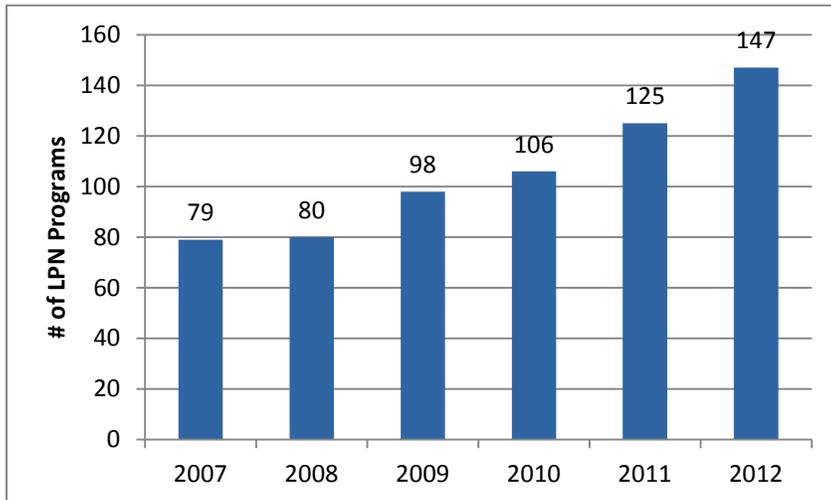


This report presents the **key findings** regarding the Licensed Practice Nursing education system in Florida. The information in this report relates to the LPN program of study and recommendations to assure adequacy of the education system to meet nurse workforce needs. Trend analysis is provided for 2007 through 2012 when available.

### LPN Program Growth, 2007-2012

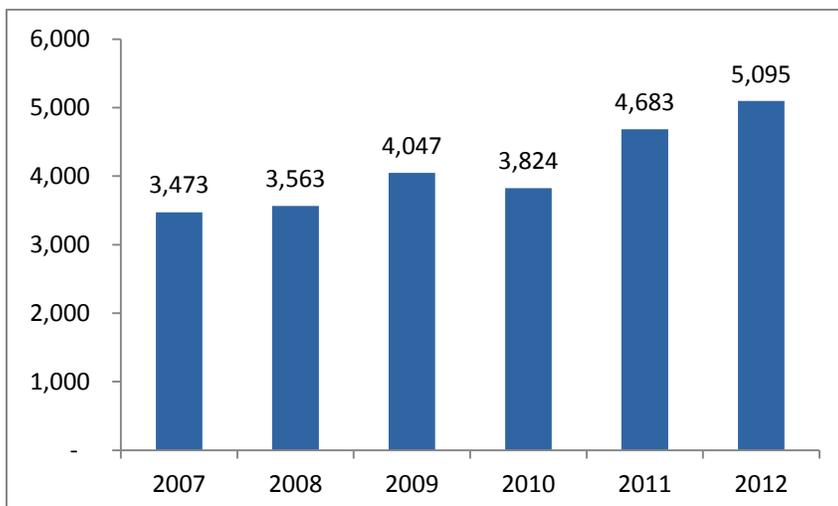


- The **number of LPN nursing programs continues to increase** from 79 in 2007 to 147 in 2012.
- Center survey **response rates for LPN programs are 61%**, resulting in an incomplete picture of education but allowing for some trend identification.
- **Trends in the number of new graduate** LPN nurses continue to climb, and increased 9% last year to more than 5,000 new graduates.
- **Barriers to expansion of programs:**
  - Limited clinical sites.
  - Lack of qualified student applicants.
- National influence on Florida education needs is less evident for LPNs. However, the Center's employer surveys consistently indicate **the greatest rate of future growth will be in home health services and the long term care** industry, both of which employ high numbers of LPNs.

