FCN
Florida
Center for Nursing

Florida's 2016-2017 Workforce Supply Characteristics and Trends:
Licensed Practical Nurses (LPN)

June 2018

CONTENTS

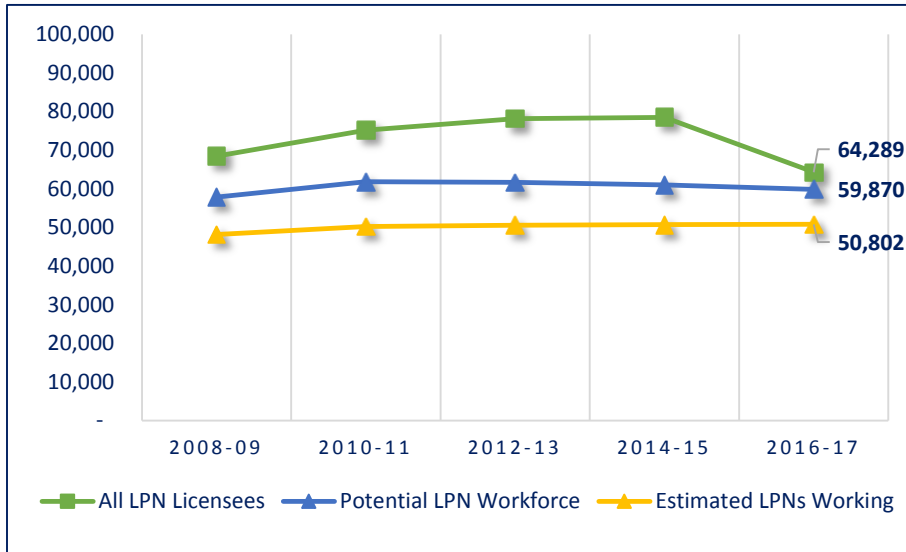**FCN** Florida Center for Nursing

KEY FINDINGS

The following information represents **key findings** on Licensed Practical Nurse (LPN) supply and workforce in Florida as of the 2016-17 renewal cycle. Trend analyses over time are provided when available.

Florida's LPN Supply Trend

- Florida's *potential* LPN workforce remained relatively **stable**, with around 60,000 nurses.
- The overall LPN workforce experienced **negative growth rates**, with a decline of 1.9% in 2016-17.
- The number of working LPNs per 100,000 population **decreased**, compared to past renewal cycles.
- Most LPN attrition (85%) was caused by a **failure to renew**.
- **Top employment settings** for renewing LPNs include extended care (32%), home health (13%), and physician's offices (9%).
- The most common **occupational title** for renewing LPNs was staff nurse (71%)
- 29% of LPNs **specialize** in geriatrics.
- The number of **working LPNs over 60** has increased 3% since 2015.
- About 44% of working LPNs are over 50 and may **phase out** of the workforce through retirement in the next 5 to 10 years.
- **Retirement** of FL's aging nurse workforce will result in the loss of highly skilled mentors with years of organizational and experiential knowledge.
- 74% of working LPNs have a **1.0 FTE** (full-time equivalency value)

LPN Workforce Gains and Losses
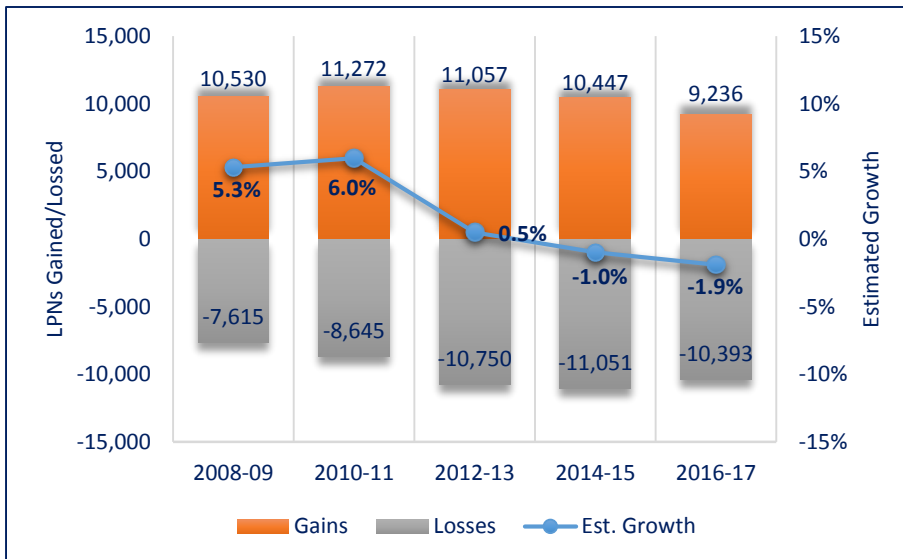
Recommendations

1. Investigate and address the increasing losses from the LPN workforce. Improve retention and recruitment to the LPN workforce.
2. Encourage academic and industry collaboration to align curriculum content to meet industry needs, particularly for geriatrics and home health.
3. Support the Center's research efforts and analysis of workforce trends

INTRODUCTION

The Florida Center for Nursing (Center), in partnership with the Florida Board of Nursing (FBON) and Florida Department of Health, Division of Medical Quality Assurance (MQA), has collected nurse workforce data since January 2008 via a voluntary Workforce Survey. The survey is integrated into the online license renewal process for all nurse licensees.

This report provides information on Florida's **licensed practical nurse (LPN)** population using data collected during the license renewal cycle of January 2016 – December 2017. Characteristics of Florida's nurse population, such as size, demographics, and employment information are described herein.

Current information is also compared to data from previous license renewal cycles and trends of the changing LPN workforce are discussed. Data on the state's supply of nurses provides valuable information to nurse employers, nursing schools, nurse faculty, workforce planners, and policy makers.

FLORIDA'S LPN SUPPLY AS OF DECEMBER 2017

LPNs renew their licenses on a biennial basis, during odd years. The data used for this report represents the best approximation of LPN status as of December 31, 2017 in order to describe the current population of licensees.

> ## 59,870 *Renewing LPNs & New Licensees in the Potential Workforce*

Florida's LPN license database had more than 55,000 renewing licensees and about 9,000 newly licensed LPNs as of December 2017. Overall, almost 60,000 licensees (94% of renewals and 85% of newly licensed LPNs) met the criteria for being counted as part of the *potential* **LPN workforce: an active license, a Florida address, and no disciplinary restrictions**. These LPNs are capable of providing nursing labor in Florida. Among them, an estimated 50,802 new and renewing LPNs are employed in nursing in Florida.

