



2023

Louisiana's Nursing Workforce Demand Report



LOUISIANA
CENTER
FOR
NURSING

Executive Summary

Nursing workforce issues have taken center stage since we emerged from the COVID-19 pandemic. At the end of 2022, the National Council of State Boards of Nursing (NCSBN) partnered with the National Forum of State Nursing Workforce Centers to present the results of the national sample survey of our nursing workforce in the United States. Published in 2023, the survey demonstrated the impact that COVID had on the nursing workforce throughout the country. LSBN has been a leader in conducting supply, demand, and newly licensed RN surveys and was an active participant and part of the writing team for the 2022 survey. We can all agree, that without nurses, our healthcare system would have collapsed and hundreds of thousands of lives would have been lost in the midst of the COVID-19 pandemic. In the midst of what appears to be a resurgence of the coronavirus, and as we move into the 2024 flu season and all the unknowns aligned with it, policymakers are strongly encouraged to fortify Louisiana's nursing workforce so that nurses that are working on the frontlines, as well as those that are supporting the frontline nurses, can have everything that is needed to provide quality nursing care to Louisiana's citizens.

According to the Bureau of Labor Statistics, employment of registered nurses (RNs) is projected to grow six percent from 2022 to 2032, faster than the average for all occupations. About 193,100 openings for RNs are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire. The RN workforce is expected to grow from 3.1 million in 2022 to 3.3 million in 2032, an increase of 177,400 nurses.

In 2023, the Louisiana Center for Nursing (LCN) launched the state's fourth statewide Nurse Employer Survey (NES) to determine the demand for RNs, advanced practice registered nurses (APRNs), licensed practical nurses (LPNs), and nursing assistants (NAs) in Louisiana based on data obtained from employers. Major healthcare industries employing the vast majority of nurses such as hospitals, long term care (LTC) facilities, home health agencies, hospices, and public health facilities were surveyed to gather information about vacancy rates, turnover rates, and growth rates for the various types of nursing personnel. Additional questions such as the number of licensed beds vs staffed beds; number of nurses hired within the last year; and hourly wage for entry level and experienced nursing personnel were added. A total of 1,328 surveys were sent to health care facilities across the state and 357 were returned resulting in an overall 27% response rate.

The following are a few highlights from the 2023 LCN-NES. A complete list of major findings can be found at the end of the report.

Highlights from the 2023 Nurse Employer Survey:

Healthcare facilities that completed the 2023 LCN-NES provided information on 23,898 permanent, full or part-time nursing personnel across nine industry groups. When 1,667 additional temporary personnel were included, the number of nurses employed by responding healthcare industries totaled 25,565.

Although the greatest number of RNs were employed by hospitals (10,583), public health continues to have the largest proportion of RNs among all nursing staff. Eighty-seven-point eight percent of the entire nursing staff for public health are RNs, followed by ambulatory surgery care centers (74.7%) and hospitals (66.9%).

The greatest proportion of LPNs were employed by home health agencies (33%), LTC (31%), rural health clinics (26%), and FQHCs (23%), although the largest number were employed by LTC facilities (1,785) and hospitals (1,670).

LTC facilities and hospitals employed the largest number of NAs, 3,413 and 2,480, respectively. Nurse aides represent the largest proportion of the nursing staff for LTCs (59%) followed by dialysis centers (34%).

Of the 1,786 APRNs employed by responding healthcare facilities, 78.6% were NPs, 19.8% were CRNAs, 1.4% were CNSs, and 0.3% were CNMs. When compared to the other types of healthcare facilities that were surveyed, FQHCs (47.7%), rural health clinics (29.3%), and ambulatory surgery centers (9.3%) had the greatest proportion of APRNs as a part of their nursing workforce.

In 2022, 1,667 temporary nursing staff were reported by responding employers compared to 1,758 temporary staff reported by responding employers in 2018 which represents a 5.2% decrease in number.

When vacancies were imputed for non-responding facilities, the total number of vacancies for all types of nursing personnel increased by 30% (12,092 estimated vacancies). The majority of the RN vacancies were for direct care RNs (6,145), which increased by 37% compared to 2018 (4,484).

The highest vacancy rate for direct care RNs was 22.5% for dialysis centers, 19.8% for home health agencies, 17.5% for hospitals, and 16.0% for public health.

In 2022, the median turnover rate for RNs in hospitals in Louisiana, the largest employer of RNs identified in the survey in terms of the number of budgeted positions, was 38.1% compared to a median turnover rate of 19.4% in 2018 and 13.8% in 2014. In 2022, the national turnover rate for RNs in hospitals was reported to be 22.5%, an increase of 6.6 percentage points when compared to the 15.9% turnover rate reported in 2019 (NSI National Health Care Retention & RN Staffing Report, 2023).

The number of new estimated positions due to job growth in 2023 was 1,604 new RN jobs (1,622 in 2018), 157 NP jobs (194 in 2018), 39 CRNA jobs (25 in 2018), 738 LPN jobs (792 in 2018) and 875 NA jobs (690 in 2018) will be created in 2024.

Registered nurses were reported as among the most difficult types of nurses to recruit by hospitals, LTC facilities, and dialysis centers. LPNs were identified as being one of the five most difficult types of nurses to recruit by LTC facilities, home health agencies, and rural health clinics. Nurse administrators were identified by four of the nine types of

healthcare facilities surveyed as being one of the five most difficult types of nurses to recruit.

As of January 1, 2023, there was a three-percentage point increase in the proportion of RNs that were prepared at the baccalaureate level in hospitals and similarly, a three-percentage point increase in the proportion employed in ambulatory surgery centers when compared to data obtained in the 2018 LCN-NES.

In 2022, a total of 610 new RN grads and 133 new LPN grads were hired by hospitals which represents a 30.8% decrease in the number of RNs hired by responding hospitals and a 33.5% decrease in the number of new LPN grads hired by hospitals when compared to 2018.

The percentage of healthcare facilities offering a nurse residency program ranged from 23.5% for hospitals to zero percent for public health.

Recommendations

- Obtain federal, state, and private funding to ensure that there will be a continuous pipeline of new RNs available to meet the ongoing demand for nurses in Louisiana.
- Expand and continue capitation funding to postsecondary education institutions to increase the capacity of RN and LPN programs to ensure that there will be a continuous pipeline of new RNs available to meet the ongoing demand for nurses in Louisiana.
- Increase the capacity of nursing programs to ensure a diverse workforce that reflects the racial/ethnic composition of the overall state and provides culturally competent care to racial/ethnic minority populations.
- Support funding opportunities (grants, scholarships, tuition reduction programs, etc.) to decrease tuition costs for nursing students.
- Reinstate the state funded stipend program administered by the Board of Regents which provided up to a maximum of \$40,000 to nurses that agreed to pursue a graduate degree in nursing (Masters and/or Doctorate) and committed to teach in an RN program.
- Increase nurse faculty salaries to a level that will be competitive with that of salaries offered in the clinical setting. Consider the use of differential tuition for nursing courses to fund the increase in salaries.
- Develop loan repayment and tax credit programs for nurse educators.
- Remove legislative barriers that are preventing nurse faculty from working as adjunct faculty upon retirement.

- Seek funding to develop nurse residency programs that will prepare new graduates for a seamless and successful transition into practice in both traditional (i.e., acute care) and nontraditional settings (i.e., LTC/SNF, home health) in an effort to improve nurse retention and increase nurse supply.
- Foster academic and practice partnerships to proactively address the current and future nursing workforce shortage and to prevent continued shortages.
- Implement evidence-based RN retention models across the various health care systems in an effort to decrease consistently high turnover rates, thereby decreasing the cost associated with high turnover rates. Investigate environmental factors in healthcare organizations, which research has demonstrated contributes to nursing burnout.
- Provide nurses that are interested in taking on leadership positions within the various healthcare industries with the advanced education and training needed to successfully function as a leader.
- Provide funding for the development of a statewide strategic plan to address the nursing shortage which significantly affects the health outcomes of citizens of Louisiana.

Acknowledgements

LCN is extremely grateful to those chief nursing officers, administrators, human resource personnel and support staff that took time out of their very busy schedules to complete the 2023 LCN-NES. We would also like to thank the Louisiana State Board of Nursing (LSBN) Board Members, Dr. Karen Lyon, LSBN Chief Executive Officer, the Department of Health and Hospitals Health Standards Division, the Nursing Supply and Demand Council, the Louisiana Organization of Nursing Leaders, the Louisiana Hospital Association, the Louisiana Home Care Association, the Louisiana Long Term Care Association, and the Louisiana Office of Public Health for your support in conducting this statewide survey. LCN would also like to give special thanks to Dr. Daniel Sarpong, who served as the statistical consultant for the 2023 LCN-NES.

Demand for Nurses in Louisiana: Results of the 2023 Louisiana Center for Nursing (LCN) Nurse Employer Survey (NES)

Introduction

The 2023 LCN-NES represents the fourth statewide survey of its kind that has been conducted every four years beginning in 2010. Major employers of nurses in Louisiana representing hospitals, long term care facilities, home health agencies, hospices, public health facilities, ambulatory surgery centers, rural health clinics, federally qualified healthcare centers (FQHCs) and dialysis centers were surveyed to determine the demand for nursing personnel (Registered Nurses [RNs], Advanced Practice Registered Nurses [APRNs], Licensed Practical Nurses [LPNs], and Nursing Assistants [NAs]) in Louisiana. Additional questions such as the number of licensed beds vs staffed beds; number of nurses hired within the last year; and hourly wage for entry level and experienced nursing personnel were also asked to broaden the capacity to describe Louisiana's nursing workforce. In light of the limited resources that are available to employers, healthcare administrators and policy makers, who have the responsibility of determining how economic resources will be used to address nurse supply and demand in Louisiana, the findings from the 2023 LCN-NES will assist them in making more informed, data-driven decisions based on information gained from the employers of Louisiana's nursing workforce.

Methodology

Nurse demand is an economic concept which describes the number of nurses employers wish to hire at the average or prevailing wage for nurses in the local labor market or geographical area (Lacey, Hoover, McKay, O'Grady, & Sechrist, 2005). Chief nursing officers, directors of nursing, administrators, and/or human resource personnel provide the most accurate information on nurse demand. These individuals have vital roles to play within their healthcare facilities and are often bombarded with surveys to complete. LCN is extremely grateful to those employers who took time out of their busy schedules to complete the 2023 LCN-NES.

Survey

The National Forum of State Nursing Workforce Center's Minimum Dataset for Nurse Demand was used as the template for the 2023 LCN-NES. Additional items such as the hiring of new RN and LPN graduates, preference for hiring BSN prepared RNs, pay differential for BSN prepared nurses, and nurse residency programs were included in the survey.

Industries Surveyed

An electronic listing of healthcare facilities licensed by the Department of Health Standards at the Louisiana Department of Health (LDH) was obtained by LCN. This list was compared with the list obtained in 2019 and it was noted that some of the healthcare agencies had closed, names of facilities/agencies had changed, and the contact person's name as listed in the LDH registry may have been incorrect. The process that was used in 2010, 2014 and 2019 to contact employers via phone prior to disseminating the surveys was also followed in 2023. Employers were asked to

identify the person(s) that would be responsible for completing the NES along with their contact information.

Launching the Survey

Electronic versions (fillable pdfs) of the 2023 LCN-NES were emailed on Thursday, January 12th, 2023. Over 1,300 surveys (100%) were emailed. There were healthcare facilities that had multiple locations but were included under one corporate-level survey. The FQHC surveys were sent to the administration office to be filled out for all the satellite sites.

The surveys remained in the field for approximately eight weeks. Follow-up emails were sent out every two weeks for the first six weeks.

The Office of Public Health

The Office of Public Health (OPH) provides essential healthcare services to the citizens of Louisiana and with the emphasis on public health, community health, and preventative health services, it was very important to LCN to attempt to capture information about the demand for nurses within OPH. Because of the centralized system in the administration of health care services which controls staffing at the state level and not by individual public health units/clinics, one survey was completed in 2010 and 2014 by the OPH Director of Nursing for the 55 public health units across the state. In 2019, LCN was able to work with the OPH leadership team to obtain completed surveys from each of the nine regional nurse managers and the OPH statewide administrative nursing workforce and that happened again in 2023.

Overall and Statewide Response Rate by Healthcare Industry

A total of 1,328 surveys were sent to actively functioning health care facilities across the state and 357 were returned resulting in an overall 27% response rate (Table 1), which was lower than the 35% response rate obtained in 2019, the 39% response rate obtained in 2014, and the 46% response rate obtained with the first statewide NES in 2010 (Figure 1). The NES is the most challenging survey to conduct because it is voluntary and must be completed by employers of nurses who are extremely busy. In 2015, the Florida Center for Nursing reported a 20% overall response rate which was down from their 25% response rate in 2013. In a study conducted by Baruch and Holtom (2008), the average expected return rate for organizational surveys was found to be 35.7%. When evaluating response rates based on the types or categories of healthcare facilities surveyed, response rates ranged from a high of 100% for the office of public health to a low of 19% for rural health, which represents a twelve-percentage point decrease in the response rate for rural health when compared to the 31% response rate obtained in 2019. In the current study, approximately 32% of Louisiana's hospitals, the largest employer of nurses in the state, completed the survey.

Table 1. Overall and Statewide Response Rate by Healthcare Industry

Type of Facility	# Facilities Surveyed	Total # Surveys Returned	Return Rate
Hospitals	215	69	32.1%
Long Term Care (LTC)	268	85	31.7%
Home Health	183	36	19.7%
Hospice	123	36	29.3%
Public Health	10	10	100.0%
Generic –Dialysis	184	44	23.9%
Generic - Rural Health	211	40	19.0%
Generic - Ambulatory Surgery	93	28	30.1%
Generic – Federally Qualified Health Centers	41	9	22.0%
Overall Statewide Response Rate	1,328	357	27.0%

As seen in Figure 1, the response rates for the majority of the healthcare systems that were surveyed have decreased with each NES, yet 19% or greater of the employers within each type of healthcare sector did complete the survey.

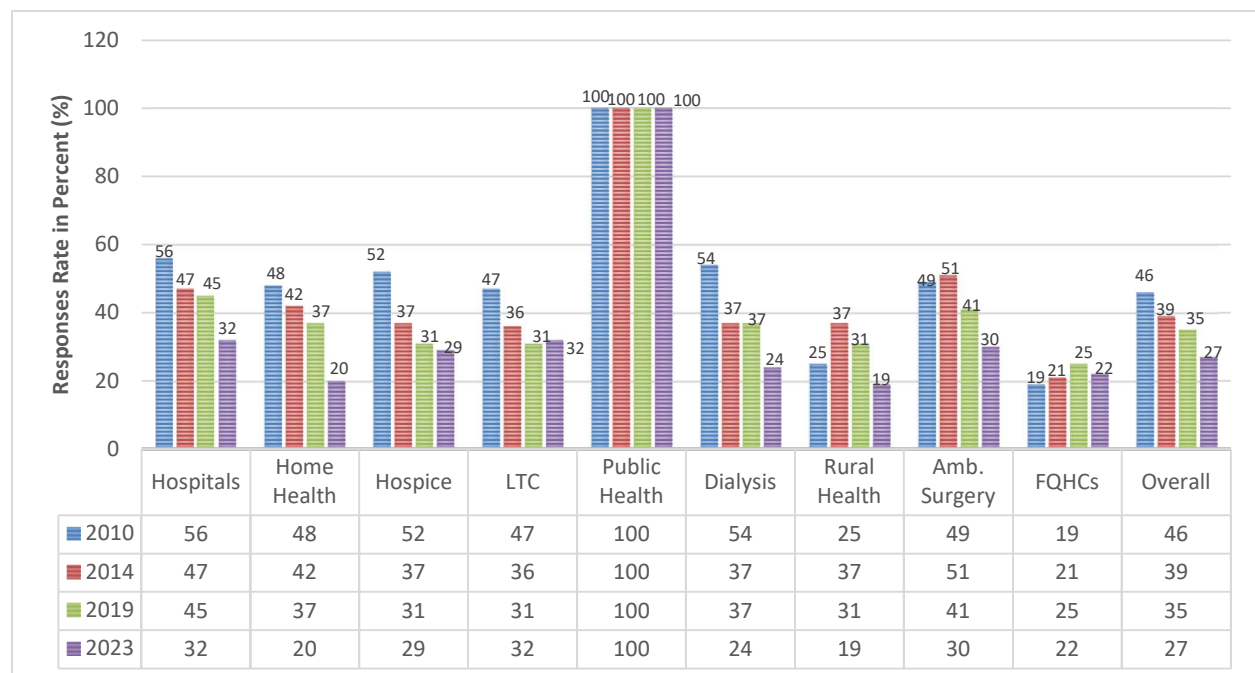


Figure 1. 2010, 2014, 2019, and 2023 Response Rates by Healthcare Industry

Regional Response Rates

In an effort to facilitate a comparison of findings from the NES with the occupational projections for all occupations as reported by the Louisiana Workforce Commission (LWC), the decision was made in 2010 with the first statewide NES, to use the eight Regional Labor Market Areas

(RLMAs) utilized by LWC. RLMAs are defined as economically integrated areas in which individuals can live and find employment within a reasonable distance or can feasibly change jobs without changing their place of residence (LWC, 2020). A map depicting Louisiana’s sixty-four parishes included within the eight RLMAs can be found in Appendix A. Table 2a depicts response rates by health care industry and RLMA. The regional response rates for many of the healthcare industries were sufficient for future stratified data analysis. For example, over 40% of the hospitals in RLMA 5 (Lake Charles) and RLMA 7 (Shreveport) completed the 2023 LCN-NES. In contrast, response rates of seven percent for dialysis in RLMA 3 (Houma) and eight percent in FQHCs in RLMA 1 (New Orleans) do not lend themselves to further stratification at the regional level.

