



**T**he Long Term Care Nurse Staffing Study (LTCNSS) assesses nurse staffing and related issues in the long term care setting. In 2013, approximately 26% of licensed vocational nurses (LVNs) and 3% of registered nurses (RNs) in Texas worked in the Nursing Home/Extended Care setting. Long term care facilities may also employ certified nurse aides (CNAs), certified medication aides (CMAs), and advanced practice registered nurses (APRNs). During the spring of 2014, the TCNWS administered the LTCNSS to 1,191 Texas nursing facilities. A total of 443 facilities participated, for a final response rate of 37.2%.

This report provides survey response rates by region, bed size, and geographic characteristics. See Appendices B and C for a copy of the 9-page survey instrument and the operational definitions, respectively.

## Survey Development

The LTCNSS was last administered in 2008. As with all TCNWS employer surveys, the LTCNSS taskforce (see Appendix A), comprised of employers and educators of nurses in long term care, assisted in development of survey content, tests of the survey instrument, and marketing of the survey to health professionals. The 2008 iteration of the LTCNSS survey instrument was collaboratively reviewed by the LTCNSS taskforce and TCNWS staff. Content was revised based on feedback of the taskforce and 2008 study findings.

Updates to the 2014 survey instrument include removing questions concerning workplace injuries, staffing model, dual roles filled by DONs, overtime, and foreign trained nurses. The language in most questions was updated in the 2014 survey to further clarify meaning or specify particular staff type. Questions were also revised to ensure alignment with the Forum of State Nursing Workforce Centers' Demand Minimum Dataset. The survey was tested by the taskforce and TCNWS staff in Qualtrics survey software.

## Survey Distribution and Marketing

Between March and July of 2014, a multi-faceted strategy was used to maximize survey response, including multiple mail-outs of hard-copy survey materials, electronic announcements, and phone calls.

### Initial distribution

A total of 1,196 survey packets were mailed the last week of March 2014 with an initial deadline of April 30, 2014. These mail-outs were addressed to current Directors of Nursing. In addition, an electronic version of the survey packet was emailed to the contact on file with DADS.

### Survey extensions and follow-up

In an attempt to boost response rates, the survey was extended 3 times, with a final deadline of July 21, 2014. The first extension was announced via email to contacts for each facility in addition to a second mail-out of the survey material packet with an updated deadline of May 30, 2014. The second survey extension was announced via email on June 2 with an updated deadline of June 30

on the electronic copy of survey materials. Additionally, phone calls to all non-responding facilities were made in June to further market the survey and encourage participation. A final extension with a deadline of July 21, 2014 was announced via email, with additional reminder phone calls made to all those facilities who had yet to respond but indicated interest in participating during the initial wave of phone calls conducted the month prior. To accommodate respondents who needed additional time, the survey link was left active until July 25. Periodic reminder emails were sent to facilities two weeks after each extension announcement.

### Other announcements

Various entities assisted in marketing the survey. These included:

- DADS provider and GovDelivery memo alerts (on April 7, April 30, and May 30).
- DADs quality monitoring program email alert to



long term care facility administrators, directors of nursing, and/or corporate nurses on file

- Leading Age Texas sent out a weekly brief
- Phone calls encouraging participation made by the LTCNSS taskforce to the top 19 systems that accounted for 345 individual nursing facilities across Texas

## Survey Population and Respondents

A list of all long term care facilities that provide licensed, skilled nursing care as of March 2014 was obtained from the Department of Aging and Disability Services (DADS), the regulatory body licensing all home and community support services agencies in the state. A total of 1,196 facilities was obtained from this list for inclusion in this study. During the data collection period, 6 agencies were found to be closed (N=1,190) and one system opened up a new facility that was not included in the original DADS list, for a final population of 1,191 facilities. 443 of the total 1,191 facilities participated for a response rate of 37.2%.

### Representativeness

Analyses found that the 443 respondents were different than the 748 non-responding facilities with respect to important facility and geographic characteristics. Responding and non-responding facilities were compared to one another by facility size, county designation, and region. Because the characteristics of the responding facilities do not reflect those of the non-responding facilities, the findings presented in the 2014 LTCNSS reports must be interpreted with caution. In effect, the statistically significant differences between responding and non-responding facilities mean that analyses by facility size, county designation, and region are precluded and generalizations to the entire long term care population are not appropriate.

### Facility size

The number of licensed beds reported by DADS was recoded into size categories ( $\leq 49 = 1$ ,  $50-99 = 2$ ,  $100-199 = 3$ ,  $\geq 200 = 4$ ). Analysis found a statistically significant difference between responding and non-responding facilities by facility size ( $\chi^2 (3, N=1190)=10.126, p<.05$ ). Table 1 identifies the response rates by facility size. Responding facilities (n=443) reported a range of 12 to 330 beds, with a mean size of 111.29 and a median of 113.