Figure 1: Florida's LPN Supply Trend, 2008-09 to 2016-17
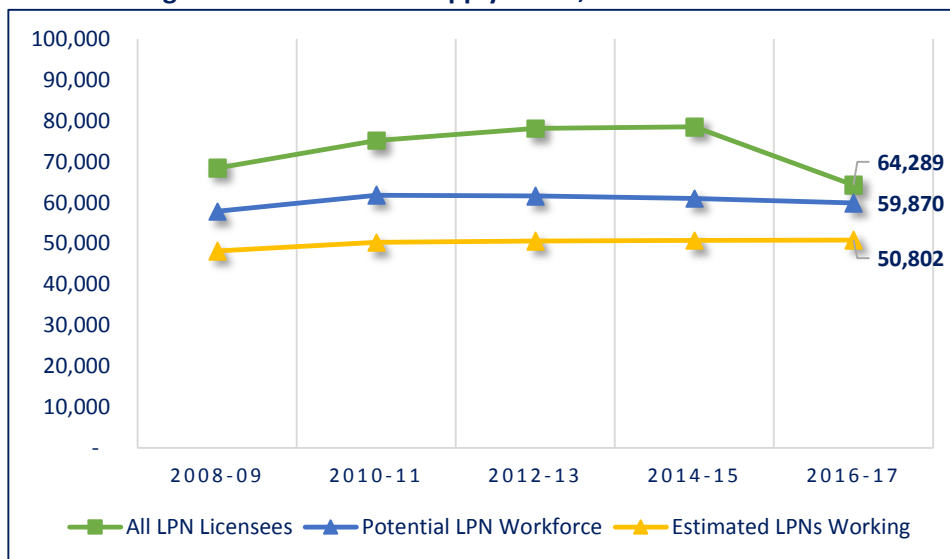
Compared to 2014-15, overall counts of LPN licensees dropped by about 14,000 (Figure 1). Yet, the number of LPNs in the potential workforce and LPNs estimated to be working have remained consistent over time. This may suggest fewer LPNs are maintaining a Florida license despite being ineligible or not intending to practice in this state. However, this decline should be monitored for potential implications to future LPN supply.

LPN WORKFORCE GAINS AND LOSSES

An exploration of changes to the potential LPN nurse workforce highlights distinctions between individual licensees into and out of the workforce during the 2016-17 renewal cycle (Figure 2). The estimated growth of the LPN workforce is defined as the overall difference between a given renewal cycle's potential workforce and the previous cycle's potential workforce.

In the past two years, the potential LPN workforce had a negative growth rate, overall. In **2016-17, LPNs gained 9,236 LPNs, but lost 10,393,** resulting in a net decrease of 1,157 LPNs (-1.9%). Prior to this

Figure 2: Florida's Potential LPN Workforce Gains, Losses, and Estimated Growth 2008-09 to 2016-17

decline, in 2012-13, the LPN potential workforce only grew by 0.5%. The 2014-15 cycle was the first to experience a negative growth rate, as the potential LPN workforce decreased by 1.0%.
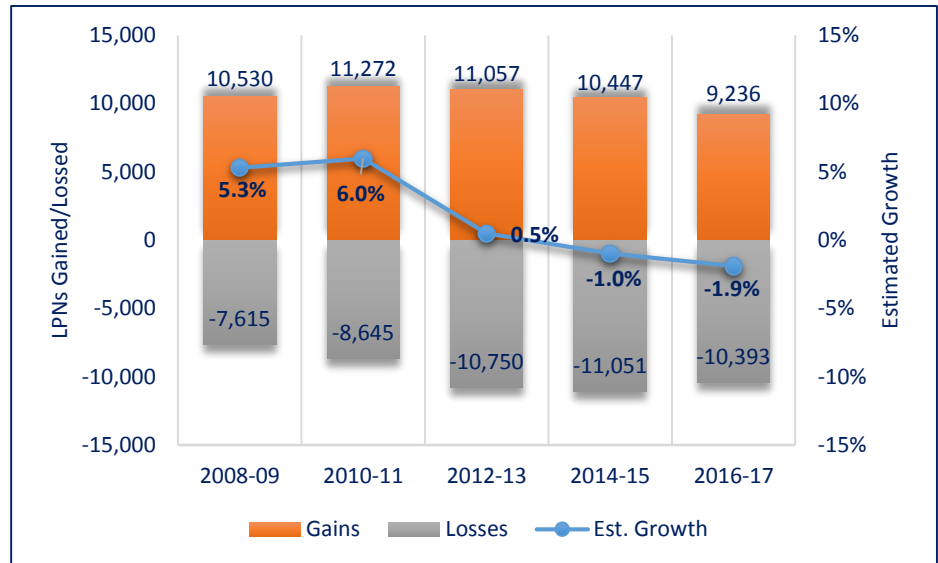
The sections below provide additional details into the explanations for the changing potential workforce.

Potential LPN Workforce Gains

The potential LPN workforce gained 9,236 nurses between 2016 and 2017 (Table 1). About 57% of the additions were newly licensed LPNs and 26% were LPNs newly endorsed in the state of Florida.[1] The number of newly licensed LPNs decreased compared to 2014-15. In particular, the rate at which nurses from other states gained FL licenses by endorsement decreased from the 2014-15 cycle by about 4% and new LPNs by examination decreased by 14%.

Table 1: Gains to Potential LPN Workforce, 2016-17

	N
New Licensee by Exam	5,236
New Licensee by Endorsement	2,430
Valid Florida Address	790
Changed to Eligible	731
New Licensee - Other	32
Changed to Active	17
Total Gains	**9,236**

On the other hand, more than 500 more LPNs gained a valid Florida practicing and/or mailing address compared to 2014-15.[2] However, gains to the potential workforce through the addition of a local address represents only 8.6% of the total gains during this cycle. Compared to the last cohort, about half as many LPNs were gained to the workforce by changing to an eligible status.

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[1] Based on original licensure date. However, this date may be 'reset' if a nurse allows their license to expire but later becomes relicensed in the state. This number may include some nurses that have been in the workforce at some point in the past.
[2] This number may be attributed, in part, to changes in the method used to clean address typos in licensure data

Potential LPN Workforce Losses

Florida's potential workforce lost slightly more than 10,000 LPNs that were active during the 2014-15 cycle (Table 2). About 85% became delinquent, or failed to renew their license. Another 5% were no longer living and/or working in Florida. Overall, fewer LPNs were lost to the 2016-17 cohort, compared to those from 2012-13 to 2014-15. Almost 600 fewer LPNs became delinquent, and 270 fewer were no longer in Florida. Yet, substantially more LPNs became inactive (n=312) compared to those between 2012-13 and 2014-15 (77 LPNs).

Table 2: Losses from Potential Workforce, 2016-17

Reason for Attrition	N
Failed to Renew (Delinquent)	8,875
No longer living and/or working in FL	554
License went Null and Void	374
Changed to Inactive	312
Changed to Retired	205
Obligations/Probation	38
Disciplinary Action	22
Other Reason for Attrition	13
Total Attrition	**10,393**

While it is possible that LPNs who failed to renew or went null and void may have upgraded to RN, the Center is not able to track this information in the existing database.[3]

Characteristics of Newly Licensed Nurses

Approximately 9,000 LPNs newly licensed in the state of Florida held a valid license as of December 31, 2017. Among them, about **7,700 newly licensed LPNs were added to the potential workforce in the 2016-17 cycle.** This includes nurses who (a) received their original license by exam, endorsement, or other method (i.e. military vet expedited initial licensure) between January 1, 2016 and December 31, 2017, (b) maintain an active license, (c) have no disciplinary restrictions, and (d) have a valid Florida address.