### Program Capacity for Pre-licensure LPN Programs, AY 2011-2012

	Generic LPN Curriculum	Bridge LPN Curriculum
# of QUALIFIED applications	6,870	38
# of student SEATS	5,402	71
# of students ADMITTED	5,132	31
% rejected applications	25%	18%
# of NEW enrollees	4,664	21
# Seats Left Vacant	738	50

### Trend in Number of New LPN Graduates, 2007-2012



### Recommendations

1. A critical assessment regarding the quality and impact of new programs, and expansion of existing programs, should be completed to determine whether or not the value proposition has been met.
2. Create incentives for LPNs to seek advanced education, from LPN to RN.
3. A consistent, long-term data collection, analysis, and reporting system must be maintained and adequately funded.

## Florida Licensed Practical Nurse Education: Academic Year 2011-2012

### Background

The number of nurse education programs in Florida has grown considerably since 2007, when the Florida Center for Nursing (Center) first began surveying the state's programs. Program growth has been in response to demand from potential nursing students, demand from employers, and future anticipated demand within the healthcare industry due to a projected nursing shortage as older nurses leave the workforce, the population ages, and access to healthcare increases. The goals of the Center's nurse education survey are to characterize trends in the education of nurses and the faculty workforce. The Center's data collection, analysis, and subsequent reports have multiple benefits to stakeholders: schools can use the data for academic decision making, to strengthen grant applications, to plan for faculty demand and student expansion; policy makers can use the data to guide funding decisions and to plan strategic use of resources.

In reporting the results of the academic year (AY) 2011-2012 survey, the Center will transition from one large, all-inclusive report to four targeted reports. This report describes information from the Center's survey of licensed practical nurse (LPN) programs for AY 2011-2012, and highlights trends in results since the Center began data collection and analysis. Separate reports will be published as follows: Florida Pre-Licensure Registered Nurse Education: Academic Year 2011-12, Florida Post-Licensure Registered Nurse Education: Academic Year 2011-2012 (includes RN to BSN completion programs), and Florida Nurse Faculty: Academic Year 2011-2012.

### Data Source

Data for this report are from the 2012 Florida Center for Nursing Survey of Nursing Education Programs. In October 2012, a survey link was emailed to the Dean or Program Director of nursing education programs in the state of Florida. Responding Deans and Directors provided data on the faculty and student populations as of September 30<sup>th</sup>, 2012 and on program capacity for AY 2011-2012.

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-RN) and pre-licensure Bachelor's in Nursing (BSN) programs. The list of all nursing programs in Florida was downloaded from the Board of Nursing in August 2012. A total of 147 LPN programs were asked to complete the survey, an addition of 26 new LPN programs. (Several programs closed down over the last year, and these changes are taken into account in the total number of programs.)

A total of 90 LPN programs responded to the survey, yielding a response rate of 61 percent (Table 1). The response rate was higher for state schools (82%) than private schools (50%).

**Table 1. Response Rates for Florida’s LPN Nursing Schools, AY 2011-2012**

Type of Program	Total # of Schools	Responding Programs	Overall Response Rate	State Schools Response %	Private Schools Response %
LPN	147	90	61%	82%	50%

Except when indicated, data in this report are from the responding schools. Survey respondents reported a total number of 4,155 students enrolled in LPN nursing programs as of 9/30/2012. This number is an undercount of the actual number of enrolled nursing students, because the response rate from schools was lower than 100 percent. Given that this is the Center’s sixth annual survey, the richness of the data and information are enhanced by the ability to report six-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.

## Results

### Programs, Curriculum Options, and Accreditation

Table 2 provides detail of the programs and curriculum options as of October 2012, based on survey responses. Ninety LPN programs responded to the survey. Five of these programs reported a bridge curriculum that moves students with some health sciences training (e.g., a certified nursing assistant) through the program more rapidly. Thirteen new LPN programs reported they had no students enrolled.

