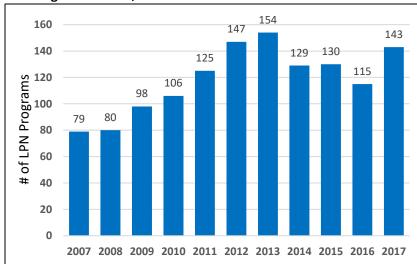# Florida Licensed Practical Nurse Education: Academic Year 2016-2017

This report presents **key findings** regarding the Licensed Practical Nursing education system in Florida for Academic Year (AY) 2016-2017. This report details information on student education capacity, discusses implications, and proposes research and policy recommendations.
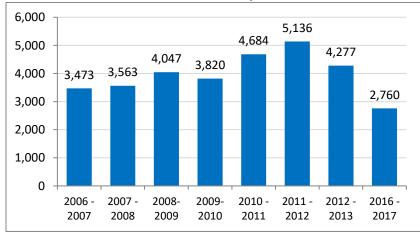
LPN Program Growth, 2007-2017

Program Capacity for LPN Programs, AY 2016-2017

	Curriculum	
	Generic **LPN**	Bridge **LPN**
# QUALIFIED applications	6,659	265
# SEATS left vacant	2,478	11
# of students ADMITTED	5,240	117

Trend in Number of New LPN Graduates, 2007-2017

- The number of LPN nursing programs is back on the rise from 115 in 2016 to 143 in 2013.
- Survey **response rates for LPN programs** was 71%, resulting in an incomplete picture of education but allowing for some trend identification.
- Around 2,500 **seats were left vacant** in LPN education programs.
- **The number of new graduate** LPN nurses has decreased by over 1,000 graduates from AY 2012-2013.
- **Barriers to maximizing program capacity remain,** particularly:
  - Lack of qualified student applicants and limited clinical sites.
- The Center's employer surveys consistently indicate **the greatest future growth will be in home health services and the long-term care industry**, both of which employ high numbers of LPNs.

Recommendations
1. Conduct a critical assessment of new and existing programs to determine LPN program quality and impact on the students and the nurse workforce.
2. Create incentives for LPNs to seek advanced education, from LPN to RN, and engage in lifelong learning.
3. Maintain and adequately fund consistent, long-term data collection, analysis, and reporting systems.

Addressing Nurse Workforce Issues for the Health of Florida

Florida's 2016-2017 Nursing Education Programs:

Licensed Practical Nurse Education

Contents

Florida Licensed Practical Nurse Education: Academic Year 2016-2017

Background

Since 2007 the Florida Center for Nursing (the Center) has collected data and provided information on nursing education programs in the state of Florida with the goal of characterizing trends in the education of nurses and the faculty workforces. Except for one year, the Center has distributed a survey of nursing education programs, and has analyzed and published results for all but three years where response rates were too low for analysis.

The Center's data collection, analysis, and subsequent reports have provided information on nursing program growth, capacity and barriers to expansion, as well as on trends in nursing faculty and students. Tracking nurse education in Florida has multiple **benefits to stakeholders**: schools can use the data for academic decision making, to strengthen grant applications, and to plan for faculty demand and student expansion; policy makers can use the data to initiate and/or modify policies and regulations, guide funding decisions and plan strategic use of resources.

This report describes information from the Center's survey of licensed practical nurse (LPN) programs for Academic Year (AY) 2016-2017, and highlights trends in results since the Center began data collection and analysis. Implications are discussed and research and policy recommendations are offered.

Data Source

Data for this report are from the 2017 Florida Center for Nursing Survey of Nursing Education Programs. In October 2017, a survey link was emailed to the Dean or Program Director of each nursing education program in the state of Florida. Responding Deans and Directors provided data on the faculty and student populations as of September 30th, 2017 and on program capacity for AY 2016-2017.

Nursing education programs are identified from the Board of Nursing website, which maintains an updated database of Licensed Practical Nurse (LPN), Associate Degree in Nursing (ADN) and pre-licensure Bachelor of Science in Nursing (BSN) programs.