Approximately 10% of newly licensed LPNs in the potential workforce were male, and 50% were non-white. The average age of new LPNs in the potential workforce was 35.3. About 70% of new nurses were 40 or younger, and almost 44% were between the ages of 18 and 30. An estimated 76% of the newly licensed LPNs are working in the state of Florida.[4]

Table 3: Characteristics of Newly Licensed RNs by License Type

	Newly Licensed, by…			
	Endorse	**Exam**	**Other**	**Total**
Race/Ethnicity (%)				
Asian	2.1	2.6	6.3	**2.4**
Black	26.2	34.4	15.6	**31.8**
Hispanic	10.0	14.8	9.4	**13.3**
Other	2.3	2.7	-	**2.5**
White	52.4	37.8	46.9	**42.5**
Gender (%)				
Female	88.2	85.3	62.5	**86.1**
Male	8.9	11.0	31.3	**10.4**
Age Group (%)				
18-30	15.4	56.6	25.0	**43.5**
31-40	27.7	26.1	65.6	**26.7**
41-50	28.5	12.7	9.4	**17.6**
51-60	20.0	3.9	-	**9.0**
61-70	7.5	0.6	-	**2.8**
71 or older	0.8	0.02	-	**0.3**
Est. Working (%)				
No	17.3	26.2	18.8	**23.4**
Yes	82.3	73.7	81.3	**76.4**
Average Age	43.4	31.5	34.3	**35.3**

Note: Proportions may not equal 100% due to missing data

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[3] Profession and file numbers change, as do license numbers. There are no consistent means of tracking LPN to RN upgrades since the Center no longer receives personal identifiers like social security numbers.

[4] This value should be interpreted with caution. There is no survey information available for new nurses, so employment status is estimated using licensees' input of a valid practicing address in the state of Florida in their licensure application.

New LPNs in the potential workforce who became licensed by exam were more likely to be younger and non-white, compared to nurses who received their initial Florida licensure by endorsement in 2016-17. About 34% of the new LPNs licensed by exam were black, and 15% were Hispanic. Almost 57% of new licensees by exam were 18-30 years old, while new licensees by endorsement were more distributed among each age group.

Aside from the characteristics above, little is known about LPNs newly licensed in the state of Florida, particularly as it pertains to the information gained through the Center's Workforce Survey. When Florida nurses renew their licenses online, they are invited to participate in the Center's Workforce Survey. LPNs newly licensed in Florida can also complete the survey, although they are not directly exposed it, and participation requires extra effort. While some newly licensed LPNs participated in the survey in the past, there were **no newly licensed participants during the 2016-17 cycle**.

As a result, the remainder of this report will focus on renewing LPNs …[5]

In total, 45,157 renewing LPNs participated in the Nurse Workforce Survey. This represents about 82% of all renewing LPNs who maintain a Florida license,[6] and an 87% response rate among renewing LPNs in the potential workforce.

Florida's LPN license database contained 55,247 renewing licensees as of December 2017. Slightly more than 52,000 (94%) held an active license with no disciplinary restrictions, and maintained a valid Florida address. These nurses represent the *potential* workforce of renewing RNs as they are capable of providing nursing labor in Florida. Among them, an estimated 44,918 (86%) are employed in nursing in Florida. [7]

> *An estimated* **44,918** *renewing LPNs are working in Florida*

The following sections explore characteristics of nurses who participated in the survey, in order to describe the 2016-17 LPN nursing workforce.

EMPLOYMENT CHARACTERISTICS

An estimated 86% of renewing LPNs in the potential workforce are working, while 14% are not employed in nursing.

An estimated 4% of unemployed LPNs were seeking work as a nurse, and an additional 4% were not seeking work at all (Figure 3). Less than 2% indicated they were retired (but still have an active license and remain in the potential workforce). Almost 3% of LPNs indicated they were not working as a nurse but described their unemployment status as "Not Applicable (I am employed for pay)." This may point to nurses employed outside of nursing.

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[5] Includes nurses with an original license date prior to January 1, 2016, who renewed, or were expected to renew, during the 2016-2017 cycle.
[6] Based on the Florida Department of Health Division of Medical Quality Assurance (2018) License Status Definitions
[7] The Center uses responses to the workforce survey to estimate the number of nurses working in Florida. This estimate was calculated by extrapolating survey results for certain questions to nurses who did not respond to the Workforce Survey. More information about data processes can be found in the Center's 2018 technical report.

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Compared to the 2014-15 cohort, there were 3% more LPNs in the potential workforce employed in nursing. There was a decline in the number of LPNs not seeking work, as well as those indicating they were retired. The number of LPNs seeking work as a nurse also decreased by about 1%. These small changes may indicate that some nurses seeking work were successful in finding employment, while others who were retired or not seeking work changed their status and/or did not renew their license.[8]

Figure 3: Work Status of Renewing LPNs, 2016-17

- 0.6%
- 0.3%
- 2.8%
- 4.4%
- 1.6%
- 4.2%
- 86.1%

- Employed as a nurse
- Not seeking work at this time
- Retired
- Seeking work as a nurse
- Seeking work in a field other than nursing
- Not Applicable
- No Response
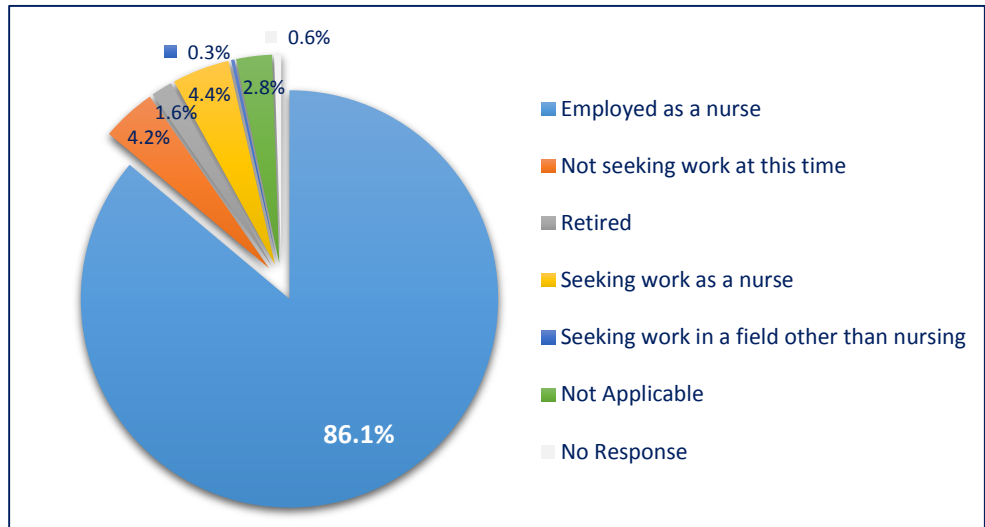
Note: Proportions are weighted to match population of all renewing LPNs

Unemployment Reasons

Additionally, when survey participants were not employed for pay in nursing, they were also asked to describe reason(s) *why* they are not working. Overall, **taking care of home and family (21%) was the most commonly reported reason for unemployment** among renewing LPNs not employed in nursing. The proportion of nurses not employed for family reasons decreased from the 2014-15 cohort by 9%.