Table 2a. – Regional Response Rates (%) by Healthcare Industry and RLMA

Setting	RLMA 1 New Orleans (k/n) %	RLMA 2 Baton Rouge (k/n) %	RLMA 3 Houma (k/n) %	RLMA 4 Lafayette (k/n) %	RLMA 5 Lake Charles (k/n) %	RLMA 6 Alexandria (k/n) %	RLMA 7 Shreveport (k/n) %	RLMA 8 Monroe (k/n) %	Statewide (k/n) %
Hospitals	(9/37) 24.3%	(13/43) 30.2%	(3/16) 18.8%	(9/26) 34.6%	(8/16) 50.0%	(8/24) 33.3%	(11/27) 40.7%	(8/26) 30.8%	69/215 32.09%
LTC	(13/35) 37.1%	(19/49) 38.8%	(2/16) 12.5%	(13/39) 33.3%	(9/19) 47.4%	(7/28) 25.0%	(14/48) 29.2%	(8/34) 23.5%	85/268 31.7%
Home Health	(7/32) 21.9%	(9/39) 23.1%	(2/14) 14.3%	(3/24) 12.5%	(4/14) 28.6%	(3/18) 16.7%	(3/24) 12.5%	(5/18) 27.8%	36/183 19.67%
Hospice	(8/25) 32.0%	(7/27) 25.9%	(0/7) 0.0%	(3/15) 20.0%	(5/8) 62.5%	(4/14) 28.6%	(7/14) 50.0%	(2/13) 15.4%	36/123 29.3%
Generic - Dialysis	(10/51) 19.6%	(7/36) 19.4%	(1/15) 6.7%	(6/20) 30.0%	(2/7) 28.6%	(2/11) 18.2%	(15/26) 57.7%	(1/18) 5.6%	44/184 23.9%
Generic - Rural Health	(1/4) 25.0%	(7/31) 22.6%	(0/7) 0%	(8/53) 15.1%	(3/23) 13.0%	(9/28) 32.1%	(5/27) 18.5%	(7/38) 18.4%	40/211 19.0%
Generic - Ambulatory Surgery	(9/28) 32.1%	(4/16) 25.0%	(3/7) 42.9%	(6/15) 40.0%	(2/6) 33.3%	(1/4) 25.0%	(3/11) 27.3%	(0/6) 0.0%	28/3 30.1%
Generic – FQHC	(1/14) 7.1%	(4/8) 50.0%	(1/2) 50.0%	(0/4) 0.0%	(0/1) 0.0%	(1/3) 33.3%	(0/4) 0.0%	(2/6) 33.3%	9/41 22.0%
Regional Response Rate	(58/225) 25.8%	(70/249) 28.1%	(12/84) 14.3%	(48/196) 24.5%	(33/94) 35.1%	(35/130) 26.9%	(58/181) 32.0%	(33/159) 20.8%	347/1,318 26.3%

Note: k = number of healthcare facilities that completed the survey and n = number of healthcare facilities that received the survey; LTC= Long Term Care; FQHC=Federally Qualified Health Center

Regional Response Rates for the Office of Public Health

Instead of eight regions, the OPH serves nine regions statewide (see Table 2b). This is the second year that the Regional Nurse Manager for each of the nine regions completed a survey for their regions. One survey was completed by the Chief Public Health Nurse for all nurses in administrative positions and one survey was completed by the Louisiana Department of Health Office of Public Health Bureau of Family Health Maternal, Infant and Early Childhood Home Visiting (MIECHV) Program. One hundred percent of the nurses employed by the OPH were represented in the 2023 LCN-NES. See Appendix B for a map of the nine regions served by the OPH.

Table 2b. – Louisiana Office of Public Health Regional Response Rates

Setting	DHH 1 Greater New Orleans Area (k/n) %	DHH 2 Capital Area (k/n) %	DHH 3 South Central LA (k/n) %	DHH 4 Acadiana (k/n) %	DHH 5 Southwest LA (k/n) %	DHH 6 Central LA (k/n) %	DHH 7 Northwest LA (k/n) %	DHH 8 Northeast LA (k/n) %	DHH 9 North shore Area (k/n) %
Public Health	(1/1) 100%	(1/1) 100%	(1/1) 100%	(1/1) 100%	(1/1) 100%	(1/1) 100%	(1/1) 100%	(1/1) 100%	(1/1) 100%

Representativeness – Bias Analysis

It is important to keep in mind when looking at findings from any type of survey, there is the potential for significant bias toward those that responded to the survey when compared to those that did not respond to the survey. When the entire population within an industry does not respond to a survey, a bias analysis can be conducted to determine how similar or how different the responders are when compared to non-responders on variables that are available for the full population of facilities. This process helps to determine if the responders are truly representative of the entire population (Burns and Grove, 2009). It is assumed that similarities between respondents and non-respondents on bias analysis variables translate into similarities in responses to survey items. To determine the representativeness of the responders to the 2023 LCN-NES, bias analysis variables were selected that are known to be related to key metrics from the survey. Two variables, size, based on the number of licensed beds, and rurality, were used to determine the representativeness for hospitals and LTC facilities. Rurality was used to determine the representativeness for the remaining healthcare industries. A bias analysis was unnecessary for public health because 100% of the regional and statewide public health nursing workforce were represented in the survey.

*Findings from the Bias Analysis**Bias Analyses Based on Bed Size for Hospitals and LTC*

The 215 hospitals that were surveyed had a total of 20,215 licensed hospital beds. The 69 hospitals that completed the 2023 LCN-NES had a total of 8,387 beds or 41.5% of the total number of hospital beds in the state. The 265 LTC facilities surveyed had a total of 32,506 licensed LTC beds. The 85 LTC facilities that completed the survey had 9,901 licensed beds or 30.5% of licensed beds in the state.

When classifying hospitals and LTCs as small and large facilities based on number of licensed beds, there was no statistical difference in the response rates for small and large LTC facilities based on the number of beds which suggest no response bias due to bed size between responding and nonresponding LTC facilities (p-value of 0.42). Similarly, there was no response bias due to bed size between respondents and nonrespondents large and small hospitals. Hence, these findings suggest that despite the low response rate the respondents are representative of the LTC and hospital facilities. See Table 3a for details.

Table 3a. Response Rates by Facility Size – Hospitals and LTC

Facility Size	Total in Category	# Responding	Response Rate in Category	P-value
Hospitals				
Small	105	32	30.5%	0.7263
Large	110	37	33.4%	
LTC				
Small	134	46	34.3%	0.4245
Large	131	38	29.0%	

Note: Hospitals were classified as small if they had 36 beds or less (the median) and large if they had more than 36 beds; LTC facilities were classified as small if they had less than or equal to 121 beds (the median) and large if they had more than 121 beds.

Bias Analyses Based on Rurality for Hospitals and LTC

Geographical location, rural vs urban, was also used to determine the potential bias in responsiveness in responding healthcare industries. The Federal Office of Rural Health Policy (ORHP) defines rural as any geographical area located outside a metropolitan statistical area (MSA). MSAs are defined as a core geographical area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core (U.S. Census, 2018).

When assessing the rurality of responding and non-responding hospitals and LTC facilities, there was no evidence of bias. As seen in Table 3b, differences in the response rates of hospitals in rural (33.7%) and urban (31.1%) settings were not statistically significant (p-value 0.80). Although not found to be statistically significant, the response rate of rural hospitals was slightly higher (2.6 percentage points higher) than urban hospitals. Similarly, there was no statistically significant difference in the response rate of rural (36.6%) and urban (28.2%) LTC facilities (p-value 0.19) although the rural facilities had an 8.4 percentage point higher response rate compared to the urban LTCs. Given that rural LTC facilities would typically be small facilities compared to urban facilities, oversampling rural facilities might mitigate any potential bias in the differential in rural-urban response rates. Additionally, the data suggest that the response rate of small and large facilities within rural and urban settings were comparable statistically.

Table 3b. Response Rate by Rurality – Hospitals and LTC

Rurality	Total Healthcare Facility Type in Category	# Healthcare Facility Type Responding	Response Rate	P-value
Hospitals				
Rural	83	28	33.7%	0.7957
Urban	132	41	31.1%	
LTC				
Rural	112	41	36.6%	0.1853
Urban	156	44	28.2%	
Rurality	Healthcare Facility Type	Facility Size	Response Rate	P-value
Rural	Hospital	Small (n=43)	27.9%	0.3513
		Large (n=40)	40.0%	
Urban	Hospital	Small (n=62)	32.3%	0.9272
		Large (n=70)	30.0%	
Rural	LTC	Small (n=62)	40.3%	1.00000
		Large (n=46)	41.3%	
Urban	LTC	Small (n=68)	25.0%	1.0000
		Large (n=82)	24.4%	

Representativeness of Remaining Healthcare Industries

The bias analysis for the remaining healthcare industries were based on rurality (Figure 2). Although there were very little differences in the response rates between rural and urban home health, dialysis centers, ambulatory surgery care centers, rural health facilities, and FQHCs, none were statistically different ($p > 0.05$).

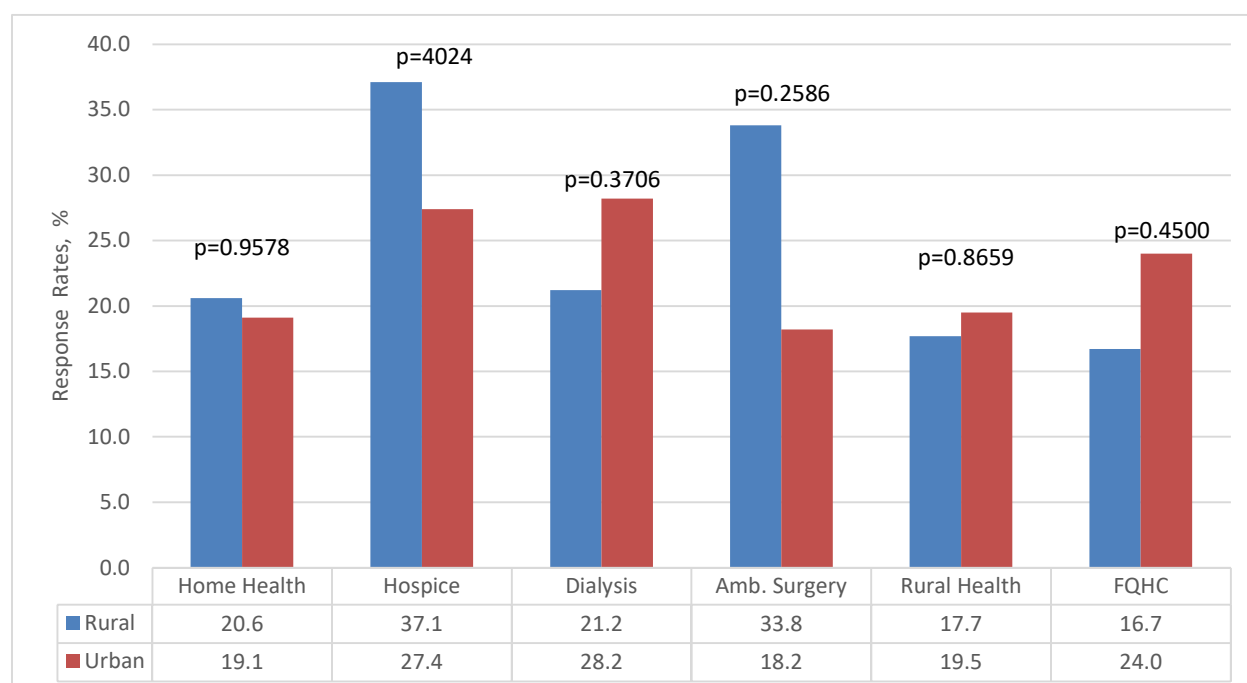


Figure 2. Rural and urban response rates by healthcare industry.

Findings from the Nurse Employer Survey

Healthcare facilities that completed the 2023 LCN-NES provided information on 23,898 permanent, full, or part-time nursing personnel across nine industry groups. When 1,667 additional temporary personnel were included, the number of nurses employed by responding healthcare industries totaled 25,565 (Table 4). The Louisiana Workforce Commission's 2020-2030 employment estimates help to put these numbers into statewide perspective (LWC, 2020). When utilizing estimates from the short-term projections from the LWC for 2020-2023, the current study obtained information on approximately 31% of employed RNs, 39% of NPs, 41% of CRNAs, 22% of LPNs, and 32% of NAs in Louisiana. Taking into consideration the non-responders to the 2023 LCN-NES (those healthcare facilities that were surveyed but did not respond) and the healthcare industries that were not surveyed (e.g., physician's offices), findings related to the counts for vacancies, separations, and new jobs to be created through 2023 based on survey respondents only, will underestimate the overall totals for Louisiana substantially.

Nursing Skill Mix According to Type of Healthcare Facility

As seen in Table 4, the skill mix of nurses employed varied by industry group for responding healthcare facilities. Although the greatest number of RNs were employed by hospitals (10,583), public health continues to have the largest proportion of RNs among all nursing staff. Eighty-eight percent of the entire nursing staff for public health are RNs, followed by ambulatory surgery care centers (75%) and hospitals (67%). Hospitals employed the greatest number of APRNs amongst responding healthcare facilities (1,077), yet APRNs represent approximately seven percent of the hospital's nursing workforce compared to 48% of the nursing workforce for FQHCs, 29% for rural health clinics, and 9% for ambulatory surgery care centers. The greatest proportion of LPNs were employed by home health agencies (33%), LTCs (31%), rural health clinics (26%), and FQHCs (23%), although the largest number were employed by LTC facilities (1,785) and hospitals (1,670). LTC facilities and hospitals also employed the largest number of NAs, 3,413 and 2,480, respectively. Nurse aides represent the largest proportion of the nursing staff for LTCs (59%) followed by dialysis centers (34%).

Table 4. Nursing Personnel Employed by Respondents in Nine Healthcare Industry Groups Including Temporary Agency Personnel (January 1, 2023)

	Hospitals	LTC	Home Health	Hospice	Dialysis	Ambulatory Surgery	Public Health	Rural Health	FQHC	Total
RNs Direct Care	8,755	334	215	304	140	340	206	220	29	10,543
RNs Indirect Care	953	173	75	65	39	27	24	16	18	1,390
Temp/ Agency RNs	875	7	1	3	6	2	64	0	0	958
Total RNs	10,583	514	291	372	185	369	294	236	47	12,891
	66.9%	8.9%	53.5%	48.4%	56.1%	74.7%	87.8%	19.9%	14.6%	50.4%
NPs	724	28	0	30	18	0	26	344	138	1,308
Temp/ Agency NPs	25	31	1	19	0	0	1	3	15	95
CRNAs	260					0				260
Temp/ Agency CRNAs	47					46		0		93
CNSs	5	1	6	0	0	0	0	0	0	12
Temp/ Agency CNSs	12	1	0	0	0	0	0	0	0	13
CNMs	4						0	0	1	5
Temp/ Agency CNMs	0						0	0	0	0
Total APRNs	1,077	61	7	49	18	46	27	347	154	1,786
	6.8%	1.1%	1.3%	6.4%	5.5%	9.3%	8.1%	29.2%	47.7%	7.0%
LPNs	1,585	1,621	179	107	16	36	4	306	73	3,927
Temp/ Agency LPNs	85	164	0	0	0	1	0	0	0	250
Total LPNs	1,670	1,785	179	107	16	37	4	306	73	4,177
	10.6%	30.9%	32.9%	13.9%	4.8%	7.5%	1.2%	25.8%	22.6%	16.3%
NAs	2,446	3,201	67	230	111	42	9	298	49	6,453
Temp/ Agency NAs	34	212	0	11	0	0	1	0	0	258
Total NAs	2,480	3,413	67	241	111	42	10	298	49	6,711
	15.7%	59.1%	12.3%	31.3%	33.6%	8.5%	3.0%	25.1%	15.2%	26.2%
Total	15,810	5,773	544	769	330	494	335	1,187	323	25,565

Note: Counts include permanent staff (full and part-time) and temporary agency personnel. Healthcare facilities/agencies were asked to report APRNs separately from RNs. The four types of APRNs are: nurse practitioners (NPs); certified registered nurse anesthetists (CRNAs); clinical nurse specialists (CNSs); and certified nurse midwives (CNMs).