**Table 2. LPN Programs and Curriculum Options Reported by Respondents, AY 2011-2012**

	Number
<b>Pre-licensure Programs</b>	
<b>LPN Programs</b>	
Number of LPN Programs Responding	90
- <i>No students yet</i>	13
- Generic/Traditional Curriculum	75
- Bridge Curriculum	5

Note: The number of curriculum counts exceeds the number of program counts because many programs offer multiple curriculum options.

Table 3 shows the National League for Nursing Accrediting Commission (NLNAC) accreditation status of LPN programs in AY 2011-2012. Schools that have not yet admitted students are not eligible to apply for accreditation. Nine percent of LPN programs reported being accredited, the majority of which are state schools.

**Table 3. Accreditation Status in AY 2011-2012 by Program Type**

Accreditation Status	LPN N (%)	State Schools	Private Schools
Not accredited	91%	86%	97%
Accredited by NLNAC	9%	14%	3%

*\*Schools with no students yet were not counted in the accreditation.*

### 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 2011-2012 due to capacity issues. Florida nursing programs responding to the survey declined 1,745 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 2011-2012**

	Generic LPN Curriculum	Bridge LPN Curriculum
# of QUALIFIED applications	6,870	38
# of student SEATS	5,402	71
# of students ADMITTED	5,132	31
# rejected applications	1,738	7
% rejected applications	25%	18%
# of NEW enrollees	4,664	21
# Seats Left Vacant	738	50

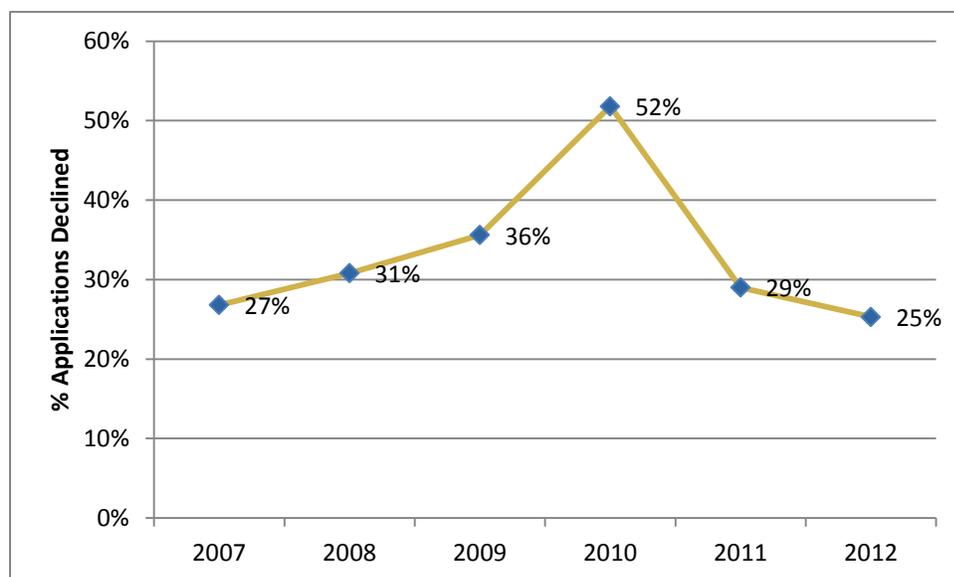
Over 5,000 students were admitted to LPN programs in AY 2011-2012, and more than 4,600 enrolled. Generic LPN programs rejected 25 percent of qualified applications, yet enrolled 738 fewer qualified students relative to the total number of student seats available, resulting in 14 percent of the seats left vacant. Bridge LPN programs had fewer qualified applicants than available seats, and still rejected 18 percent of qualified applications.

Program capacity differences can be seen between state and private nursing education programs. State schools rejected a higher percentage of qualified applications in LPN programs (32% state schools, 14% private schools). Nonetheless, private schools had a larger proportion of seats left vacant in LPN programs relative to state schools (26% private, 5% state schools).