The second most common selection for unemployment was "other" (14%), and 10% stated they were employed, which suggests those not employed in nursing may be employed elsewhere. An additional 9% reported their unemployment was due to disability or illness, and 6% were not working because they were in school. Approximately 6% also indicated they had difficulty finding nursing jobs.
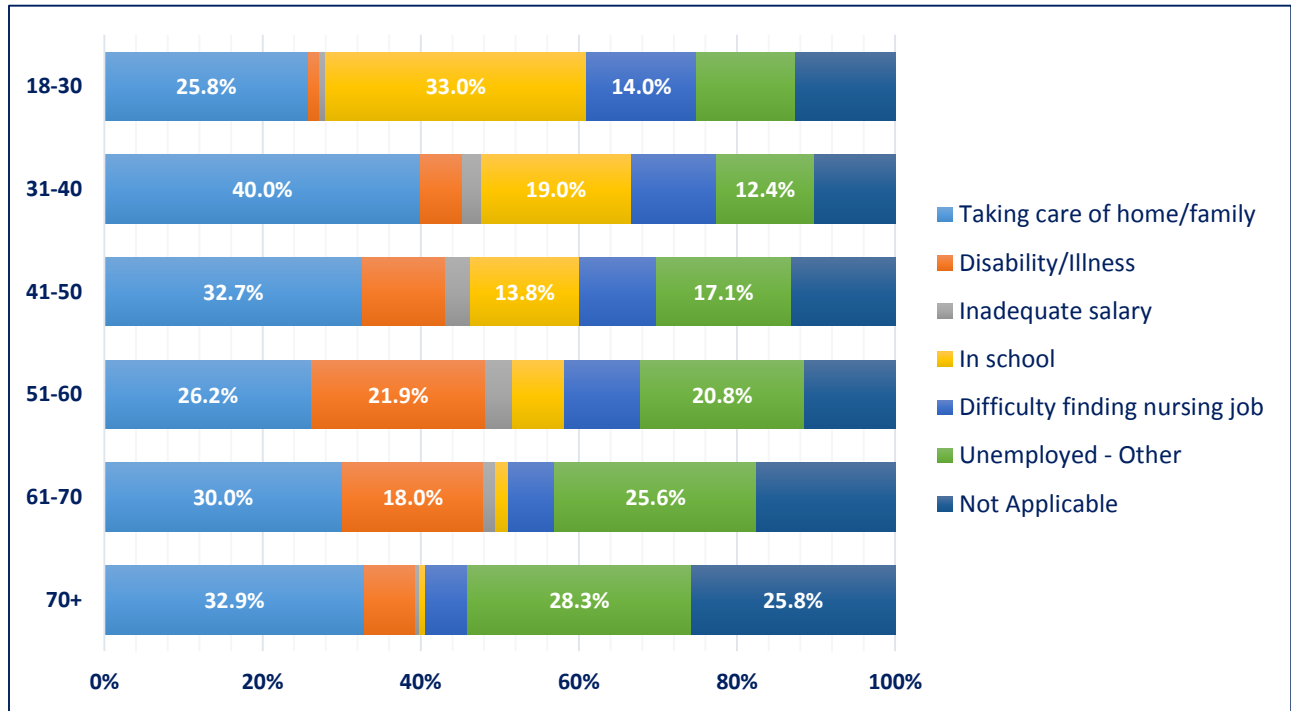
The number of respondents reporting home obligations as a reason for unemployment has declined by 10% compared to LPNs in the 2014-15 renewal cycle. School responsibilities also impacted fewer survey respondents as the proportion of participants selecting this option decreased an additional 7% since 2014-15.

There are some differences in reasons for LPN unemployment by age group (Figure 4, next page). For instance, 18-30 year old renewing LPNs who were not working were much more likely to be in school (33%), compared to other groups. This age group was also slightly more likely to report difficulty finding nursing jobs. Unemployed LPNs between 31 and 40 years were the most likely to report family and home obligations as their reason for unemployment (40%), followed by the LPNs who were at least 70 years old (33%). LPNs who were at least 61 years old were more likely to select "other" or "not applicable" options, which are the categories most likely to represent retirement, in addition to other reasons not listed. Overall, very few respondents reported

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[8] Minor differences in proportions may be partially attributed to methodology changes, as this report is the first to include missing/non-response proportions and population weighting.

inadequate salary as the reason they are not working in nursing. However, 51-60 year olds were slightly more likely to select this option (3.4%) compared to LPNs of other ages.

Figure 4: Reasons LPNs are Not Working in Nursing, by Age Group

Age	Taking care of home/family	In school	Unemployed - Other
18-30	25.8%	33.0%	14.0%
31-40	40.0%	19.0%	12.4%
41-50	32.7%	13.8%	17.1%
51-60	26.2%	21.9%	20.8%
61-70	30.0%	18.0%	25.6%
70+	32.9%	28.3%	25.8%

Legend: Taking care of home/family; Disability/Illness; Inadequate salary; In school; Difficulty finding nursing job; Unemployed - Other; Not Applicable

Note: Proportions are weighted to match population of all renewing LPNs; Participants were able to select multiple options

Employment Settings

Consistent with previous years, **extended care, assisted living, and/or nursing homes employed the largest portion of LPNs (32%)**. An additional 13% work in home health care, and 9% are employed in the offices of physicians or other health providers. Hospitals are also somewhat common employers of LPNs (6%) (Table 4, next page).

LPNs were least likely to report employment in policy and planning settings, occupational health, consulting, and academic settings. Approximately 5.5% of survey respondents reported working in some other setting not listed.

TOP 3 INDUSTRIES

32% Extended Care, Assisted Living

13% Home Health

9% Physician Office

Overall, the number of LPNs reporting their work setting in the Nurse Workforce Survey has decreased since the 2014-15 cycle. This decrease was observed across all employment settings, and likely reflects a decrease in survey participation. Similarly, this report is the first to consider the proportion of survey participants who did not provide a response to this question, thus the overall proportion in each setting may be slightly lower compared to previous years, and proportions may not equal 100%.

Table 4. LPNs Employed by Setting, 2010-11 to 2016-17

| Employment Setting	2010-11		2012-13		2014-15		2016-17 [a]	
Academic Setting	146	0.3%	142	0.3%	132	0.3%	102	0.2%
Ambulatory Care	1,029	2.1%	1,128	2.2%	1,187	2.3%	906	2.0%
Corrections Facility	2,194	4.4%	2,241	4.4%	2,039	4.0%	1,530	3.4%
Healthcare Consulting / Product Sales	141	0.3%	142	0.3%	152	0.3%	112	0.2%
Home Health Care	8,043	16.0%	8,614	17.0%	7,801	15.4%	5,781	12.8%
Hospice †	-	-	-	-	2,871	5.7%	2,116	4.7%
Hospital	6,231	12.4%	5,088	10.1%	3,946	7.8%	2,816	6.2%
Insurance Claims/Benefits	547	1.1%	652	1.3%	918	1.8%	716	1.6%
Nursing Home, Extended Care [b], Assisted Living	20,480	40.8%	20,541	40.6%	19,684	38.8%	14,586	32.3%
Occupational Health	141	0.3%	111	0.2%	101	0.2%	82	0.2%
Other	3,560	7.1%	3,920	7.8%	3,327	6.6%	2,502	5.5%
Physician or other Health Provider Office	4,981	9.9%	5,220	10.3%	5,391	10.6%	4,200	9.3%
Policy, Planning, Regulatory, Licensing Agency †	-	-	-	-	41	0.1%	28	0.1%
Public/Community Health	1,165	2.3%	1,214	2.4%	1,136	2.2%	884	2.0%
School Health	1,069	2.1%	1,148	2.3%	1,227	2.4%	984	2.2%
Temporary / Staffing Agency	462	0.9%	420	0.8%	309	0.6%	235	0.5%
Urgent Care/Walk-in Clinic †	-	-	-	-	446	0.9%	328	0.7%

†Data not available prior to 2014-15 renewal cycle, [a] Data represents working survey respondents only, proportions may not equal 100% due to missing data/non-response, [b] Previously 'Long Term Care'

Occupational Titles and Practice Areas

Survey participants were also asked about other employment details, including occupational titles, area of practice, hours worked, and full-time/part-time status.