Table 1. Response Rates for Florida's LPN Nursing Schools, AY 2016-2017

Type of Program	Total # of Schools	Responding Programs	Response Rate
LPN	143	102	71.3%

The list of all nursing programs in Florida was downloaded from the Board of Nursing in August 2017. A total of 143 LPN programs were asked to complete the survey, an increase of 28 LPN programs since last year. Among them, 102 LPN programs responded to the survey, yielding a response rate of 71.3 percent (Table 1).

Except when indicated, data in this report are from the responding schools. Given that this is the Center's tenth annual survey, the richness of the data and information are enhanced by the ability to report seven-year trends in results. Thus change, or the lack of it, is evident and provides the opportunity to consider the effect of interventions, such as efforts to increase production of new graduates to enter the workforce. With trends, one can monitor outcomes and identify promising practices for replication.

Overview of Responding Programs

Program Growth

As Figure 1 shows, LPN programs grew rapidly from 2007 to 2013. Since that time, however, there has been a **gradual decline in the number of LPN programs, except for a recent up-tick between 2016 and 2017**. A total of 28 new LPN programs emerged within AY 2016-2017. It should be noted that LPN programs are on a decline at the same time that the number of pre-licensure RN programs are growing (see the Center's report on pre-licensure RN programs[1]). This may indicate that demand for nurses is shifting from the LPN workforce to the RN workforce.
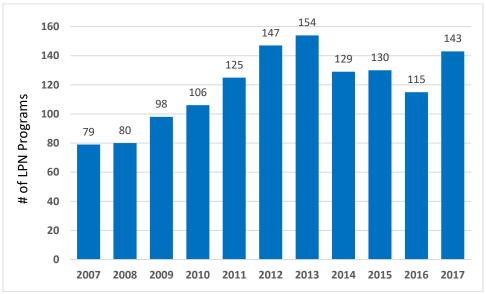
Figure 1. LPN Program Growth, 2007-2017.

Programs, Curriculum Options, and Accreditation

Table 2 provides details on the programs and curriculum options as of October 2017, based on survey responses. Of the 102 LPN programs that responded to the survey 88 responded fully to the survey questions. Of those 86 reported having a generic/traditional curriculum and four reported a bridge curriculum that moves students with some health sciences training (e.g., a certified nursing assistant) through the program more rapidly.

Table 2. LPN Programs and Curriculum Options Reported by Respondents, AY 2016-2017

LPN Programs	#
LPN Programs Survey Respondents	102
- Generic/Traditional Curriculum	86
- Bridge Curriculum	4

Note: Not all responding programs answered the curriculum questions.

Table 3 shows the accreditation status of LPN programs in AY 2016-2017. **Ten percent of LPN programs reported being accredited**. Unlike the pre-licensure registered nurse programs, LPN programs are not required by law to achieve accreditation.

Table 3. Accreditation Status of LPN Programs AY 2016-2017

Accreditation Status	#	%
Not accredited	62	71.3%
In Process of accreditation	16	18.4
Accredited	9	10.3%

LPN Program Capacity

Measures of program capacity (the ability of nursing programs to enroll new students) for generic and bridge LPN programs in operation last year are displayed in Table 4. The gray rows in the table show the number and proportion of *qualified* applications that were not processed for admission to programs during AY 2016-2017 due to capacity issues. **Florida nursing programs responding to the survey declined 1,419 qualified applications to LPN programs**. At present it is not possible to distinguish the number of *people* denied admission to nursing schools from the number of *applications* declined. A single prospective student may be denied admission (or accepted) by more than one school. This phenomenon may also contribute to the differences in the number of new enrollees compared to the number of students admitted.

