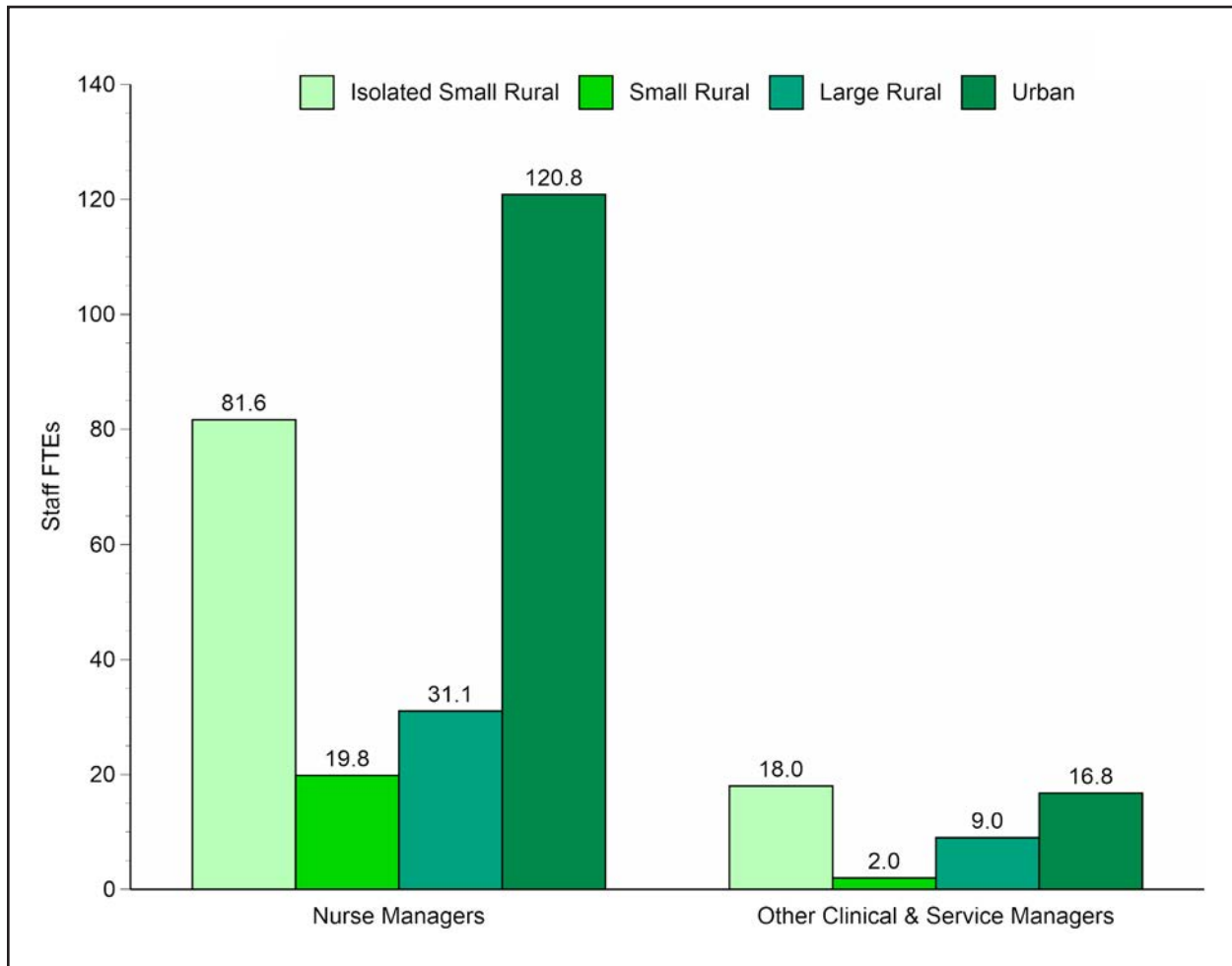
Figure 39 shows the FTEs for nurse managers and other clinical and service managers based on rural/urban status. Rural status is divided into three categories (large rural, small rural, and isolated small rural). Figure 39 reveals that nurse manager staff FTEs varied widely across the four geographic nursing facility types. The most nurse manager FTEs were employed by urban nursing facilities (120.8 FTEs), followed by isolated small rural facilities (81.6 FTEs), large rural (31.1 FTEs), and small rural (19.8 FTEs). There were far fewer FTEs in the other clinical/service managers' category. In total, there were only 45.8 FTEs across the four geographic categories.

Nearly all of the associated vacancy rates have FTE bases that are fewer than 30.0 FTEs and are not displayed. All of those rates are relatively low. The highest rate, based on 120.8 FTEs, is urban at 11.4%, followed by an isolated small rural rate of 2.4% based on 81.6 FTEs.

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Figure 40. Statewide Number of Staff FTEs Employed by Type and Rural/Urban Status

The total number of employees for housekeeping, laundry, maintenance, and groundskeeping staff are presented in Figure 40. For all four employee types, the numbers of staff were greater for rural than urban nursing facilities. By far, the most numerous nursing facility FTEs among the four different employee types were for rural and urban housekeeping staff (233.0 rural and 208.4 urban FTEs). The numbers of rural and urban groundskeeping staff were very low. The largest FTE absolute difference between rural and urban was for maintenance staff (133.2 versus 75.8 for a difference of 57.4 FTEs, with rural nursing facilities having more).

Figure 41. Statewide Staff FTE Vacancy Rates by Type and Rural/Urban Status

TFF = Too Few FTEs
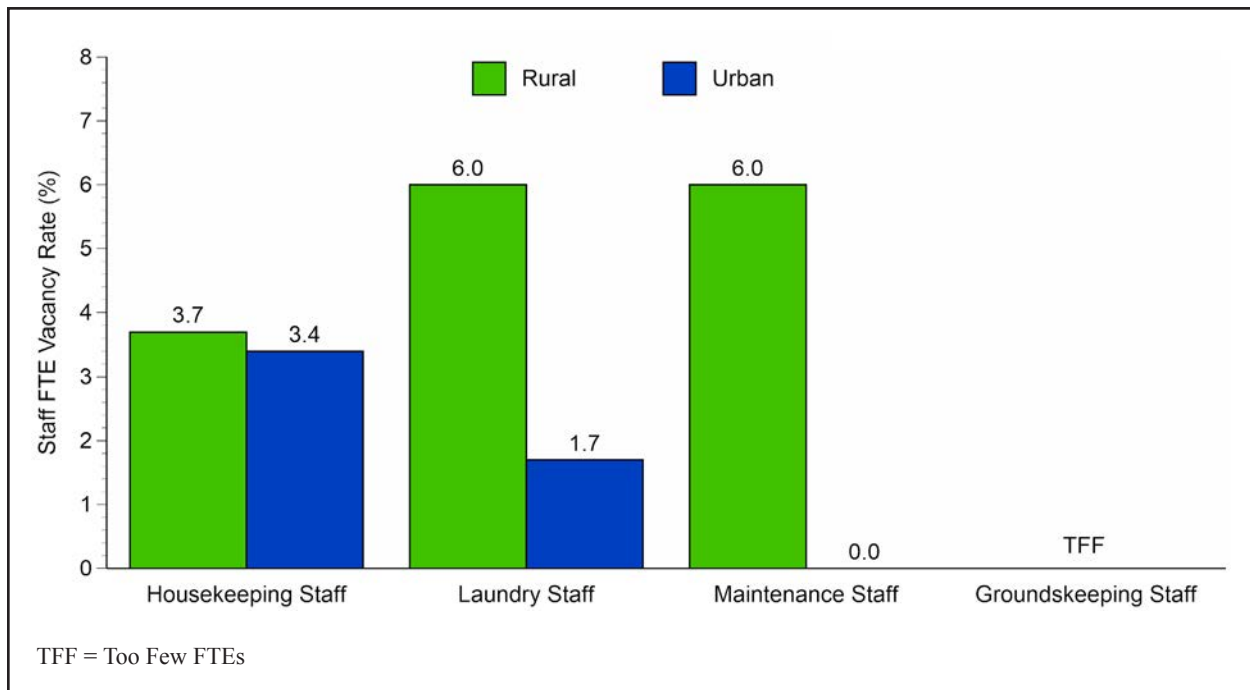
Vacancy rates for housekeeping, laundry, and maintenance staff are shown by rural and urban nursing facilities in Figure 41. The vacancy rates for groundskeeping staff are not included in the chart because of the small number of FTEs (see Figure 40). All vacancy rates for the combinations of the three employee types and rural/urban were low when compared to other nursing facility employee types. The rural vacancy rates were all higher than their counterpart urban rates, though the housekeeping staff rural and urban rates were close to the same (3.7% versus 3.4%).

Figure 42. Other Staff FTEs Employed by Type and Rural/Urban Status
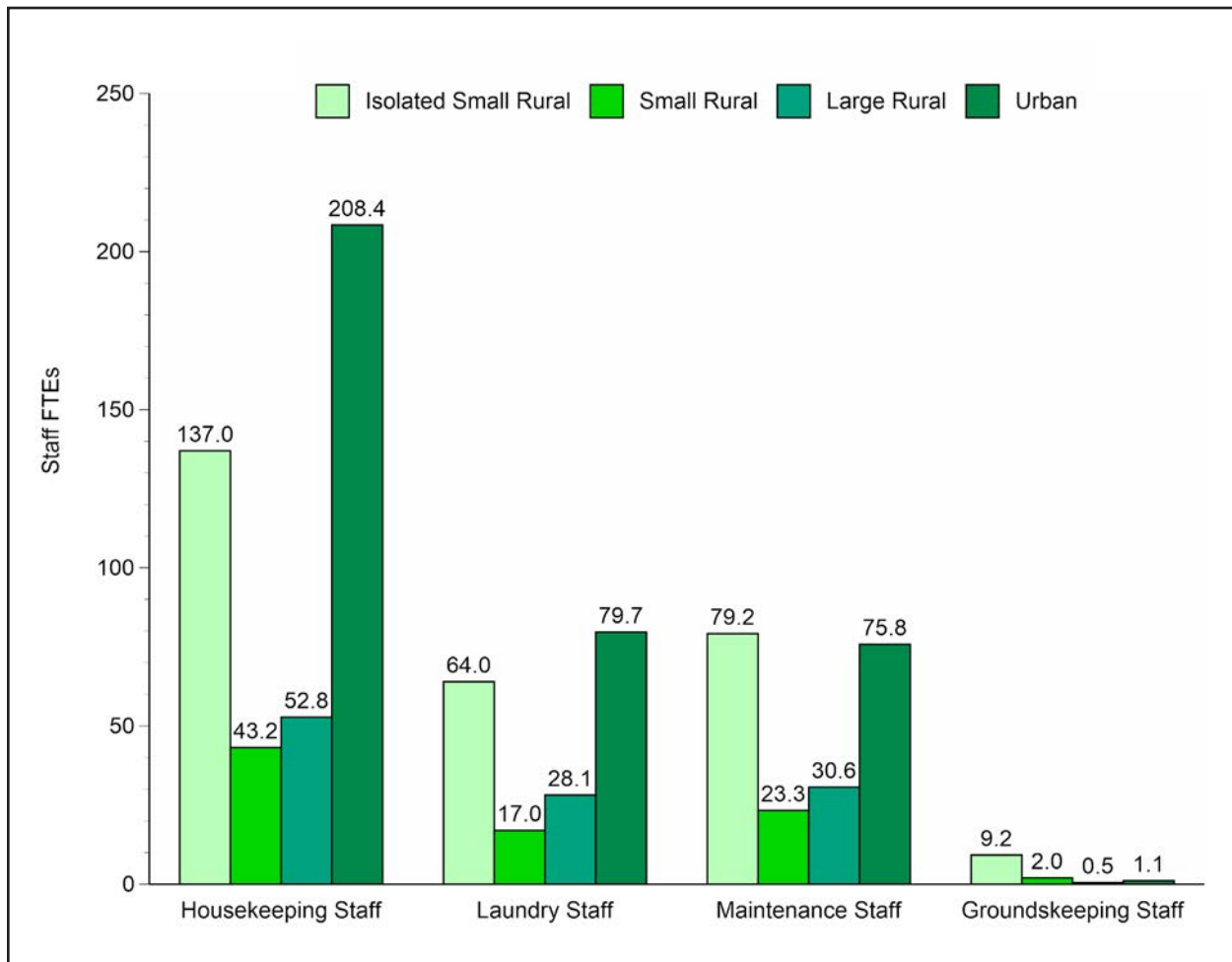
Four employee types are shown in Figure 42 (housekeeping, laundry, maintenance, and groundskeeping staff) regarding their employed FTE numbers by rural/urban status. Rural status is divided into three categories (large rural, small rural, and isolated small rural). The greatest FTEs were for urban housekeeping staff at 208.4 FTEs, followed by isolated small rural nursing facilities (137.0 FTEs). The large rural and small rural facility FTE numbers were much lower (52.8 and 43.2 FTEs). The FTEs of the groundskeeping staff were very low and across the four geographic categories only totaled 12.8 FTEs. For laundry and maintenance staff, urban and isolated small rural nursing facilities had the greatest numbers of FTEs, which corresponds with the number of facilities located in each type of geographic category.

Figure 43. Other Staff FTE Vacancy Rates by Type and Rural/Urban Status

TFF = Too Few FTEs
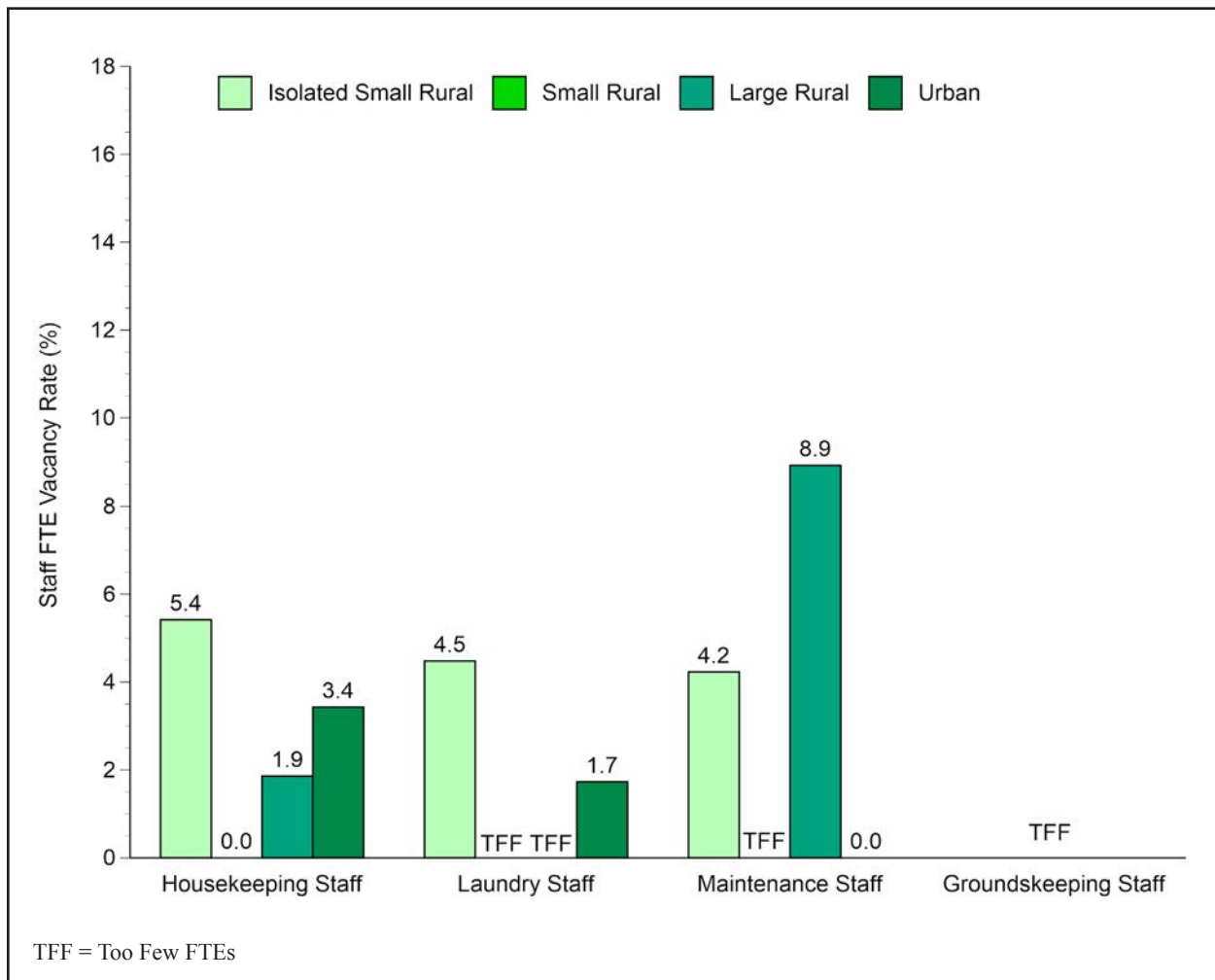
Figure 43 illustrates the vacancy rates for housekeeping, laundry, and maintenance staff based on the four geographic location types of nursing facilities. Rural status is again divided into three categories (large rural, small rural, and isolated small rural). Because of the small number of groundskeeping staff, they were not charted, as is true for three other geographic categories on the other three staff types (see Figure 42). The vacancy percentages for the three graphed staff types were low. The highest vacancy rate based on an acceptable number of FTEs was the 8.9% for large rural nursing facilities regarding maintenance staff. The second highest vacancy rate (5.4%) was for housekeeping staff in isolated small rural areas.