71% of working LPNs were Staff Nurses (Figure 5). An additional 12% were employed in other health related positions, including consultants, non-faculty nurse researchers, quality or risk management, utilization review/ infection control, and all other unspecified health related occupations. The remaining 17% of the survey respondents include nurse managers (5%), case managers (3%), faculty/educators (2%), and travel nurses

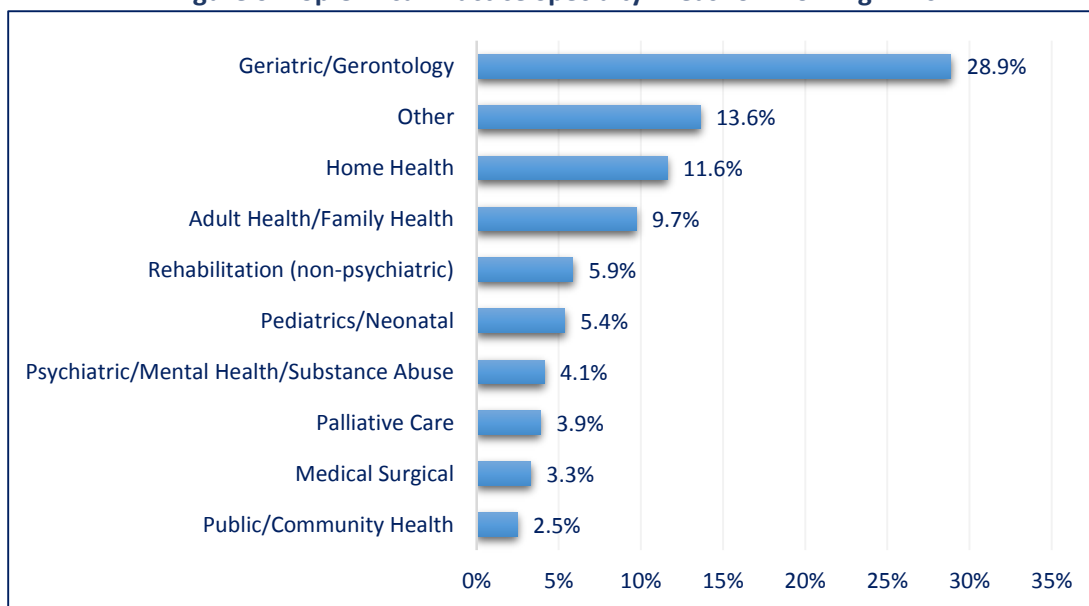**Figure 5: Occupational Titles of Working LPNs**
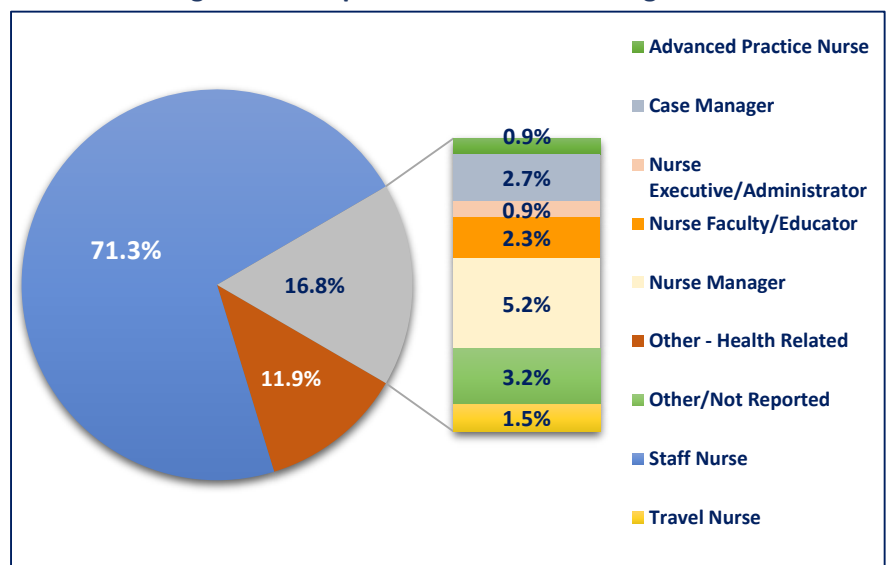
Note: Data includes responses from working survey participants only

(1.5%). Participants identifying as advance practice nurses and nurse executives/administrators comprise less than 2% of the sample, and 3% did not provide a response, or indicated some other non-health related position.

LPNs most frequently specialize in geriatrics/gerontology (29%). About 12% were in home health, and 10% were in adult or family health. Almost 14% of LPN respondents indicated a specialty area of "Other" (Figure 6).

Since the proportion of "Other" specialties was quite substantial, we explored some characteristics of these nurses in more detail. Many indicated working in physician offices (24%) or some other, unspecified setting (21%). Additionally, 60% were staff nurses, and 13% indicated some other, unspecified title. Due to the large pattern of 'otherness' selected, these questions in the Nurse Workforce Survey should be explored in the future, to reconsider options more fitting for those selecting "Other".

Figure 6: Top Clinical Practice Specialty Areas for Working LPNs

Specialty	Percentage
Geriatric/Gerontology	28.9%
Other	13.6%
Home Health	11.6%
Adult Health/Family Health	9.7%
Rehabilitation (non-psychiatric)	5.9%
Pediatrics/Neonatal	5.4%
Psychiatric/Mental Health/Substance Abuse	4.1%
Palliative Care	3.9%
Medical Surgical	3.3%
Public/Community Health	2.5%

Non-psychiatric rehabilitation (6%), pediatrics or neonatal (5%), and psychiatrics/mental health (4%) were also common specialties among LPNs in this cohort. The less commonly selected practice specialty areas (not depicted in Figure 6) include school health (2.1%), other acute care (1.6%), women's health (1.3%), and eight categories with less than 1% of nurses represented in each.

Other Employment Characteristics

The **proportion of LPNs working full-time (81%) continued to increase** (Table 5, next page). Full time LPNs increased 1.9% from 2014-15, and 3.2% from 2012-13. Similarly, the full-time equivalency (FTE) has increased from the 2014-15 cohort, to an average of 0.91. [9]

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[9] The ratio of total number of paid hours worked per year/standard number of hours indicating full time employment. FTE is capped at 1.0

Table 5: Employment Detail for Working LPNs, 2010-11 to 2016-17

	2010-11	2012-13	2014-15	2016-17
Employment Status (%)				
Full-Time	79.6	78.1	79.4	**81.3**
Part-Time	11.1	11.8	11.2	**10.2**
Per Diem/Agency	9.3	10.1	9.4	**8.5**
Multiple Jobs? (%)				
Yes	13.0	12.9	13.5	**13.3**
No	87.0	87.1	86.5	**84.7**
Hours Per Week (%)				
20 or fewer	8.0	8.7	8.2	**6.8**
21-30	8.0	8.3	8.0	**7.1**
31-35	8.6	8.7	8.2	**7.7**
36-40	58.0	57.7	56.8	**57.0**
41-50	12.8	12.4	13.8	**14.0**
51 or more	4.6	4.3	4.3	**5.1**
Average FTE	0.88	0.85	0.85	**0.91**

Most LPNs reporting the number of hours worked in a typical week work **at least 36 hours**: 57% of LPNs work between 36 and 40 hours, 14% work between 41 and 50 hours, and 5% work 51 or more hours. The proportion of nurses working 36 hours or more increased slightly compared to the previous cohort.

Most working LPNs participating in the survey worked one job (85%), although 13% worked two or more jobs. These proportions are similar to previous years, although the current report is the first to account for missing data in the proportions.