Table 4. Program Capacity Measures for LPN Programs, AY 2016-2017

	Curriculum		Total LPN Programs
	Generic **LPN**	Bridge **LPN**	
# QUALIFIED applications	6,659	265	6,924
# student SEATS	6,850	117	6,967
# students ADMITTED	5,240	117	5,357
# declined applications	1,419	148	1,567
% declined applications	21%	56%	23%
# NEW enrollees	4,327	106	4,433
# Seats Left Vacant	2,478	11	2,489

Over 5.300 students were admitted to LPN programs in AY 2016-2017, and nearly 4,500 students enrolled in those programs. Generic LPN programs had more seats than qualified applicants, yet

they declined 21 percent of qualified applications and had over 2,478 potential seats left vacant. Bridge LPN programs had more than twice as many qualified applicants than available seats, and declined 56 percent of qualified applications.
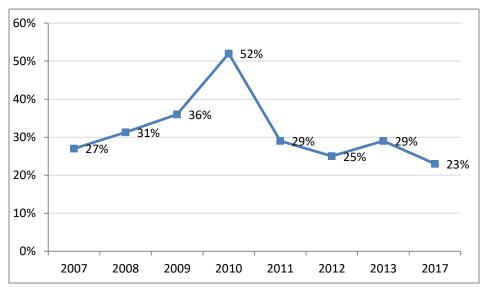

Figure 2. Trend in Percentage of Qualified Applications Declined by LPN Programs, 2007-2017

After peaking at 52 percent in 2010, the percentage of qualified applications that were denied admission to LPN nursing programs fell to 29 percent and has remained between that and 23 percent since 2011 (Figure 2). This **ability to accommodate more students** since 2011 appears to be related to the growth in new programs since 2007, as shown in Figure 1. It may also be due to growth in existing LPN programs**.** However, there were **nearly 2,500 seats in LPN programs left vacant** this year, and if schools were able to fill these seats they would be able to accommodate many more potential students.

The total number of LPN students enrolled in programs varies by curriculum track. Responding LPN programs reported 6,114 currently enrolled students (Table 5), 5,884 in generic programs, and 230 in bridge programs. Because the survey response rate is less than 100 percent, this number is an undercount of all students enrolled in LPN programs in Florida.

Table 5. Enrollment of LPN Students by Curriculum Track, AY 2012-2017

Curriculum Track	Enrollment 9/30/2017
Generic/Traditional LPN	5,884
Bridge LPN	230
Total LPN	6,114

LPN Graduates

In AY 2016-2017, there were 2,760 graduates from reponding LPN programs. This is an undercount of graduates since data are missing from 29 percent of programs. Compared to the

number of graduates from reporting programs in 2012-2013, this represents a 42 percent decrease in graduates (Figure 3). Missing data not withstanding, this appears to be a **downward trend in LPN graduates** since 2011- 2012. The trend of graduates will need to be monitored over the next few years and more complete data is needed to provide accurate trends. Given the large number of student seats left vacant, the number of LPN graduates may continue to decrease next academic year.
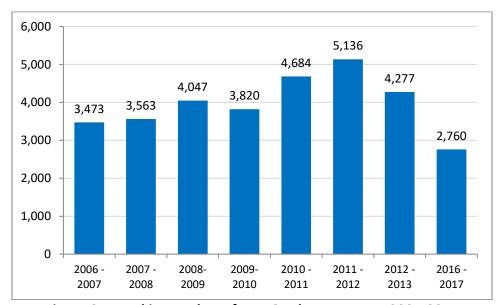

Figure 3. Trend in Number of LPN Graduate Nurses, 2007-2017

Barriers to Maximizing LPN Program Capacity

Fifty-three percent of deans and directors from responding LPN programs reported a **lack of qualified student applicants as the most common barrier** to fully admitting students or expanding the program to admit more students in AY 2016 -2017 (Figure 4).
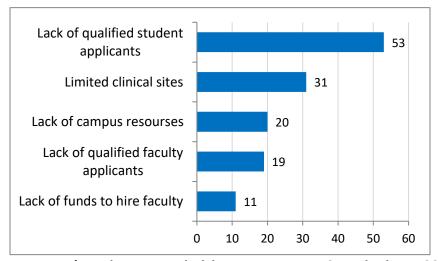

Figure 4. Reported Barriers to Maximizing LPN Program Capacity in AY 2016-2017

This is despite the fact that 23 percent of applications were declined and there were nearly 2,500 seats left vacant. The next biggest barrier was "limited clinical sites" in 31 percent of reporting programs. This has been a barrier in prior years. Twenty percent of LPN programs reported that lack of campus resources was a problem.