Figure 44. Statewide Physicians Directly and External Contract Employed by Type and Rural/Urban Status
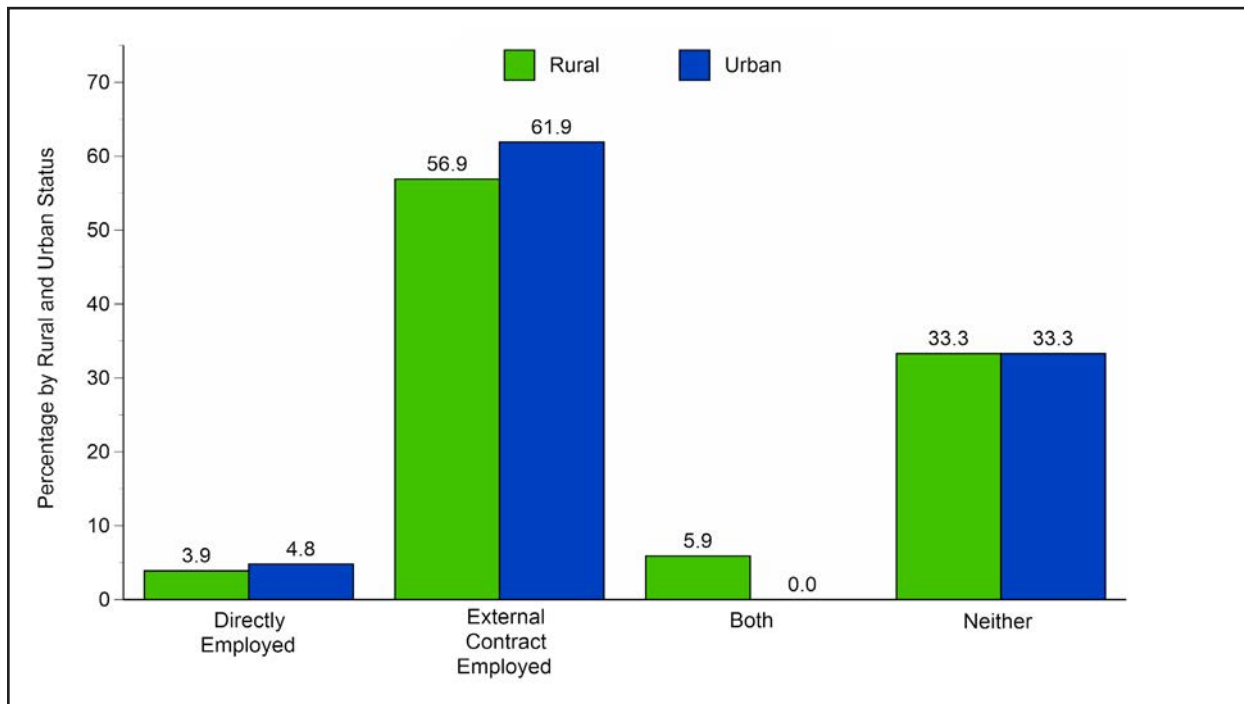
The nursing facility CEOs were asked about their relationships with physicians. The survey asked if physicians were directly employed, external contract employed, both, and neither (survey questions 14 and 15). It turns out that the relevant survey questions were not as specific as they could have been, partly due to the need to keep the questionnaire within the two-page (two sides of one page) preference to facilitate a high response rate, which was obtained. While many of the responses were adequate, there were too many answers that were not complete or that were vague. Thus, only the employment arrangement responses are provided, as illustrated in Figure 44.

The majority of both the rural and urban nursing facilities had external contract-employed physicians, most often at part-time levels of FTEs. Urban nursing facilities had a little more FTEs than rural facilities under this type of arrangement (61.9% versus 56.9%). Those reporting no employment arrangements with physicians equaled 33.3% for both rural and urban nursing facilities. Only 3.9% of the rural nursing facilities reported they directly employed physicians, while 4.8% of urban facilities did so. No urban facility CEOs responded that they had physicians who were both employed directly and through contracts, but 5.9% of rural facility CEOs responded that they employed physicians both ways. Other types of physician relationships are possible.

The incomplete questionnaire responses regarding number and specialties of physicians indicated that physicians per nursing home facility normally represented a small FTE and that the predominate physician specialty was family medicine, though there were some geriatric physicians and psychiatrists involved. Of course, nursing facility patients can and do have relationships with their private physicians and other provider types.

Figure 45. Nursing Facility CEO Ratings* of Difficulty Recruiting by Provider Type and Rural and Urban

* Four-level Likert scale (1 = very easy, 2 = somewhat easy, 3 = somewhat difficult, and 4 = very difficult)
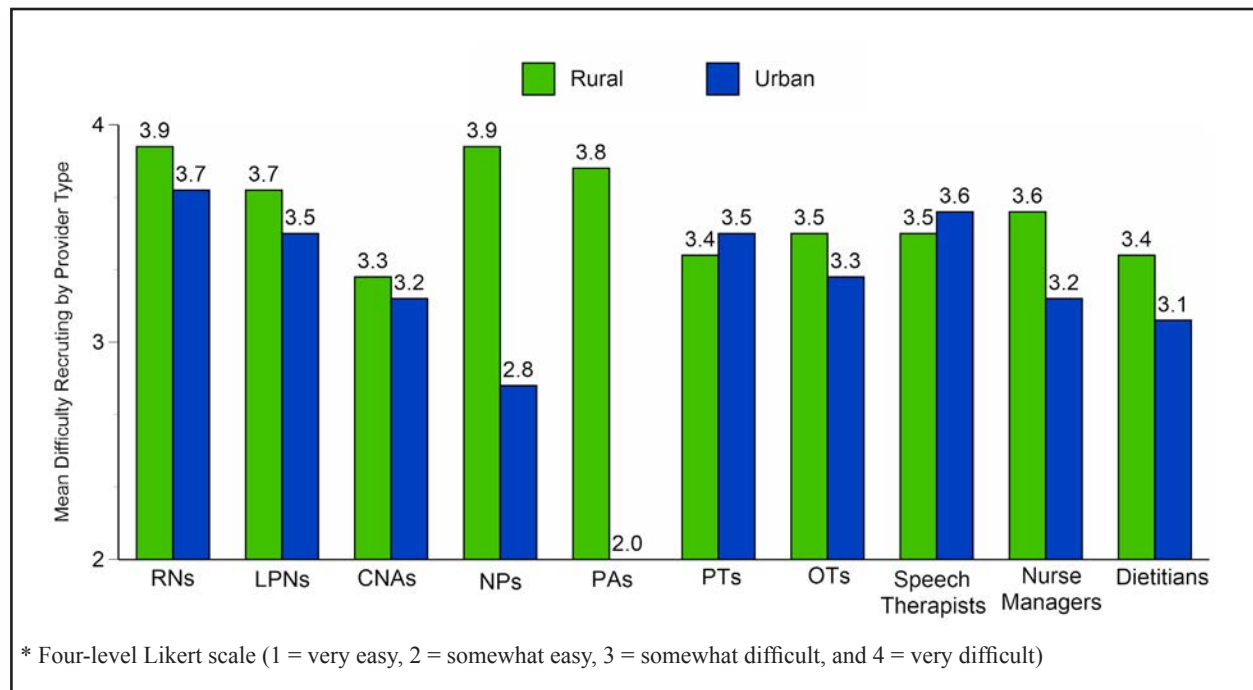
CEOs were asked to rate the difficulty of recruiting each of the 24 employee types (questionnaire question 21). Their overall mean ratings for 10 of the clinically involved provider types are illustrated in Figure 45. For all but two of the provider types, rural nursing facility CEOs rated the difficulty of recruiting the provider types more difficult than their urban facility counterparts. The two provider types where urban difficulty recruiting was rated greater than rural difficulty were for PTs (3.5 versus 3.4) and speech therapists (3.6 versus 3.5), though the differences were trivially small. Rural and urban recruiting difficulty for NPs and PAs was much higher for rural than urban (3.9 versus 2.8, and 3.8 versus 2.0).

The highest recruiting difficulty means were reported for RNs (rural, 3.9; urban, 3.7), NPs (rural, 3.9), PAs (rural, 3.8), and LPNs (rural, 3.7). Respondents could rate recruiting difficulty as very difficult for more than one provider type. As previously noted, there are few NPs and PAs working in North Dakota's nursing facilities. However, these difficulty recruiting questions were asked of the surveyed CEOs, so they are based on the same numbers of responses as the other categories per this question.

Figure 46. Number of Positions Reported as Being "Very Difficult" to Fill: Rural and Urban

* Four-level Likert scale (1 = very easy, 2 = somewhat easy, 3 = somewhat difficult, and 4 = very difficult)
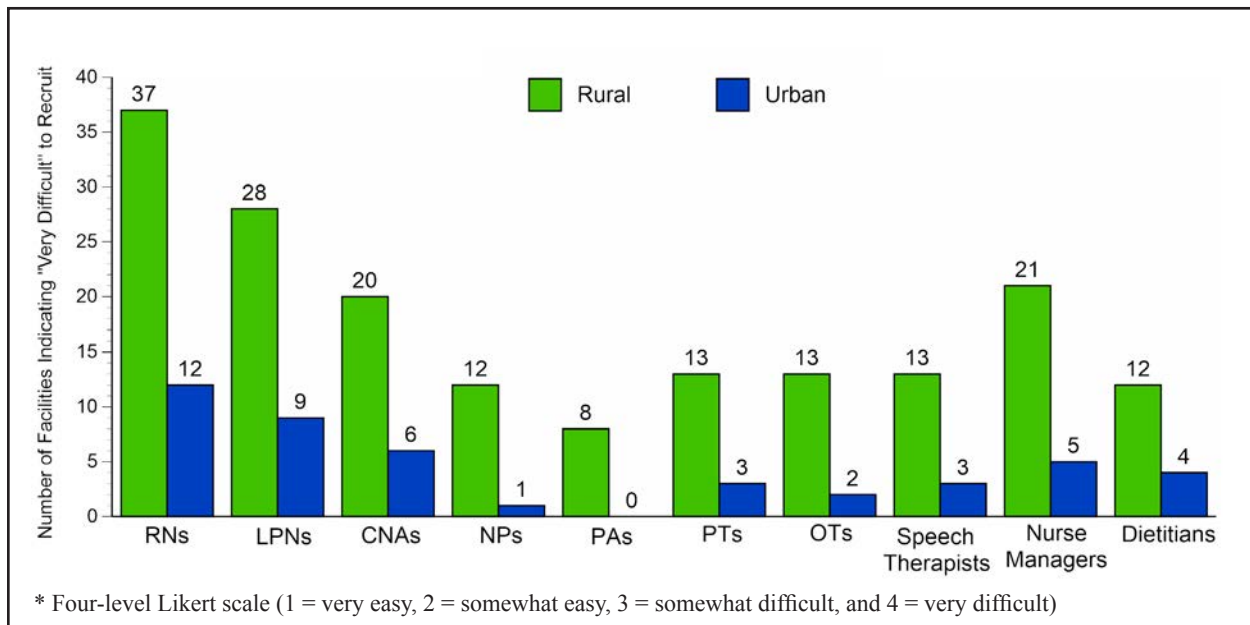
Figure 46 shows another way of examining the base data used in Figure 45 (questionnaire question 21). In Figure 46, the rural and urban number of nursing facility respondents who rated the difficulty of recruiting the 10 provider types as "very difficult" are depicted. As can be observed, there is greater differentiation between ratings of the provider types than previously presented in Figure 45. All rural "very difficult" rating numbers were larger than for urban nursing facilities. By far, the greatest number of rural/urban nursing facilities that rated a provider type as "very difficult" to recruit was for rural RNs (37). In fact, the other highest ratings were all rural: LPNs (28), nurse managers (21), and CNAs (20). The highest number for urban nursing facilities was for RNs at 12 and LPNs at 9. To obtain approximate percentages, divide the table numbers by 54 for rural and 24 for urban (for instance, for rural RNs, 37/54 times 100 equals 68.5%). Respondents could rate recruiting difficulty as very difficult for more than one provider type.

Figure 47. Level of Difficulty in Filling Staff Positions: Total

* Four-level Likert scale (1 = very easy, 2 = somewhat easy, 3 = somewhat difficult, and 4 = very difficult)
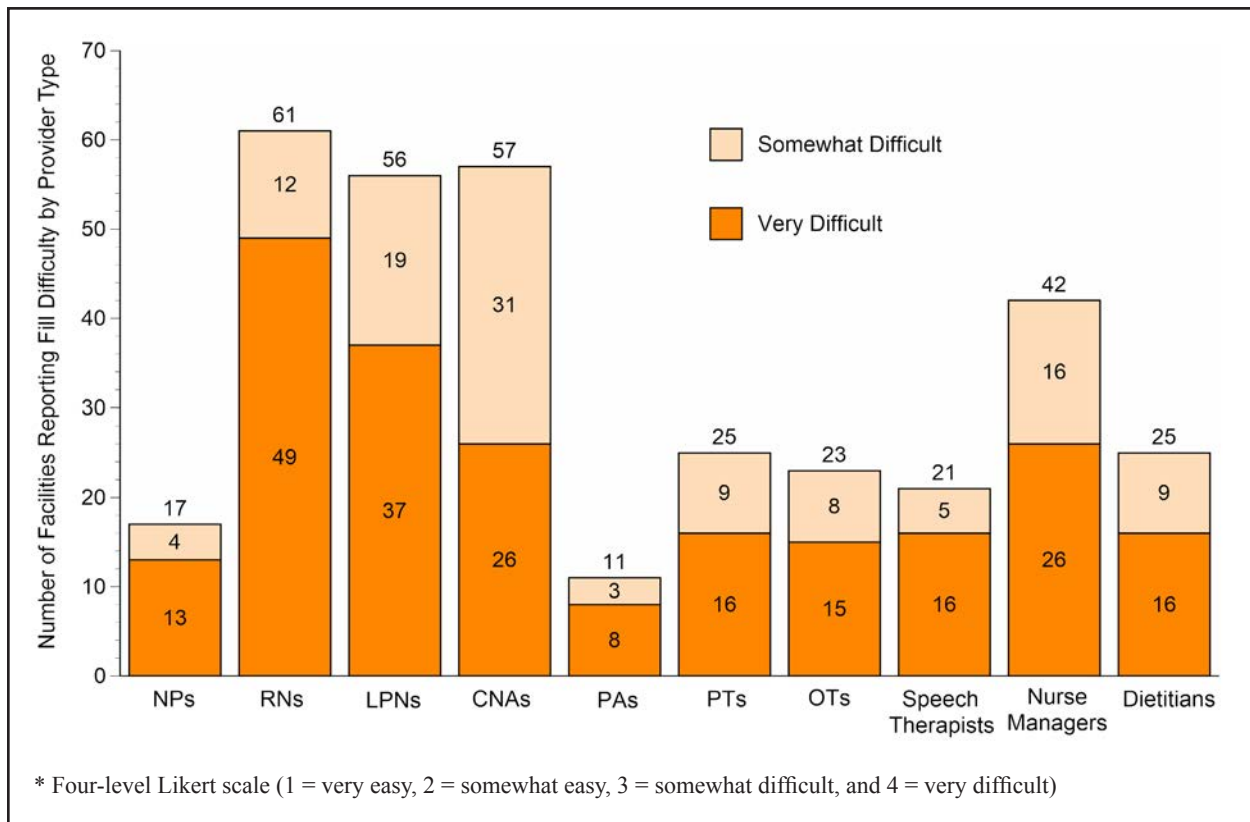
Figure 47 is yet another way of looking at the data from Figures 45 and 46. In looking at position-type fill difficulty, the number of facilities that indicated positions as being somewhat and very difficult to fill (i.e., values of 3 or 4 on the 4-point Likert Scale) were also examined (survey question 21). In Figure 47, the total number of facilities (both urban and rural) whose respondents reported each position as being somewhat or very difficult to fill are presented. Nurses (RNs [61], CNAs [57], LPNs [56], and nurse manager [42] positions) were reported as being difficult to fill. Examination of the figure provides information on the mix of very difficult and somewhat difficult responses. Note that NPs and PAs were least often reported by CEOs as being difficult (i.e., very difficult and somewhat difficult) to recruit to fill vacant positions.

To obtain approximate percentages, divide the table numbers by 78 (for instance, for RNs it is 61/78 times 100). Respondents could rate recruiting difficulty as somewhat or very difficult for more than one provider type.

Figure 48. Level of Difficulty in Filling Staff Positions: Rural

* Four-level Likert scale (1 = very easy, 2 = somewhat easy, 3 = somewhat difficult, and 4 = very difficult)
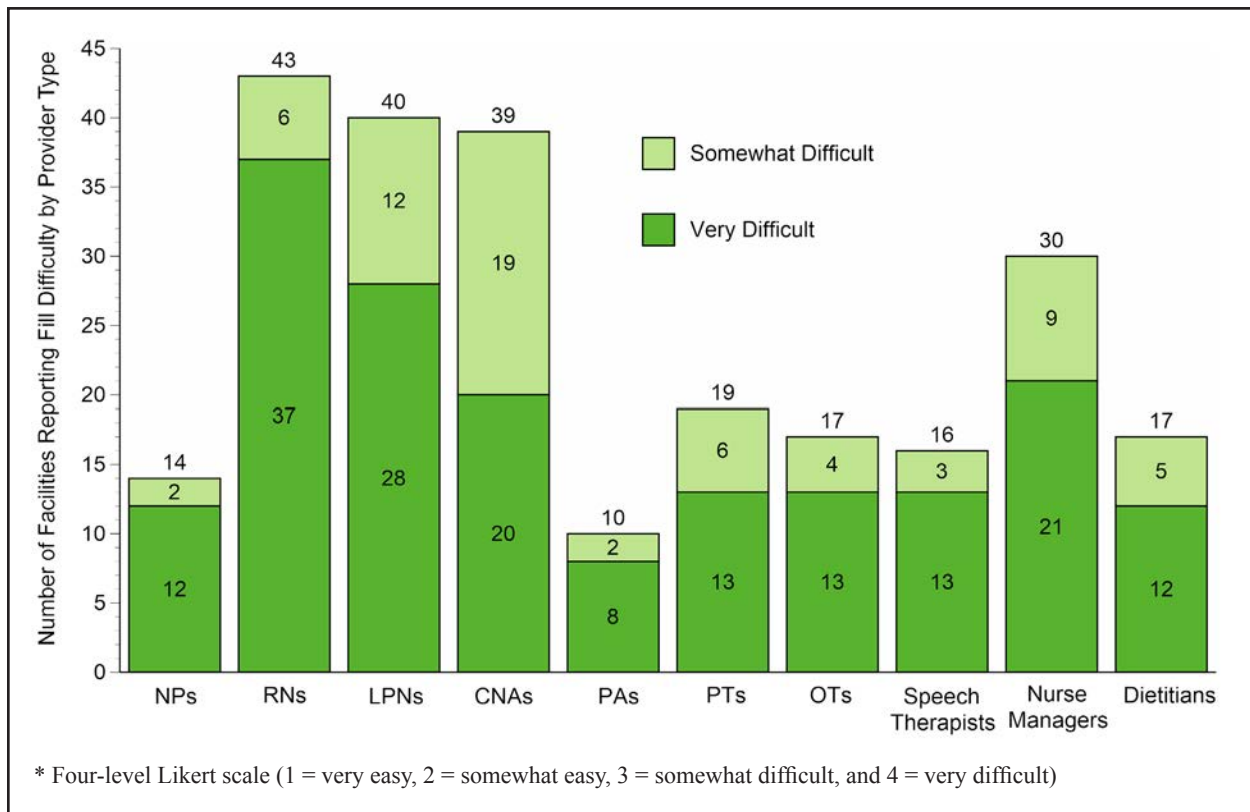
In looking at position-fill difficulty in rural nursing areas, the number of facility respondents who indicated positions as being somewhat and very difficult to fill (i.e., values of 3 or 4 on the 4-point Likert Scale) were examined (survey question 21). In Figure 48, the total number of rural facilities whose respondents reported positions as being somewhat or very difficult to fill are presented. Rural nurses (RNs [43], LPNs [40], CNAs [39], and nurse manager [30] positions in particular) were reported most often as being difficult (i.e., very difficult and somewhat difficult) to fill. Examination of the figure provides information on the mix of very difficult and somewhat difficult responses. Note that NPs and PAs were least often reported by rural CEOs as being difficult to recruit to fill vacant positions. To obtain approximate percentages, divide the table numbers by 54 (for instance, for RNs it is 43/54 times 100). Almost 70% of the rural hospital CEOs indicated that it was very difficult to recruit RNs to fill vacancies. Respondents could rate recruiting difficulty as somewhat or very difficult for more than one provider type.

