

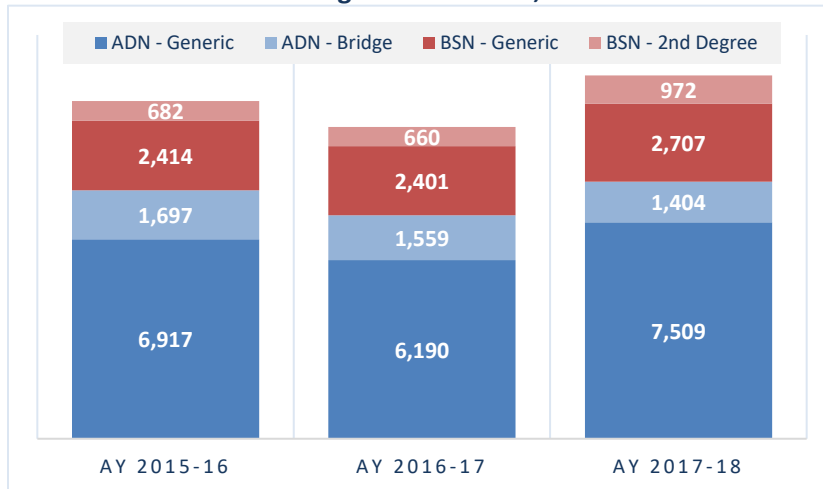
### KEY FINDINGS

The following information presents **key findings** regarding Florida's Pre-Licensure Registered Nurse (RN) education programs for Academic Year (AY) 2017-18. The full report details information on program characteristics, capacity, and student demographics. Policy and research recommendations are discussed.

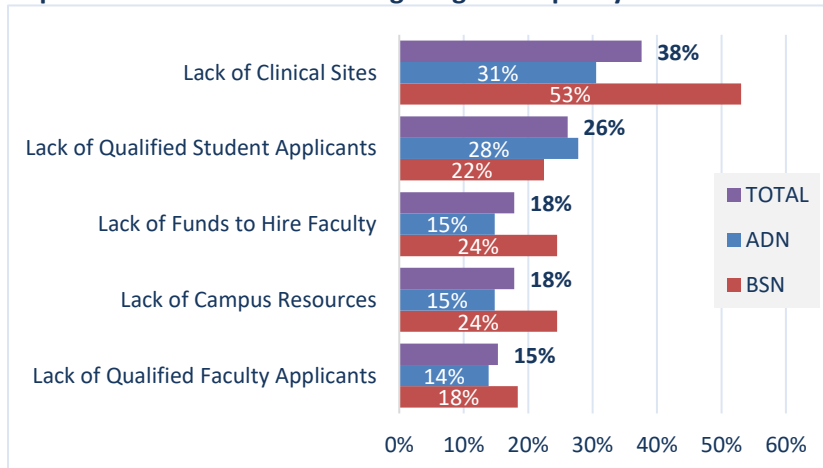
#### Program Capacity for Pre-licensure RN Programs, AY 2017-18

	ADN		BSN	
	Generic	Bridge	Generic	2 <sup>nd</sup> Degree
# Seats for New Students	13,407	2,719	4,535	1,215
# Qualified Applicants	20,096	3,074	7,085	2,518
# Students Admitted	13,453	2,550	4,891	1,578
# Admitted & Enrolled	12,258	2,224	3,688	1,225
# Declined Applications	6,643	524	2,194	940

#### Trend in Number of RN Program Graduates, AY 2015-16 to 2017-18



#### Reported Barriers to Maximizing Program Capacity AY 2017-18



- **108 ADN and 49 BSN participated** in the survey (83% response rate)
- RN programs experienced a net increase of six **new BSN programs**.
- **61% of RN programs were accredited**. A larger portion of BSN programs were accredited compared to ADN programs.
- **Total enrollment decreased <1%** since Fall 2017...
  - ADN enrollment increased 1%
  - BSN enrollment decreased 6%
- RN students were **more racially diverse** than the Florida population and current RN workforce.
- **RN graduates increased 16%** since AY 2016-17.
  - ADN programs produce the largest number of graduates,
  - BSN graduates continue to rise.
- 53% of ADN students and 70% of BSN students were **30 or younger**. 13% of ADN students and 4% of BSN students were **over the age of 40**.
- The most common barrier to maximizing program capacity was a **lack of clinical sites** (53%)