**Table 5. State and Private Schools Program Capacity Measures for LPN Programs, AY 2011-2012**

	Private Schools	State Schools
# of QUALIFIED applications	2,439	4,469
# of student SEATS	2,515	2,958
# of students ADMITTED	2,106	3,057
# rejected applications	333	1,412
% rejected applications	14%	32%
# of NEW enrollees	1,871	2,814
# Seats Left Vacant	644	144

The percentage of qualified applications that were denied admission to LPN nursing programs have decreased from 52 percent in AY 2009-2010 to 25 percent in AY 2011-2012 (Figure 1). The decrease in rejected applications may be due to the growth of new LPN nursing programs over the last two years, as new programs are able to accommodate more students. Growth in existing LPN programs and differences among programs responding to each year’s survey may also account for the changes. Regardless, interest in nursing programs remains high, but programs cannot accommodate all potential students.



**Figure 1. Trend in Percentage of Qualified Applications Declined by LPN Programs, 2007-2012**

The total number of pre-licensure LPN students enrolled in programs varies by curriculum track. Responding LPN programs reported 4,155 currently enrolled students (Table 6). Again, because the survey response rate is less than 100 percent, this number is an undercount of all students enrolled in LPN programs in Florida.

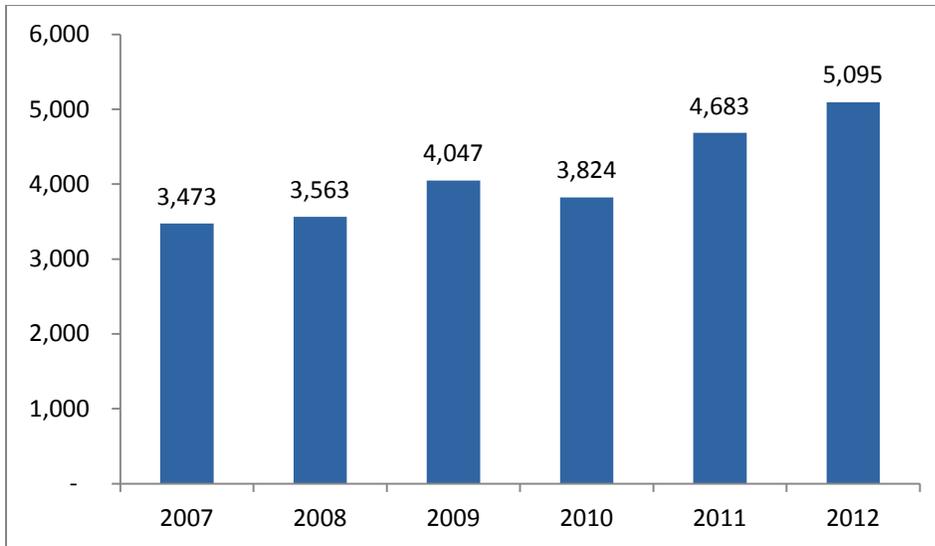
**Table 6. Enrollment of LPN Students by Curriculum Track, AY 2011-2012**

Pre-Licensure Curriculum Track	Enrollment on 9/30/2012
Generic/Traditional LPN	4,130
Bridge LPN	25
<b>Total LPN</b>	<b>4,155</b>

### *LPN Graduates*

Florida statute mandates that all nursing programs participate in data collection by the Office of Program Policy Analysis and Government Accountability (OPPAGA) for a five year period ending in 2015. OPPAGA publishes reports of the number of nursing program graduates and the Center believes that it is preferable to report the most complete data available on the number of graduates from LPN education programs. Therefore, this report uses the number of graduates as reported by OPPAGA.<sup>1</sup>

In AY 2011-2012, there were 5,095 graduates from LPN programs. The number of graduates from LPN nursing programs increased 22 percent from AY 2009-10 to AY 2010-11 (Figure 2), and by 9 percent from AY 2010-11 to 2011-12. This increase in LPN graduates is to be expected as it corresponds to the increasing number of LPN schools. The number of LPN bridge programs has also increased, and the graduates from LPN bridge programs in AY 2011-12 was 197 (increased from 102 in AY 2010-11). Thus the state can expect more LPN graduates in the coming years as new LPN programs become established and graduate students.