**Figure 49. Level of Difficulty in Filling Staff Positions: Urban**

* Four-level Likert scale (1 = very easy, 2 = somewhat easy, 3 = somewhat difficult, and 4 = very difficult)
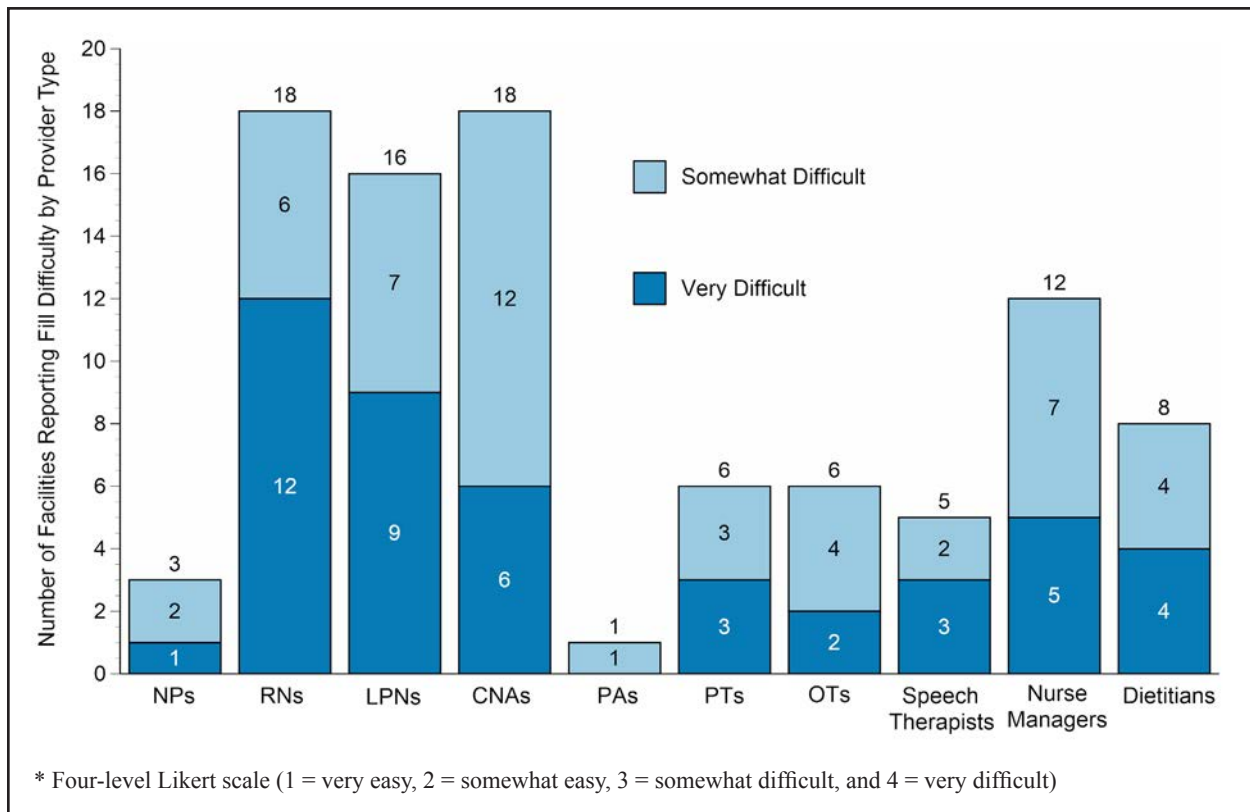
Looking at CEO survey responses from North Dakota urban nursing facilities, the number of facilities that indicated positions as being somewhat and very difficult to fill (i.e., values of 3 or 4 on the 4-point Likert Scale) were also examined (survey question 21). In Figure 49, the total number of urban facilities whose respondents reported positions as being somewhat or very difficult to fill are presented. Most often, urban nurses (RNs [18], CNAs [18], LPNs [16], and nurse managers [12]) were reported as being very and somewhat difficult to fill. Examination of the figure provides information on the mix of very difficult and somewhat difficult responses. NPs and PAs were least often reported by urban CEOs as difficult to recruit to fill. Urban respondents indicated that it was as difficult (when somewhat and very difficult are combined) to recruit CNAs as RNs and more difficult than for LPNs (but if only "very difficult" is examined, that picture changes). To obtain approximate percentages, divide the table numbers by 24 (for instance, for urban RNs it is 18/24 times 100). About 50% of the urban hospital CEOs indicated that it was very difficult to recruit RNs to fill vacancies. Respondents could rate recruiting difficulty as somewhat or very difficult for more than one provider type.

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Figure 50. Length of Longest Vacant Position at Nursing Facilities by Provider Type: Total
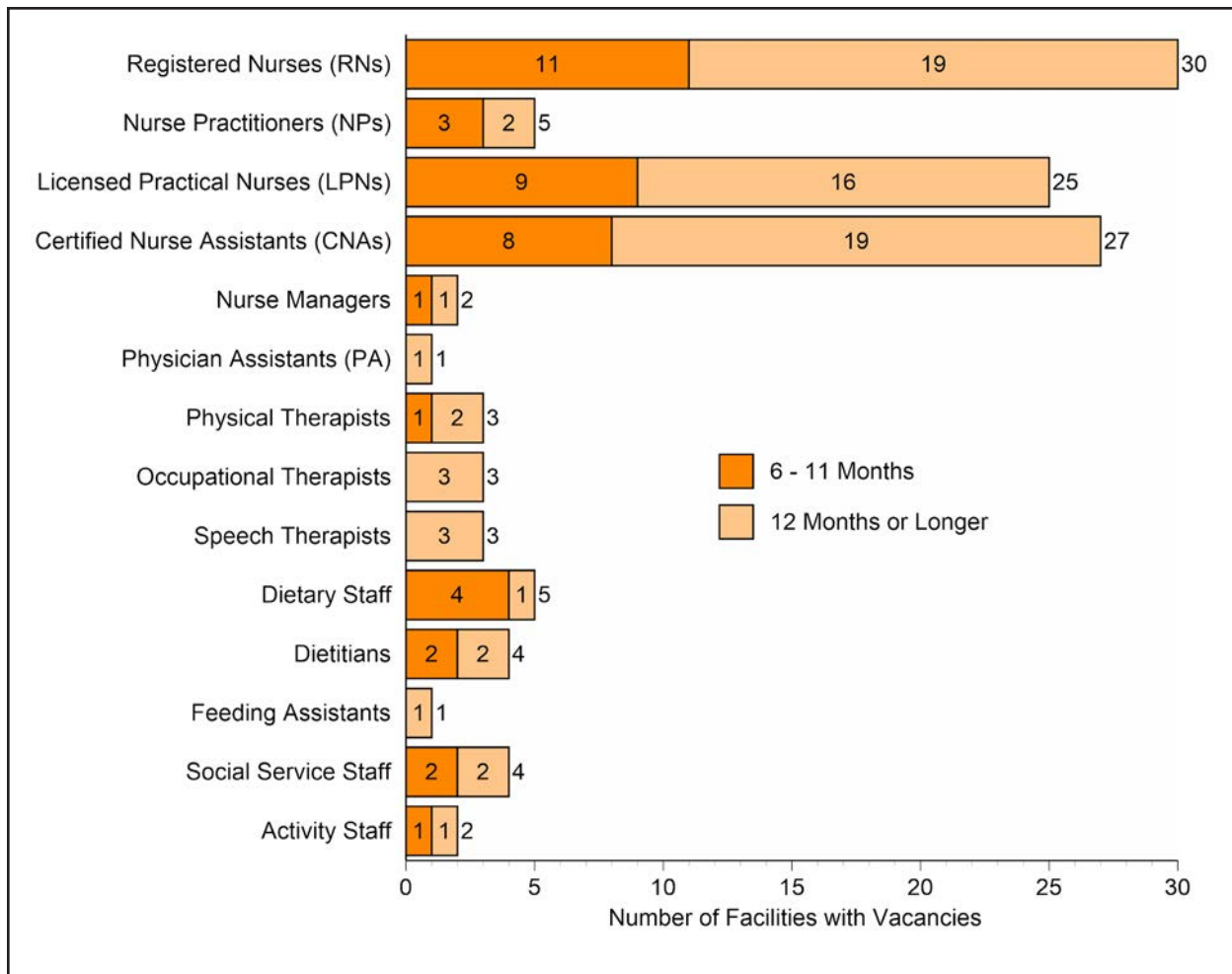
For each employee type, the questionnaire asked respondents to indicate how many months the longest open position was vacant. Figure 50 shows the number of facilities with provider-type positions that were open for 6 to 11 months and 12 months and longer. (Note that positions where there were no current vacancies and/or the current vacancies were still open from 0 to 5 months are not included in Figure 50). Keep in mind that the actual months would be a little greater than reported, because the positions detailed were still open when reported. This is an indication of the difficulty and delays in filling vacancies. The figure shows the employee types that were taking by far the longest time to fill were RNs (6 to 11 months: 11; a year or longer: 19), CNAs (6 to 11 months: 8; a year or longer: 19), and LPNs (6 to 11 months: 9; a year or longer: 16). The other 11 employee types all had modest delays in recruitment. Nineteen facilities were still trying to recruit RNs after more than a year, which is clearly an important patient care and administrative problem. The similar problems facilities faced recruiting CNAs and LPNs are also important.
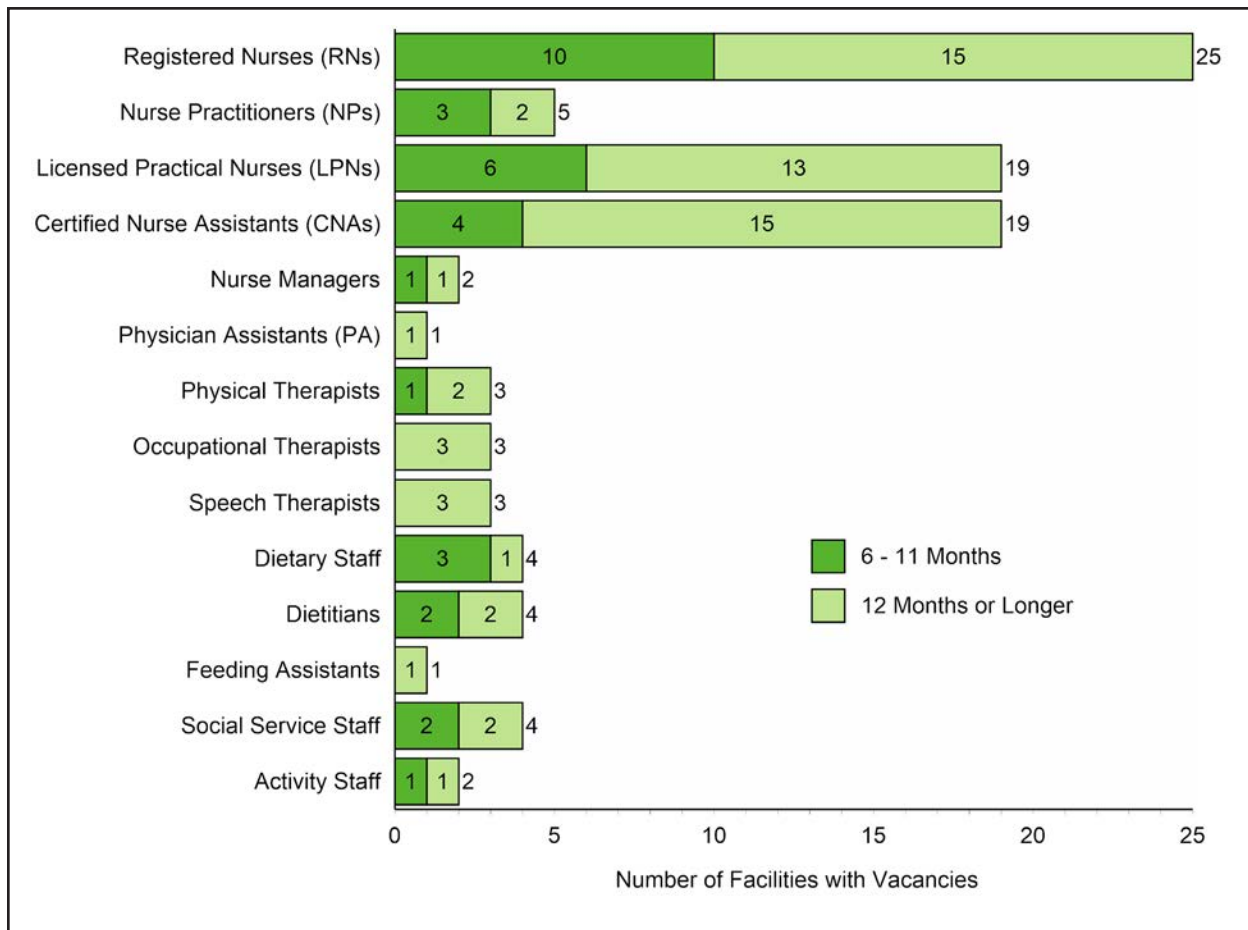
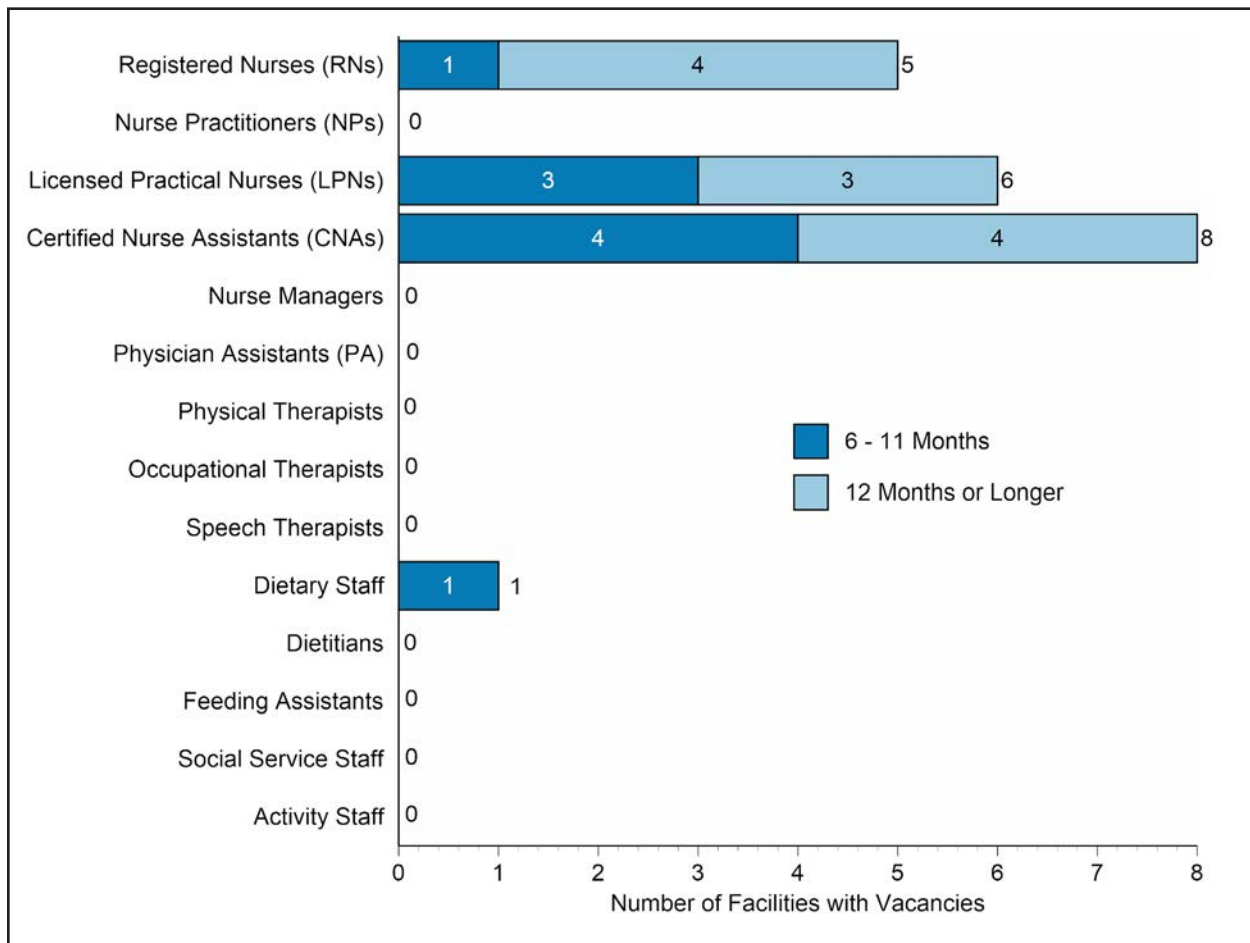**Figure 51. Length of Longest Vacant Position at Nursing Facilities by Provider Type: Rural**

For each employee type, the questionnaire asked respondents to indicate how many months the longest open position had been vacant for rural nursing facilities. Figure 51 shows the number of facilities with provider-type positions that were open for 6 to 11 months and 12 months and longer. Keep in mind that the actual months would be a little greater than reported, because the positions being detailed were still open when reported. This is an indication of the difficulty and delays in filling vacancies. The rural employee types that were taking by far the longest time to fill were RNs (6 to 11 months: 10; a year or longer 15), CNAs (6 to 11 months: 4; a year or longer: 15), and LPNs (6 to 11 months: 6; a year or longer: 13). The other 11 employee types all had modest delays in recruitment. When this chart is compared to the next chart (Figure 52), it is clear that it took much longer to fill RN, CNA, and LPN vacant positions in rural nursing facilities than in their urban counterparts.