DEMOGRAPHICS

LPN Workforce Diversity

Table 6 depicts demographic characteristics of all renewing LPNs working in nursing. Overall, 51% of the renewing nurse workforce were white, and 90% were female. These proportions are consistent with the previous renewal cycle. The average age of all working LPN renewals was 48.0. Approximately 18% of working LPN renewals were at least 61 years old. About 1,100 of them are 71 or older. As a result, **more than 8,200 LPN renewals in the total potential workforce may be likely to leave the workforce within 5 years.**[10]

Similarly, 25.5% of working LPN renewals were between 51 and 60 years old, indicating that more than 11,000 additional LPNs will be approaching retirement age within the next 5-10 years.

Demographic characteristics of survey respondents are almost identical to the overall potential workforce. However, survey participation is slightly less common

Table 6: Demographics of Working LPNs

	Total Workforce	Survey Respondents
Race/Ethnicity	%	%
Asian	**2.4%**	2.4%
Black	**31.9%**	31.9%
Hispanic	**10.7%**	10.5%
Other	**2.3%**	2.2%
White	**51.4%**	52.0%
Gender		
Female	**89.8%**	89.9%
Male	**10.0%**	10.0%
Age Group		
18-30	**9.7%**	8.1%
31-40	**20.8%**	20.6%
41-50	**25.7%**	26.4%
51-60	**25.5%**	26.4%
61-70	**15.9%**	16.3%
71 or older	**2.5%**	2.2%
Average Age	**48.0**	48.4

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[10] Includes survey respondents and non-participant renewals (n=52,172)

among younger LPNs. While 18-30 year olds represent 9.7% of the renewing potential workforce, 8.1% of survey respondents were among this age group.

Compared to state level Census data (2017), black nurses are overrepresented in the LPN workforce. Non-Hispanic whites comprise 55% of Florida's population and 51% of the LPN workforce. Blacks comprise about 17% of the state population, but 32% of the LPN workforce. Further, about 25% of Floridians are Hispanic, although a direct comparison to the LPN population is not possible given distinctions between race and ethnicity at the state level which is not included in the licensure database.

State level Census data (2017) also highlights the continued overrepresentation of women in the LPN workforce, as females comprise about 51% of Florida's total population yet 90% of the LPN workforce.
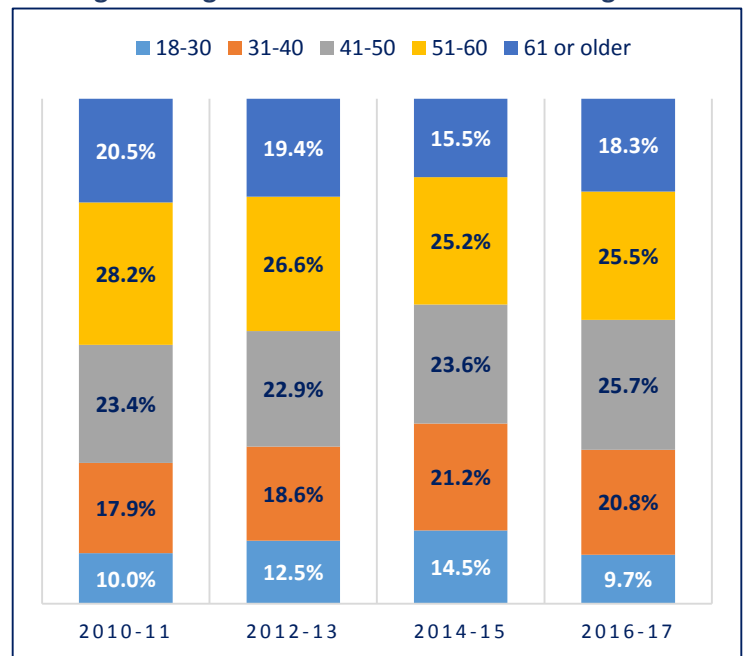
Age Distribution

The age distribution of all working LPNs has remained relatively constant in the past four cohorts (Figure 7). In 2016-17, the proportion of 18-30 year old nurses was smaller than previous years, which is likely due to the inclusion of newly licensed LPNs in the past. Newly licensed LPNs are not considered here as there was no survey participation among this group.

Compared to 2014-15, the proportion of **working LPNs over the age of 60 has increased by almost 3%.** As Florida's workforce ages, the retirement of highly experienced nurses will result in a loss of skilled mentors with years of organizational and experiential knowledge. The nurse workforce must recruit and retain substantial numbers of younger and newly licensed nurses, as the older cohorts retire.

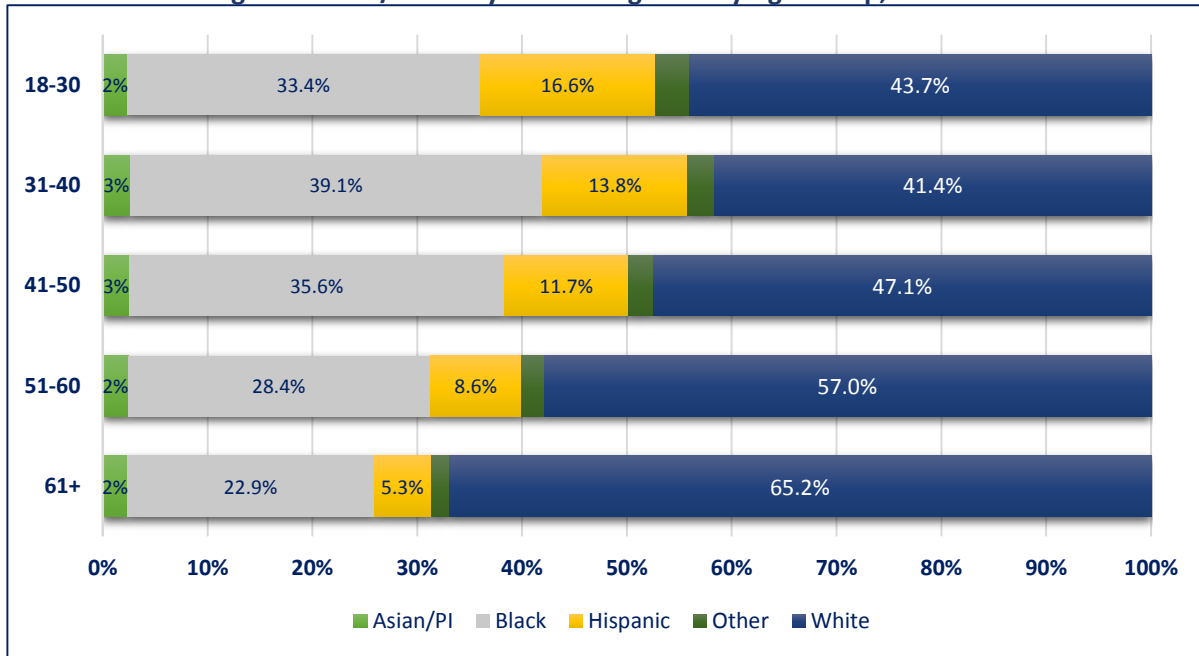Among 2016-17 working renewals, **older cohorts were more likely to be white**, compared to younger groups (Figure 8, next page). Representation of Hispanic or Latino/a LPNs is increasingly common among younger groups. Working LPN renewals who identify as Black or African American are most represented in the 31-40 year old age group. Asian or Pacific Islanders are the least represented among all age groups.