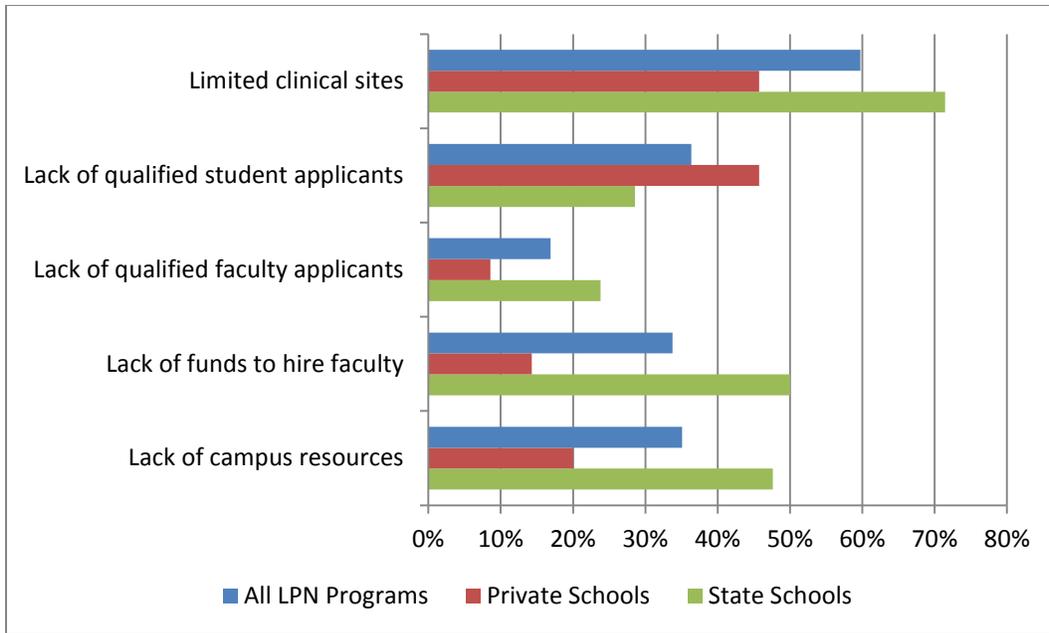


**Figure 2. Trend in Number of LPN Graduate Nurses, 2007-2012**

Note: Graduate data are from OPPAGA.<sup>1</sup>

### *Barriers to LPN Program Expansion*

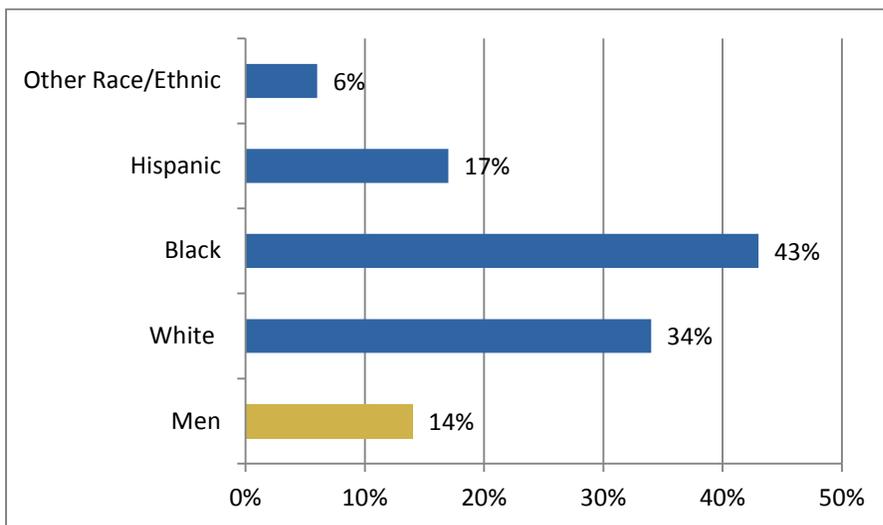
Sixty percent of LPN program Deans and Directors reported that “limited clinical sites” was the most common barrier to expanding the program and thus admitting more students (Figure 3). Differences in barriers to program expansion were reported by state schools relative to private schools. Seventy-one percent of state schools reported limited clinical sites as a barrier, compared to 46 percent of private schools. A larger proportion of state schools also reported lack of funds to hire faculty, lack of qualified faculty applicants, and lack of campus resources as problems. In contrast, 46 percent of private schools reported lacking qualified student applicants relative to 29 percent of state schools. In AY 2010-2011, a similar percentage of LPN schools reported on each of these problems, signifying a lack of progress on these issues. Interestingly, twelve percent of LPN programs reported that student financial issues were an important barrier to expansion.