LPN Student Demographics

Race/Ethnicity and Gender

The racial/ethnic and gender demographics of LPN students are shown in Figure 5. LPN students are 32 percent White, 37 percent Black, and 13 percent Hispanic.The proportion of White and Black students is **more diverse than Florida's population as a whole**, where 54 percent are White, 17 percent are Black, and 26 percent are Hispanic.[2] The 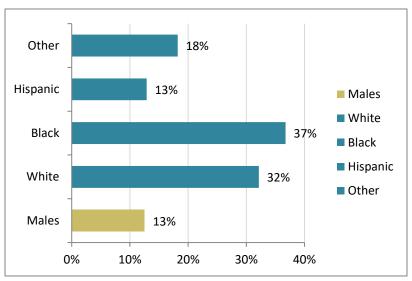student distribution is **also more diverse than the Florida LPN workforce**, where 51 percent are white, 32 percent are black, and 11 percent are Hispanic.[3]

Figure 5. LPN Students Race/Ethnicity and Gender, 9/30/2017

Figure 5 shows that **13 percent of LPN students are male**. This proportion has not increased since 2012; however, it is larger than the proportion of males in the LPN workforce, which was 10 percent in 2017.[3] As older population of LPNs retire from work, diversity will gradually increase within the LPN workforce, thus better mirroring the gender split in the population at large.

Age Distribution

LPN students by age group are shown in Figure 6. **Sixty percent of LPN students are under the age of 30**, which will bring a large contingent of younger people into the profession.

Twenty-four percent of LPN students are age 31-40, and these may be people going back to school for a second career.
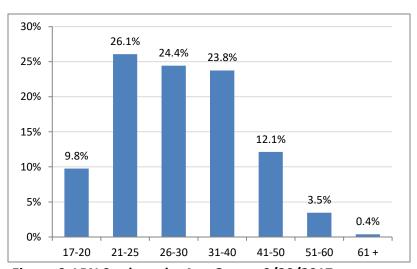
Figure 6. LPN Students by Age Group, 9/30/2017

Data are from responding schools only unless indicated otherwise.

Discussion

Despite the increased number of LPN programs between AYs 2012-2013 and 2016-2017, the number of graduates fell by 1,500, close to 1,500 applications were denied in 2016-2017, and nearly 2,500 seats were left vacant. **Growth in admissions and graduates may be threatened by limits in program capacity**. Fifty-three percent of LPN programs reported that their ability to maximize capacity and admit more students is inhibited by lack of qualified students, 31 percent cited limited clinical sites, and 20 percent cited inadequate campus resources. The slowdown in LPN admissions and graduates may be reflecting these capacity limitations.

Rational expansion of LPN education programs must be balanced with the future demand for LPNs. Assessment of demand considers the predicted future utilization of LPNs in various healthcare settings based on the increased need for nurses as the population ages, older nurses retire or work fewer hours, and the Patient Protection and Affordable Care Act (PPACA) is implemented. The home health and long-term care industries are areas that utilize a number of LPNs. **Home health organizations reported a strong need for LPNs** in the Center's 2015 nurse demand report.[4] There were an estimated 2,380 vacant home health LPN jobs as of June 30, 2015, and organizations estimated that they would create 4,655 new LPN in 2016. In the past, skilled nursing facilities also indicated a strong demand for LPNs (in the 2015 survey there was too low a response rate from skilled nursing facilities to report on their demand).[5]

While the Center's survey provides information on the quantity of programs, students, graduates, and graduate demographics, it does not assess the programs in terms of program quality and effectiveness. It is important to evaluate curriculum and student quality, cost-effectiveness, and cost-benefits. The health industry needs an assessment of the degree to which program graduates meet employment needs. Thus far, these qualitative evaluations of new programs have not occurred.

The LPN program response rate to the Center's survey was 71 percent. While this is better than in the prior 3 years, it is still below that needed to provide accurate information about programs. A high survey response rate with school data that accurately represent the students and faculty in *all* nursing schools in Florida is necessary for accurate strategic nurse workforce planning. This data is used to align needs of nurse employers to new graduates needing jobs, to align future student capacity in nursing programs with anticipated future nurse employment needs in the local community, to plan for strategic expansion of nursing programs, to plan for faculty workforce needs, to forecast future nurse graduates, and to ensure continued availability of adequate clinical space.