As illustrated in Figure 3, the greatest proportion of the nursing personnel employed by public health, hospitals and ambulatory surgery centers have consistently been RNs between 2010 and 2022. Between 2018 and 2022 there was a 12-percentage point increase in the percentage of RNs employed by home health agencies and a six-percentage point increase by ambulatory surgical

centers. Although Data was not available for rural health clinics and FQHCs in 2010 and 2014, in 2018 RNs represented approximately 27% and 14%, in 2022 RNs represented approximately 20% and 15%, respectively, of the nursing personnel employed by these healthcare facilities.

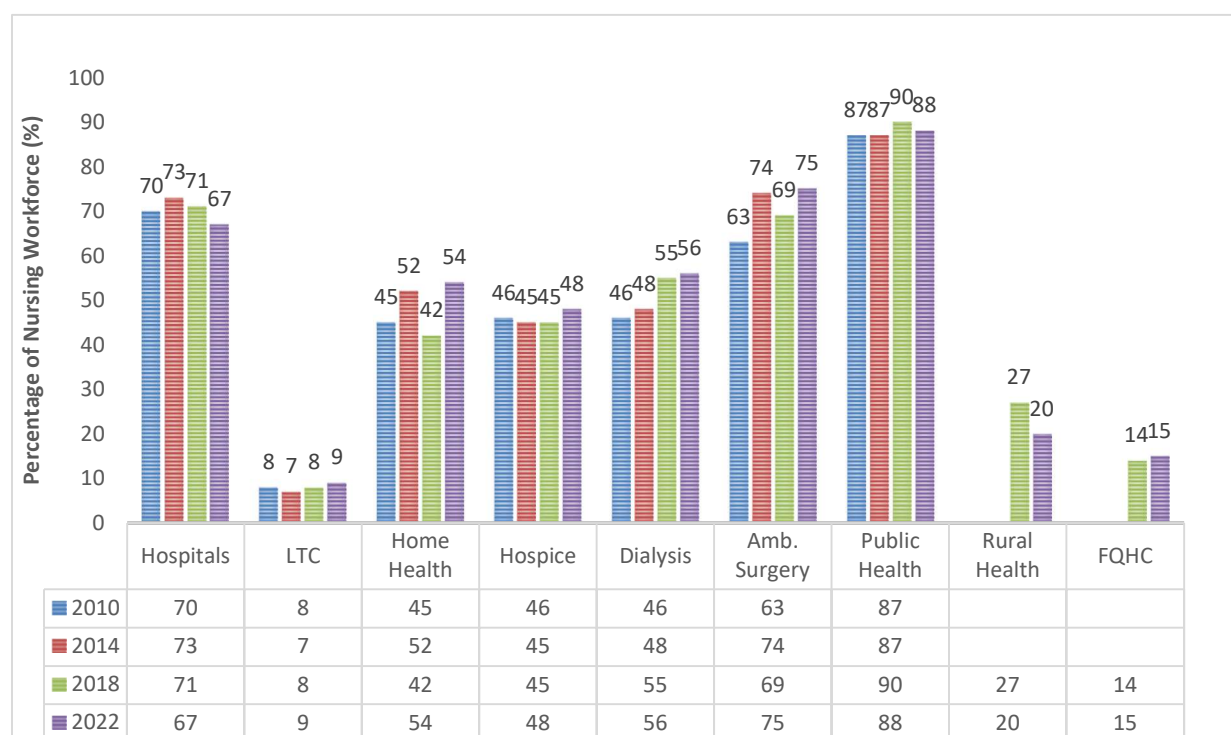


Figure 3. RNs as a percentage of the nursing workforce by healthcare industry; 2010 and 2014 data not available for rural health clinics and FQHCs.

RNs Providing Direct Patient Care

According to the 2022 LSBN Annual Report, 83% of employed RNs in Louisiana provide direct care to their patients/clients. In the 2023 LCN-NES, direct care RNs were defined as those RNs spending 74-100% of their scheduled workday providing care to patients, and indirect care RNs were those that spent 25% or less of their scheduled work time providing direct care to patients and 75% or more of their time performing administrative or supervisory duties. Figure 4 depicts the percentage of RNs providing direct patient care to patients according to the type of healthcare setting. Responding employers reported that 92% and 93% of the RNs employed by ambulatory surgery centers and rural health centers, respectively, provide direct patient care. Additionally, 85% of the RNs employed by hospitals provide direct patient care.

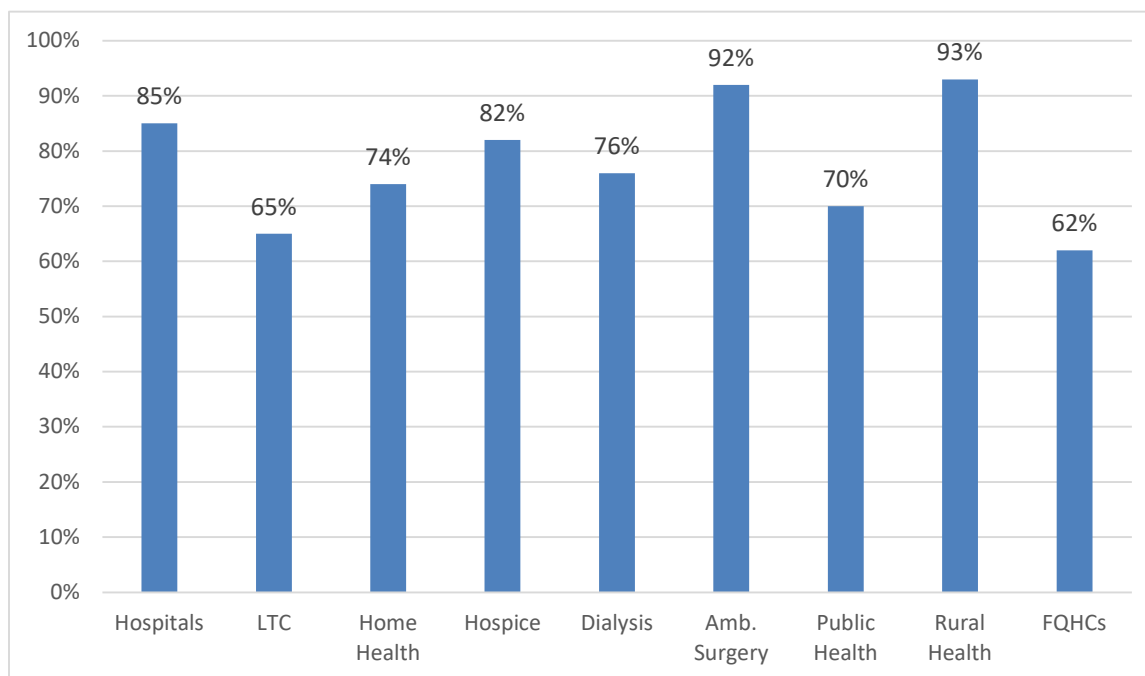


Figure 4. Percentage of RNs providing direct patient care according to type of healthcare facility.

Of the 1,786 APRNs employed by responding healthcare facilities, 78.6% were NPs, 19.8% were CRNAs, 1.4% were CNSs, and 0.3% were CNMs. When compared to the other types of healthcare facilities that were surveyed, FQHCs (47.7%), rural health clinics (29.3%) and ambulatory surgery centers (9.3%) had the greatest proportion of APRNs as a part of their nursing workforce (Figure 5). The greatest increase in the proportion of APRNs employed in 2022 when compared to 2018 was in FQHCs (17.8 percentage point increase), followed by 11.8 percentage point increase in the rural health clinics. There were 2.5 and 2.4 percentage point increases in hospitals and dialysis centers, respectively.

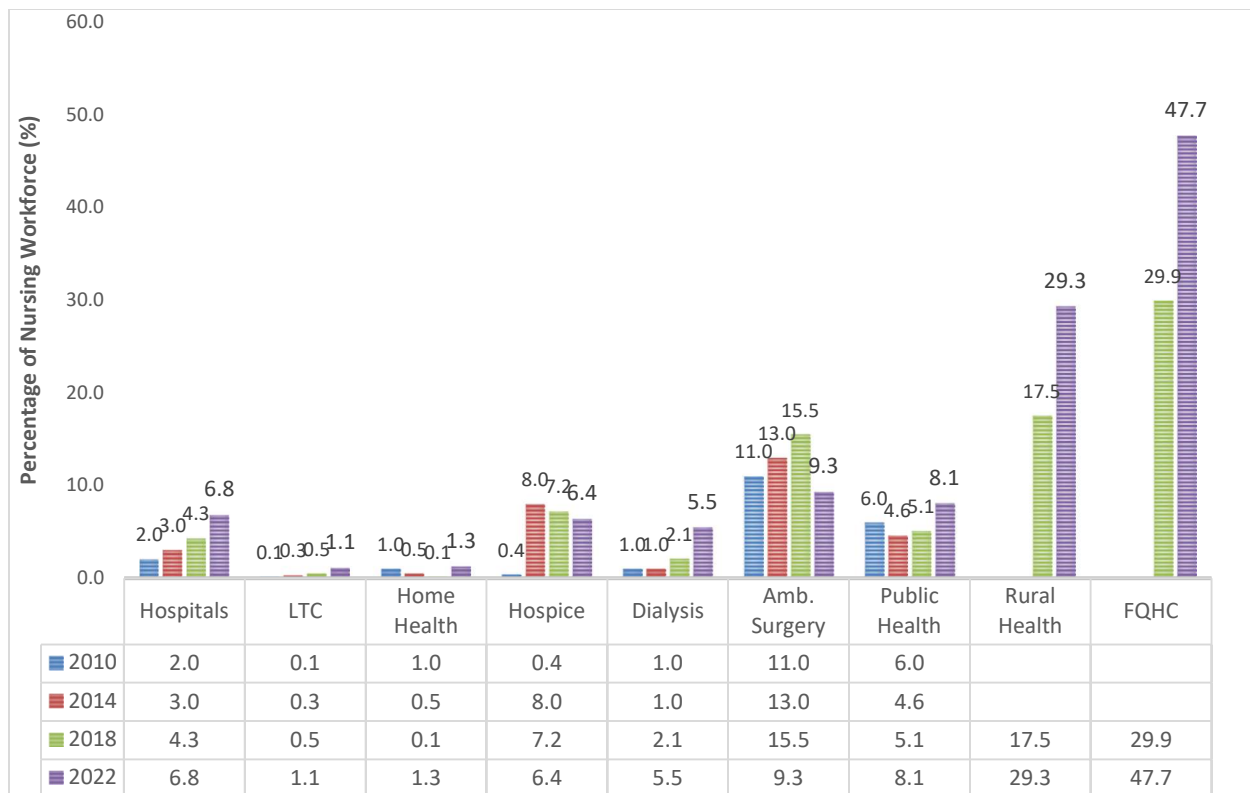


Figure 5. APRNs as a percentage of the nursing workforce by healthcare industry; 2010 and 2014 data were not available for rural health clinics and FQHCs.

As depicted in Figure 6, when compared to other healthcare facilities, LPNs represent the greatest proportion of the nursing workforce in home health (32.9%), LTCs (30.9%), rural health clinics (25.8%) and FQHCs (22.6%). There were marginal increases in the proportion of the LPN workforce in 2022 the hospitals (0.3 percentage points), LTCs (1.5 percentage points), and dialysis centers (1.5 percentage points). However, home health facilities, rural health clinics, and FQHCs experienced 11.5, 15.2, and 12.1 percentage points, respectively when compared to 2018. Although there was a small increase in the overall proportion of LPNs represented in the LTC workforce, responding LTC facilities employed 1,785 LPNs. There was no change in the proportion of LPNs employed by public health and ambulatory surgery centers.

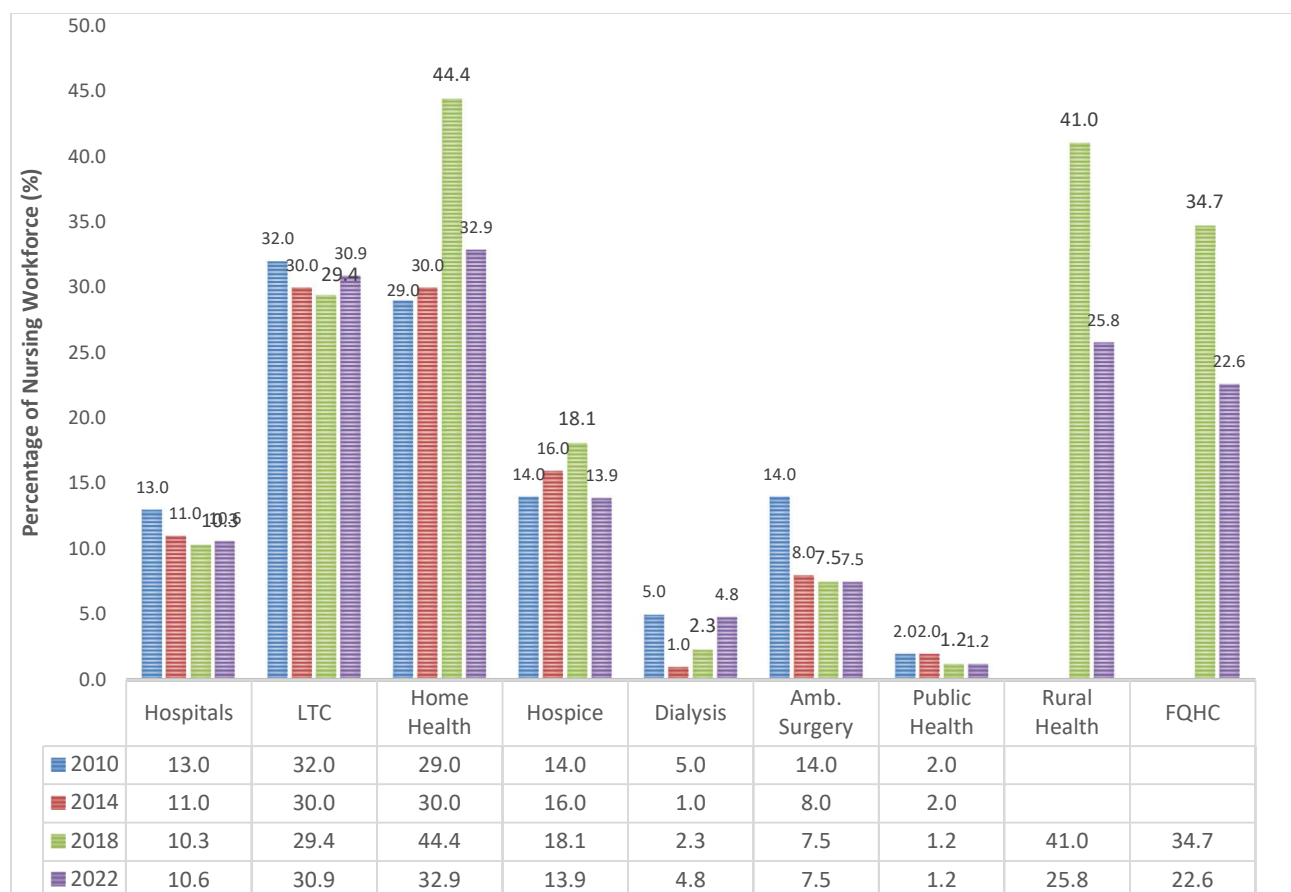


Figure 6. LPNs as a percentage of the nursing workforce by healthcare industry; 2010 and 2014 data not available for rural health clinics and FQHCs.

The hospitals experienced a marginal increase of 1.5 percentage points in NA workforce from 2018 to 2022. Rural health clinics, on the other hand, experienced a 10.5 percentage point increase. Despite a 2.7 percentage point decrease, the responding LTCs had the largest number of NA workforce (n=3,413) in 2022. The LTC facilities were followed by hospitals and rural health clinics (Figure 7). Of the responding healthcare facilities, public health has the smallest proportion of their nursing workforce that are NAs.