Figure 52. Length of Longest Vacant Position at Nursing Facilities by Provider Type: Urban


For each employee type, the questionnaire asked respondents to indicate how many months the longest open position had been vacant for urban nursing facilities. Figure 52 shows the number of facilities with provider-type positions that were open for 6 to 11 months and 12 months and longer. Keep in mind that the actual months would be a little greater than reported, because the positions being reported about were still open when reported. This is an indication of the difficulty and delays in filling vacancies. It can be observed that the employee vacancies that were taking by far the longest time to fill were CNAs (6 to 11 months: 4; a year or longer: 4), RNs (6 to 11 months: 1; a year or longer: 4), and LPNs (6 to 11 months: 3; a year or longer: 3). The other 11 employee types all had very short delays in recruitment duration. When this chart is compared to the previous chart (Figure 51), it is clear that it took much longer to fill RN, CNA, and LPN vacancies in rural nursing facilities than in their urban counterparts.

Figure 53. Staff with Highest Turnover Rates During Last Year: Total
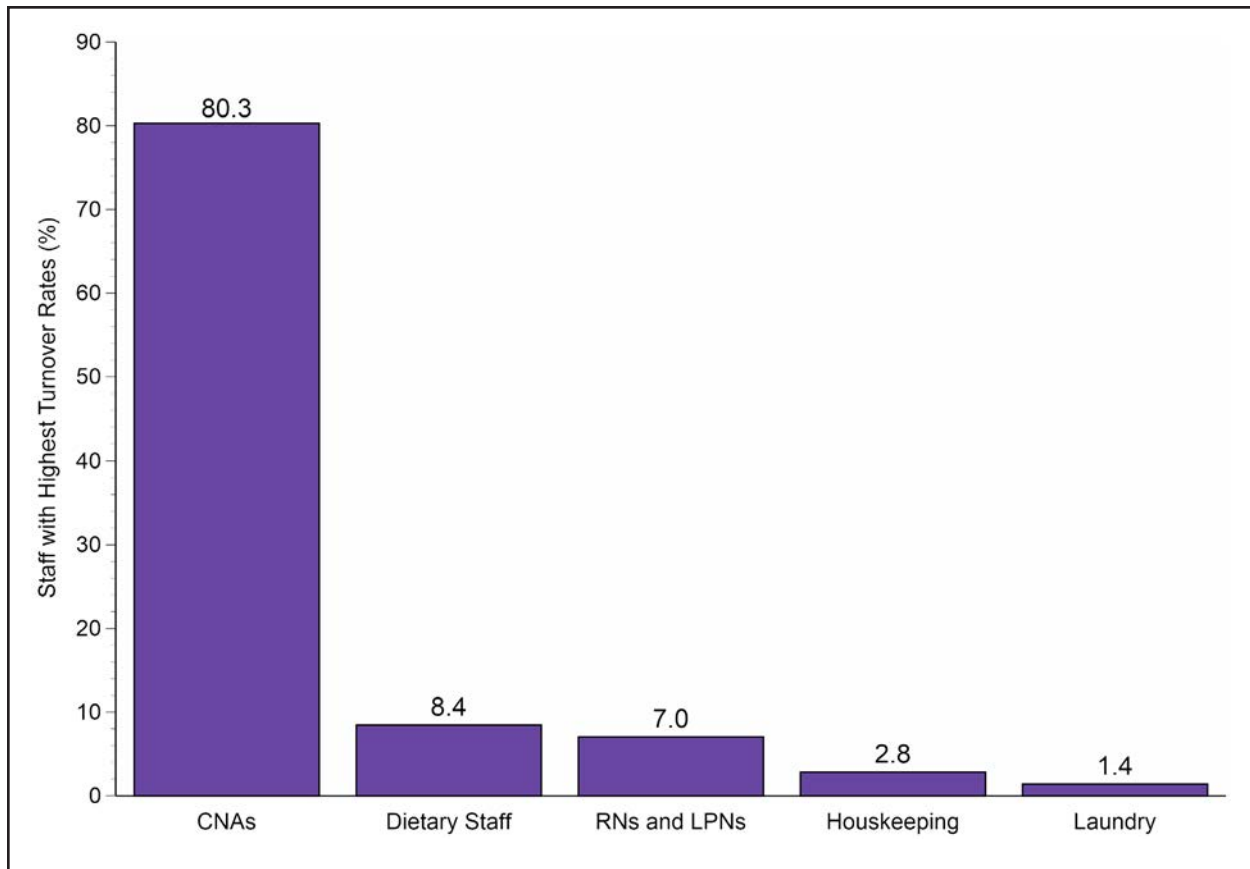
Nursing facility CEOs were asked to identify the positions that had the highest, second-highest, and third-highest turnover rates during the last year (survey question 1). The question was asked in an open-ended manner (respondents wrote in their responses). Figure 53 shows the results, looking only at the employee types that were reported as having the highest rates of turnover. Nursing facilities reported that CNAs had the overall highest turnover rates (80.3%).

In addition to CNAs, dietary staff (8.4%), RNs and LPNs (7.0%), housekeeping (2.8%), and laundry (1.4%) staff were also rated as having particularly high turnover rates, although the percentages for each of these was much lower than for CNAs.

Figure 54. Overall Staff with Highest (1st, 2nd, & 3rd Combined) Turnover Rates During Last Year: Total
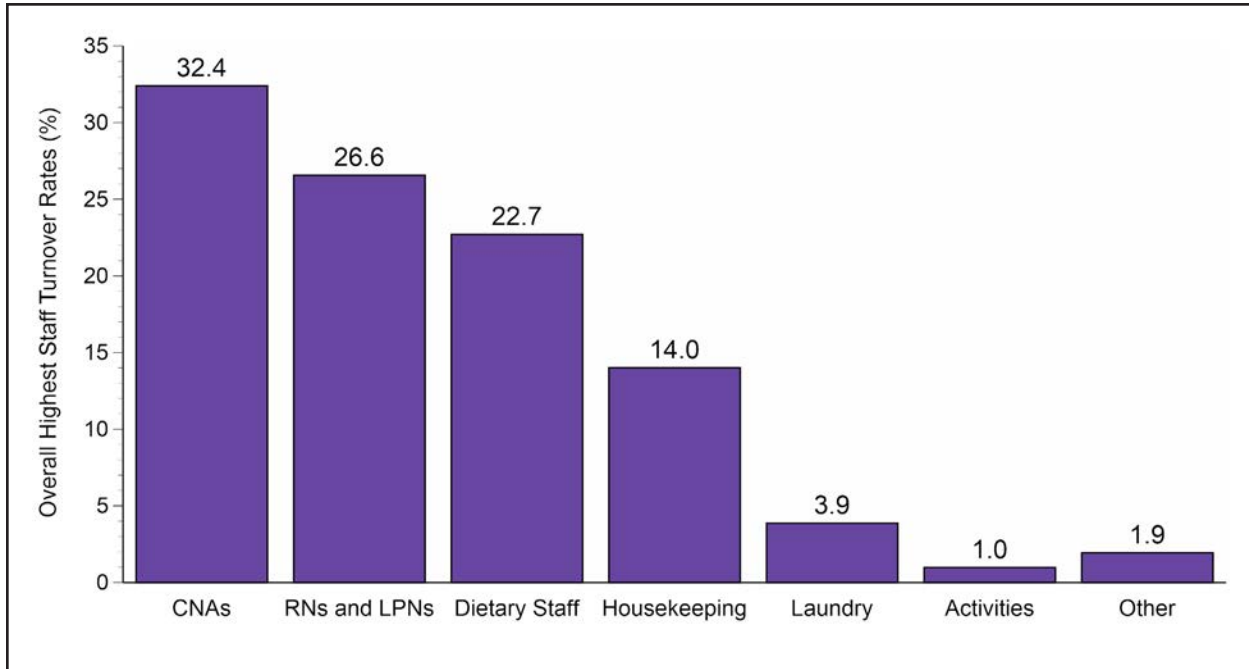
Figure 54 shows the combined mentions of highest turnover rates across highest, second-highest, and third-highest responses during the last year (survey question 1). This question was open-ended (respondents wrote in their responses). CNAs were most frequently mentioned as having high turnover rates (32.4%), followed by RNs and LPNs (26.6%). In addition, turnover rates among dietary staff were also rated as being common (22.7%), followed by housekeeping (14.0%). Facilities could list more than one employee type, so total percentages add up to more than 100%.

Figure 55. Staff Most Difficult to Recruit During Last Year: Total
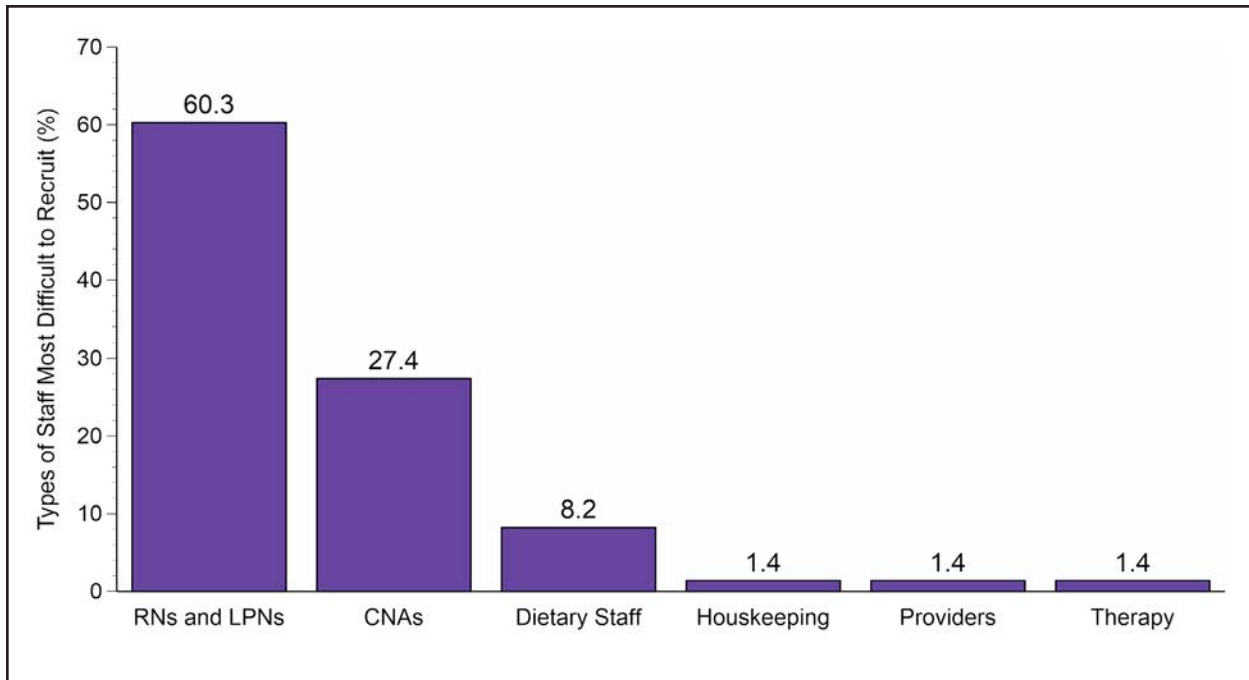
Each nursing facility survey respondent was asked to identify which employee position types were most difficult to recruit, second most difficult to recruit, and third most difficult to recruit (survey question 2). This question was presented in an open-ended format (respondents wrote in their responses). Figure 55 shows which employee types were reported as the ***most difficult*** to recruit during the last year. RNs and LPNs were reported as being the most difficult to recruit (60.3%). Other positions that were reported as being most difficult to recruit included CNAs (27.4%), dietary staff (8.2%), housekeeping (1.4%), providers (1.4%), and therapy (1.4%).

Figure 56. Overall Staff Most Difficult to Recruit (1st, 2nd, & 3rd Combined) During Last Year: Total
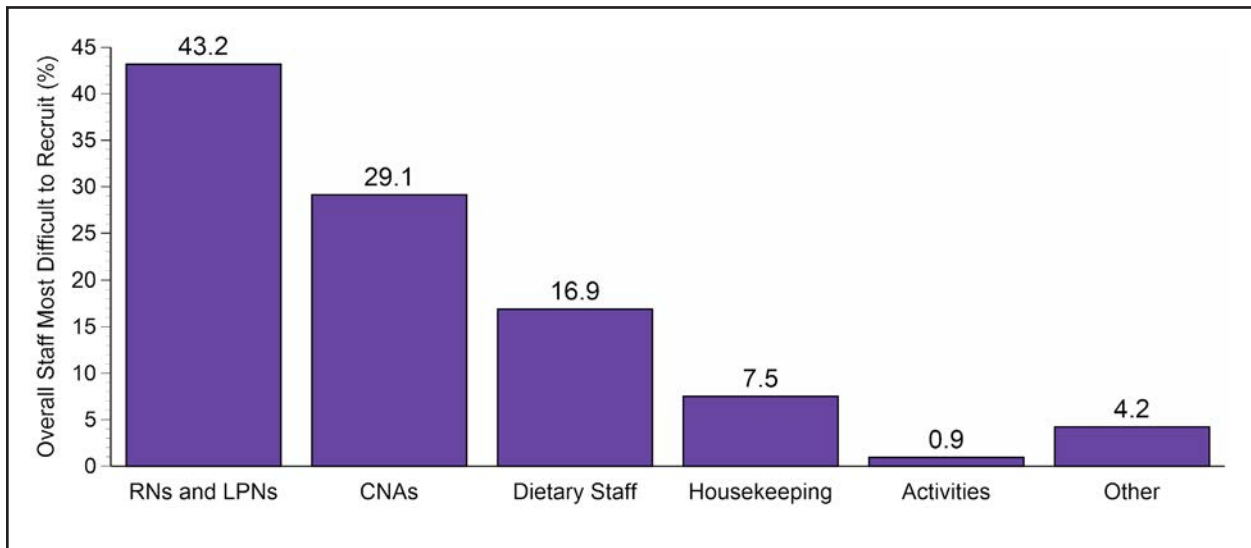
Figure 56 shows the frequencies of employee types when looking across all recruitment difficulty levels (e.g., most difficulty to recruit, second most difficult to recruit, and third most difficult to recruit) (survey question 2). This question was open-ended (respondents wrote in their responses). Registered nurses and LPNs were reported as being the most difficult to recruit (43.2%). CNAs followed at 29.1%. In addition, recruitment difficulty among dietary staff was also rated as being common (16.9%), followed by housekeeping (7.5%) and activity (0.9%) staff. Facilities could list more than one employee type, so total percentages add up to more than 100%.