**Figure 3. Reported Barriers to LPN Program Expansion in AY 2011-2012**

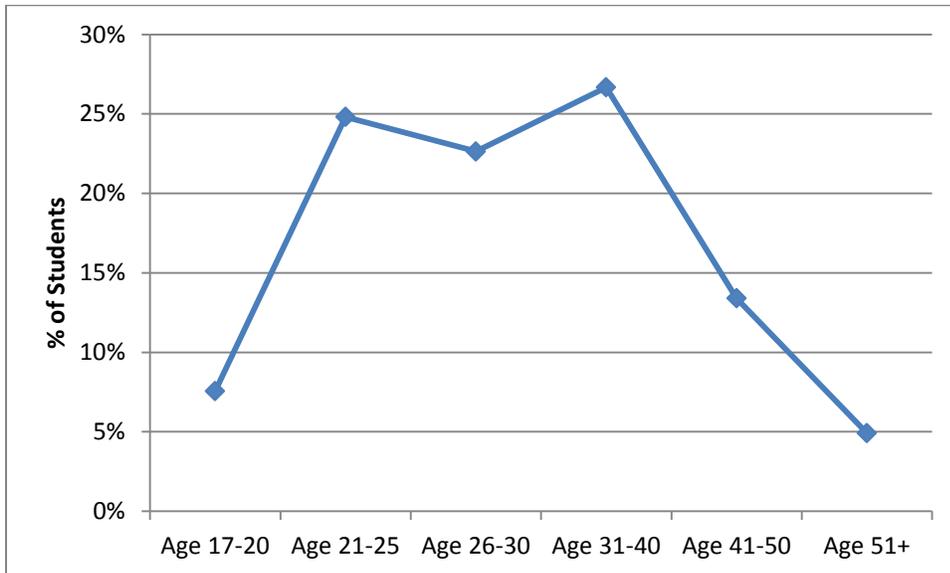
**LPN Student Demographics**

The racial and ethnic diversity of the nursing student population is more reflective of Florida’s diverse population than that of its existing nurse workforce. Forty-three percent of LPN students are Black and 17 percent are Hispanic (Figure 4). In contrast, 55 percent of Florida’s LPNs working in nursing are white, 28 percent are black, and 9 percent are Hispanic.<sup>2</sup> Fourteen percent of LPN students are men, compared to 9.5 percent of LPNs working in nursing. As the race/ethnicity and gender of the student population continues to diversify, diversity will gradually increase within the entire licensed nurse population, thus better mirroring Florida’s population at large.



**Figure 4. Race/Ethnicity and Gender of LPN Students, 9/30/2012**

LPN students by age group are shown in Figure 5. Fifty-five percent of LPN students are under age 30, which will bring a large contingent of younger people into the profession. The peak of 27 percent of students age 31-40 may indicate people going back to school for a second career.