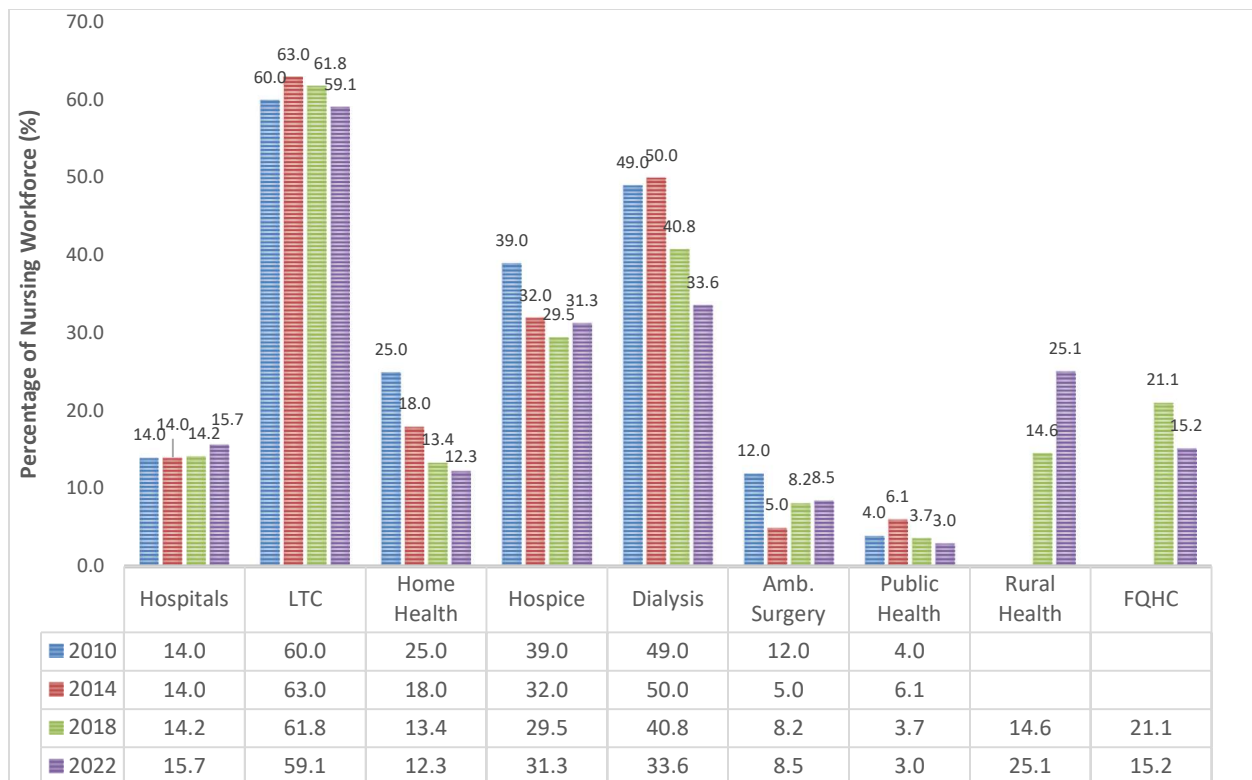


Figure 7. NAs as a percentage of the nursing workforce by healthcare industry.

Nursing Staff Skill Mix Within the Various Types of Healthcare Facilities

A depiction of the percentages of the different types of nursing personnel employed by the healthcare systems surveyed in the current study can be seen in Figure 8.

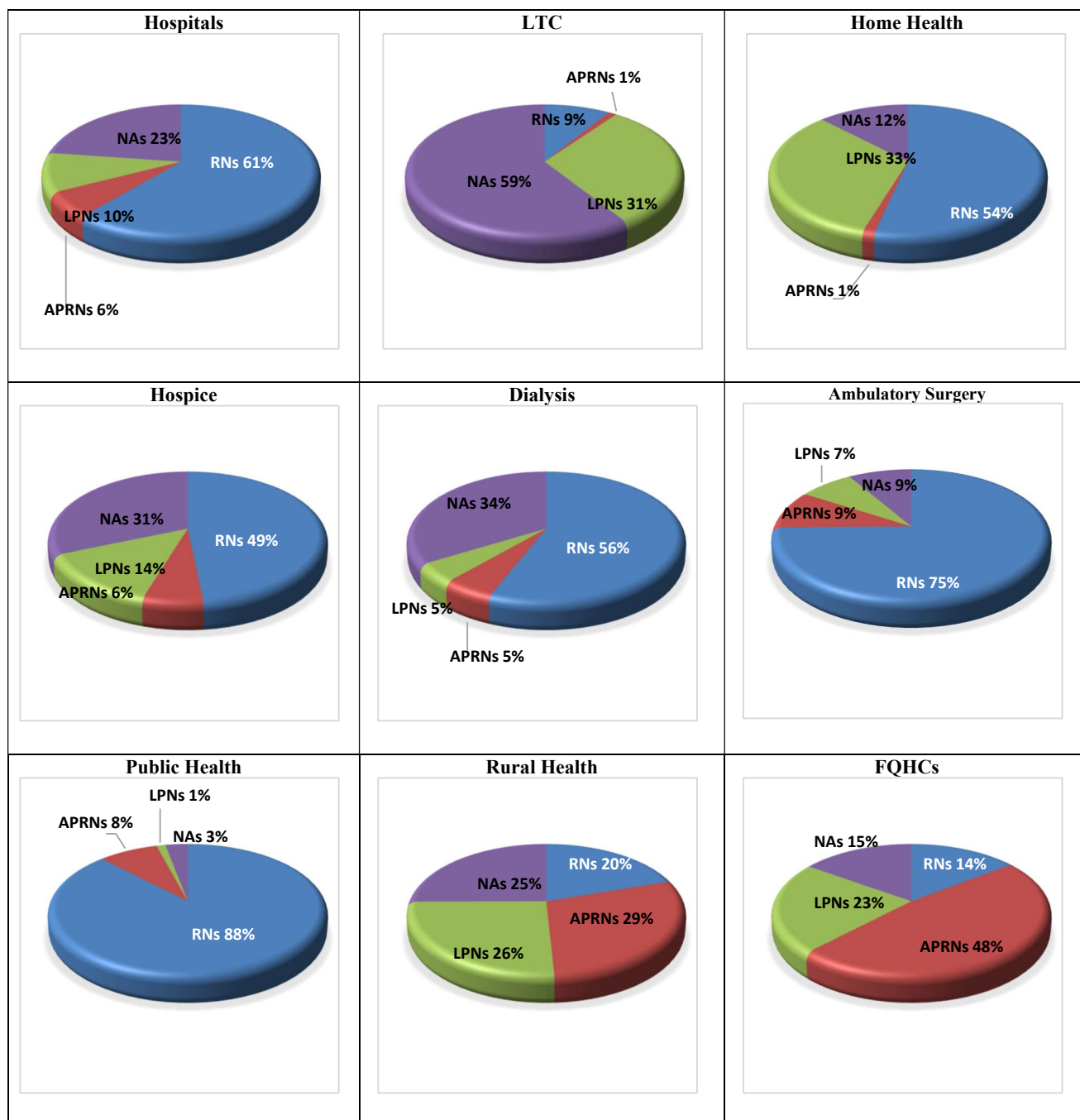


Figure 8. Distribution of nursing staff within the various healthcare industries.

Staff Size in Small, Medium and Large Hospitals

The nine health care industries vary in nursing staff size, with hospitals clearly having the largest nursing staff. Because of the wide range in the number of staffed beds reported by the responding hospitals (minimum of ten beds, maximum of 715 beds), staff size was analyzed for small, medium and large hospitals (Table 5). Small hospitals were defined as hospitals with less than or equal to 24 beds (25th percentile), medium hospitals were defined as hospitals with greater than 24 beds but

less than 165 beds (75th percentile) and large hospitals were defined as those hospitals with greater than 165 beds (75th percentile). Although the largest percentage of the nursing workforce in the small, medium and large hospitals were direct care RNs, approximately half of the nursing staff in large hospitals were direct care RNs (50.3%). The largest percentage of CRNAs were employed by large hospitals, but there were no CNSs and CNMs reported as working in small hospitals. The greatest percentage of LPNs were found in medium size hospitals and the greatest percentage of NAs were working in medium hospitals. Regardless, of size, substantially more part-time nurses were employed by hospitals when compared to temporary/per diem nursing staff.

Table 5. Nursing Staff for Small, Medium and Large Hospitals

	RNs DC	RNs IC	NPs	CRNAs	CNS	CNM	LPNs	NAs	Temp Staff	Part time Staff
Small Hospital Less than or equal to 24 beds (n=18) 25th percentile	493 36.1%	66 4.8%	32 2.3%	5 0.4%	0 0%	0 0%	151 11.1%	183 13.4%	73 5.3%	363 26.6%
Medium Hospital Greater than 24 beds and less than 165 beds (n=31) 75th percentile	1,427 37.4%	246 6.5%	88 2.3%	17 0.5%	2 0.1%	0 0%	496 13.0%	529 13.9%	196 5.1%	811 21.3%
Large Hospital Greater than or equal to 165 beds (n=17) 75th percentile	6,404 50.3%	602 4.7%	306 2.4%	226 1.8%	3 0.02%	3 0.02%	863 6.8%	1,672 13.1%	796 6.3%	1,850 14.5%

Note: Total full-time, part-time, and temporary nursing staff for small hospitals =1,316; total nursing staff for medium hospitals = 3,812; total nursing staff for large hospitals = 12,725.

Part-time and Temporary Nursing Staff Across Types of Healthcare Facilities

The percentage of temporary or per diem and part-time nursing staff utilized varied across healthcare industries (Table 6). As seen in Table 6, healthcare facilities overall used a higher percentage of part-time employees than temporary or agency staff except for public health and FQHCs. The top three healthcare facilities whose nursing workforce were part-time employees in descending order were home health agencies (36.5%), ambulatory surgery care centers (31.8%) and hospice facilities (27.8%). The percentage of temporary or per diem nursing staff ranged from a low of less than one percent for rural health clinics and home health to a high of 20% in public health. In 2022, 1,800 temporary nursing staff were reported by responding employers compared to 1,758 temporary staff reported by responding employers in 2018 which represents a 2.4% increase in number.

Table 6. Part-time and Temporary Nursing Staff

Healthcare Industry	% of Part-Time Employees	% of Temporary or Per Diem Employees
Hospitals	20.3%	7.1%
LTC	19.5%	7.7%
Home Health	36.5%	0.6%
Hospice	27.8%	6.8%
Public Health	2.7%	20.0%
Dialysis	10.9%	1.8%
Ambulatory Surgery	31.8%	14.0%
Rural Health Clinics	9.7%	0.5%
FQHCs	6.2%	9.3%

The part-time nursing staff utilized by home health and rural health clinics decreased from 50.3% to 36.5% and 23.0% to 9.7%, respectively, from 2018 to 2022. (Figure 9). However, the number of part-time nurses employed by the facilities each year the employer survey was conducted have fluctuated from 2010 to 2022. There was very little change in the percentage of part-time nurses employed by ambulatory surgery centers, dialysis centers, and hospices between 2018 and 2022.

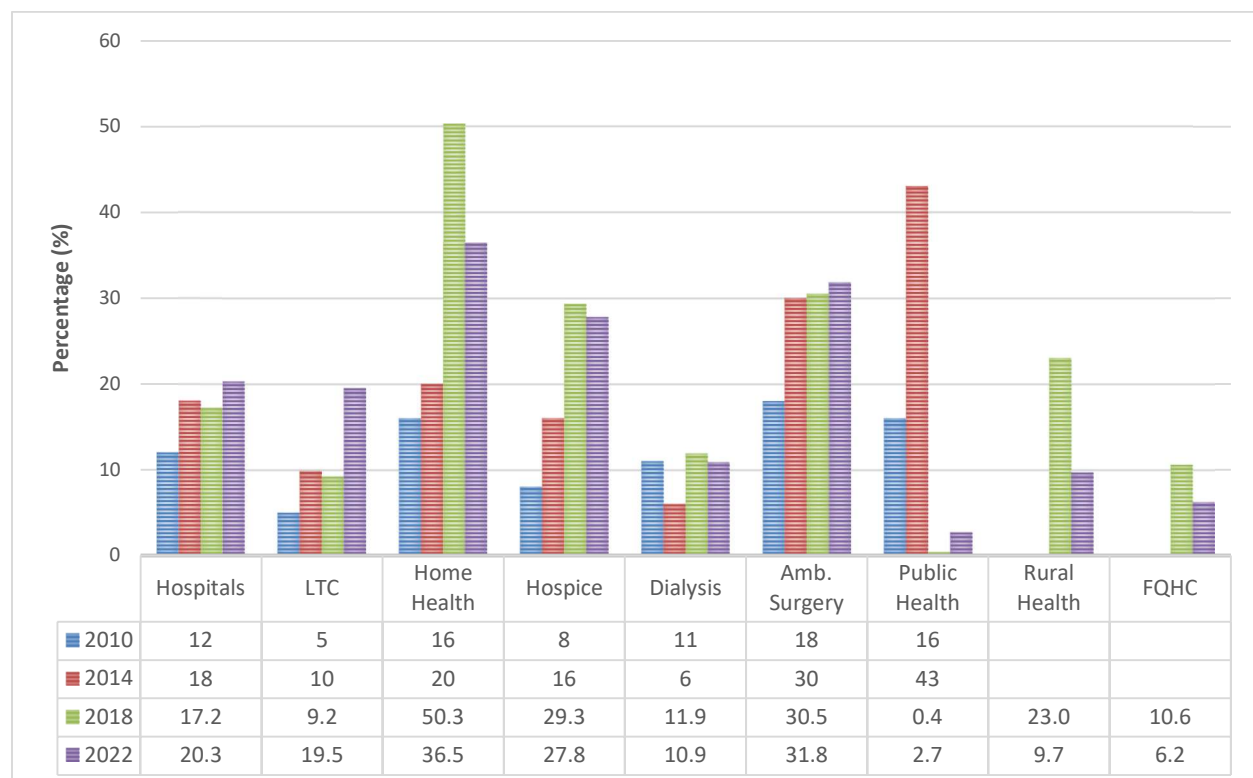


Figure 9. Part-time nursing staff hired in 2010, 2014 and 2018. Data was not available for rural health clinics and FQHCs in 2010 and 2014.

Between 2010 and 2022, the highest percentage of temporary nursing staff utilized by all of the healthcare industries that were surveyed, except for dialysis centers, took place in 2014 with a high of 43% in public health and a low of six percent in dialysis centers (Figure 10). The percentage of temporary/per diem nurses employed by the healthcare facilities surveyed in this study that experienced 3- to 10-fold increase from 2018 to 2022 were hospice, LTC, and FQHCs. In 2018, the number of temporary nursing staff reported by responding employers was 1,758 which is a 2.4% increase in number when compared to the 1,800 temporary staff reported by responding employers in 2022.

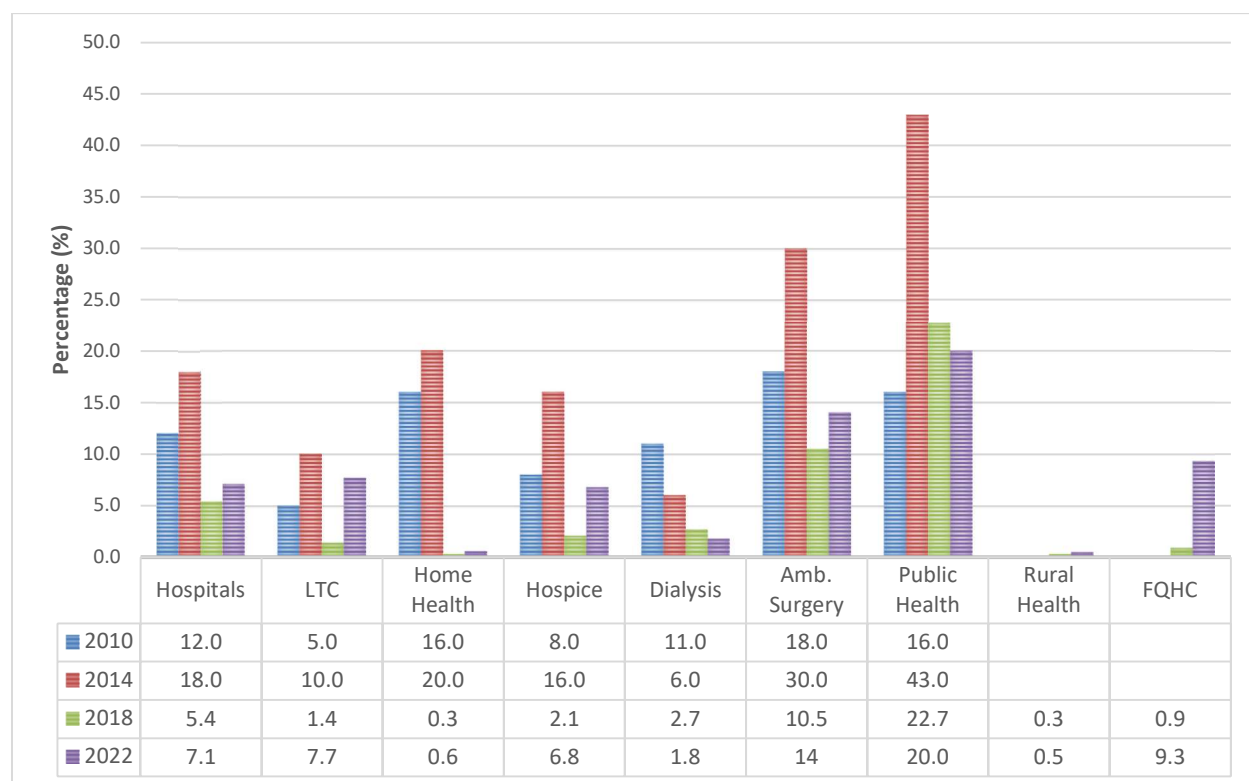


Figure 10. Temporary or per diem nursing staff hired in 2010, 2014 and 2018. Data was not available for rural health clinics and FQHCs in 2010 and 2014.

Vacancies

As shown in Table 7, the nursing workforce vacancies reported by responding healthcare facilities totaled 3,749 in 2022 compared to 3,727 in 2018 which is a 0.6% increase in the number of reported vacancies with the majority being RN vacancies; 2,027 in 2022 compared to 2,042 in 2018, a 0.7% decrease in number. There was a 35.8% decrease in NP vacancies (81 in 2018; 52 in 2022), a 28.6% decrease in CRNA vacancies (14 in 2018; 10 in 2022), a 100% decrease in CNS vacancies (six in 2018; zero in 2022), a 100% decrease in CNM vacancies (two in 2018; zero in 2022), a 9.1% increase in LPN vacancies (616 in 2018; 672 in 2022); and a 2.0% increase in NA vacancies (969 in 2018; 988 in 2022). The majority of RN, NP, and CRNA vacancies were in hospitals. The majority of NA (634 vacancies) and LPN (318 vacancies) vacancies were in LTC followed closely by hospitals (272 and 287 vacancies, respectively).