#### Recommendations

1. **Assess the appropriateness and quality of new and existing RN programs** to determine their impact on the students, nursing workforce and healthcare industry demand.
2. **Develop new methods of clinical and didactic education** to accommodate learning styles of diverse students, address clinical capacity shortages, and prepare newly licensed RNs to work in non-traditional settings.
3. **Maintain and fund consistent, long-term data collection, analysis, and reporting** across the Education – Demand - Supply nurse workforce pipeline. Establish consequences for failure to participate when it is mandated to do so.



# Florida's Nursing Education Programs Academic Year 2017-18:

## Pre-Licensure Registered Nurse (RN) Education

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# Florida Pre-Licensure Registered Nurse Education: Academic Year 2017-18

## BACKGROUND

The Florida Center for Nursing (FCN, the Center) has tracked the growth in Florida’s nurse education programs since 2007 to report trends in nursing education and the nurse faculty workforce.<sup>1</sup> The growth in nursing programs has been in response to increasing demand from potential students, employers, and projections of future need in the state and throughout the US. This report presents findings for Academic Year (AY) 2017-18 and trend data. Exploring trends over time enables outcome monitoring and identification of promising practices and areas for improvement consistent with corresponding demand.

The Center envisions the data collection, analysis, and reports to have multiple benefits to stakeholders:

- |  |  |
|--|--|
| <p>1. <b>Schools</b> can use this data to...</p> <ul style="list-style-type: none"> <li>• make academic decisions,</li> <li>• support grant applications,</li> <li>• plan for faculty demand, and</li> <li>• maximize student capacity.</li> </ul> | <p>2. <b>Policy makers</b> can use the data to...</p> <ul style="list-style-type: none"> <li>• initiate and/or modify policies and regulations,</li> <li>• guide funding decisions, and</li> <li>• plan strategic use of resources.</li> </ul> |
|--|--|

Post-licensure programs (e.g. RN to BSN, Master’s, Doctoral) advance the training of licensed registered nurses (RNs), while pre-licensure ADN and BSN nursing programs increase the supply of new RNs. Graduates of pre-licensure nursing programs must also successfully pass the National Council Licensure Examination (NCLEX) to be licensed to practice. This report describes Florida’s **pre-licensure Registered Nurse (RN) programs**, including Associate Degree in Nursing (ADN) and Bachelor of Science in Nursing (BSN) for Academic Year (AY) 2017-18.<sup>2</sup> RN to BSN programs are not discussed in this report.

Findings highlight nursing program growth, program capacity, barriers to expansion, and program trends over time. The Center discusses implications of trends and offers research and policy recommendations. Additional information on the Florida Center for Nursing Education Survey, Florida’s LPN students, post-licensure programs, and nursing program faculty can be found in companion reports.

### Data Source

Data for this report are from the 2018 Florida Center for Nursing *Survey of Nursing Education Programs*.<sup>3</sup> FCN established a list of active nursing education programs using 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 by National Council Licensure Examination (NCLEX) code.<sup>4</sup> Survey invitations were sent to all active programs with NCLEX codes listed on the Board of Nursing’s website in August 2018. In October 2018, FCN emailed a unique survey link to the last known Dean or Program Director for each education program. Multiple efforts were made to contact each school. In total, FCN requested information from 219 RN programs (143 ADN and 76 BSN).

<sup>1</sup> There are some gaps in annual data collection and reporting due to low response rates (AY 2013-14) and lack of resources to administer the annual survey (AY 2014-15).

<sup>2</sup> According to responses to the Center’s survey of nursing education programs, response rates discussed below

<sup>3</sup> Statute mandates programs to provide education program data (FS 464.019(10)).