Figure 7: Age Distribution Trends of Working LPNs

Legend: 18-30, 31-40, 41-50, 51-60, 61 or older

	2010-11	2012-13	2014-15	2016-17
61 or older	20.5%	19.4%	15.5%	18.3%
51-60	28.2%	26.6%	25.2%	25.5%
41-50	23.4%	22.9%	23.6%	25.7%
31-40	17.9%	18.6%	21.2%	20.8%
18-30	10.0%	12.5%	14.5%	9.7%

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Figure 8: Race/Ethnicity of Working LPNs by Age Group, 2016-17

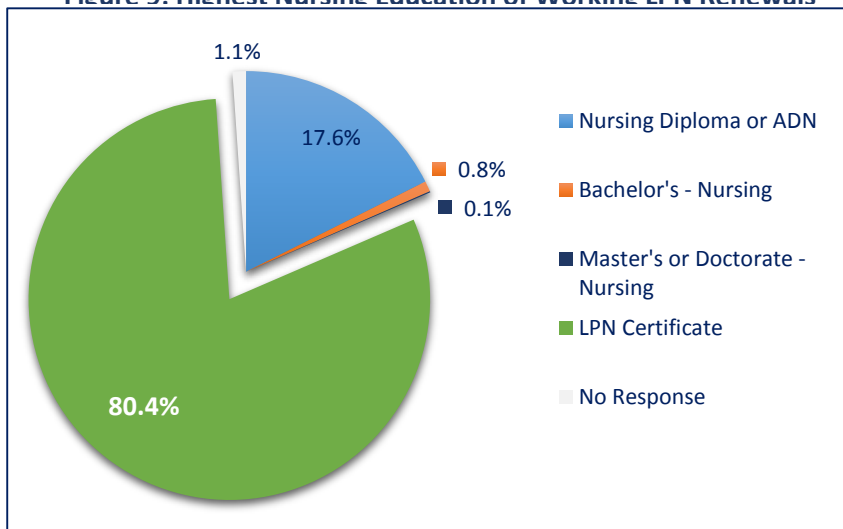| Age Group	Asian/PI	Black	Hispanic	Other	White
18-30	2%	33.4%	16.6%		43.7%
31-40	3%	39.1%	13.8%		41.4%
41-50	3%	35.6%	11.7%		47.1%
51-60	2%	28.4%	8.6%		57.0%
61+	2%	22.9%	5.3%		65.2%

ACADEMIC ACHIEVEMENT

Highest Education in Nursing

Educational attainment in nursing among employed LPNs is shown in Figure 9.[11] As expected, **the vast majority of LPNs hold the LPN Certificate as their highest degree** (80%). About 12% had a diploma in nursing and 6% had an Associate's in Nursing. Less than 1% indicated they had a Bachelor's in Nursing and 33 participants reported having a Master's or Doctorate in Nursing.

Although the proportion of LPNs reporting advanced degrees is negligible, it is not clear why these nurses would be working as an LPN with a higher nursing degree. This group may represent LPNs working toward upgrading their licenses to RN, or those who have not successfully passed licensure exams to obtain a different role. Others may have difficulty finding positions in a different rank, or may prefer to work as an LPN at this time.

Figure 9: Highest Nursing Education of Working LPN Renewals

- 1.1%
- 17.6% — Nursing Diploma or ADN
- 0.8% — Bachelor's - Nursing
- 0.1% — Master's or Doctorate - Nursing
- 80.4% — LPN Certificate
- No Response

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[11] Initial degree in nursing was substituted for highest degree in nursing when the highest degree was left blank but initial degree was provided (n=212). This may result in a slight overestimation of less advanced degrees.

Lastly, these may be the result of data/response error. Yet, without additional research, explanations remain speculative.

> *The highest degree for* **80%** *of working LPN renewals is the LPN certificate*
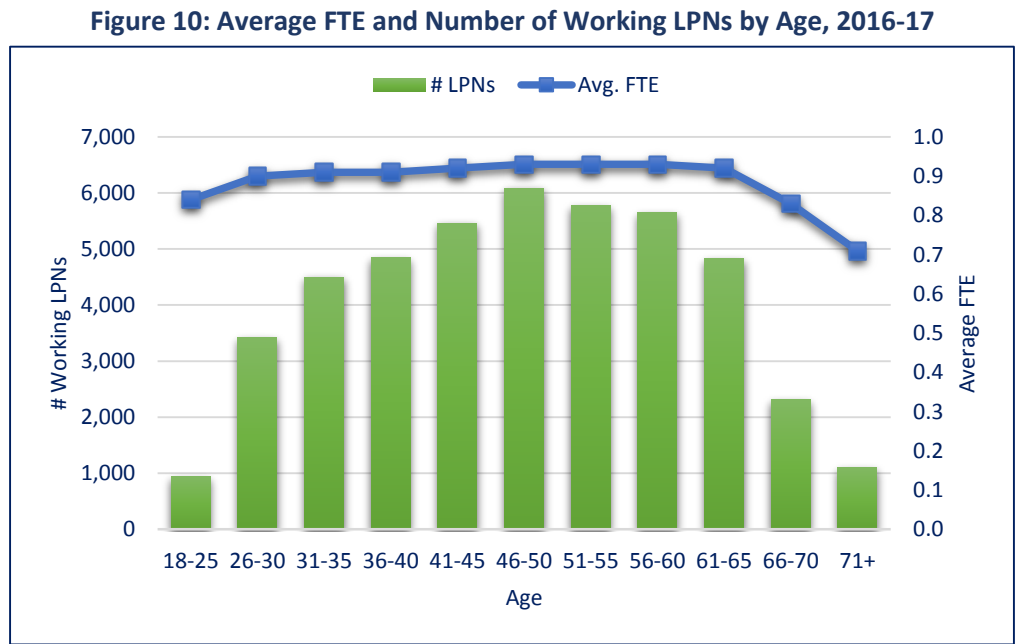
Highest Education (Any)

Many nurses who described their highest nursing degree also have degrees in other fields. Slightly less than 7% of participants had a higher degree in a non-nursing field than their highest nursing degree. Among them, 5.4% of respondents who have either an LPN certificate, nursing diploma, or associate's degree also have a baccalaureate degree in another field. Another 1% had a master's in another field, but a bachelor's or less in nursing. Less than 0.5% indicated they had a doctorate degree in a non-nursing field, while reporting a lower degree in nursing. **Overall, only 7.7% of working LPNs had a bachelor's degree or higher in any field.**

FULL TIME EQUIVALENCY (FTE) STATUS

A full-time equivalency (FTE) value represents the annual workload of employees. FTE is the ratio of hours worked by an employee in a given time period by the number of hours considered full-time for that same given time period. **The estimated average FTE for working LPNs was 0.91.**[12]

FTE by Age Group

Figure 10 depicts the average FTE and estimated number of working LPNs by age group. On average, older LPNs worked fewer hours, with a particular decline among

Figure 10: Average FTE and Number of Working LPNs by Age, 2016-17

Note: Proportions are weighted to match population of all renewing LPNs

working LPNs 66 and older. On the other hand, middle aged LPNs, between 46 and 60 years, have a slightly higher average FTE (0.93) compared to younger and older groups. Youngest LPNs (18-25) comprise the smallest proportion of LPN renewals, and have a slightly lower average FTE (0.84) compared to 26-65 year old LPNs.