Table 7. Full and Part-Time Vacancies Reported by Respondents as of January 1, 2023

Healthcare Industry	RNs	NPs	CRNAs	CNSs	CNMs	LPNs	NAs	Total
Hospitals	Direct Care 1,673 Indirect Care 51	20	10	0	0	287	272	2,313
LTC	Direct Care 61 Indirect Care 18	2	0	0	0	318	634	1,033
Home Health	Direct Care 54 Indirect Care 8	0	0	0	0	36	21	119
Hospice	Direct Care 39 Indirect Care 3	7	0	0	0	7	23	79
Dialysis	Direct Care 32 Indirect Care 0	0	0	0	0	0	7	39
Ambulatory Surgery	Direct Care 39 Indirect Care 1	0	0	0	0	1	4	45
Public Health	Direct Care 33 Indirect Care 2	1	0	0	0	0	0	36
Rural Health	Direct Care 7 Indirect Care 1	14	0	0	0	16	20	58
FQHC	Direct Care 5 Indirect Care 0	8	0	0	0	7	7	27
Totals	2,027	52	10	0	0	672	988	3,749

Estimated vacancies

Estimated vacancies were obtained by inputting the mean value of respondents for the non-respondent healthcare facilities, and then obtaining the estimate for all healthcare facility types in the state. When vacancies were imputed for non-responding facilities, the total number of vacancies for all types of nursing personnel increased by 30.2% (12,092 estimated vacancies),

down from the 149% increase for the previous four-year time period. The majority of the RN vacancies were for direct care RNs (6,145) which increased by 37% when compared to 2018 (4,484) (Table 8). There was no need to estimate vacancies for public health because of the 100% response rate (vacancies were reported on one survey for all public health units/clinics). The 12,092 estimated vacancies noted in Table 8 reflect a substantial need for nursing personnel in Louisiana and are likely underestimates of the true number of nursing vacancies because not all employers of Louisiana's nursing workforce (i.e., physicians' offices) were surveyed.

Table 8. Estimated Full and Part-time Vacancies as of January 1, 2023

Healthcare Industry	RNs	NPs	CRNAs	CNSs	CNMs	LPNs	NAs	Total
Hospitals	Direct Care 5,212 Indirect Care 159	62	31	0	0	894	847	7,205
LTC	Direct Care 192 Indirect Care 57	6	0	0	0	1,003	2,000	3,258
Home Health	Direct Care 274 Indirect Care 41	0	0	0	0	183	107	605
Hospice	Direct Care 133 Indirect Care 10	24	0	0	0	24	78	269
Dialysis	Direct Care 134 Indirect Care 0	0	0	0	0	0	29	163
Ambulatory Surgery	Direct Care 130 Indirect Care 3	0	0	0	0	3	13	149
*Public Health	Direct Care 10 Indirect Care 3	2	0	0	0	0	0	15
Rural Health	Direct Care 37 Indirect Care 5	74	0	0	0	84	105	305
FQHC	Direct Care 23 Indirect Care 0	36	0	0	0	32	32	123
Totals	6,423	204	31	0	0	2,223	3,211	12,092

*No need for estimations due to 100% response rate.

Estimated vacancies in Hospitals and LTC

Between 2018 and 2022, the number of estimated vacancies for RNs, and LPNs increased, while NPs and NAs experienced a decrease in the number of estimated vacancies (Table 9a). The number of estimated RN vacancies in hospitals increased by 32.1% going from 4,065 in 2018 to 5,371 in 2022. The number of LPN estimated vacancies increased by 40.6%. However, the number of NP and NA estimated vacancies decreased by 54.7% and 10.2%, respectively. In terms of the APRN workforce, there was no change in the number of estimated vacancies among the CRNAs.

Table 9a. Estimated vacancies in hospitals between 2018 and 2022

Report Year	RNs	NPs	CRNAs	LPNs	NAs
2018	4,065	137	31	636	943
2022	5,371	62	31	894	847
4 Year Variance	↑32%	↓55%	0%	↑41%	↓10%

Note: Too few facilities provided data for estimation for CNSs and CNMs.

Although smaller in actual number, there was a 4.6% decrease in the number of estimated vacancies for RNs in LTC between 2022 (249 estimated RN vacancies) and 2018 (261 estimated RN vacancies). However, there was 68% increase in estimated vacancies for LPNs and a 33% increase in estimated vacancies for NAs (Table 9b).

Table 9b. Estimated vacancies in LTC between 2018 and 2022

Report Year	RNs	LPNs	NAs
2018	261	597	1,509
2022	249	1,003	2,000
4 Year Variance	↓5%	↑68%	↑33%

Note: Too few facilities provided data for estimation for CNSs and CNMs.

There was a 39.8% decrease in the number of estimated vacancies for LPNs in home health agencies when compared to the number in 2018 (183 in 2022; 304 in 2018) and 256.7% increase in the number of estimated vacancies for NAs (107 in 2022; 30 in 2018). Dialysis centers also went from an estimated vacancy of 49 RNs in 2018 to 173 in 2022, a 253.1% increase in number. However, there was a 69.8% decrease in the number of estimated vacancies for the NAs in dialysis centers (29 in 2022; 96 in 2018). The number of estimated RN vacancies in hospices and ambulatory surgery centers increased by 104.3% (143 in 2022; 70 in 2018) and 392.6% (133 in 2022; 27 in 2018), respectively. The actual number of RN vacancies for public health increased by 30% (13 in 2022; 10 in 2018).

The estimated vacancies for indirect care RNs, usually those that are in administrative or managerial positions, increased by 39% for LTC (57 in 2022; 41 in 2018) and 12.8% for hospitals (159 in 2022; 141 in 2018). There were three indirect vacancies reported by public health in 2018 and the same number of positions were reported in 2022.

Vacancy Rates

Full-time equivalent (FTE) position vacancy rates were computed from the reported number of vacancies. FTE vacancy rates are the standard metric used by workforce planners to understand the amount of nursing labor that is currently demanded by employers. Position vacancy rates represent the proportion of FTE positions, by industry group and personnel type, that were vacant as of January 1, 2023. The position vacancy rate removes the influence of individual facilities with very high vacancy rates because filled and vacant positions are summed across facilities before the rate is constructed. One FTE was used for full-time nursing positions and 0.5 FTEs was used for part-time positions, although we must take into consideration when interpreting the findings that all part-time positions may not be equivalent to 0.5 FTE. Vacancy rates were not computed for CRNAs, CNSs and CNMs because the numbers were too small to produce a meaningful vacancy rate.

RN FTE vacancy rates for each industry are presented in Table 10. Vacancy rates for RNs were presented in terms of direct care RNs (RNs spending 74-100% of their scheduled workday providing care to patients) and indirect care RNs (RNs spending 25% or less of their scheduled work time providing direct care to patients and 75% or more of their time performing administrative or supervisory duties). The highest vacancy rate for direct care RNs was 22.5% percent for dialysis, 19.8% for home health agencies, 17.5% for hospitals, 16.0% for public health agencies, 15.5% for FQHCs , and 14.1% for LTC/SNF. The healthcare industry with the highest vacancy rate for indirect care RNs was home health facilities (9.3%), followed by public health agencies (8.3%) and LTC (7.2%). For NPs the healthcare industry with the highest FTE vacancy was hospices (13.3%), followed by LTC/SNF (7.1%). The highest LPN vacancy rates were for LTC/SNF (17.4%), hospitals (16.3%), home health (15.1%), and FQHCs (9.6%). LTC/SNF had the highest vacancy rate for NAs (18.1%), followed by home health (17.9%) and FQHCs (14.3%).

It is important to note that the vacancy rate for direct care RNs in Louisiana hospitals was 17.5% in 2022 compared to 9.5% in 2018, which represents an increase of approximately eight percentage points. Hospitals are the largest employers of RNs and the vast majority of RNs in the hospital setting provide direct patient care. According to the 2023 National Healthcare Retention and RN Staffing Report, the national RN vacancy rate for hospitals is 15.7% compared to 9.0% in 2018, an increase of 6.7%. In our neighboring state of Texas, the RN vacancy rate was 17.6% in 2022 (Texas Center for Nursing Workforce Analysis, 2022).

Table 10. Full-time Equivalent (FTE) Vacancy Rates by Healthcare Industry Type as of January 1, 2023 (All values represent percentages)

Healthcare Industry	RNs		NPs	LPNs	NAs
Hospitals	Direct Care	17.5	2.2	16.3	9.8
	Indirect Care	5.0			
LTC	Direct Care	14.1	7.1	17.4	18.1
	Indirect Care	7.2			
Home Health	Direct Care	19.8	0	15.1	17.9
	Indirect Care	9.3			
Hospice	Direct Care	11.0	13.3	4.7	7.4
	Indirect Care	4.6			
Public Health	Direct Care	16.0	0	0	0
	Indirect Care	8.3			
Ambulatory Surgery	Direct Care	8.5	*	2.8	8.3
	Indirect Care	3.7			
Dialysis	Direct Care	22.5	0	0	5.9
	Indirect Care	0			
Rural Health	Direct Care	3.2	3.3	5.1	6.7
	Indirect Care	6.3			
FQHC	Direct Care	15.5	5.4	9.6	14.3
	Indirect Care	0			

*Too few on staff to produce a meaningful vacancy rate.

Vacancy Rates Over Time – 2010, 2014, 2018, 2022

Between 2010 and 2022 there were substantial increases in direct care RN vacancy rates in hospitals, with an eight-percentage point increase from 2018 to 2022 (Figure 11). Hospitals went from a four percent RN vacancy rate in 2010 to a 10% vacancy rate in 2018, an increase of six percentage points. LTC, on the other hand, had substantial increases in direct care RN vacancy rates from 2010 to 2018, and a decline of four percentage points in 2022. LTC went from a seven percent RN vacancy rate in 2010 to a 19% vacancy rate in 2018, an increase in vacancy rate by 12% during the eight-year period. The dialysis centers had a 16-percentage point increase from 2018 to 2022, compared to the one-two percentage point fluctuations from 2010 to 2018. Public health is one that has had substantial fluctuations in RN FTE vacancy rates from 2010 to 2022. It had 12-percentage point increase from 2010 to 2014, an eight-percentage point decrease from 2014 to 2018, followed by a 12-percentage point increase from 2018 to 2022. With data only in the last four years, the FQHCs had a five-percentage point increase in RN FTE vacancy rate from 2018 to 2022. As seen in Figure 11, the RN FTE vacancy rates for rural health clinics have been quite low in the last four years; 2% and 3% in 2018 and 2022, respectively.

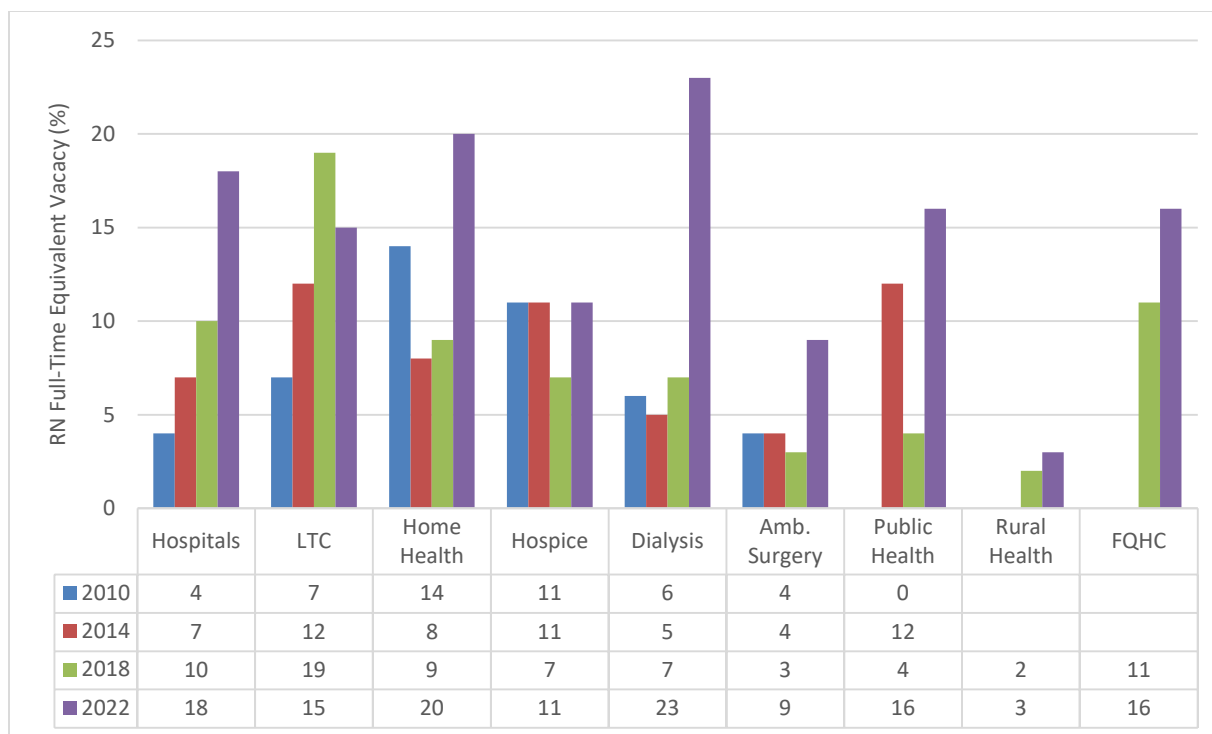


Figure 11. RN Full-Time Equivalent Vacancy Rates by Industry for 2010, 2014, 2018, and 2022.

Note: 2018 was the first year that there was sufficient data reported to obtain meaningful vacancy rates for rural health clinics and FQHCs.

As illustrated in Figure 12, there has been an increase in the LPN FTE vacancy rate in dialysis centers, going from 12% in 2010 to a zero percent vacancy rate in 2014, up to an 18% vacancy rate in 2018, then decreased to 0% vacancy in 2022. There was also an increase in the LPN FTE vacancy rate for home health, hospitals and LTC in 2022 when compared to 2014 and 2018. There has been a substantial decrease in the LPN FTE vacancy rates in ambulatory surgery centers and hospices over the past 12 years, by 13-14 and 11-14 percentage points, respectively. Although data exist for 2018 and 2022 for rural health clinics, there was no change in the LPN FTE vacancy rates (5%) in 2018 and 2022.

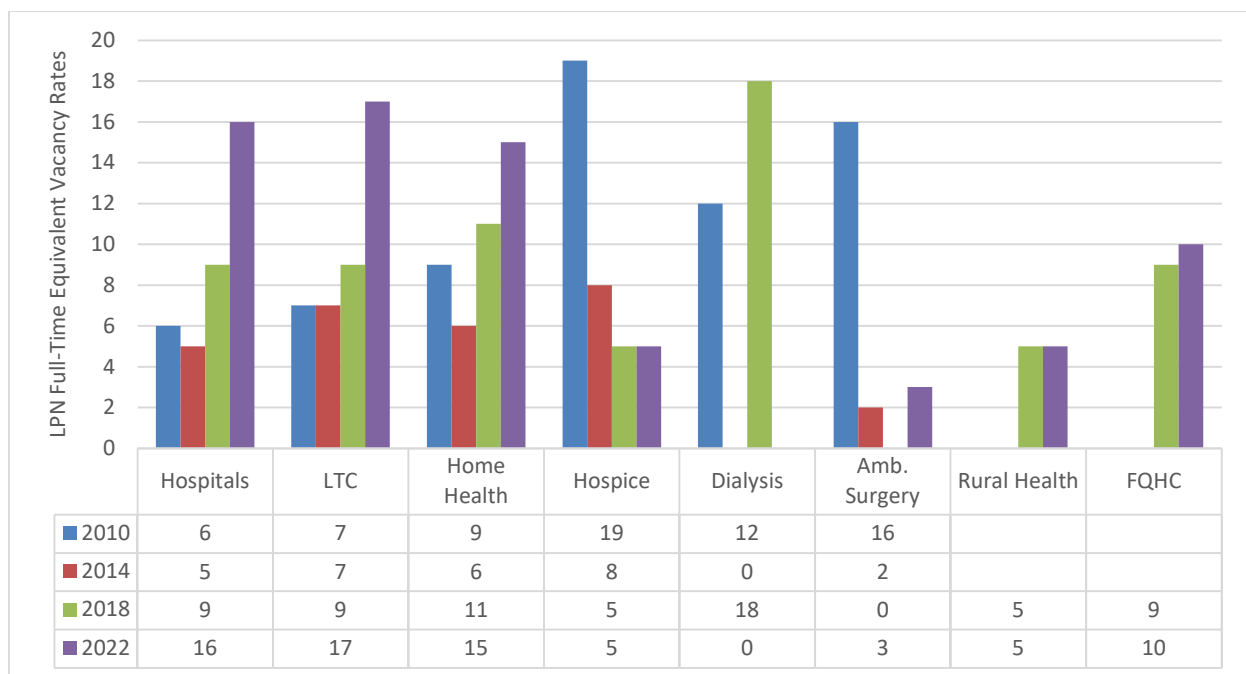


Figure 12. LPN Full-Time Equivalent Vacancy Rates by Industry for 2010, 2014, 2018, and 2022.