<sup>4</sup> FCN does not have a comprehensive count of RN to BSN, MSN, and doctoral programs as the Board of Nursing does not track post-licensure nursing programs that do not lead to a new license. RN participants with a pre-licensure NCLEX code were able to provide information on their affiliated post-licensure program.

RN programs had a response rate of 83%. The response rate was slightly higher for ADN compared to BSN programs (see Table 1). Compared to the previous survey cycle, the overall response rate increased 2%. Twenty-five (25) of the participating RN programs did not have students enrolled during AY 2017-18 and are not included in the discussions to follow.

**Table 1. Program Response Rates by RN Program Type, AY 2017-18**

Program Type	# Programs Surveyed	# Responding Programs	Response Rate	# Respondents w/ Enrolled Students
ADN	143	119	83.2%	108
BSN	76	63	82.9%	49
<b>Total</b>	<b>219</b>	<b>182</b>	<b>83.1%</b>	<b>157</b>

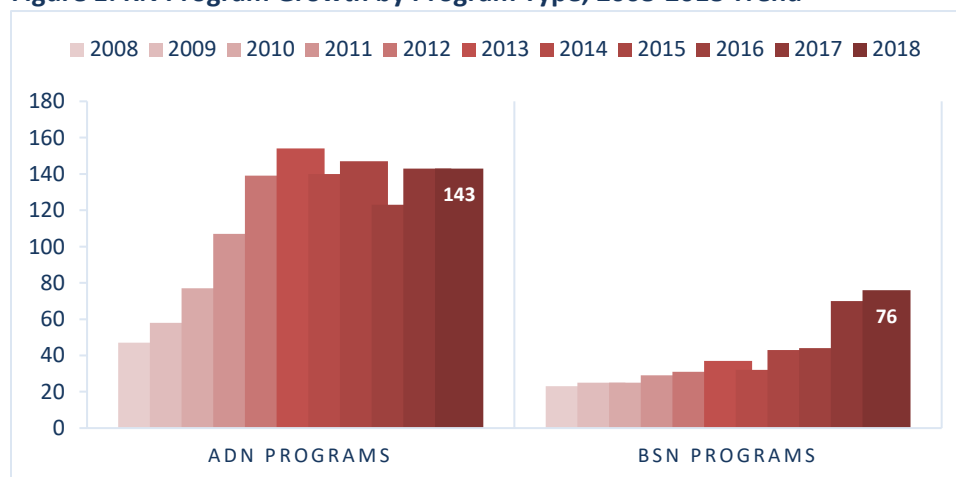
As a result, **157 RN programs with students enrolled during AY 2017-18 participated in the survey**, including 108 ADN programs and 49 pre-licensure BSN programs. The sections below describe characteristics of RN programs as reported by survey respondents and include generic/traditional and bridge/second degree programs, which move students with some training (e.g., LPN to RN, a baccalaureate in another field) more quickly through the program, when applicable.

## OVERVIEW OF RESPONDING PROGRAMS

### Total Program Growth

Overall, the number of RN programs have more than tripled in the past ten years. ADN programs experienced rapid growth between AY 2009-10 and AY 2012-13, however, there has been no net growth in the number of ADN programs between AY 2016-17 and AY 2017-18 (Figure 1). In contrast, the number of pre-licensure BSN programs experienced a sizeable growth between AY 2015-16 and AY 2016-17 when the number of programs increased by about 160%. **In the most recent academic year, pre-licensure BSN programs experienced a net increase of 6 programs.**<sup>5</sup>

**Figure 1. RN Program Growth by Program Type, 2008-2018 Trend**



The growth in BSN programs and leveling of ADN programs is consistent with the increased preference for hiring nurses trained at the baccalaureate level. In contrast the number of LPN education programs decreased since AY 2016-17 (Florida Center for Nursing, 2019).

<sup>5</sup> This is a net increase and does not represent specific programs added or removed between August 2017 and 2018.

## RN Curriculum Options

In total, 157 RN programs responded to the survey. One of the 108 ADN programs *only* offered a bridge program, 44 offered generic *and* bridge programs, and 63 had generic curriculum only (Figure 2). Bridge ADN programs move LPNs or paramedics through an RN program more quickly.