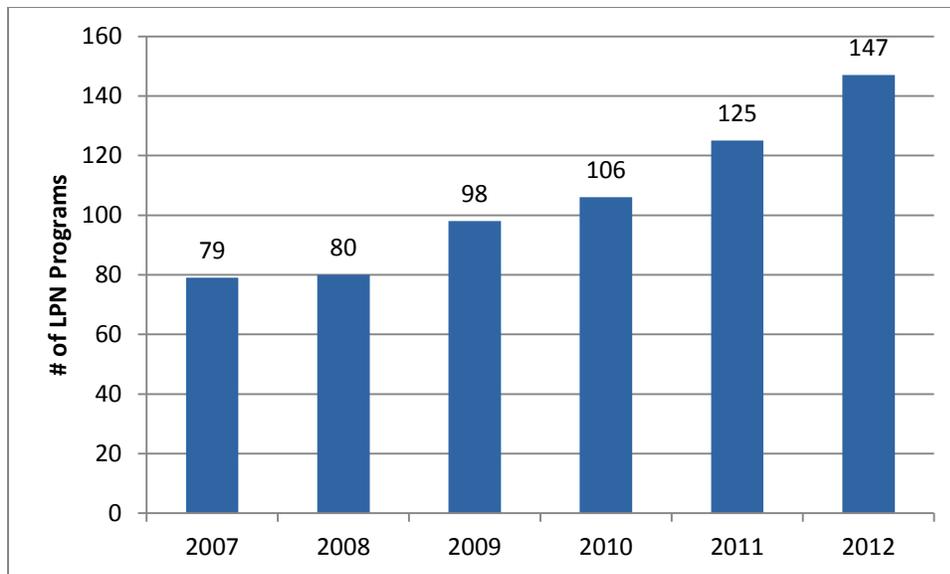


**Figure 5. Percentage of LPN Students by Age Group, 9/30/2012**

## Discussion

The number of pre-licensure LPN programs in Florida has grown tremendously over the past two years. The Center’s survey was sent to **26 new LPN programs** this academic year, and to 25 new programs in AY 2010-2011. The Center’s reports have repeatedly stated that nursing programs’ capacity to grow may be reaching a bottleneck imposed by limited fiscal, human, and clinical resources. Indeed, almost 60 percent of LPN programs reported that expansion is inhibited by limited clinical sites. Programs also report lacking funds to hire faculty, lacking campus resources, and lacking qualified faculty applicants.

Even so, the growth of nursing programs in the state continues. The number of pre-licensure nursing programs in Florida increased (Figure 6), from 79 LPN programs in 2007 to 147 LPN programs as of August 2012. The Center maintains its position from last year: It is crucial to evaluate the impact of these new programs, in terms of student quality, cost-benefit analysis, health industry assessment of program graduates meeting employment needs, and the impact on an already significant nurse faculty shortage. Thus far, these objective evaluations of new programs have not occurred.



**Figure 6. LPN Program Growth, 2007-2012.**

Note: 2012 data are from the Board of Nursing as of August, 2012. Several programs closed over the course of a year, and new programs opened, thus the number of new programs takes these changes into account.

The response rate to the Center’s survey was 61 percent among LPN 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.

As a result of legislative action taken in 2009, the Board of Nursing (BON) no longer requires reports from programs that are nationally accredited. Consequently, as of 2010, the BON, OPPAGA and the Center each conduct separate survey and reporting efforts. Nurse educators in Florida are being asked to complete multiple surveys annually: the Center’s workforce survey (voluntary participation); the mandatory OPPAGA survey; the BON annual report (for programs without national accreditation); and surveys required by national accrediting bodies. Deans and Directors of programs had asked that the state entities (FCN, BON, OPPAGA) return to a single, combined survey as was done prior to 2010. The Center has extended its willingness to coordinate the process and distribute appropriate datasets to each of the state entities. The Center believes that interagency collaboration is key to improving efficiency and reducing redundancy. Furthermore, Florida’s nurse education programs should be required to provide appropriate data in order to continue strategic workforce planning initiatives.