Note: 2018 was the first year that there was sufficient data reported to obtain meaningful vacancy rates for rural health clinics and FQHCs. There were zero LPN vacancies reported for public health.

Regarding NAs and dialysis centers, we had a substantial decrease in the NA FTE vacancy rate in 2022, going from a vacancy rate of 16 percent in 2018 to a vacancy rate of 6% in 2022 (Figure 13). LTC has had an upward trend in the NA FTE vacancy rates from 2010 to 2022, with a substantial increase of about seven percentage points in vacancy rates from 2018 to 2022. There has been practically no change in hospitals' 9-10 percent NA FTE vacancy rate. However, home health experienced a steady decrease from 10% in 2010 to 3% in 2018 but had a 15-percentage point increase from 2018 to 2022. Similarly, ambulatory surgical centers had a substantial decrease from 9% in 2010 to 0% in 2014, then a slight increase of one percentage point in 2018, followed by a substantial increase of seven percentage points in 2022.

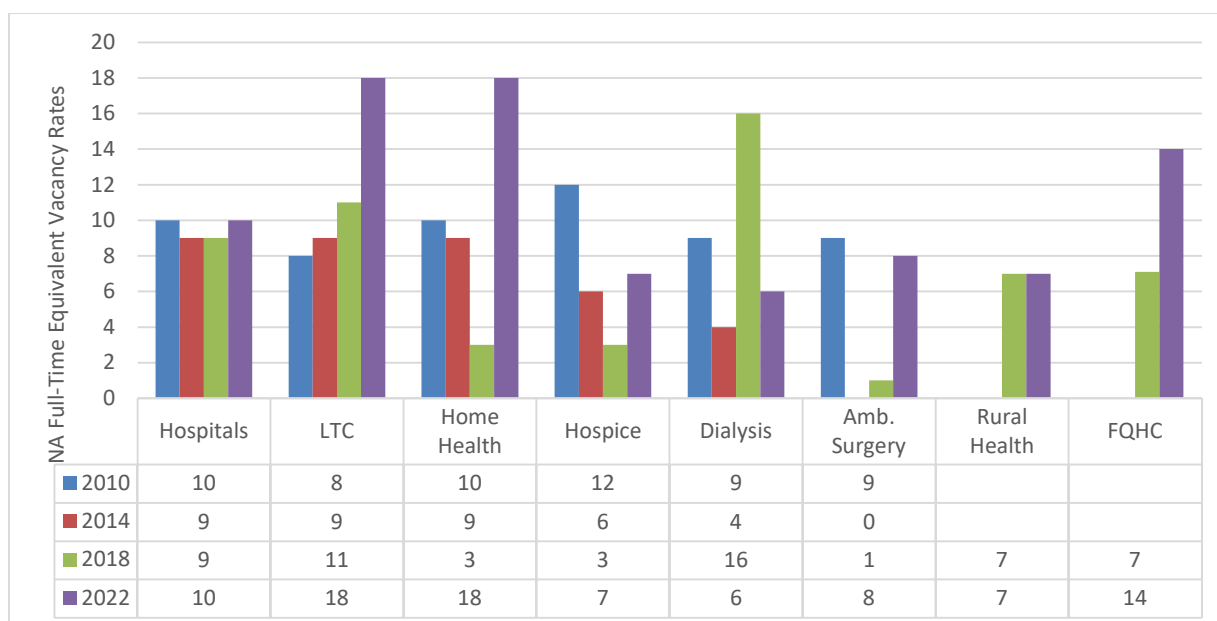


Figure 13. NA Full-Time Equivalent Vacancy Rates by Industry for 2010, 2014, 2018, and 2022.

Note: 2018 was the first year that there was sufficient data reported to obtain meaningful vacancy rates for rural health clinics and FQHCs.

Separations and Turnover Rates

The number of separations is very important when addressing the economic impact of high turnover rates within health care facilities. Nursing turnover is a major issue impacting healthcare industries across the country. Highly trained, stable, and fully engaged nursing staff are needed to provide high quality, patient centered, and cost-effective care (Hunt, 2009). The Nursing Turnover Cost Calculation Methodology shows that each nurse that leaves his or her position costs the hospital approximately \$88,000 (Krsek, 2011). Nurses are critical to the provision of healthcare and when there is high turnover among nursing staff the impact is felt in a variety of ways: decreased quality of patient care; loss of patients; further increase in nursing staff turnover; and increased accident and absenteeism rates, all of which has a spiraling effect on the bottom line for the healthcare industry (Hunt, 2009). Turnover rates are highest when jobs are plentiful, the economy is doing well, and nurses who are unhappy with their present positions have more options. On the other hand, turnover is lowest when the economy is not doing well and employers have cut back on hiring, therefore nursing positions are not as readily available (Kovner, Brewer, & Fatehi, 2014).

In the current study, employers were asked to report the number of separations that occurred between January 1, 2022 and December 31, 2022 (Table 11). Separations are defined as the number of nursing personnel, full and part-time, that were employed by a health care facility within a specified time frame and left the facility either voluntarily or involuntarily. Separations do not include nursing personnel that moved from one position to another within a facility or persons hired but never reporting for work. Healthcare facilities completing the 2023 LCN-NES reported 2,172 (2,925 in 2018) RN separations (25.7% decrease); 1,140 (1,471 in 2018) LPN separations (22.5% decrease); and 2,963 (3,716 in 2018) NA separations (20.3% decrease) between January 1, 2022 and December 31, 2022. These numbers exclude non-respondents and

healthcare industries that were not surveyed. Because of the small numbers reported, separations for all APRNs were reported together. As seen in Table 11, there were 124 APRN separations reported by responding healthcare facilities.

Table 11. Number of Separations Reported by Respondents between 1/1/2022 and 12/31/2022

Healthcare Industry	RNs	APRNs	LPNs	NAs	Total
Hospitals	1,743	76	420	790	3,029
LTC	131	0	588	2,030	2,749
Home Health	58	0	43	12	113
Hospice	88	7	23	65	183
Dialysis	32	0	2	11	45
Ambulatory Surgery	61	7	5	6	79
Public Health	21	2	0	2	25
Rural Health	27	14	46	38	125
FQHC	11	18	13	9	51
Total	2,172	124	1,140	2,963	6,399

When data were imputed for non-respondents, the estimated separations reported for all types of nursing workforce personnel more than tripled and in some instances, almost quadrupled in number (Table 12). Between January 1, 2022, and December 31, 2022, there were an estimated 6,979 RN separations, 3,785 LPN separations and 9,458 NA separations. The majority of the RN separations were in hospitals, whereas the majority of the separations for LPNs and NAs were in LTC. There were 442 APRN separations with the majority being NPs which occurred in hospitals.

Table 12. Number of Estimated Separations between 1/1/2022 and 12/31/2022

Healthcare Industry	RNs	APRNs	LPNs	NAs	Total
Hospitals	5,430	237	1,308	2,461	9,436
LTC	413	0	1,855	6,404	8,672
Home Health	294	0	218	61	573
Hospice	300	24	78	222	624
Dialysis	134	0	8	46	188
Ambulatory Surgery	203	23	17	20	263
Public Health*	13	2	0	3	18
Rural Health	142	74	242	200	658
FQHC	50	82	59	41	232
Total	6,979	442	3,785	9,458	20,664

* Data not imputed due to 100% response rate.

Estimated Separations over Time

The number of estimated separations for RNs increased by 1.1% between 2018 and 2022 (Figure 14). However, the number of estimated separations for LPNs and NAs decreased by 7.8% and 13.4%, respectively.

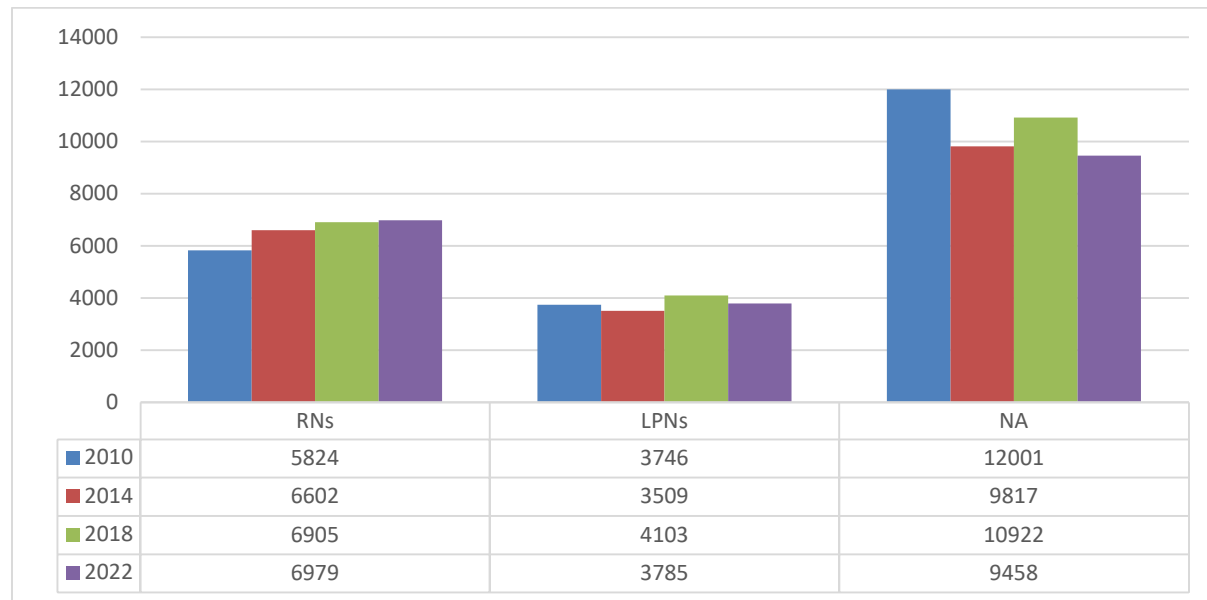


Figure 14. Estimated separations for RNs, LPNs, and NAs for 2010, 2014, 2018, and 2022.

Turnover Rates

Table 13 presents turnover rates by industry group and personnel type. Turnover rates were based on the number of nursing personnel (RNs, APRNs, LPNs, NAs) leaving a healthcare facility between January 1, 2022 and December 31, 2022 divided by the average number of personnel employed by the facility during the year, estimated by averaging the number employed on the first and last day of the calendar year. Average turnover rates can be heavily skewed by facilities with very high (or very low) turnover rates. For this reason, both average and median facility rates are presented in Table 13. The median turnover rate describes a rate at which half of the facilities fall below the rate and half fall above the rate, which removes the influence of outliers.

In 2022, the median turnover rate for RNs in hospitals in Louisiana, the largest employer of RNs identified in the survey in terms of the number of budgeted positions, was 35.4% over the course of one year compared to a median turnover rate of 20.2% in 2018, 13.8% in 2014 and 17.0% in 2010. In 2022, the national turnover rate for RNs in hospitals was reported to be 22.5% an increase of 6.6 percentage points when compared to the 15.9 % turnover rate reported in 2019. FQHC had the highest median turnover rates for RNs (52.4%), followed by ambulatory surgery (37.6%), LTC (35.5%), hospitals (35.4%), and home health (30.3%). The highest median turnover rate for LPNs occurred in hospitals (56.3%) followed by LTC (29.3%) and home health (28.6%). Because of the small numbers for each type of APRN, all types of APRNs were combined to calculate the turnover rate and for the majority of the various types of healthcare

facilities, with all facilities reported zero turnovers for the year, resulting in a median turnover rate of zero percent.

Table 13. Turnover Rates Reported by Respondents, by Industry Group and Personnel Type (January 1, 2022 – December 31, 2022)

Type of Healthcare Facility	RNs		APRNs		LPNs		NAs	
	Avg.	Med.	Avg.	Med.	Avg.	Med.	Avg.	Med.
Hospitals	35.4	38.1	33.6	24.8	64.3	56.3	95.7	80.0
LTC	35.5	32.1	46.2	0.0	44.2	29.3	82.1	56.3
Home Health	30.3	25.0	0.0	0.0	38.4	28.6	50.0	0.0
Hospice	28.3	27.2	12.3	0.0	23.8	0.0	34.2	33.3
Dialysis	28.7	12.5	41.4	0.0	75.0	0.0	25.9	12.5
Ambulatory Surgery	37.6	27.6	6.7	0.0	40.0	0.0	37.5	0.0
Public Health	13.5	16.4	18.0	0.0	0.0	0.0	57.1	0.0
Rural Health	20.9	0.0	9.1	0.0	22.3	27.1	23.2	0.0
FQHCs	52.4	25.0	22.0	0.0	22.7	18.8	40.0	39.0

Note: A zero percent median turnover rate indicates that at least half of the facilities had a zero percent turnover rate. The much higher average rates indicate the presence of outliers that skew the average higher.

*Numbers too small to calculate reliable or realistic turnover rates.

Projected One-Year Growth in Budgeted Positions (2023)

Employers were asked to report the total number of new positions they intended to create over the next year. The actual numbers reported by responding healthcare industries can be seen in Table 14. The number of new positions due to job growth in 2023 reported by respondents alone was 451 RNs (652 in 2018), 202 LPNs (278 in 2018), and 252 NAs (242 in 2018). These numbers do not include estimates for non-responding health care facilities. The number of new APRN positions that new employees planned to create in 2023 included 42 NPs (54 in 2018), 12 CRNAs (11 in 2018), zero CNM (one in 2018) and zero CNSs (five in 2018).

Table 14. One-Year Growth in Positions for Nursing Staff (2023) Reported by Respondents

Healthcare Industry	RNs		NPs	CRNAs	CNMs	CNSs	LPNs	NAs
Hospitals	Direct Care	195	19	5	0	0	58	93
	Indirect Care	16						
LTC	Direct Care	35	2			0	53	79
	Indirect Care	6						
Home Health	Direct Care	60	0			0	61	20
	Indirect Care	14						
Hospice	Direct Care	50	8			0	15	35
	Indirect Care	9						

Dialysis	Direct Care Indirect Care	19 0	0			0	1	6
Ambulatory Surgery	Direct Care Indirect Care	40 1	0	7	0	0	0	3
Rural Health	Direct Care Indirect Care	0 0	7	0	0	0	8	10
Public Health	Direct Care Indirect Care	0 0	0		0	0	0	0
FQHC	Direct Care Indirect Care	6 0	6			0	6	6
Totals		451	42	12	0	0	202	25

Table 15 shows the estimated expected growth in nursing jobs through January 1, 2024, when data is imputed for non-respondents. If non-responders expect similar growth as their responding counterparts, 1,604 new RN jobs (1,622 in 2018), 156 NP jobs (194 in 2018), 39 CRNA jobs (25 in 2018), 738 LPN jobs (792 in 2018) and 875 NA jobs (690 in 2018) will be created in 2024.

Table 15. Estimated One-Year Growth in Positions (2023)

Healthcare Industry	RNs	NPs	CRNAs	CNSs	CNMs	LPNs	NAs
Hospitals	Direct Care Indirect Care	607 50	59	16	0*	0*	181 290
LTC	Direct Care Indirect Care	110 19	6		0*		167 249
Home Health	Direct Care Indirect Care	305 71	0				269 102
Hospice	Direct Care Indirect Care	171 31	27				51 119
Dialysis	Direct Care Indirect Care	79 0	0				1* 25
Ambulatory Surgery	Direct Care Indirect Care	133 1*		23			0 10
Rural Health	Direct Care Indirect Care	0 0	37				42 53
Public Health	Direct Care Indirect Care	0 0	0		0 0	0 0	0 0

FQHC	Direct Care Indirect Care	27 0	27			0	27	27
Totals		1,604	156	39	0	0	738	875

*Too few facilities provided data for calculation of estimates, therefore respondent reports are provided.

The Louisiana Workforce Commission's long-term projections for annual growth rates for NPs, CRNAs and NAs were in line with the actual number of new jobs to be created reported by the healthcare facilities that responded to the survey, yet the numbers reported for RNs (451) and LPNs (202) were significantly different from LWC's projections (Table 16). When estimated projections for new jobs to be created in 2023 were based on responding employers and imputed values for non-responding employers to the 2023 LCN NES, substantial differences in projections were noted when compared to those reported by LWC. The differences in projections may be attributable to different methodologies used and/or the source of the data obtained (chief nursing officers, administrators and human resource staff).