Among the 49 pre-licensure BSN program respondents, 45 offered generic BSN curriculum. Twenty (20) schools offered second degree tracks, which accelerate training for students with a baccalaureate degree in another discipline. Four (4) schools offered only the second degree option.

## RN Program Accreditation

In effort to improve program quality, the 2014 Florida legislature introduced a requirement for all pre-licensure RN programs to be accredited by a nationally recognized specialized nursing accrediting agency within five years of their first student enrollment. RN education programs with students enrolled prior to July 1, 2014 must be accredited by July 1, 2019.<sup>6</sup> Programs not in compliance will lose their license to offer a nursing education program in Florida and must discontinue operations.

**Sixty-one percent (61%) of responding RN programs were accredited in AY 2017-18 and 29% were in the process of accreditation.**

A larger portion of BSN programs were accredited (86%, n = 42) compared to ADN programs (49%, n = 53) (Table 2). BSN programs were more likely to be accredited by the Commission on Collegiate Nursing Education (CCNE) than the Accreditation Commission for Education in Nursing (ACEN). Another 38% of ADN and 10% of BSN programs were in the accreditation process. More than half (57%) of RN programs in the process had achieved candidate status.

Fewer than 20 RN programs were not yet accredited or in the accreditation process, representing 13% of ADN and 4% of BSN program respondents. Accreditation status of non-respondents is not included here but may be available upon request to the Board of Nursing.

**Accreditation among RN programs decreased 3% since the previous survey cycle.** This may be attributed to response rates as the number of accredited ADN programs increased since AY 2016-17. The number of accredited BSN programs decreased, which may also be explained, in part, by the growing number of new

**Figure 2. RN Curriculum Options, AY 2017-18**

Associate Degree in Nursing (ADN) 108 Programs Offered	Bachelor of Science in Nursing (BSN) 49 Programs Offered
<ul style="list-style-type: none"> <li>• 107 Generic Tracks</li> <li>• 45 Bridge Tracks</li> </ul>	<ul style="list-style-type: none"> <li>• 45 Generic Tracks</li> <li>• 20 Second Degree</li> </ul>

Includes respondents with students enrolled. Does not represent all RN programs. Curriculum information is not available for non-respondents.

**Table 2. RN Program Accreditation, AY 2017-18**

	ADN	BSN	TOTAL
<b>Accredited</b>	<b>49%</b>	<b>86%</b>	<b>61%</b>
CCNE	-	98%	43%
ACEN	100%	14%	62%
<b>Accreditation in Progress</b>	<b>38%</b>	<b>10%</b>	<b>29%</b>
New	27%	20%	26%
Candidate	54%	80%	57%
Neither	20%	-	17%
<b>Not Accredited</b>	<b>13%</b>	<b>4%</b>	<b>10%</b>

Includes survey respondents with enrolled students only. BSN accreditation % may not equal 100% due to selection of multiple accrediting bodies

<sup>6</sup> Chapter 2014-92 Laws of Florida

BSN programs. Trend information should be interpreted with caution as response rates change over time and this analysis does not consider the accreditation status of individual programs over time.

**Pre-Licensure RN Program Capacity**

Table 3 describes the program capacity – the ability to enroll new students – for pre-licensure ADN and BSN programs, by program curriculum. In AY 2017-18, responding RN programs reported **21,876 seats available for new students**. Responding programs received 32,773 applications from qualified prospective students.<sup>7</sup> More than 10,000 qualified applicants were declined admission, yet RN programs **admitted 596 more applicants than the number of seats available**.

**Table 3. Program Capacity for Pre-licensure RN Programs by Curriculum, AY 2017-18**

	ADN		BSN		RN Total
	Generic	Bridge	Generic	2nd Degree	
# Seats for New Students	13,407	2,719	4,535	1,215	<b>21,876</b>
# Qualified Applicants	20,096	3,074	7,085	2,518	<b>32,773</b>
# Students <b>Admitted</b>	13,453	2,550	4,891	1,578	<b>22,472</b>
# Admitted & <b>Enrolled</b>	12,258	2,224	3,688	1,225	<b>19,395</b>
# <b>Declined</b> Applications	6,643	524	2,194	940	<b>10,301</b>
# Seats Left <b>Vacant</b>	1,149	495	847	-10	<b>2,481</b>

Counts represent responding programs with enrolled students only, and do not represent 100% of RN nursing program capacity in the state of Florida.