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[12] Excludes nurses who reported that they were working, but indicated 0 hours per week

Table 7: Working LPNs and Average FTE by Employment Setting, 2016-17

Setting	% FTEs by Setting	Overall Avg. FTE
Academic Setting	50%	0.84
Ambulatory Care Setting	84%	0.95
Correctional Facility	67%	0.89
Extended Care/Assisted Living	85%	0.94
Healthcare Consulting/Product Sales	84%	0.94
Home Health	76%	0.90
Hospice	62%	0.85
Hospital	72%	0.90
Insurance Claims/Benefits	83%	0.95
Occupational Health	95%	0.98
Other	74%	0.92
Physician's Office	82%	0.90
Policy/Planning/Regulatory/Licensing Agency	77%	0.91
Public/Community Health	84%	0.95
School Health Service	86%	0.93
Temporary / Staffing Agency	89%	0.95
Urgent Care/Walk-in Clinic	36%	0.83

Note: Proportion of estimated FTEs represents working LPNs with an FTE value of 1.0/est. # LPNs working in that industry. Lower % and ratios indicate more LPNs working part-time.

Nurses between the age of 46 and 50 comprise the largest proportion of all working nurses. About 31% of working LPNs are 56 years of age or older. Nurses of this age may reduce their number of hours worked or leave the workforce entirely over the next decade.
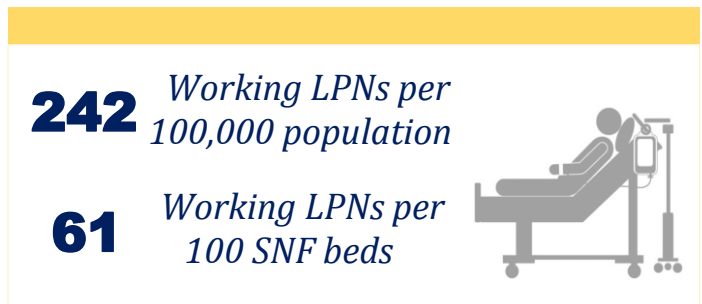
FTE by Employment Setting

Table 7 shows the proportion of working LPNs with a 1.0 FTE value in each industry. [13] A 1.0 FTE indicates full-time employment of at least 36 hours per week, year round.[14] Lower ratios indicate more participants working less than full time. **An estimated 74% of working LPNs have an FTE status of 1.0**.

Extended care facilities employ the largest majority of LPNs. Among them, 85% have a FTE value of 1.0. Additionally, 76% of home health LPNs, the second largest employer, have a FTE status of 1.0. LPNs working in Insurance Claims and Benefits have the highest proportion of 1.0 FTEs (95%). On the other hand, only 27% of Temporary Agency LPNs, and 36% of School Health LPNs have a 1.0 FTE value. LPNs working in insurance, physician offices, hospitals, public or community health, and ambulatory care worked the most year-round hours per week, on average, as evidenced by their higher overall group FTE value. As a group, LPNs working for temporary agencies and school health worked the fewest hours per week.

NURSE WORKFORCE BY STATE POPULATION

To better understand the nurse supply, we compared the number of working nurses to the state's population[15] and the number of skilled nursing facility (SNF) beds.[16]

Florida had an estimated 242 working LPNs (including newly licensed and renewing nurses) per 100,000 population in 2017, indicating continued decline from previous years. In 2014-15, there were an estimated 256 LPNs per 100,000 people, and in 2012-13, there were

242 *Working LPNs per 100,000 population*

61 *Working LPNs per 100 SNF beds*

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[13] Employment setting is only available for survey participants who provided information for this question (n = 37,895). Estimated proportion of 1.0 FTEs is based on survey respondents only.
[14] See FCN's 2018 Technical Report for more details about FTE calculation
[15] Based on US Census Bureau July 1, 2017 estimates (N = 20,984,4000)
[16] Based on Florida Health Care Association (2017) nursing home beds (N = 83,587)

about 256 nurses per 100,000. This decline in the rate of LPNs for the growing (and aging) Florida population highlights the growing risk of personnel shortages for a population increasingly in need of extended care.

The number of working LPNs (new and renewing) per 100 SNF beds continues to remain constant at 60.8.

CONCLUSION

Overall, the supply of LPNs in Florida has been declining. In the 2014-15 renewal cycle, the LPN supply decreased by about 1%. During this cycle, the LPN supply decreased an additional 2%. In 2016-17, Florida gained slightly more than 9,000 new LPNs, yet lost more than 10,000 LPNs. Like the previous cycle, the majority of those lost to the potential workforce became delinquent (failed to renew licenses). When nurses fail to renew, additional details about their status remain unknown. They may have moved out of state, retired, etc. but these details are not available.

An estimated 86% of renewing LPNs in the potential workforce are working in nursing in Florida, an increase of about 2% since the last cycle. Additionally, about 4% of renewing LPNs indicated they were trying to find a nursing job. About 81% of renewing LPNs reported that they work full-time, an increase of about 2% from 2014-15. Similarly, the average full-time equivalency (FTE) proportion increased from 0.85 to 0.91 for the 2016-17 cohort. These variations may indicate that decreases in the LPN workforce, paired with increasing rates of aging populations in the state of Florida (Population Reference Bureau, 2018), contribute to smaller numbers of LPNs working more hours.

Among LPNs who are working, 29% indicated a geriatric/gerontology specialty, and 71% reported an occupation title of Staff Nurse. Compared to 2014-15, working LPNs over the age of 60 increased by almost 3%. On the other hand, the proportion of (renewing) LPNs between 18 and 30 decreased by almost 5%, although this decrease may be slightly inflated based on past inclusion of newly licensed nurses who completed the workforce survey in the previous cohort. Regardless, declining LPN supply, growing proportions of nurses reaching retirement-eligible age, and smaller portions of younger LPNs retained in this field suggest a need for caution. Additional research is needed to explore the future LPN supply and potential opportunities to counteract the negative growth rate of LPNs in Florida.

The Center's (2016) workforce demand report suggested that home health care and long-term care were the two industries that will have high demand and growth for LPNs. Growing elderly populations in Florida and reduced lengths of stay in acute care settings make long-term care and home health employment settings likely able to sustain long-term growth. However, at current rates, the youngest age group of LPNs is less than adequate to replace the increasing counts of nurses in the oldest age group. When paired with larger numbers of LPNs lost than those gained through new licenses, the growing need for care among common employers of LPNs highlights an area in need of important consideration and attention at present, and in the future. Furthermore, the Center's (2010) baseline forecasts indicate that Florida will face a shortage of 12,548 LPN FTEs by 2025. The LPN workforce supply, potential for workforce growth through education, and projected future LPN demand by employers should be monitored to ensure that supply and demand are in alignment.

RECOMMENDATIONS

Recommendation 1.   Investigate the increasing trend of net losses from the LPN workforce. Information is needed about the reasons LPNs are leaving the profession, in order to improve retention and help strategically plan and recruit LPNs for the future workforce.

Recommendation 2.   Encourage academic and industry collaboration to ensure appropriate curriculum content in preparation to meet industry needs, specifically in geriatric/gerontology and home health.

Recommendation 3.   Support the Center's research efforts and analysis of workforce trends to ensure the Center attains the best data on the supply of all types of nurses, and to maximize the use of limited resources.

Recommendation 4.   Together with Medical Quality Assurance (MQA), the Center should improve Nurse Workforce Survey design to increase clarity and efficiency for participants and minimize errors in responses, and promote access to the Nurse Workforce Survey for newly licensed LPNs.

ACKNOWLEDGEMENTS

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