Table 16. Number of New Jobs to be Created in 2023 by Employers

	New jobs employers planned to create in 2023 based on findings from the 2023 LCN-NES	Annual new growth (# of projected new jobs) reported by the Louisiana Workforce Commission 2016-2026 Long-term Projections	Estimated new jobs employers planned to create in 2023 based on responding employers and imputed values for non-responding employers to the 2023 LCN-NES
RNs	451	610	1,604
NPs	42	60	157
CRNAs	12	10	39
CNMs	0		0
CNSs	0		0
LPNs	202	60	738
NAs	252	240	875

Annual Growth Rate

In 2023, the healthcare industry group with the greatest overall one-year growth rate for direct care RNs was home health with a 27.9% one-year growth rate (20.4% in 2018), followed closely by FQHC with a 20.7% one-year growth rate (0.0% in 2018). Home health agencies projected a 34.1% growth rate over the next year for LPNs and an anticipated a 29.9% increase in the number of NAs employed over the next year followed by a 15.2% growth rate for hospice. As depicted in Table 17, although small in numbers, 26.7% one-year growth rates were projected for NPs in hospices (an expected increase of eight NPs employed by hospices). Hospitals planned to increase the number of CRNAs by 1.9 percent.

Created positions reported by respondents reflect the healthcare facility's desire to expand but may not reflect the reality of the facility's ability to expand in an era of budget constraints. Expectations may be revised based upon current economic pressures or if the current wages for nursing personnel increase considerably.

Table 17. One-year Industry Growth Rate (%) for Nursing Personnel (2023)

Healthcare Industry	RNs		NPs	CRNAs	LPNs	NAs
Hospitals	Direct Care	2.2	2.6	1.9	3.7	3.8
	Indirect Care	1.7				
LTC	Direct Care	10.5	7.1		3.3	2.5
	Indirect Care	3.5				
Home Health	Direct Care	27.9			34.1	29.9
	Indirect Care	18.7				
Hospice	Direct Care	16.4	26.7		14.0	15.2
	Indirect Care	13.8				
Dialysis	Direct Care	13.6	0.0		6.3	5.4
	Indirect Care	0.0				
Ambulatory Surgery	Direct Care	11.8		*	0.0	7.1
	Indirect Care	3.7				
Rural Health	Direct Care	0.0	2.0		2.6	3.4
	Indirect Care	0.0				
Public Health	Direct Care	0.0	0.0		0.0	0.0
	Indirect Care	0.0				
FQHCs	Direct Care	20.7	4.3		8.2	12.2
	Indirect Care	0.0				

Note: Did not include temporary staff in calculation of growth rates. * = Unable to compute because denominator was zero.

Clinical or Administrative Specialties in High Demand

Employers were asked about their experience in recruiting nursing personnel in a number of clinical and administrative specialty positions. Rankings were based on the employer's level of difficulty in recruiting (very easy to recruit [1] to very difficult to recruit [5]). Because the industry groups employed nurses with different specialties, surveys were tailored to each industry.

The top five most difficult nursing positions to recruit in each healthcare industry group can be found in Table 18. Registered nurses were reported as among the most difficult types of nurses to recruit by hospitals, LTC facilities, and dialysis centers. LPNs were identified as being one of the five most difficult types of nurses to recruit by LTC facilities, home health, and rural health clinics. Nurse administrators were identified as being one of the top five of the most difficult nursing positions to recruit by four types of healthcare facilities. There were a number of respondents to the employer survey that, based on the numbers they provided, either felt that it was relatively easy to hire certain types of nursing personnel or the numbers were too small to determine a difficulty in recruiting index accurately.

Table 18. Top Five Most Difficult Nursing Positions to Fill, by Type of Healthcare Facility (January 1, 2022 – December 31, 2022)

	Hospitals	LTC	Home Health	Hospice	Dialysis	Amb. Surgery	Rural Health	FQHC	Public Health
1	RNs	LPNs	Homecare Staff RNs	Home Hospice Staff RNs	RNs	*	LPNs	*	*
2	Nurse Managers	RNs	LPNs	'Other' types of nurses	'Other' types of nurses	*	*	*	*
3	CNSs	NAs	Nurse Administrators	Inpatient Staff RNs	Nurse Administrators	*	*	*	*
4	Nurse Administrators	Minimum Data Set Nurses	Case Manager /Discharge Planners	Nurse Aides / Direct Care Assistants	NAs	*	*	*	*
5	CNLs	Rehabilitation Nurses	'Other' types of nurses	Nurse Administrators	*	*	*	*	*

Note: Rankings are based on the respondents' level of difficulty in recruiting various types of nursing personnel.

*The number of respondents for these healthcare facilities were too small for analysis.

Educational Preparation of RNs Employed by Healthcare Facilities

The majority of the RNs employed in all of the healthcare industries, except FQHCs, listed in Table 19, were prepared at the associate and baccalaureate level, with baccalaureate-prepared nurses being the majority in hospitals, dialysis, ambulatory surgery centers, rural health clinics, and public health. Over 51% of the RNs employed by LTC/SNF centers are prepared at the AD level. Approximately 36% of the nurses employed by FQHCs are prepared at the Masters' level. FQHCs also reported the highest percentage of doctoral-prepared nurses (approximately three percent) when compared to the other types of healthcare facilities that responded to the nurse employer survey.

Table 19. Educational Preparation of RNs in Louisiana according to Health Care Industry Group (2022)

Type of Degree	Hospitals n=52 %	LTC n=80 %	Home Health n=29 %	Hospice n=32 %	Dialysis n=41 %	Amb. Surgery n=27 %	Rural Health n=13 %	Public Health n=10 %	FQHC n=7 %
Diploma	2.7%	8.6%	14.8%	14.8%	3.8%	6.9%	0.5%	0.5%	1.3%
AD	32.5%	51.4%	43.5%	45.4%	45.0%	29.5%	37.8%	37.8%	21.1%
BSN	57.6%	35.0%	38.9%	38.9%	46.6%	59.6%	55.5%	55.5%	39.5%
Masters	6.7%	4.4%	2.8%	2.8%	4.6%	3.7%	5.7%	5.7%	35.5%
Doctorate	0.5%	0.6%	0.0%	0.0%	0.0%	0.3%	0.5%	0.5%	2.6%

Educational Progression of RNs Employed between 2010 and 2022

Figure 14 illustrates the educational preparation of registered nurses employed by the various healthcare facilities that responded to LCN-NES between 2010 and 2022. For many of the healthcare facilities, there was a progression over the 12-year period in terms of the educational preparation of the nurses that were employed. For example, hospitals and public health had a substantial shift in the percentage of their RNs that were prepared at the baccalaureate level between 2014 and 2022; with public health experience a slight decrease from 2018 to 2022. From 2014 to 2022, there was an 18-percentage point increase in the proportion of RNs that were prepared at the baccalaureate level in hospitals. An 18-percentage point increase in the proportion employed by public health from 2014 to 2018, and a nine-percentage point decrease from 2018 to

2022. Generally, there was a decrease in the percentage of AD prepared nurses employed by all of the reporting healthcare facilities except for dialysis centers which had a 13-percentage point increase between 2010 and 2018 and then a decrease of an eight-percentage point from 2018 to 2022. Over the last 12 years, public health has had stepwise decrease in RNs prepared at the master's level.

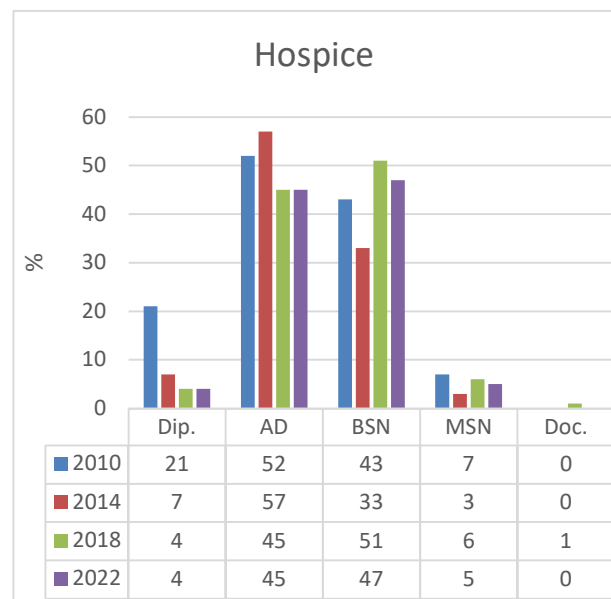
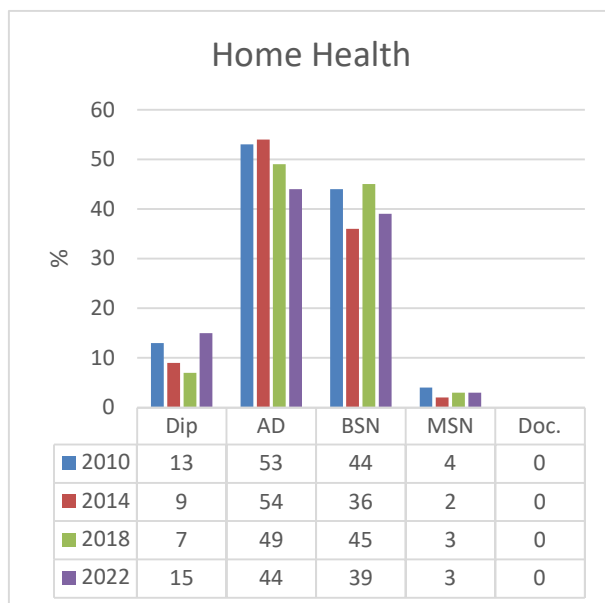
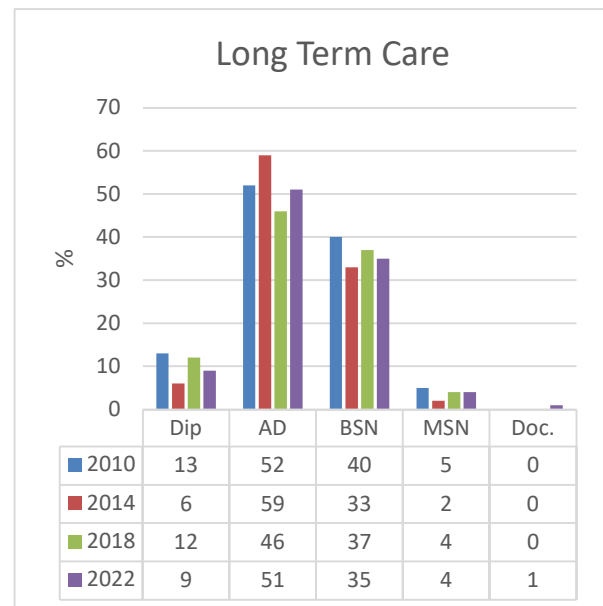
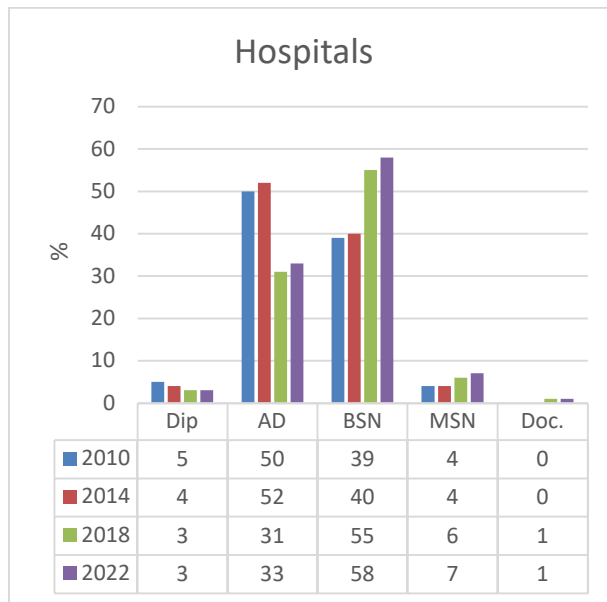




Figure 14. Educational preparation of RNs employed by responding healthcare facilities in 2010, 2014, 2018, and 2022 (2014 data was not available for dialysis centers and ambulatory surgery care centers).

Hiring of New Graduates, Nurse Residency, Pay Differential, and Educational Support

Beginning with the 2014 LCN-NES, employers were asked questions about hiring practices related to new graduates, residency programs, pay differentials, and support for nurses to advance their education (Table 20). In 2022, a total of 610 new RN grads and 133 new LPN grads were hired by

hospitals compared to 882 RNs and 200 LPNs, respectively, hired by responding hospitals in 2018. This represents a 30.8% decrease in the number of RNs hired by responding hospitals and a 33.5% decrease in the number of new LPN grads hired by hospitals. Approximately 69% of the hospitals reported hiring new RN graduates (66% in 2018) and 57% hired new LPN graduates (42% in 2018). Sixty percent of the public health regional clinics preferred hiring RNs with BSNs. The percentage of healthcare facilities offering a nurse residency program ranged from 23.5% for hospitals to zero percent for public health, FQHC's, ambulatory surgery facilities, and hospice facilities. The percentage of healthcare facilities paying a differential for nurses with a BSN ranged from 50.0% of the public health clinics, 27.9% of the hospitals, 19.4% of the rural health clinics, approximately 14% of the hospice facilities and dialysis centers, 12.5% of the FQHCs, 11.8% of the LTC/SNFs, and 5.6% of the home health agencies to zero percent of the ambulatory surgery centers. A percentage of all of the various types of healthcare agencies responding to the 2023 LCN-NES reported that they supported nurses with advancement of their education ranging from 77% of the dialysis centers and 65% of hospitals to a low of 21% of the ambulatory surgery centers.

Table 20. New RN and LPN Graduates Hired in the Last year by Responding Health Care Industries (2022)

	Hospitals	LTC	Home Health	Hospice	Dialysis	Amb. Surgery	Rural Health	Public Health	FQHC
Hire New RN Grads	68.7%	22.4%	0.0%	8.3%	6.8%	3.6%	5.4%	10.0%	12.5%
How Many RN Grads Hired	610	16	1	3	2	1	1	1	1
Prefer RNs with BSNs	7.5%	5.9%	8.3%	8.3%	2.3%	0.0%	2.7%	60.0%	12.5%
Hire New LPN Grads	56.7%	63.5%	--	--	4.6%	3.7%	21.1%	--	25.0%
How Many LPN Grads Hired	133	114	--	--	3	--	11	--	6
Nurse Residency Program	23.5%	5.9%	2.8%	0.0%	11.4%	0.0%	7.9%	0.0%	0.0%
Pay Diff for BSN	27.9%	11.8%	5.6%	13.9%	13.6%	0.0%	19.4%	50.0%	12.5%
Support Nurses in School	64.7%	52.9%	44.4%	41.7%	77.3%	21.4%	36.1%	30.0%	37.5%

Entry level and maximum hourly wages for nurses working in hospitals and LTC facilities

Because of the variation in wages and salaries in Louisiana reported by newly licensed RNs, a question was added to the 2019 LCN-NES to obtain data about both the entry level and maximum hourly wage for nurses. The findings for this question can be found in Table 21a and 21b for hospitals and LTC facilities, respectively. When the hourly wages obtained from employers via the 2023 LCN-NES were compared with the maximum hourly wages reported by the LWC (2020), the maximum LWC wages for RNs, LPNs, NPs, and NAs were higher than those reported by employers completing the 2023 LCN-NES. For example, the maximum wage for RNs reported by LWC is \$39.91, which is similar to the maximum hourly wage for direct care RNs working in hospitals, \$39.00, but higher than that of LTC facilities, \$36.00. The maximum hourly wage of \$45.00 reported for indirect care RNs in managerial or administrative hospitals was greater than the \$39.91. The maximum hourly wage for LPNs reported by LWC is \$23.93, which is lower than the maximum wage reported by employers completing the survey. CRNAs were the only nurses whose hourly wage aligned with LWCs of >\$90.00.

Table 21a. Mean and Median Hourly Wages for Nurses employed by hospitals in Louisiana in 2023

	n	Mean	Median
RN-DC Entry	67	\$29.07	\$28.00
RN-DC Max	65	\$39.32	\$39.00
RN-Admin Entry	46	\$34.58	\$35.00
RN-Admin Max	46	\$47.08	\$45.00
LPN-Entry	65	\$19.39	\$19.48
LPN-Max	63	\$26.42	\$26.00
NP Entry	29	\$47.07	\$46.16
NP-Max	28	\$67.29	\$63.63
CNS-Entry	4	\$36.15	\$32.00
CNS-Max	4	\$54.56	\$48.87
CRNA-Entry	12	\$82.94	\$76.53
CRNA-Max	10	\$107.04	\$107.89
CNM-Entry*	1	\$74.52	\$74.52
CNM-Max*	1	\$125.39	\$125.39
CNL-Entry	25	\$40.15	\$38.89
CNL-Max	24	\$58.91	\$57.00
NA-Entry	42	\$11.38	\$12.00
NA-Max	40	\$15.30	\$15.95

Note: DC=Direct Care; IC = Indirect Care (Managerial or Administrative)

*= Estimates are not reliable given that the sample size is only one.