Figure 57. Number of RNs, RN Managers, Direct Care LPNs and CNAs Reported as Being "Somewhat Difficult" to Recruit: Rural and Urban
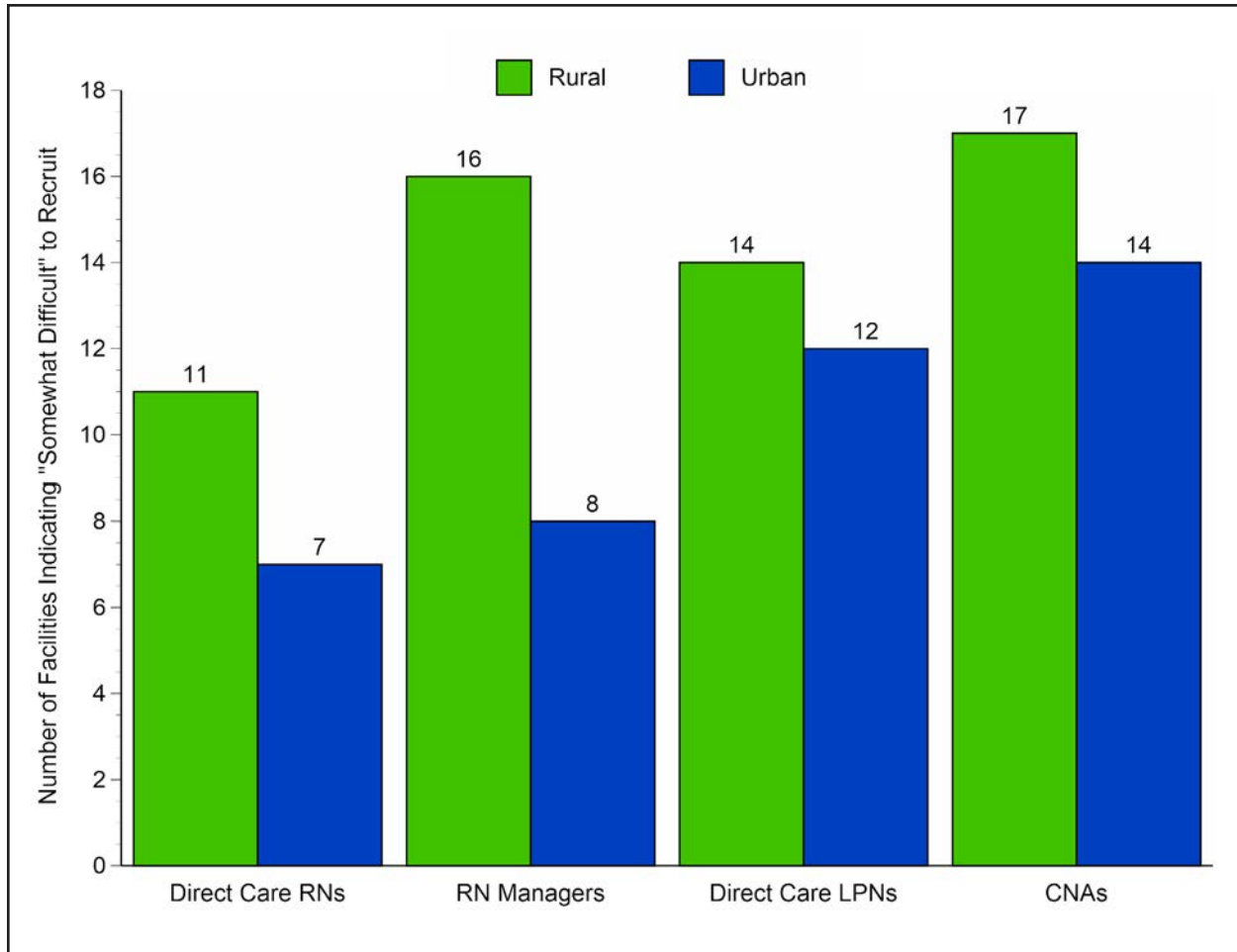
Nursing facility CEOs were asked to rate the difficulty of recruiting direct care RNs, RN managers, direct care LPNs, and CNAs (survey questions 3, 4, 5, and 6). Recruitment difficulty was measured on a four-point Likert Scale (1 = very easy, 2 = somewhat easy, 3 = somewhat difficult, 4 = very difficult). The number of respondents who rated each respective position as being "somewhat difficult" to fill (e.g., a rating of "3") for rural and urban nursing facilities is shown in Figure 57 (Figure 58 is the same format except it shows the "4" result—"Very Difficult"). Rural respondents reported all categories as being more difficult to recruit than those in urban areas, with the greatest discrepancy in numbers being between RN managers in rural and urban areas (16 versus 8 facilities). The rural/urban differences for RN managers, direct care LPNs, and CNAs were similar. Combining the number of nursing facility responses from Figure 57 and Figure 58 allows observation of the number of CEOs who indicated the provider types as being somewhat and very difficult to recruit.
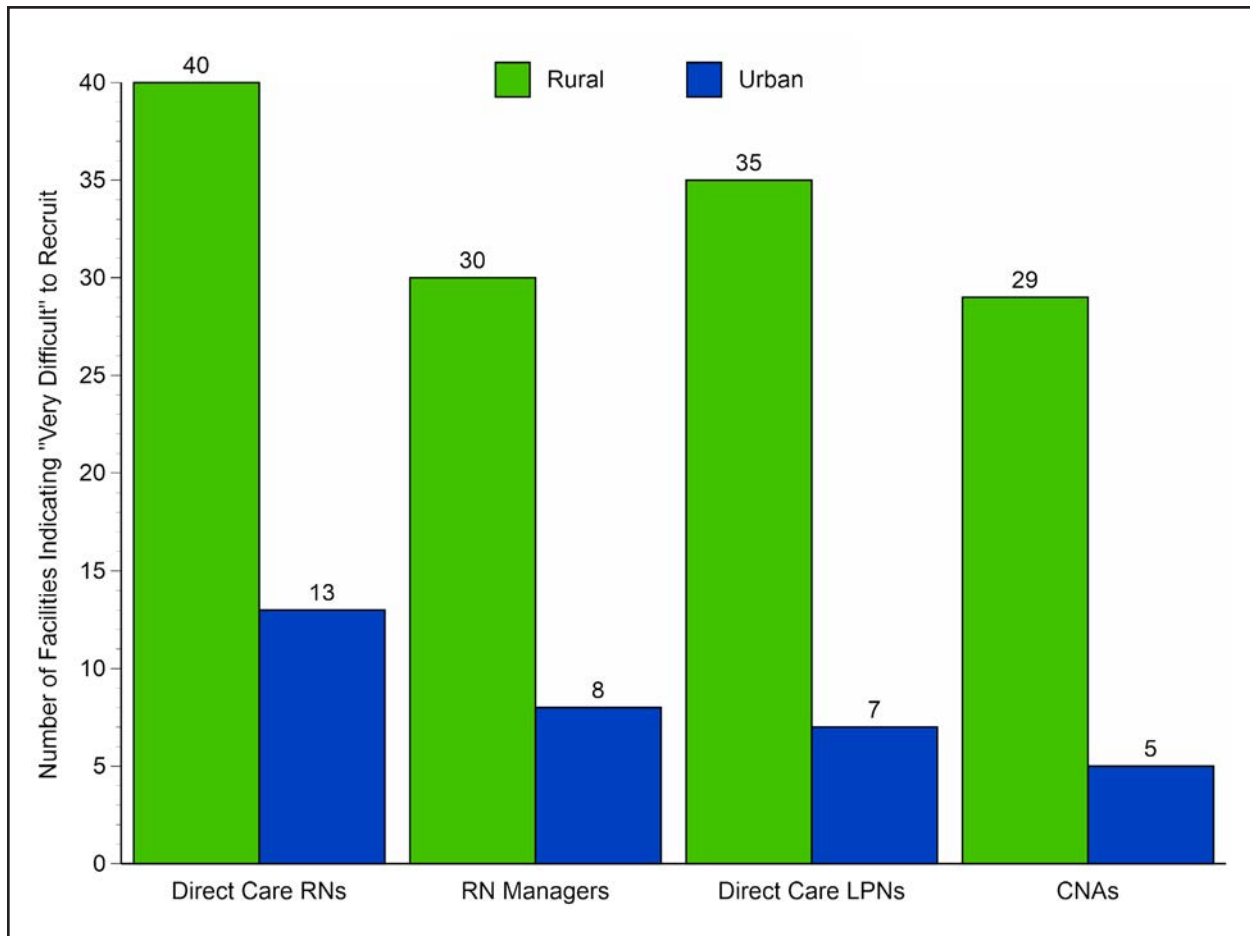
Figure 58. Number of RNs, RN Managers, Direct Care LPNs and CNAs Reported as Being "Very Difficult" to Recruit: Rural and Urban

Survey respondents were asked to rate the difficulty of recruiting direct care RNs, RN managers, direct care LPNs, and CNAs (survey questions 3, 4, 5, and 6). Recruitment difficulty was measured on a four-point Likert Scale (1 = very easy, 2 = somewhat easy, 3 = somewhat difficult, 4 = very difficult). The number of respondents who rated each position type as "very difficult" to fill (e.g., a rating of "4") are shown in Figure 58. Rural respondents reported all four employment types as being more difficult to recruit than those in urban areas, with the greatest discrepancy in numbers being between direct care LPNs in rural and urban areas (35 versus 7 facilities). Combining the number of nursing facility responses from Figures 57 and 58 allows observation of the number of CEOs who indicated the provider types as being somewhat and very difficult to recruit.
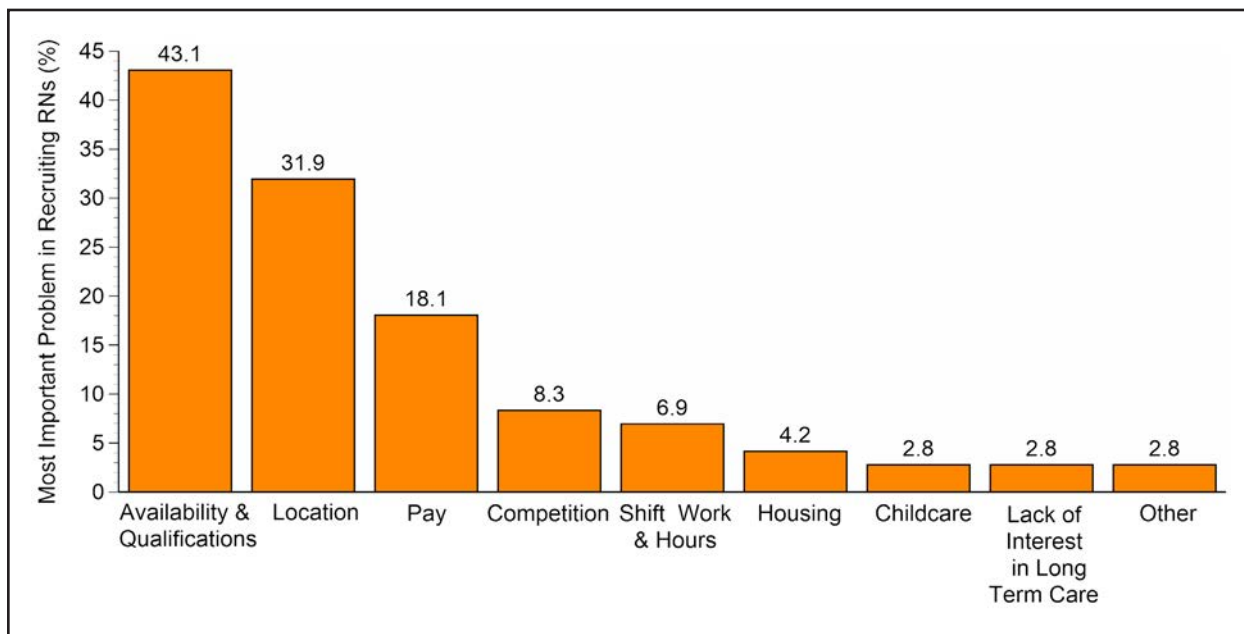
Figure 59. Most Important Problem in Recruiting RNs: Total

Survey respondents were asked what their most important problem was in recruiting RNs (survey question 7 – an open-ended question). Figure 59 shows the results, with lack of qualified applicants being the most commonly reported issue (43.1%). Other frequently cited problems included location (31.9%); pay, wages, and salaries (18.1%); and competition (8.3%); among others (shift work, housing, childcare, and lack of interest in long-term care). Some nursing facility respondents reported more than one potential issue (though the questionnaire only asked for the most important problem), so the total overall percentage is greater than 100%.

Figure 60. Most Important Problem in Recruiting RNs: Rural and Urban
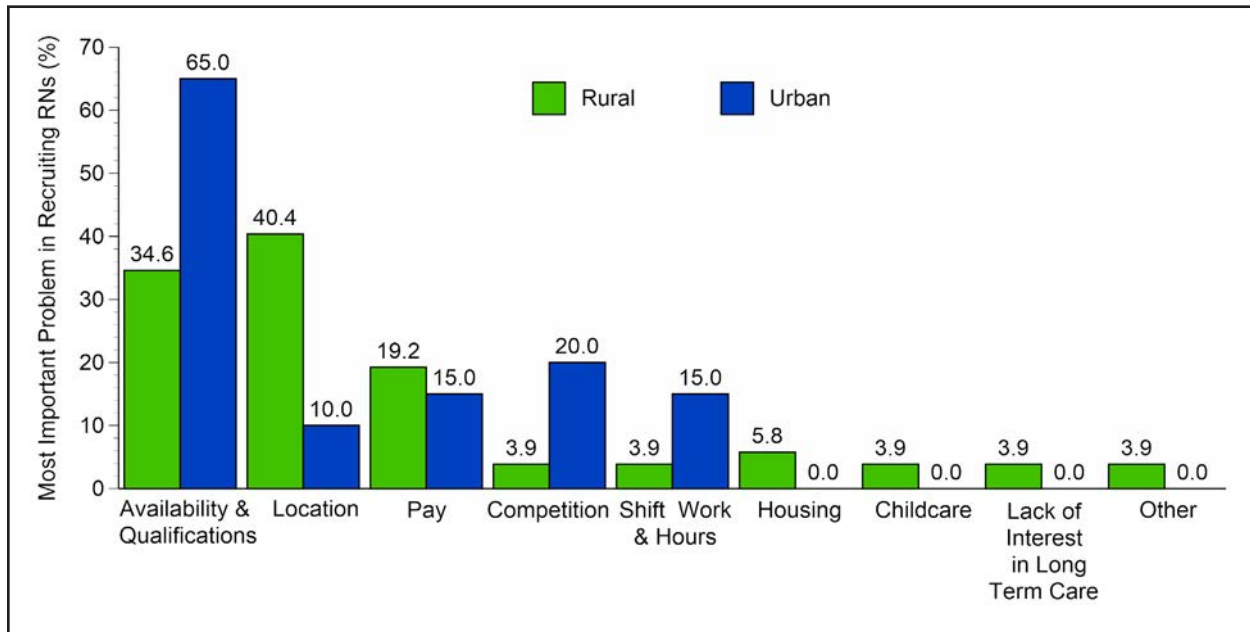
Survey respondents were asked what their most important problem was in recruiting RNs (survey question 7 – an open-ended question). Figure 60 shows the results for rural and urban nursing facilities separately. The most frequent response for urban respondents was availability and qualifications (urban: 65.0%, rural: 34.6%). The most frequent response for rural respondents was location (rural: 40.4%, urban: 10.0%). Rural respondents' third most frequent response was pay (19.2%). Other rural responses that received mention were housing (5.8%), competition (3.9%), shift work and hours (3.9%), childcare (3.9%), and lack of interest in long-term care (3.9%). Other urban responses that received mention were competition (20.0%) and shift work and hours (15.0%). Competition and shift work and hours were reported much more often by urban CEOs than rural CEOs. Some nursing facility respondents reported more than one potential issue (though the questionnaire only asked for the most important problem), so the total overall percent age is greater than 100%.

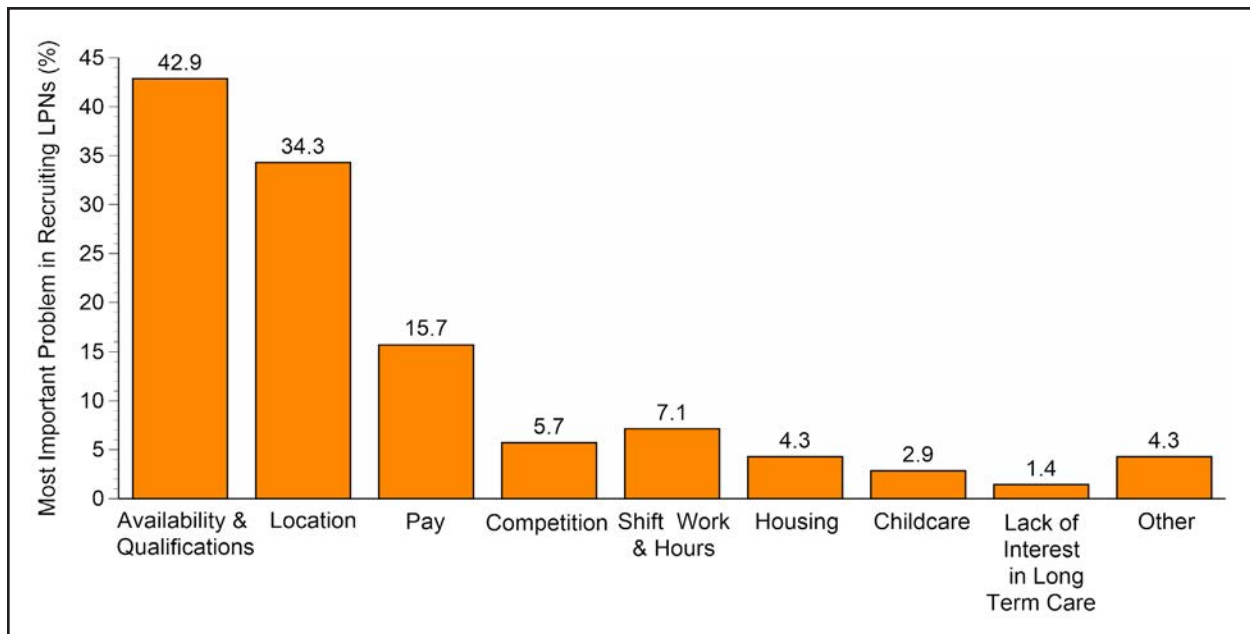**Figure 61. Most Important Problem in Recruiting LPNs: Total**

Survey respondents were asked what their most important problem was in recruiting LPNs (survey question 8 – an open-ended question). Figure 61 shows the results, with lack of qualified applicants being the most commonly reported issue (42.9%). Other frequently reported problems included location (34.3%); pay, wages, and salaries (15.7%); shift work and hours (7.1%); and competition (5.7%); among others mentioned less frequently (housing, childcare, and lack of interest in long-term care). Some nursing facility respondents reported more than one potential issue (though the questionnaire only asked for the most important problem), so the total overall percentage is greater than 100%.

Figure 62. Most Important Problem in Recruiting LPNs: Rural and Urban
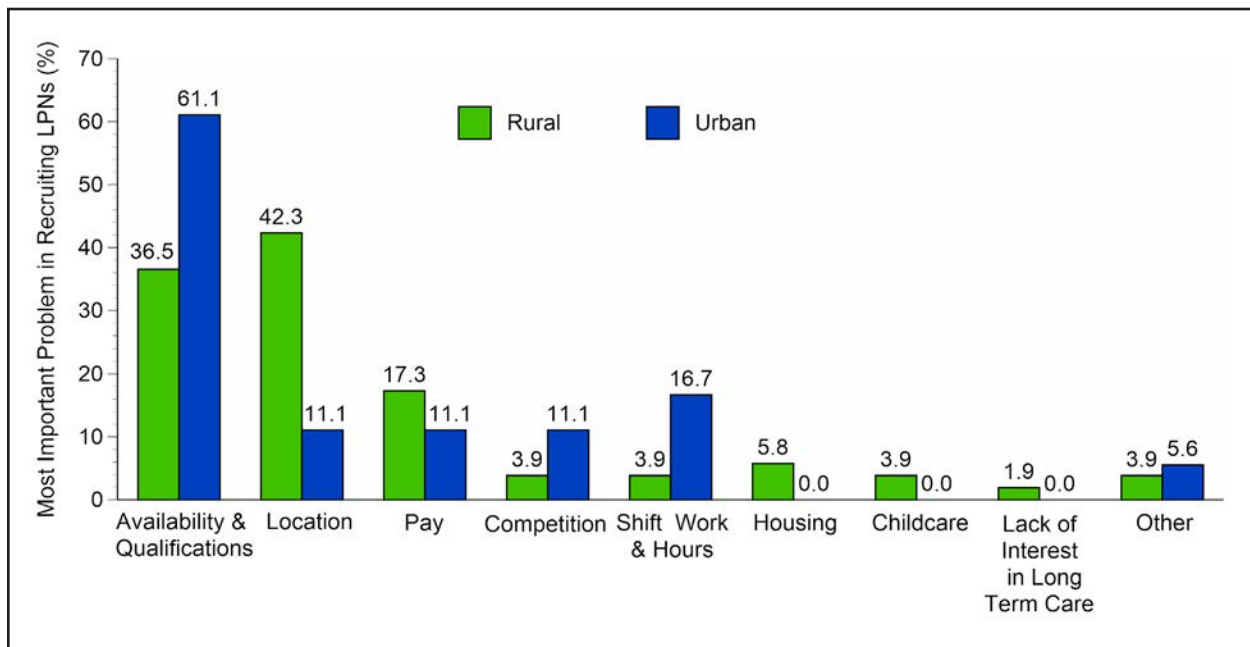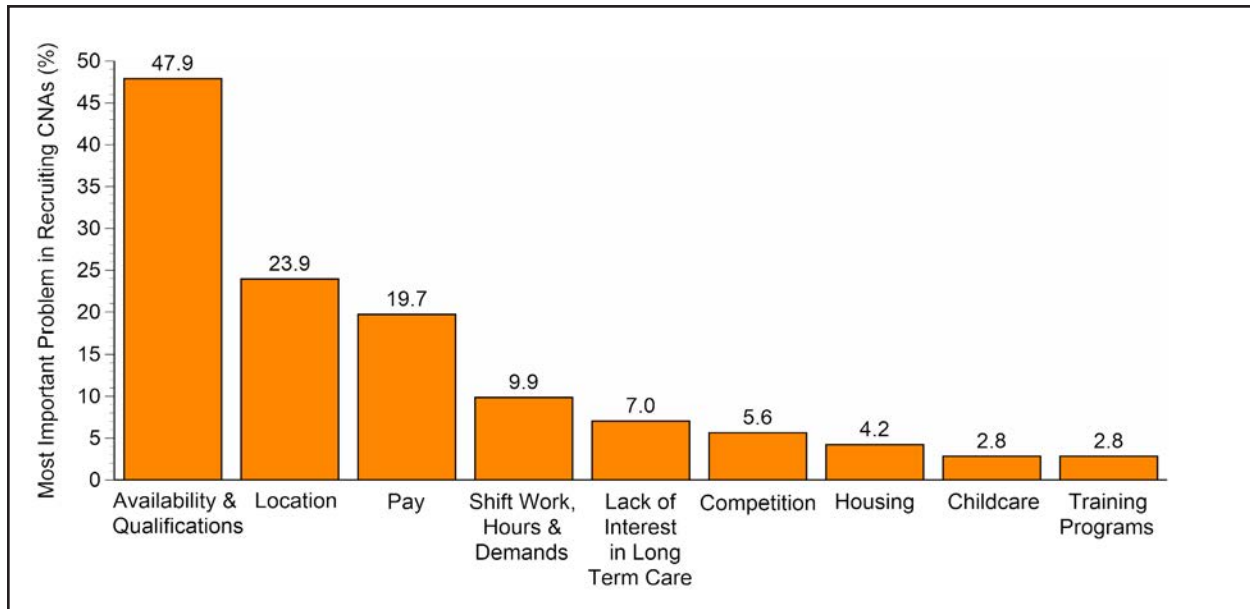

Survey respondents were asked to indicate their most important problem in recruiting LPNs (survey question 8 – an open-ended question). Figure 62 shows the results for rural and urban nursing facilities separately. The most frequent response for urban nursing facility CEO respondents was availability and qualifications (urban: 61.1%; rural: 36.5%). The most frequent response for rural respondents was location (rural: 42.3%; urban: 11.1%). Rural respondents' third most frequent response was pay (17.3%). Other rural responses that received mention were housing (5.8%), competition (3.9%), shift work and hours (3.9%), childcare (3.9%), and lack of interest in long-term care (1.9%). Other urban responses that received mention were shift work and hours (16.7%) and competition (11.1%). The overall pattern for LPNs was very similar to that of RNs. Although question 8 asked for the most important problem in recruiting LPNs, some respondents reported more than one potential issue, so the overall percentage is greater than 100%.