Recommendations

The Center puts forward the following research and policy recommendations related to Florida's nurse education system with the goal of addressing nurse workforce issues for the health of Florida. These recommendations are not intended for the Center alone to implement, but should

be a starting point for other groups and policy makers working to make valuable contributions to the nurse workforce.

1. **A critical assessment of new programs and expansion of existing programs** is needed to determine their quality and impact on the students and the nurse workforce. This report focuses on quantitative aspects of LPN programs in Florida—the number of students admitted, the number of new enrollees, the number of graduates, etc. However, growth of programs is not a guarantee of new nurses joining the workforce. An assessment of whether students are completing the appropriate level of education, successfully passing the national examination for licensure, and securing employment in appropriate workplaces in Florida must be completed. Other important evaluations include cost benefit analyses of the output of state funding, and a health industry assessment of the contributions of each program's graduates toward meeting employment needs and health consumer demand. An interdisciplinary group of key agency and workforce stakeholders should be involved in these analyses.

2. **Create incentives for LPNs to seek advanced education, from LPN to RN, and engage in lifelong learning**. The Center's 2015 nurse demand report indicates that LPN positions are difficult to fill in home health, and that more LPNs will be demanded in the future.[4] Yet overall healthcare demand is highest for registered nurses. In addition to maximizing the capacity of Florida's LPN programs, LPNs should be encouraged to seek additional education and enter ADN Bridge programs. A personal dedication to continued lifelong learning is essential for nurses to develop professionally in their careers and learn about advancements in nursing and technology. Advancing education creates professional progression opportunities and opens positions for new graduate LPNs to enter the nursing workforce.

3. **A consistent, long-term data collection, analysis, and reporting system must be maintained and adequately funded.** The Florida Legislature established the Florida Center for Nursing in 2001 to address issues related to the nursing shortage in Florida. Number one of the three mandates given in statute (FS 464.0195) is to develop a strategic statewide plan for nursing manpower in this state by:
   - Establishing and maintaining a database on nursing supply and demand in the state, to include current supply and demand, and future projections; and
   - Selecting from the plan priorities to be addressed.

To achieve this mandate, the Center needs fiscal resources and the authority to collect appropriate data. Florida's legislature should put in place a sustainable funding mechanism for the Center to accomplish its statutory mandate and require nurse education programs within the state to provide appropriate data for analysis. Consequences for failure to participate in the annual education survey need to be established.

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References

1. Florida Center for Nursing. (2018). Florida Pre-Licensure Registered Nurse Education: Academic Year 2016-2017. Available at: https://www.flcenterfornursing.org/DesktopModules/Bring2mind/DMX/Download.aspx?Command=Core_Download&EntryId=1670&PortalId=0&TabId=151

2. U.S. Census Bureau. (2018). Current Population Demographics and Statistics for Florida by age, gender and race. Retrieved June 15, 2018 from: https://www.census.gov/quickfacts/fact/table/fl/PST045217

3. Florida Center for Nursing. (2018). *Florida's LPN Supply.* Retrieved July 28, 2018 from https://www.flcenterfornursing.org/DesktopModules/Bring2mind/DMX/Download.aspx?Command=Core_Download&EntryId=1610&PortalId=0&TabId=151

4. Florida Center for Nursing. (2016). *Florida's Demand for Nurses: 2015 Employer Survey.* Retrieved July 28, 2018 from https://www.flcenterfornursing.org/DesktopModules/Bring2mind/DMX/Download.aspx?Command=Core_Download&EntryId=1011&PortalId=0&TabId=151

5. Florida Center for Nursing. (2014). *Demand for Nurses in Florida: The 2013 Survey of Florida's Nurse Employers*. Retrieved March 11, 2014 from http://www.flcenterfornursing.org/DigitalLibrary.aspx?Command=Core_Download&EntryId=656 .