Table 21b. Mean and Median Hourly Wages for Nurses employed by LTC facilities in Louisiana in 2023

	N	Mean	Median
RN-DC Entry	68	\$31.78	\$32.00
RN-DC Max	53	\$36.80	\$36.00
RN-IC Entry	56	\$33.00	\$32.00
RN-IC Max	45	\$39.37	\$38.00
LPN-DC Entry	78	\$22.59	\$22.00
LPN-DC Max	65	\$26.52	\$26.75
LPN-IC Entry	0	--	--
LPN-IC Max	0	--	--
NA-Entry	78	\$12.20	\$12.00
NA-Max	67	\$14.42	\$14.50

Note: DC=Direct Care; IC = Indirect Care (Managerial or Administrative)

-- = Unable to compute estimates given that the sample size is zero

Calculation of Nurse Supply and Demand

An estimate of demand for RNs in 2023 for the healthcare industries surveyed can be computed by adding the estimated number of vacancies in 2022 to the projected growth over the next year, which equals the demand. This is the number of new nurses needed to fill all vacant positions in these healthcare industries and the new positions they plan to create in 2023. A rough supply estimate would be the number of new graduates entering the profession and the number of new endorsements for RNs, APRNs, and LPNs (There is no available record of NA endorsements in the state). A final rough estimate for demand is determined by subtracting supply from demand.

This is considered a rough estimate because many assumptions related to the numbers cannot be validated. First of all, the number of vacancies and projected growth are estimates based on imputed data for nonresponding healthcare facilities. Secondly, the calculation for supply assumes that a certain number of nurses were endorsed into the state in 2023. Yet, in light of these limitations, statistically sound processes were used to determine the estimates used in the demand calculations, which gives a certain level of validity to the findings presented.

Major Findings

➤ *Demand for Additional Nursing Personnel in Louisiana in 2023*

As depicted in Table 22, the estimated number of new RNs, LPNs, and CNAs do not meet the estimated demand, and in light of the fact that all employers of nurses in the state were not surveyed (e.g., physician's offices), the demand may be substantially higher for all types of nurses, even those that are showing a surplus in the current report. Based on these findings, Louisiana is experiencing a nursing shortage and in light of the COVID-19 pandemic the shortage will exponentially increase as we move into the future. If the nursing shortage is not immediately addressed, facilities' ability to handle today's complex patient load may deteriorate. An estimate for the demand for APRNs was not calculated due to the fact that healthcare agencies that hire a substantial number of APRNs, such as physicians' offices, urgent care facilities, and anesthesiology groups, were not surveyed; thus, the estimates would have been skewed toward the demand for APRNs working only in the healthcare agencies that were surveyed in the current study.

Table 22. Estimated Demand for Nurses in Louisiana in 2023

	RNs	LPNs	CNAs
Estimated Vacancies	6,423	2,223	3,211
Projected Growth	1,604	738	875
Total Estimated Demand	8,027	2,961	4,086
New Grads.	2,608	988	2,958
Endorsements	840	113	
Total Estimated Supply	3,448	1,101	2,958
Unmet Demand	4,579	1,860	1,128

➤ *Nursing Skill Mix*

Healthcare facilities that completed the 2023 LCN-NES provided information on 23,898 permanent, full or part-time nursing personnel across nine industry groups. When 1,667 additional temporary personnel were included, the number of nurses employed by responding healthcare industries totaled 25,565.

Although the greatest number of RNs were employed by hospitals (10,583), public health continues to have the largest proportion of RNs among all nursing staff. Eighty-seven point eight of the entire nursing staff for public health are RNs, followed by ambulatory surgery care centers (74.7%) and hospitals (66.9%).

Hospitals employed the greatest number of APRNs amongst responding healthcare facilities (1,077), yet APRNs represent approximately seven percent of the hospital's nursing workforce compared to 48% of the nursing workforce for FQHCs, 29% for rural health clinics, and 9% for ambulatory surgery care centers.

The greatest proportion of LPNs were employed by home health agencies (33%), LTC (31%), rural health clinics (26%), and FQHCs (23%), although the largest number were employed by LTC facilities (1,785) and hospitals (1,670).

LTC facilities and hospitals employed the largest number of NAs, 3,413 and 2,480, respectively. Nurse aides represent the largest proportion of the nursing staff for LTCs (59%) followed by dialysis centers (34%).

Between 2018 and 2022, there was a 12-percentage point increase in the percentage of RNs employed by home health agencies and a seven-percentage point decrease by rural health clinics.

Responding employers reported that 93% of the RNs employed by rural health clinics and 92% of the RNs employed by ambulatory surgery centers provide direct patient care.

Of the 1,786 APRNs employed by responding healthcare facilities, 78.6% were NPs, 19.8% were CRNAs, 1.4% were CNSs, and 0.3% were CNMs. When compared to the other types of healthcare facilities that were surveyed, FQHCs (47.7%), rural health clinics (29.3%), and ambulatory surgery centers (9.3%) had the greatest proportion of APRNs as a part of their nursing workforce.

LPNs represent the greatest proportion of the nursing workforce in home health (32.9%), LTC (30.9%), rural health clinics (25.8%), and FQHCs (22.6%).

The greatest decrease in the proportion of the LPN workforce in 2022 was the 15.2 percentage point decrease in rural health clinics when compared to 2018.

NAs remain the largest proportion of the nursing workforce employed by LTC facilities, followed by dialysis centers and hospices.

➤ ***Temporary and Part-time Nursing Staff***

Overall, the various healthcare facilities used a higher percentage of part-time employees than temporary or agency staff except for public health.

Almost 37% of the home health agencies' nursing workforce were part-time employees, followed by 32% employed by ambulatory surgery care centers, 28% employed by hospices, and 20% employed by hospitals and LTC facilities each.

The use of part-time nursing staff utilized by home health went from almost 50% of their nursing workforce in 2018 to almost 37% in 2022. The number of part-time nurses

employed by hospices increased each year the employer survey was conducted, beginning with eight percent in 2010, 16% in 2014, 29% in 2018, and had a slight decrease in 2022 (28%).

The percentage of temporary or per diem nursing staff ranged from a low of less than one percent for home health and rural health clinics to a high of approximately 20% in public health.

In 2022, 1,667 temporary nursing staff were reported by responding employers compared to 1,758 temporary staff reported by responding employers in 2018 which represents a 5.2% decrease in number.

➤ ***Vacancies and Vacancy Rates***

The nursing workforce vacancies reported by responding healthcare facilities totaled 3,749 in 2022 compared to 3,727 in 2018, which is a 0.6% increase in the number of reported vacancies, with the majority being RN vacancies; 2,027 in 2022 compared to 2,042 in 2018, a 0.7% decrease in number.

There was a 35.8% decrease in NP vacancies (81 in 2018; 52 in 2022), a 28.6% decrease in CRNA vacancies (14 in 2018; 10 in 2022), a 100% decrease in CNS vacancies (six in 2018; zero in 2022), a 9.1% increase in LPN vacancies (616 in 2018; 672 in 2022); and a 2% increase in NA vacancies (969 in 2018; 988 in 2022).

The majority of NA vacancies were in LTC (634 vacancies), followed closely by hospitals (272 vacancies).

When vacancies were imputed for non-responding facilities, the total number of vacancies for all types of nursing personnel increased by 30% (12,092 estimated vacancies). The majority of the RN vacancies were for direct care RNs (6,145), which increased by 37% compared to 2018 (4,484).

The number of estimated RN vacancies in hospitals increased by almost a third (32.1%), going from 4,065 in 2018 to 5,371 in 2022.

The number of LPN and NA estimated vacancies increased by 33.3% and 21.2%, respectively.

There was a 4.6% decrease in the number of estimated vacancies for RNs in LTC between 2022 (249 estimated RN vacancies) and 2018 (261 estimated RN vacancies) and, a 68% increase in estimated vacancies for LPNs and a 33% increase in estimated vacancies for NAs.

There was a 39.8% decrease in the number of estimated vacancies for LPNs in home health agencies when compared to the number in 2018 (183 in 2022; 304 in 2018) and a

69.8% decrease in the number of estimated vacancies for NAs in dialysis centers (29 in 2022; 96 in 2018).

The highest vacancy rate for direct care RNs was 22.5% for dialysis centers, 19.8% for home health agencies, 17.5% for hospitals, and 16.0% for public health.

The healthcare industry with the highest vacancy rate for indirect care RNs (9.3%) and NPs (13.3%) were home health and hospice, respectively.

LTC centers had the highest vacancy rate for LPNs (17.4%) followed by hospitals (16.3%).

➤ ***Separations and Turnover Rates***

Healthcare facilities completing the 2023 LCN-NES reported 2,172 (2,925 in 2018) RN separations (25.7% decrease); 1,140 (1,471 in 2018) LPN separations (22.5% decrease); and 2,963 (3,716 in 2018) NA separations (20.3% decrease) between January 1, 2022 and December 31, 2022. These numbers exclude non-respondents and healthcare industries that were not surveyed.

When data were imputed for non-respondents, the estimated separations reported for all types of nursing workforce personnel more than tripled and, in some instances, almost quadrupled in number.

Between January 1, 2022, and December 31, 2022, there were an estimated 6,979 RN separations, 3,785 LPN separations, and 9,458 NA separations. The majority of the RN separations were in hospitals, whereas the majority of the separations for LPNs and NAs were in LTC. There were 442 APRN separations with the majority being NPs which occurred in hospitals.

The number of estimated separations for RNs increased by one percent. However, LPNs and NAs decreased by 7.8% and 13.4%, respectively, between 2018 and 2022.

In 2022, the median turnover rate for RNs in hospitals in Louisiana, the largest employer of RNs identified in the survey in terms of the number of budgeted positions, was 35.4% compared to a median turnover rate of 20.2% in 2018 and 13.8% in 2014. In 2022, the national turnover rate for RNs in hospitals was reported to be 22.5%, an increase of 6.6 percentage points when compared to the 15.9% turnover rate reported in 2019 (NSI National Healthcare and RN Retention Report, 2023).

Hospitals had the highest median turnover rates for RNs (38.1%), followed by LTC (32.1%), ambulatory surgery centers (27.6%), and home health agencies and FQHCs, both at 25.0%.

The highest median turnover rate for LPNs occurred in hospitals (56.3%), followed by LTC centers (29.3%) and followed closely by home health agencies and rural health clinics with median turnover rates of 28.6% and 27.1%, respectively.

➤ ***Projected One Year Growth Rate for 2023***

The number of new positions due to job growth in 2023 reported by respondents alone was 451 RNs (652 in 2018), 202 LPNs (278 in 2018), and 252 NAs (242 in 2018). These numbers do not include estimates for non-responding health care facilities.

The number of new APRN positions that new employees planned to create in 2023 included 42 NPs (54 in 2018), 12 CRNAs (11 in 2018), zero CNM (one in 2018), and zero CNSs (five in 2018).

If non-responders expect similar growth as their responding counterparts, 1,604 new RN jobs (1,622 in 2018), 156 NP jobs (194 in 2018), 39 CRNA jobs (25 in 2018), 738 LPN jobs (792 in 2018) and 875 NA jobs (690 in 2018) will be created in 2024.

In 2023, the healthcare industry group with the greatest overall one-year growth rate for direct care RNs was home health, with a 27.9% one-year growth rate (20.4% in 2018), followed closely by FQHCs with a 20.7% one-year growth rate (0.0% in 2018).

Home health agencies projected a 34.1% and 29.9% growth rate over the next year for LPNs and NAs, respectively. Following home health agencies, hospices anticipated a 15.2% increase in the number of NAs employed over the next year.

➤ ***Difficult Clinical or Administrative Positions to Fill***

Registered nurses were reported as among the most difficult types of nurses to recruit by hospitals, LTC facilities, and dialysis centers.

LPNs were identified as being one of the five most difficult types of nurses to recruit by LTC facilities, home health agencies, and rural health clinics.

Nurse administrators were identified by four of the nine types of healthcare facilities surveyed as being one of the five most difficult types of nurses to recruit.

➤ ***Educational Preparation and Progression of RNs***

The majority of the RNs employed in all of the healthcare industries, except FQHCs, surveyed were prepared at the associate and baccalaureate level, with baccalaureate prepared nurses being the majority in hospitals, dialysis, ambulatory surgery centers, rural health clinics, and public health.

Over 51% of the RNs employed by LTC facilities were prepared at the AD level.

Approximately 36% of the nurses employed by FQHCs were prepared at the Masters' level. FQHCs also reported the highest percentage of doctoral-prepared nurses (approximately three percent).

As of January 1, 2023, there was a three-percentage point increase in the proportion of RNs that were prepared at the baccalaureate level in hospitals and similarly, a three-percentage point increase in the proportion employed by ambulatory surgery centers when compared to data obtained in the 2018 LCN-NES.

From 2010 to 2018, there was a decrease in the percentage of AD-prepared nurses employed by all of the reporting healthcare facilities except for dialysis centers, which had a 13-percentage point increase between 2010 and 2018. However, between 2018 and 2022, public health, hospitals and LTC reported an increase in AD-prepared nurses, whereas home health and dialysis reported a decrease, and hospice and ambulatory surgery centers reported no change in AD-prepared nurses.

➤ ***Hiring of New Graduates, Nurse Residency, Pay Differential, and Educational Support***

In 2022, a total of 610 new RN grads and 133 new LPN grads were hired by hospitals which represents a 30.8% decrease in the number of RNs hired by responding hospitals and a 33.5% decrease in the number of new LPN grads hired by hospitals when compared to 2018.

Sixty-nine percent of the hospitals reported hiring new RN graduates (66% in 2018) and 57% reported hiring new LPN graduates (42% in 2018).

Sixty percent of the public health regional clinics preferred hiring RNs with BSNs, 13% of FQHCs, 8% of home health, 8% of hospices, and 8% of hospitals.

The percentage of healthcare facilities offering a nurse residency program ranged from 23.5% for hospitals to zero percent for public health, FQHC's, ambulatory surgery facilities, and hospice facilities.

The percentage of healthcare facilities paying a differential for nurses with a BSN ranged from 50.0% of public health, 27.9% of the hospitals, 19.4% of rural health clinics, approximately 14% of the hospice facilities and dialysis centers, 12.5% of the FQHCs, 11.8% of the LTC/SNFs, and 5.6% of the home health agencies to zero percent of the ambulatory surgery centers.

A percentage of all of the various types of healthcare agencies responding to the 2023 LCN-NES reported that they supported their nurses with advancement of their education ranging from 77% of the dialysis centers, 65% of the hospitals, to a low of 21% of the ambulatory surgery care centers.

Recommendations

- Obtain federal, state, and private funding to ensure that there will be a continuous pipeline of new RNs available to meet the ongoing demand for nurses in Louisiana.
- Expand and continue capitation funding to postsecondary education institutions to increase the capacity of RN and LPN programs to ensure that there will be a continuous pipeline of new RNs available to meet the ongoing demand for nurses in Louisiana.
- Increase the capacity of nursing programs to ensure a diverse workforce that reflects the racial/ethnic composition of the overall state and provides culturally competent care to racial/ethnic minority populations.
- Support funding opportunities (grants, scholarships, tuition reduction programs, etc.) to decrease tuition costs for nursing students.
- Reinstate the state funded stipend program administered by the Board of Regents which provided up to a maximum of \$40,000 to nurses that agreed to pursue a graduate degree in nursing (Masters and/or Doctorate) and committed to teach in an RN program.
- Increase nurse faculty salaries to a level that will be competitive with that of salaries offered in the clinical setting. Consider the use of differential tuition for nursing courses to fund the increase in salaries.
- Develop loan repayment and tax credit programs for nurse educators.
- Remove legislative barriers that are preventing nurse faculty from working as adjunct faculty upon retirement.
- Seek funding to develop nurse residency programs that will prepare new graduates for a seamless and successful transition into practice in both traditional (i.e., acute care) and nontraditional settings (i.e., LTC/SNF, home health) in an effort to improve nurse retention and increase nurse supply.
- Foster academic and practice partnerships to proactively address the current and future nursing workforce shortage and to prevent continued shortages.
- Implement evidence-based RN retention models across the various health care systems in an effort to decrease consistently high turnover rates, thereby decreasing the cost associated with high turnover rates. Investigate environmental factors in healthcare organizations, which research has demonstrated contributes to nursing burnout.
- Provide nurses that are interested in taking on leadership positions within the various healthcare industries with the advanced education and training needed to successfully function as a leader.
- Provide funding for the development of a statewide strategic plan to address the nursing shortage which significantly affects the health outcomes of citizens of Louisiana.

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Appendix A

Louisiana Workforce Commission's Eight Regional Labor Market Areas



Louisiana's Eight Regional Labor Market Areas

- Region 1** Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist and St. Tammany Parishes
- Region 2** Ascension, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, Tangipahoa, Washington, West Baton Rouge and West Feliciana Parishes
- Region 3** Assumption, Lafourche and Terrebonne Parishes
- Region 4** Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, St. Mary and Vermilion Parishes
- Region 5** Allen, Beauregard, Calcasieu, Cameron and Jefferson Davis Parishes
- Region 6** Avoyelles, Catahoula, Concordia, Grant, LaSalle, Rapides, Vernon and Winn Parishes
- Region 7** Bienville, Bossier, Caddo, Claiborne, DeSoto, Lincoln, Natchitoches, Red River, Sabine and Webster Parishes
- Region 8:** Caldwell, East Carroll, Franklin, Jackson, Madison, Morehouse, Quachita, Richland, Tensas, Union and West Carroll Parishes

Appendix B

Louisiana Department of Health Nine Administrative Regions