**Table 1. LTCNSS response rates by facility size**

	# of responding agencies	# of agencies in population	Response rate
<49	20	46	43.5%
50 - 99	143	358	39.9%
100 - 199	265	749	35.4%
>200	15	37	40.5%
Total	443	1190	37.2%

### County designation

County designation refers to the breakdown of all Texas' 254 counties into four exclusive county types based on metropolitan and border statuses: metropolitan border, metropolitan non-border, non-metropolitan border, and non-metropolitan non-border. Analysis determined that survey respondents were significantly different from survey non-respondents with respect to county designation ( $\chi^2 (3, N=1190)=18.161, p<.01$ ). Table 2 below shows the response rates by county designation.

**Table 2. LTCNSS response rates by metro-border status**

	# of responding agencies	# of agencies in population	Response rate
Non-metro Border	9	21	42.9%
Non-metro Non-border	138	336	41.1%
Metro Border	17	49	34.7%
Metro Non-border	279	784	35.6%

### Region

Texas has eight administrative health service regions. Statistical analysis found a statistically significant difference between responding and non-responding facilities by region ( $\chi^2 (8, N=1190)=18.209, p<.05$ ). Table 3 on page 3 shows the number of responding and non-responding agencies used to calculate the response rate by region.



**Table 3. LTCNSS response rates by region**

Public Health Region	# of responding agencies	# of agencies in population	Response rate
Panhandle	30	73	41.1%
North Texas	135	340	39.7%
East Texas	66	151	43.7%
Gulf Coast	67	188	35.6%
Central Texas	66	165	40.0%
South Texas	41	144	28.5%
West Texas	21	74	28.4%
Rio Grande Valley	17	55	30.9%

## Data Analysis

All data were analyzed using SPSS (version 20). 2014 LTCNSS data were reviewed and notable inconsistencies were excluded from analyses.

### Vacancy and Turnover

The 2014 LTCNSS asked respondents to provide the total number of occupied and vacant RN positions in their facility on the date of 02/28/14. These numbers were used to calculate vacancy and turnover rates as described in the 2014 LTCNSS Vacancy and Turnover Report.

This report describes one method for calculating vacancy rates, the position vacancy rate. The position vacancy rate describes the proportion of all FTE positions that are vacant across a group of responding facilities. Rates were calculated by staff type.

In order to calculate turnover rates, respondents provided their number of occupied full-time and part-time staff positions at two points in the year (1/1/2013 and 12/31/2013) and these numbers were averaged to determine an average number of employees. Turnover rates were calculated for each facility and by each staff type by dividing the number of employee separations reported by the sum of average full-time and part-time staff. The median facility turnover rate was reported for the state.

### Interim Staffing

The LTCNSS asks facilities about their needs for interim staffing and the methods they use to fill these needs. Facilities reported the hours and cost of interim staffing for calendar year 2013. Only facilities that reported both cost and hours for each method were included in this analysis. Outliers were not included in the analysis. For types of interim staffing methods used, frequency counts were conducted to show the number of facilities that reported using each type of interim staffing method. Facilities were

asked to provide hours and costs of each interim staffing method. Total hours and costs were calculated by taking the sum of hours and costs by each method. Cost per hour was calculated by taking the total cost divided by the total hours for each method. Average hourly cost was determined by dividing the total hours of each staffing type by the total cost of this staffing type. Please note that the analysis on cost of interim staffing is to demonstrate the cost differential between staffing methods, and is not intended for use in estimating nurse wages.

### Recruitment

Respondents were asked several questions related to recruitment and retention of staff. First, facilities were to rate their experience recruiting staff and to explain their experience with an open-ended response. Second, they were asked to indicate how long, in weeks, it takes the facility to fill vacant positions. Third, facilities were to rank four relevant attributes as to their importance in hiring RNs and to provide any other key attributes that are desirable when hiring RNs. Fourth, respondents were to specify how important a Bachelor's degree in nursing was for RN staff. Finally, respondents were asked to indicate which strategies they utilize for recruitment and retention, which strategies have the greatest impact, and ultimately, what the consequences of inadequate staffing have on the facility. Inductive coding was used to analyze open-ended free response questions.

### Staffing

Data in the Staffing Report pertain to number of nurses and nurse aides employed in the state, average employees and total separations, additional staff needed, staff characteristics, and contract, agency, and traveling staff. Inductive coding was used to analyze open-ended free response questions.



## Transition to Practice Programs for Newly Licensed RNs

Responding to a recent initiative to increase orientation programs for newly licensed nurse graduates, the 2014 LTCNSS asked facilities if they have a transition to practice program and, if so, how and to what extent it had been implemented.

## Directors of Nursing

Respondents were asked to provide a variety of data pertaining to Directors of Nursing (DON) in long term care facilities, including salary range, longevity in long term care and tenure in current position, educational qualifications, and reasons for DON turnover.