As anticipated, during AY 2010-2011 we saw an increase in the number of new graduate nurses, in response to the workforce system recommendations that existing programs be expanded and new programs of study established. The number of LPN graduates increased by 9 percent

during AY 2011-2012 and by 22 percent during AY 2010-2011. This continued growth in the number of nursing graduates suggests a need for careful planning for future increases in the number of nursing programs. Nursing program Deans and Directors continue to report that limited clinical sites and lack of funds to hire faculty are barriers to program expansion, thus continued growth at this pace may not be sustainable.

Two national activities will influence health care delivery in Florida: the *Patient Protection and Affordable Care Act* (PPACA) and the Institute of Medicine (IOM) report – *The Future of Nursing: Leading Change, Advancing Health*.<sup>3</sup> Signed into law March 2010, the PPACA will increase access to health care which will increase demand for health care providers. The IOM report, also released in 2010, identifies 5 primary focus areas to achieve the overall goal to support efforts to improve the health of the U.S. population through the contributions nurses can make to the delivery of care. Specific to education, the IOM report recommends that nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression.

Thoughtful expansion of nursing education programs must be balanced with the present ability of healthcare employers to hire newly licensed nurses into the workforce; as well as the state's future anticipated increased need for nurses as the population ages, older nurses retire or work fewer hours, and the PPACA is implemented. Indeed, both current and future demand for nurses in Florida appears strong. The Center surveyed Florida's nurse employers in 2011, and the analysis showed an estimated 3,228 new LPN positions were anticipated to be created in Florida in 2012, most of which would be in home health.<sup>4</sup> As for future demand, the Center's forecast report estimated Florida's demand for LPNs will continue to strengthen over the next 12 years as the PPACA is implemented, and Florida would have a shortage of 12,500 LPN full-time equivalents by 2025.<sup>5</sup>

The Center's survey of nurse employers revealed that difficult to fill nursing positions required additional education and experience, and could not be filled by new graduates. This indicates a need for incumbent worker training to move experienced workers into these existing vacancies, and thus open hiring opportunities for new graduates. The education recommendations in the IOM report can address these employer needs. Employers could encourage and incentivize their LPNs to obtain their Associate Degrees and their BSN, thus increasing the education level of their nurse workforce. Through tailoring nurse residency programs and engaging nurses in lifelong learning, employers can address their own needs by advancing their current staff.

## 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 to be 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 regarding the quality and impact of new programs and expansion of existing programs should be completed to determine whether or not the value proposition has been met.** The addition of programs and new students is not a guarantee of new nurses. An assessment of whether or not students are completing the appropriate level of education, successfully passing the national examination for licensure, and securing employment in Florida must be completed. Cost benefit analyses must be completed to evaluate the maximum output of state funding. Health industry assessment of the contributions of each program's graduates toward meeting employment needs and health consumer demand should be done prior to allowing an existing program to expand and within the year following the first graduates of new programs.
  
2. **Create incentives for LPNs to seek advanced education, from LPN to RN.** In the current economic climate, the critical need for jobs includes increasing opportunities for entry level positions to health career pathways. Though the Center does not have the resources to expand our work to address the non-academic based positions of the health workforce, the opportunity to enter the health workforce as a home health aide or clinical nursing assistant is a rich source of employment. Those working in these positions become the candidates for the LPN Bridge programs, opening space for other new entrants to the health workforce. As current LPNs enter ADN Bridge programs, a career path is created that both provides entry employment opportunities for the unemployed and advancement opportunities for skilled workers who then increase their position opportunities and their earned income.
  
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.

**Staff Contributors:** Michelle M. Yore, MSPH and Mary Lou Brunell, MSN, RN

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