Figure 63. Most Important Problem in Recruiting CNAs: Total

Survey respondents were asked about their most important problem in recruiting CNAs (survey question 9 – an open-ended question). Figure 63 displays the results, with lack of qualified applicants being the most commonly reported issue (47.9%). Other frequently described problems included location (23.9%); pay, wages, and salaries (19.7%); shift work and hours (9.9%); lack of interest in long-term care (7.0%); and competition (5.6%); among others mentioned less frequently (housing, childcare, and training programs). These results were quite similar to those for RNs and LPNs. Some nursing facility respondents reported more than one potential issue (though the questionnaire only asked for the most important problem), so the total overall percentage is greater than 100%.

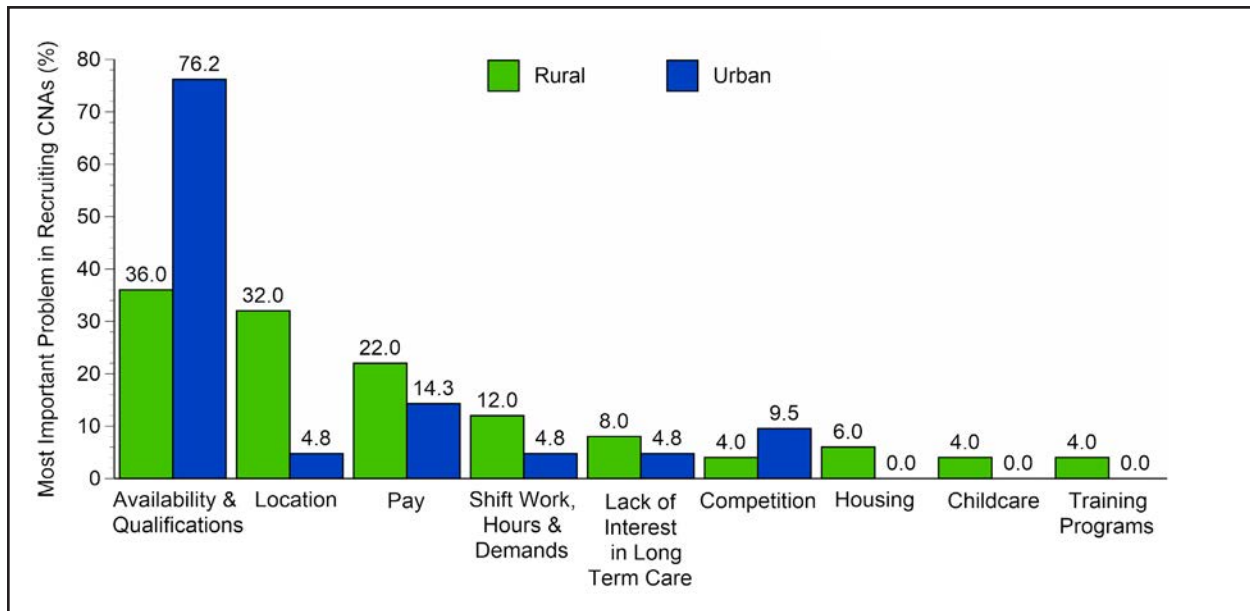**Figure 64. Most Important Problem in Recruiting CNAs: Rural and Urban**

Survey respondents were asked to indicate their most important problem with recruiting CNAs (survey question 9 – an open-ended question). Figure 64 displays the results for rural and urban nursing facilities separately. The most frequent response for both rural and urban nursing facility respondents was availability and qualifications (rural: 36.0%; urban: 76.2%), although urban facilities reported this much more frequently. The second most frequent rural response was location (32.0%), and for urban it was pay (14.3%). Other rural responses that received mention were pay (22.0%); shift work, hours, and demands (12.0%); lack of interest in long-term care (8.0%); housing (6.0%); competition (4.0%); childcare (4.0%); and training programs (4.0%). The other urban responses that received mention were competition (9.5%); location (4.8%); shift work, hours, and demands (4.8%); and lack of interest in long-term care (4.8%). Although question 9 asked for the most important problem in recruiting CNAs, some respondents reported more than one potential issue, so the overall percentage is greater than 100%.

Figure 65. Most Important Cause of Not Being Able to Retain RNs: Total
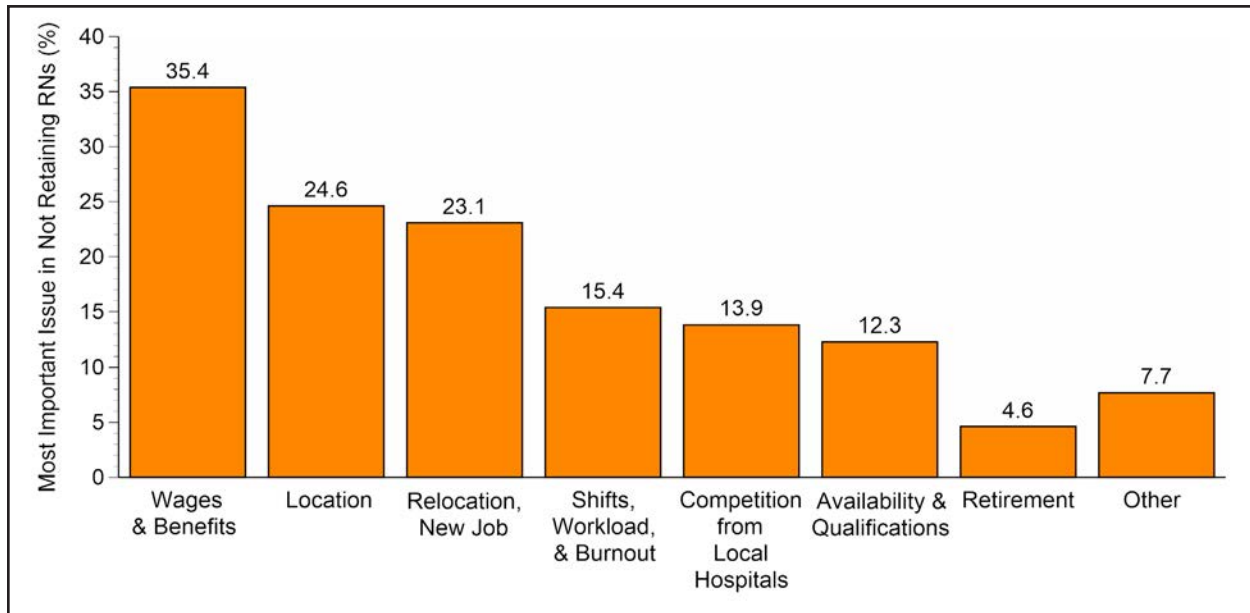
Nursing facility respondents reported the most important reasons why they were not able to retain RNs (survey question 10 – an open-ended question). As shown in Figure 65, the issue most often reported as a reason the nursing facilities were not able to retain RNs was wages and benefits (35.4%). Other barriers included location (24.6%), employees relocating or starting a new job (23.1%), as well as the shifts and workload (15.4%). Competition from local hospitals (13.9%), availability and qualifications (12.3%), and retirement (4.6%) were also mentioned. Even though question 10 asked for the most important cause of not being able to retain RNs, some respondents reported more than one potential issue, so the overall percentage is greater than 100%.

Figure 66. Most Important Cause of Not Being Able to Retain RNs: Rural and Urban

Nursing facility CEOs reported the most important reasons why they were not able to retain RNs (survey question 10 – an open-ended question). Rural and urban responses are compared in Figure 66. The most frequent issue reported among rural nursing facilities for not being able to retain RNs was wages and benefits (38.8%). In urban facilities it was competition from local hospitals (31.3%), availability and qualifications (31.3%), and relocation and/or a new job (31.3%). Other urban barriers included wages and benefits (25.0%); shifts, workload, and burnout (12.5%); and retirement (6.3%). The rest of the rural barriers to RN retention that were mentioned included location (32.6%); relocation and/or a new job (20.4%); shifts, workload, and burnout (16.3%); competition from local hospitals (8.2%); availability and qualifications (6.1%); and retirement (4.1%). Clearly relocation and/or a new job, qualified RN availability, and competition from local hospitals all played a more important role in retention for urban nursing facilities than for their rural counterparts. Competitive wages were more important for rural facilities. Although question 10 asked for the most important cause of not being able to retain RNs, some respondents reported more than one potential issue, so the overall percentage is greater than 100%.
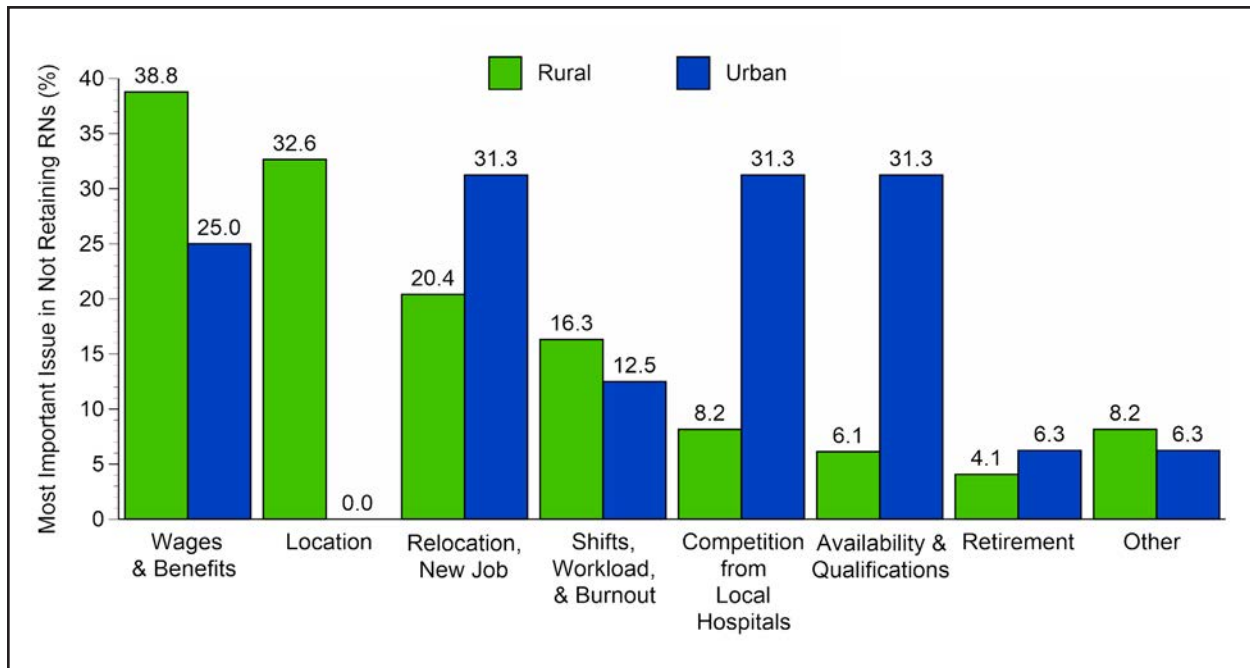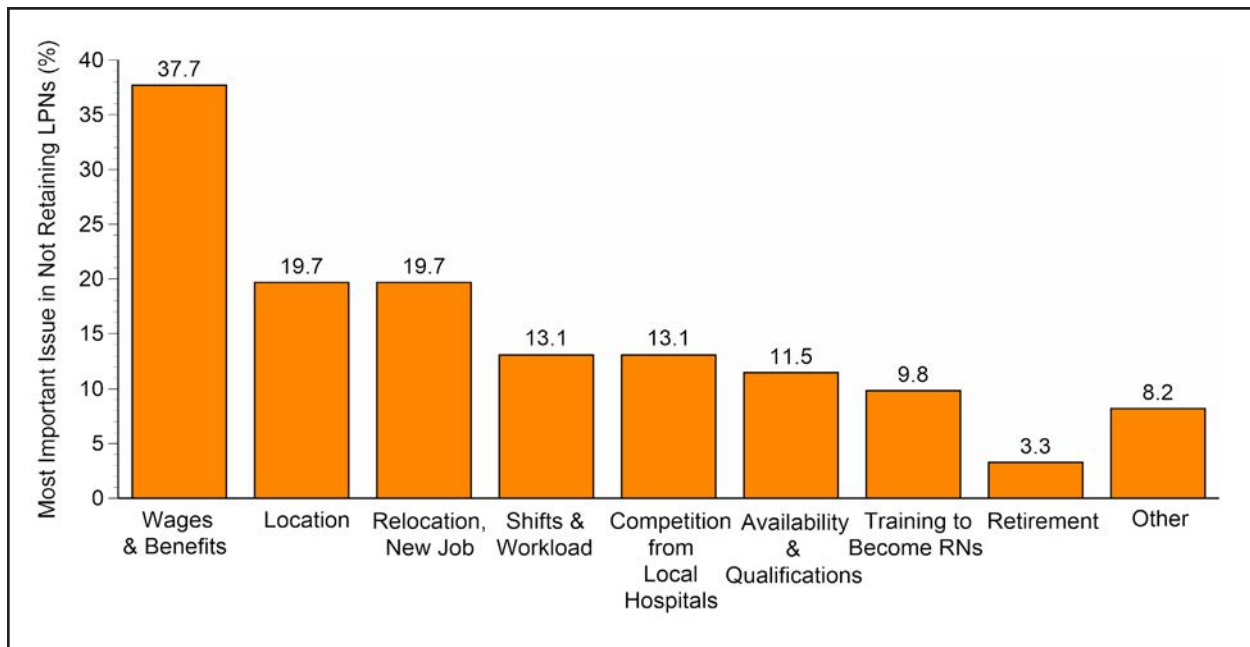
Figure 67. Most Important Cause of Not Being Able to Retain LPNs: Total

Nursing facility respondents reported the most important reasons why they were not able to retain LPNs (survey question 11 – an open-ended question). The issues reported most often as reasons why the nursing facilities were not able to retain LPNs were wage and benefits (37.7%), followed by location (19.7%) and relocation and/or new job (19.7%). The remaining reasons for the inability to retain LPNs included shifts and workload (13.1%), competition from local hospitals (13.1%), availability and qualifications (11.5%), training to be an RN (9.8%), and retirement (3.3%). Some nursing facility respondents indicated more than one cause even though question 11 asked for the most important one, so the overall percentage is greater than 100%.

Figure 68. Most Important Cause of Not Being Able to Retain LPNs: Rural and Urban

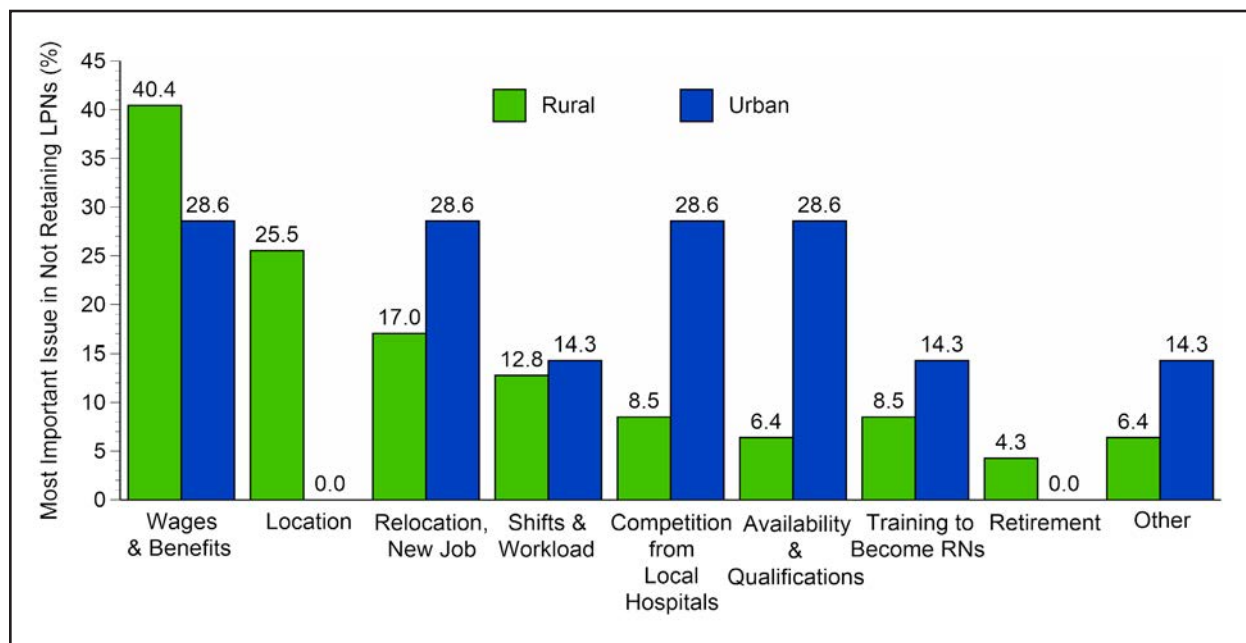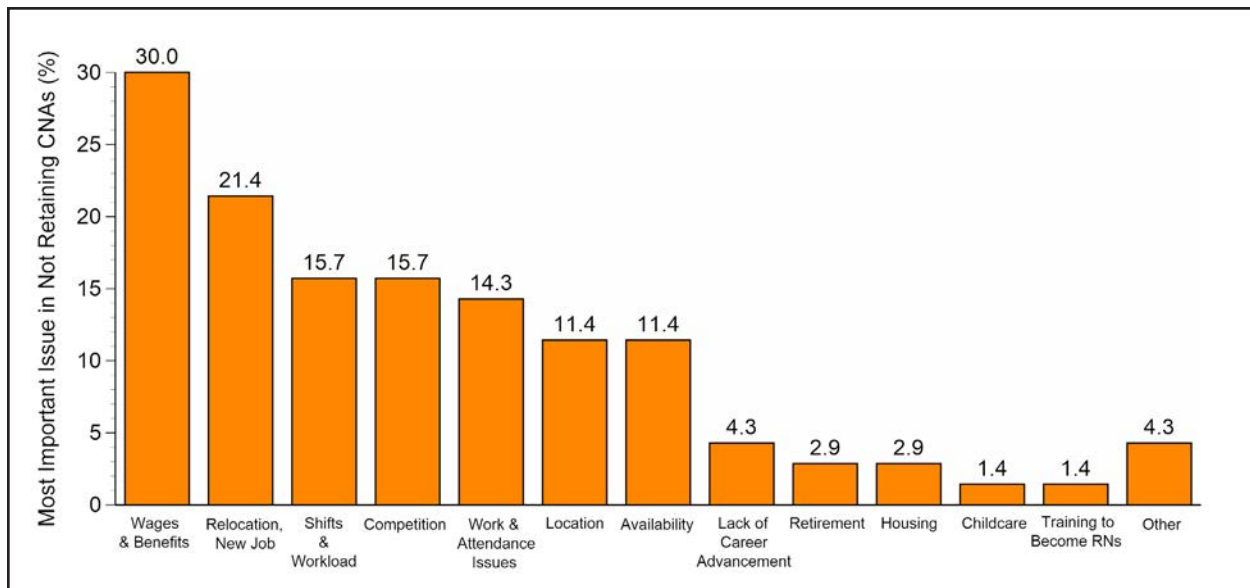Nursing facility respondents reported the most important reasons why they were not able to retain LPNs (survey question 11 – an open-ended question). As illustrated in Figure 68, the issues reported most often as reasons why the rural nursing facilities were not able to retain LPNs were wage and benefits (40.4%), followed by location (25.5%), relocation and/or a new job (17.0%), and shifts and workload (12.8%). Interestingly, 8.5% of the rural respondents indicated that the most important obstacle to retaining LPNs in some nursing facilities was their training to become RNs.

The pattern of urban respondents' most important causes was meaningfully different from those of the rural respondents. The most numerous urban responses were (a four-way tie): wages and benefits (28.6%), relocation and/or a new job (28.6%), competition from local hospitals (28.6%), and availability and qualifications (28.6%). Like rural respondents, urban respondents also indicated that one of the most important obstacles to retaining LPNs at some nursing facilities was their training to become RNs (14.3%).

By far, rural areas were most likely to mention wages and benefits, as well as location, as the most important causes of the inability to retain LPNs. However, urban areas were more likely to mention wages and benefits, relocation and/or a new job, competition from local hospitals, and availability and qualifications as the most important causes of the inability to retain LPNs. Some nursing facility respondents indicated more than one cause even though question 11 asked for the most important one, so the overall percentage is greater than 100%.

Figure 69. Most Important Cause of Not Being Able to Retain CNAs: Total

Nursing facility respondents reported the most important reasons why they were not able to retain CNAs (survey question 12 – an open-ended question). As shown in Figure 69, the issues reported most often as reasons why the nursing facilities were not able to retain CNAs were wages and benefits (30.0%), followed by relocation and/or a new job (21.4%). The remaining most frequent reasons for the inability to retain CNAs included shifts and workload (15.7%), competition (15.7%), work and attendance issues (14.3%), location (11.4%), availability (11.4%), and lack of career advancement (4.3%). In general, this list of causes is similar to the lists for RNs and LPNs. Some nursing facility respondents indicated more than one cause even though question 12 asked for the most important one, so the overall percentage is greater than 100%.

**Figure 70. Most Important Cause of Not Being Able to Retain CNAs: Rural and Urban**
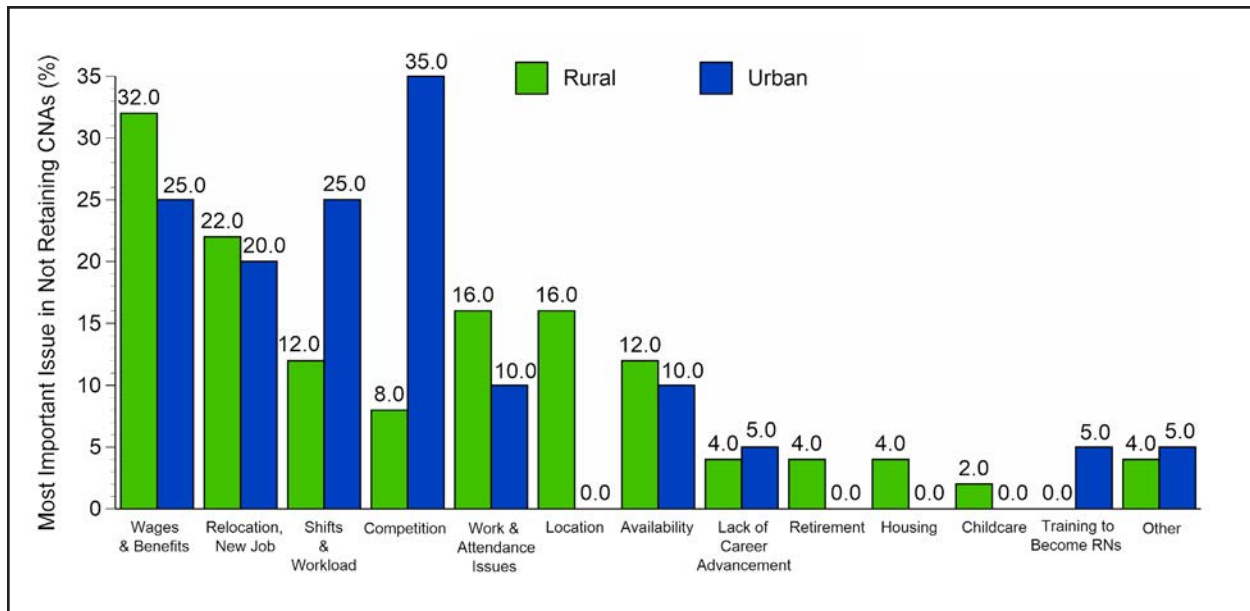
In response to survey question 12 (open-ended question), nursing facility respondents reported the most important reasons why they were not able to retain CNAs by rural and urban status. The most frequently listed reasons as to why the rural nursing facilities were not able to retain CNAs were wages and benefits (32.0%), relocation and/or a new job (22.0%), work and attendance issues (16.0%), and location (16.0%). The most numerous urban responses were competition (35.0%), wages and benefits (25.0%), shifts and workload (25.0%), and relocation and/or a new job (20.0%). Urban respondents were much more likely to indicate that the most important cause of their inability to retain CNAs was local competition. Unlike the rural and urban findings for RNs and LPNs, respondents indicated that a retention issue was CNAs' work and attendance issues (rural: 16.0%; urban: 10.0%). Because some nursing facility respondents indicated more than one cause even though question 12 asked for the most important one, the overall percentage is greater than 100%.

Figure 71. Most Important Things Done to Retain Nurses: Total
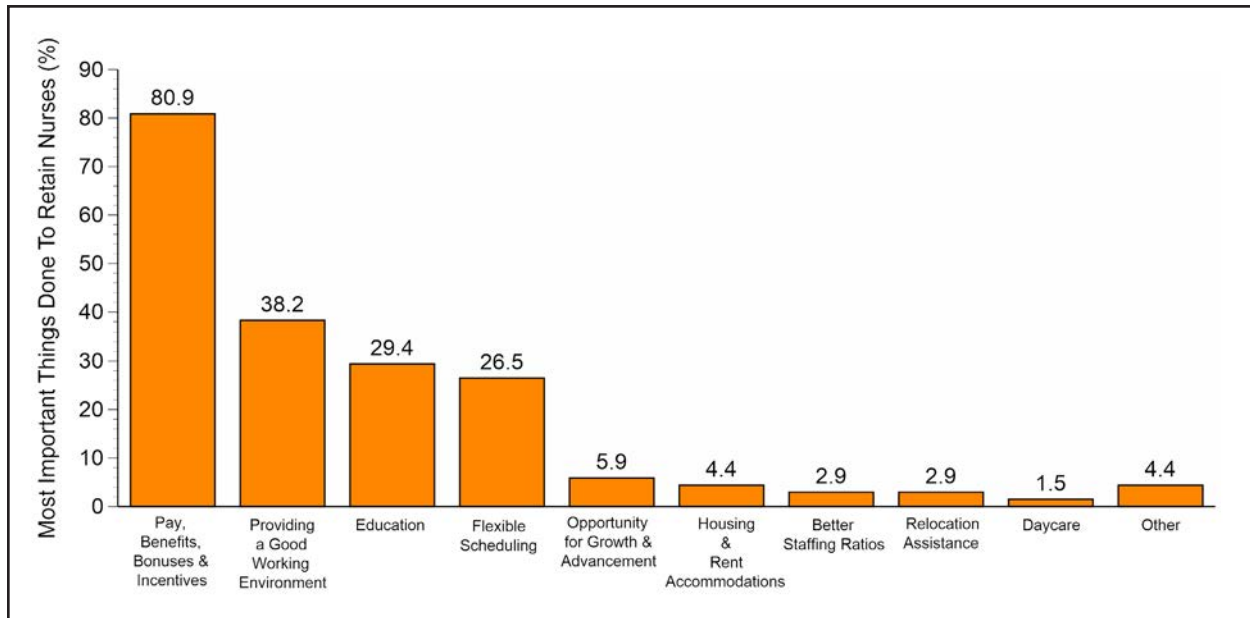
Respondents were asked about the most important things they did to retain nurses (survey question 13). The results from this question are shown in Figure 71. Respondents reported that they worked to retain nurses in a number of ways, with the principal methods being high wages, good benefits, or other bonuses or incentives (80.9%). Providing a good working environment was a commonly reported technique (38.2%), followed by educational opportunities such as continued education, scholarships, and student loan and tuition reimbursement (29.4%). The remaining retention activities included flexible scheduling (26.5%), opportunities for growth and advancement (5.9%), housing and rent accommodations (4.4%), better staffing ratios (2.9%), relocation assistance (2.9%), and daycare (1.5%). Question 13 asked for the most important things nursing facilities did to retain nurses; since many respondents reported more than one activity, the overall percentage adds up to more than 100%.

Figure 72. Most Important Things Done to Retain Nurses: Rural and Urban
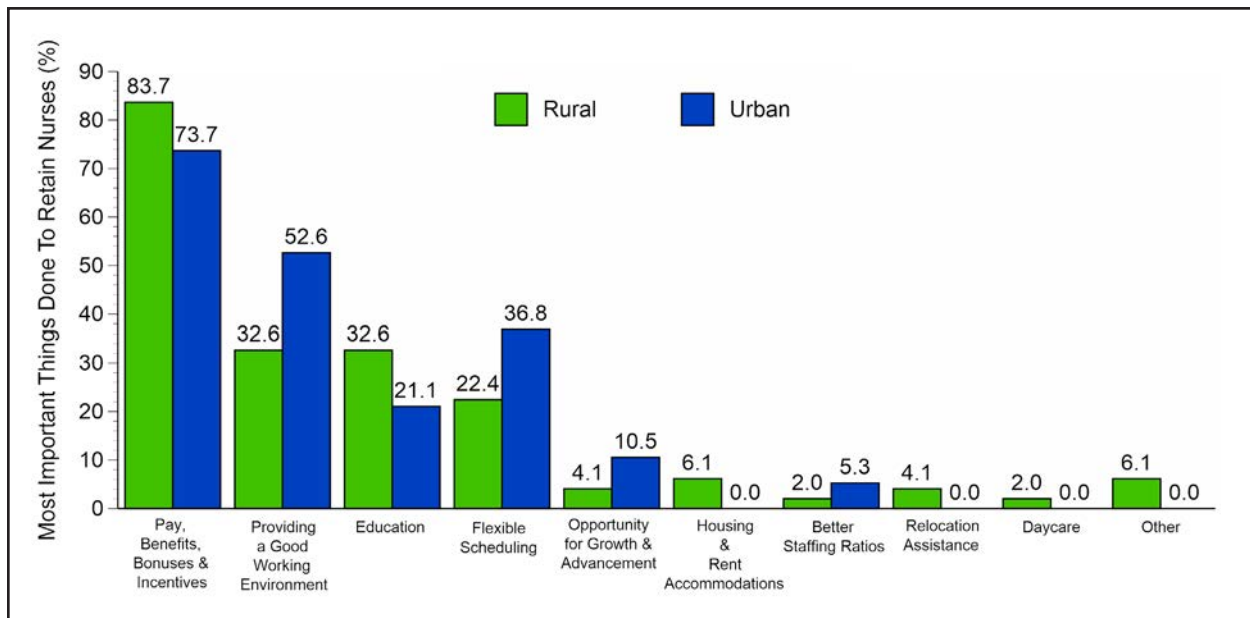

Respondents were asked about the most important things they did to retain nurses (survey question 13). The results from this question are compared in Figure 72 by rural and urban nursing facility location. The most frequent response for both rural and urban North Dakota nursing facilities was pay, benefits, bonuses, and incentives (rural: 83.7%; urban: 73.7%). The second and third most frequent reported activities for rural facilities were providing a good working environment (32.6%) and educational opportunities, including reimbursement and continued educational training (32.6%). For urban facilities, these included providing a good working environment (52.6%) and flexible scheduling (36.8%). Urban respondents were more likely to emphasize providing a good working environment and providing more flexible scheduling opportunities than was true in rural facilities. In contrast, rural respondents were more likely to emphasize greater pay, bonuses, benefits, and incentives. Other activities used to retain nurses in rural and urban facilities were: opportunity for professional growth and advancement, housing and rent accommodations, better staffing ratios, relocation assistance, and daycare. Question 13 asked for the most important things nursing facilities did to retain nurses; since many respondents reported more than one activity, the overall percentage adds up to more than 100%.

Figure 73. Number of CEOs Nursing Facilities Had During Last Five Years: Total
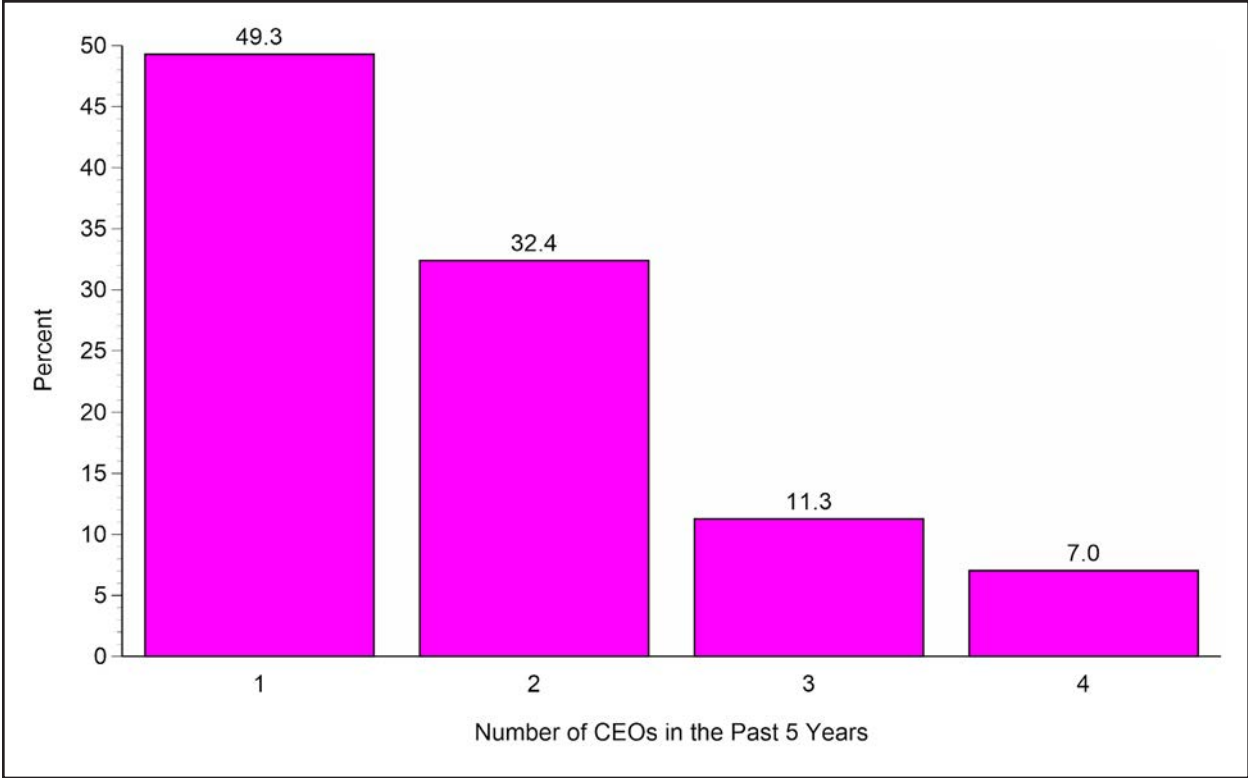
Nursing CEOs were asked how many CEOs their facility had during the previous five years (excluding interim) (survey question 17). Figure 73 shows the results of the responses. Nearly half (49.3%) of the North Dakota nursing facilities had only one CEO. Nearly one-third (32.4%) of the facilities had two CEOs, 11.3% of the facilities had three CEOs, and 7.0% of the facilities had four CEOs. Clearly, excessive CEO turnover can adversely influence nursing home operations.

Figure 74. Number of CEOs Nursing Facilities Had During Last Five Years: Rural and Urban
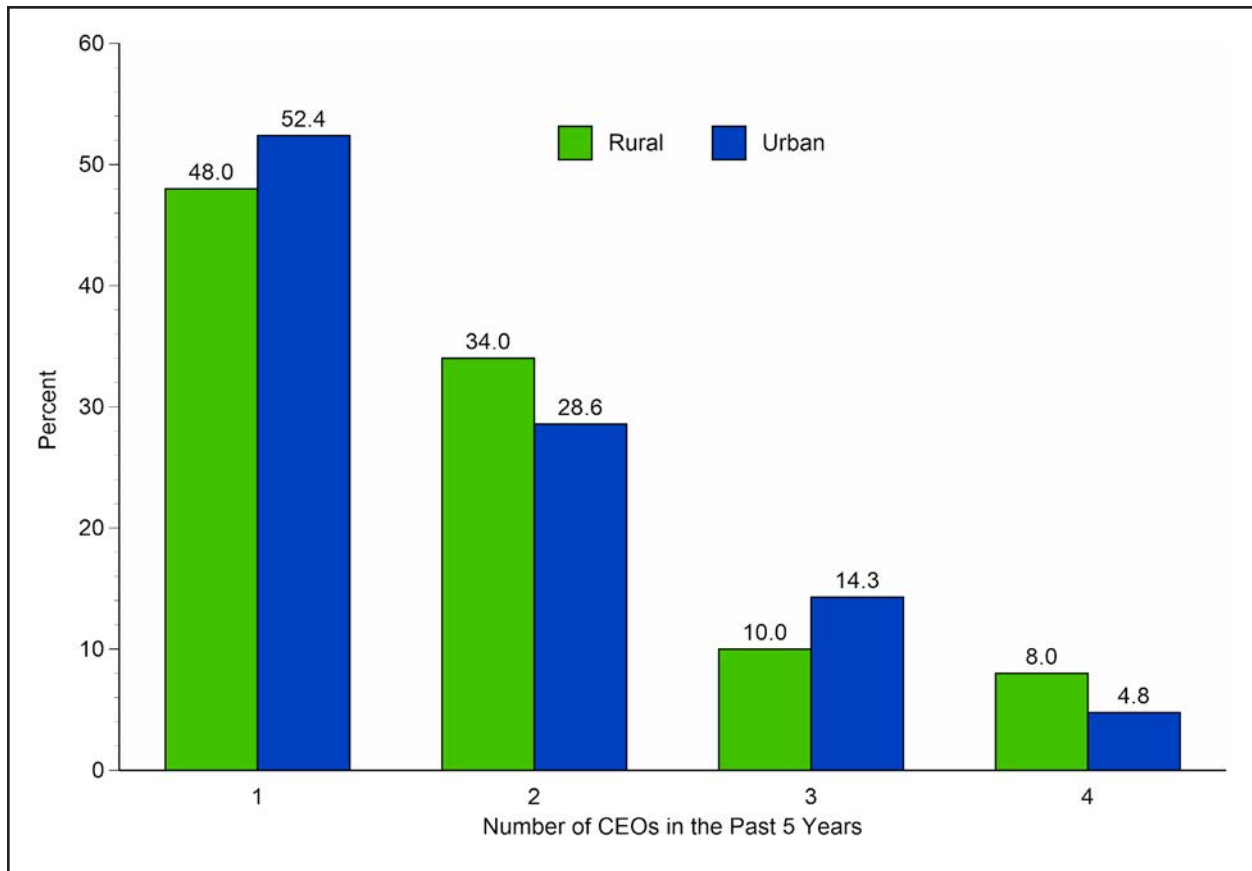
Rural and urban differences in CEO turnover (not counting interim CEOs) were explored in Figure 74. The number of CEOs facilities had during the last five years was examined. The rural and urban differences were small. The largest percentage difference between rural and urban CEO responses was for two CEOs (rural: 34.0%; urban: 28.6%; absolute difference of 5.4%).

Figure 75. Average Percent Raise During Previous Year for Full-Time Staff and Percent of Staff Salary Expenditures for Overtime During Previous Year: Rural and Urban
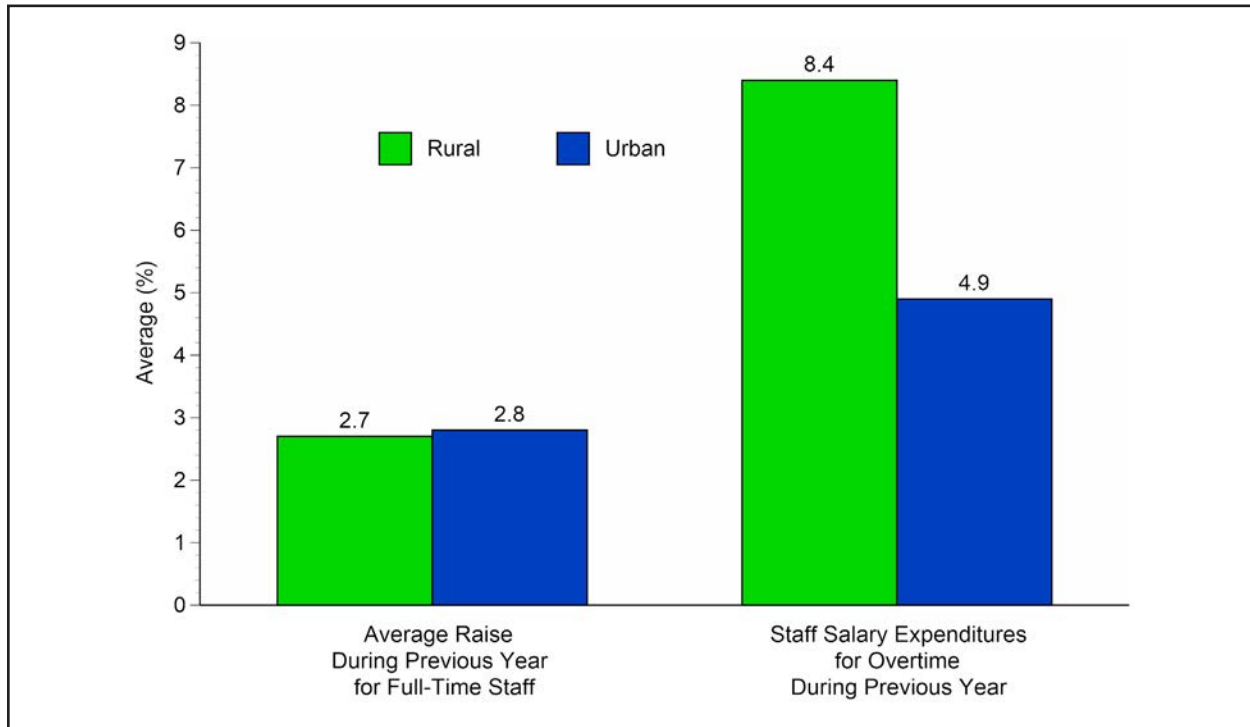
Each nursing facility respondent was asked to report the facility's average raise during the last year for full-time staff, as well as the percentage of staff salary expenditures that were expended for overtime during the previous year (Figure 75) (survey questions 18 and 19). Facility respondents reported that the average raise during the previous year for rural was approximately 2.7%, and the urban nursing facility percentage was nearly the same at 2.8%. (These percentages were the means of the reported facility mean raises.) During the previous year, rural facility CEOs reported that 8.4% of their total staff salary expenditures were for overtime, while urban responses showed a much lower mean of 4.9%. Increased overtime wage percentages can be an indicator of employee shortages.

Figure 76. Overall Change in Facility FTEs During Last Year: Rural and Urban
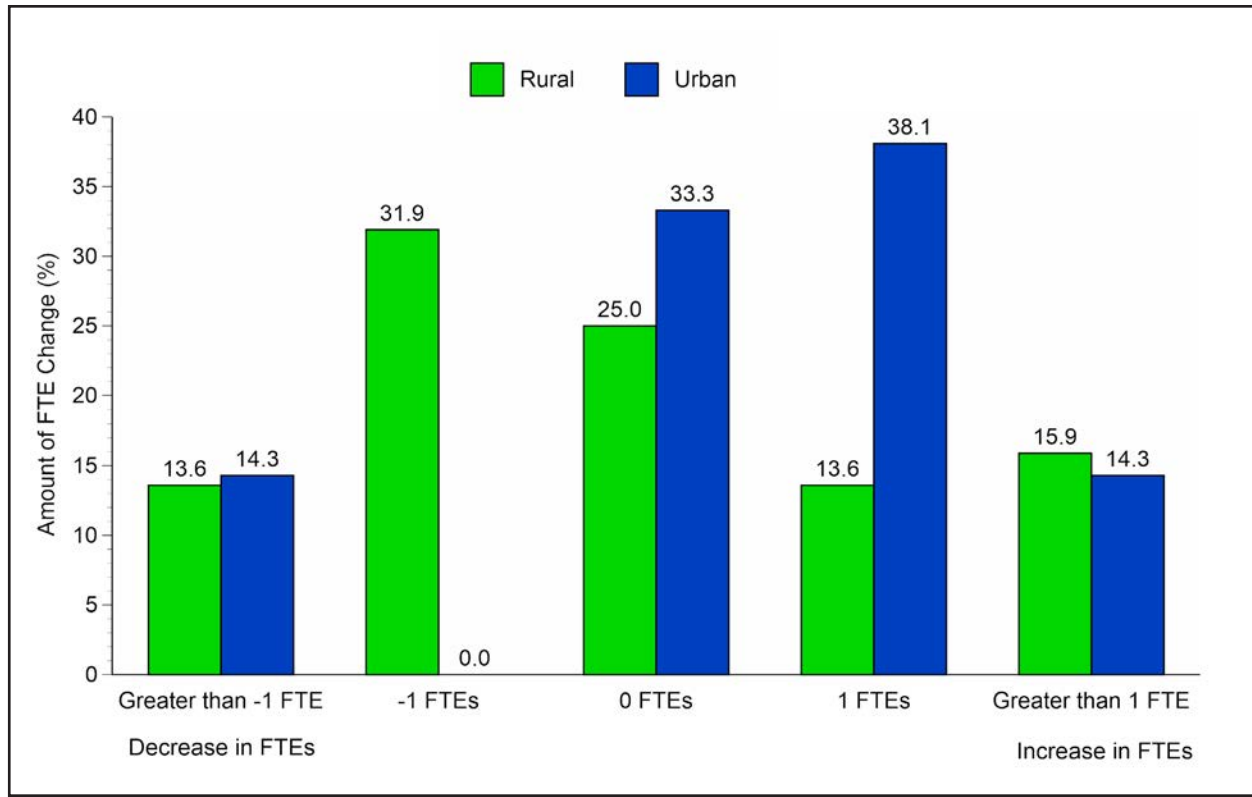
CEOs in North Dakota's nursing facilities were queried regarding how their overall facility FTE count changed during the previous year (survey question 20). For many facilities, the number of FTEs did not change (rural: 25.0%; urban: 33.3%). FTEs increased for 29.5% of the rural facilities and for 52.4% of the urban facilities. FTEs decreased for 45.5% of the rural facilities and for 14.3% of their urban counterparts. A change of one FTE is not very significant, and if the zero change and plus and minus one FTEs are summed, 70.5% of rural facilities had little change compared to 71.4% of urban facilities, showing little rural and urban difference. Regarding large FTE increases and decreases, there were insignificant differences between rural and urban facilities per percentage gaining and losing more than one FTE (greater than one FTE gain: rural, 15.9%; urban, 14.3%) (greater than one FTE loss: rural, 13.6%; urban, 14.3%). Overall single facility FTE changes ranged from +5 through a -15.

Selected Summary Observations

Selected observations from the North Dakota Nursing Facility Workforce Survey are as follows (order does not imply importance):

> In general, workforce shortages are more pronounced for rural than urban nursing facilities. For instance, vacancy rates for RNs and LPNs are highest in isolated small rural areas.

> Overall, the highest vacancy rates for nursing facilities are for RNs and LPNs (vacancy FTEs equal 89 and 86). There are nearly 300 CNA vacancies. RNs, LPNs, and CNAs were rated by the majority of CEOs as being the most difficult to recruit of all the employee types.

> The amount of time it took to fill positions for RNs, LPNs, and CNAs was much longer than for other employee types. About a quarter of CEOs had vacancies for these positions for a year or longer. Rural CEOs were much more likely to report these vacancies as being a year or longer than their urban counterparts.

> Turnover rates were reported as more frequent for the three nurse employee categories than for other employee types. Direct care RNs were reported as being the most difficult employee type to recruit.

> The most important problem with recruiting RNs and LPNs was availability and qualifications, followed by location, pay, and competition.

> The most important problems or causes for not being able to retain RNs and LPNs were wages and benefits, location, and relocation and/or new job.

> The most important things done to retain nurses were pay, benefits, bonuses, and incentives; providing a good work environment; education; and flexible scheduling.

> In both rural and urban nursing facilities, there are especially few NPs, PAs, and speech therapists employed. In addition, there are limited numbers of PTs, OTs, dietitians, and feeding assistant FTEs employed.

> With recruitment and retention, there were substantial rural/urban variations.

> The more expensive contract employees are especially common for CNAs, LPNs, PTs, OTs, and RNs. Overall, at least 6.7% of nursing home employees are outside contract employees.

> If contract employee status is considered as vacancies, the RN and LPN vacancy rates increase from 13.1% to 17.4% and from 10.5% to 18.4%, vacancy rates of moderate concern to rates that warrant serious concern.

> Rural nursing facilities had 8.4% of their salary expenditures paid as overtime and the comparable urban percentage was 4.9%.

> Half of nursing facilities had two or more CEOs during the last five years (7% had four).

Other important observations can be particularly relevant to specific nursing home CEOs and others associated with nursing facilities. The survey result charts provide a baseline from which to compare future workforce changes. Regardless of the overall chartbook findings, it is vital to recognize that critical workforce vacancies at the individual nursing home level can jeopardize timely and adequate care. And finally, vacancies of all employee types are important in order for nursing facilities to meet their team missions of providing high quality care to their patients.

Appendix

2016 North Dakota Nursing Facility Questionnaire

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2016 North Dakota Nursing Facility Workforce Survey

1) During the past year, which types of staff had the highest turnover rates?
 a) Highest _____; b) 2nd highest _____; & c) 3rd highest _____

2) During the past year, which types of staff were most difficult to recruit?
 a) Most difficult _____; b) 2nd most difficult _____; & c) 3rd most difficult _____

3) How difficult is it to recruit direct care RNs? ☐Very Difficult ☐ Somewhat Difficult ☐ Somewhat Easy ☐Very Easy

4) How difficult is it to recruit RN managers? ☐Very Difficult ☐ Somewhat Difficult ☐Somewhat Easy ☐Very Easy

5) How difficult is it to recruit direct care LPNs? ☐Very Difficult ☐Somewhat Difficult ☐ Somewhat Easy ☐ Very Easy

6) How difficult is it to recruit CNAs? ☐Very Difficult ☐ Somewhat Difficult ☐Somewhat Easy ☐Very Easy

7) What is your most important problem recruiting RNs? _____

8) What is your most important problem recruiting LPNs? _____

9) What is your most important problem recruiting CNAs? _____

10) What is the most important cause of your not being able to retain RNs? _____

11) What is the most important cause of your not being able to retain LPNs? _____

12) What is the most important cause of your not being able to retain CNAs? _____

13) What are the most important things you do to retain nurses? _____
_____
_____

14) Do you directly employ any physicians (check one)? ☐yes ☐no
 If yes, what number, specialties, and FTEs? _____

15) Do you contract with external physician(s) (check one)? ☐yes ☐no
 If yes, what number, specialties, and FTEs? _____

16) Do you contract outside for other non-patient related services (e.g., groundskeeper services)? ☐yes ☐no
 If yes, which types of services? _____

17) How many different CEOs has your nursing facility had during the past 5 years (do not count interim)? ____

18) What was the average percentage raise last year for your full-time staff? _____%

19) During last year, what percent of your staff salary expenditures were for overtime _____%

20) During the past year, how has overall facility FTEs changed (number increase (+) or decrease (-))? _____

Workforce full-time equivalent (FTE) matrix instructions (Question 21)
Please fill out the matrix on the next page. When you have no facility personnel in a category, place a zero in the appropriate boxes. A full-time employee is a 1.0 FTE, a half time employee is a 0.5 FTE, and so forth. If an employee works a significant portion of their FTE in more than job category, split their FTE when filling out the matrix. For instance, if a full-time employee works half their time as a floor RN and half their time as a nurse manager, you would add a 0.5 FTE to each of the two categories. Record internal employees and external contract personnel in the appropriate separate columns.

Question 21	How many FTEs of <u>internal</u> employees are currently in this category?	How many FTEs of <u>outside contract</u> personnel are currently in this category?	How many vacant funded FTEs are you actively recruiting for in this category?	If you have a vacancy, how many months has the longest vacant position been unfilled?	How difficult is it to fill a vacancy in this category 1 = very easy 2 = somewhat easy 3 = somewhat difficult 4 = very difficult (Answer even if no vacancy)
Personnel Types	*Answer in FTEs*	*Answer in FTEs*	*Answer in FTEs*	*Answer in FTEs*	*Answer with # 1-4 from above*
RNs					
NPs					
LPNs					
Certified Nurse Assistants					
Nurse Managers					
PAs					
Physical Therapists					
Occupational Therapists					
Speech Therapists					
Dietitians					
Dietary Staff					
Feeding Assistants					
Social Service Staff					
Activity Staff					
Other Clinical & Service Managers					
Chaplain Staff					
Medical Records & Ward Clerk Staff					
Human Resource Staff					
Business Office Staff					
Housekeeping Staff					
Laundry Staff					
Maintenance Staff					
Groundskeeper Staff					
Administration (LTC fac. management)					
Other (please specify)	_____	_____	_____	_____	_____

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