**All responding programs reported 19,395 new RN students** enrolled in classes resulting in 2,481 seats left vacant. Despite the number of vacant seats in AY 2017-18, RN programs are admitting as many (if not more) qualified applicants than their program can accommodate and **declining applicants due to capacity issues**. Seats left vacant may relate more to factors affecting the applicants such as multiple program admissions or other reasons that they may not enroll after admission.

The ADN Bridge curriculum was the only program curriculum where the total number of students admitted did not exceed the number of seats available. Responding BSN second degree programs reported that 10 more students enrolled than they were capable of seating.

**This report provides a cursory understanding of program capacity as we do not describe capacity or admission practices at the regional or program level.** It is also not currently possible to track individual applicants to identify overlap in the qualified-admitted-enrolled pipeline. Additional research is needed to understand program capacity and the intent of prospective students more fully.

According to respondents, ADN programs experienced an increase of 2,522 qualified applicants between AY 2016-17 and AY 2017-18, while 190 fewer qualified applicants applied for BSN programs. Generic BSN programs experienced a drop in qualified applicants, while qualified applicants for second degree BSN programs increased. About 16,000 applicants were admitted to ADN programs and almost 6,500 applicants were admitted to BSN programs in AY 2017-18 (see Figure 3, next page). Both pre-licensure RN program types increased the number of applicants admitted between AY 2016-17 and AY 2017-18. The number of enrolled students also increased for both program types since the previous academic year.

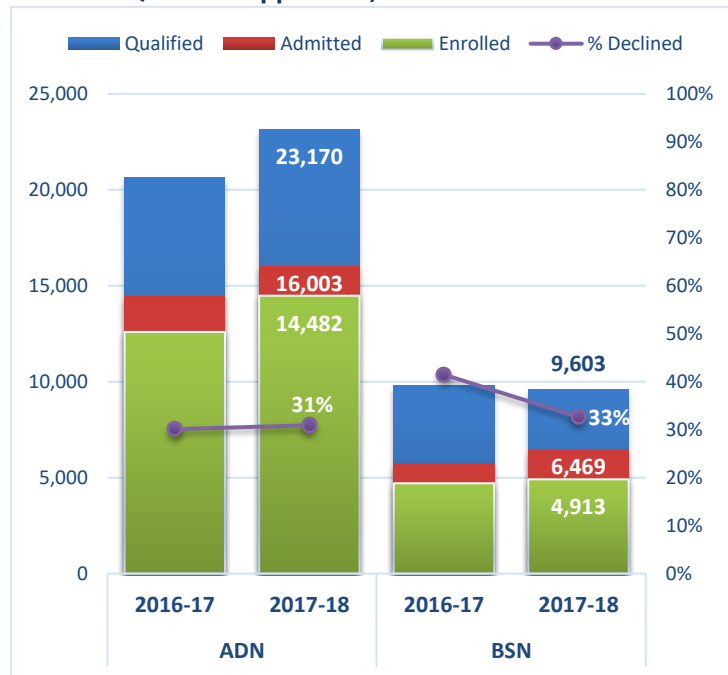
<sup>7</sup> Not representative of the number of prospective students as one student may submit applications to several schools.

Responding ADN programs declined admission to 31% of qualified applicants, a slight increase (less than 1%) compared to AY 2016-17 (Figure 3). The proportion of qualified applicants declined admission to BSN programs (33%) decreased 9% compared to AY 2016-17 (41%).

Changes in rates of declined qualified applicants may correlate with programs attempting to reduce vacant seats, demand for educated nurses, program resources, the quality of applicants, or variations in survey response among nursing programs affected by capacity issues. This report describes patterns by program type but does not establish causation.

However, it is clear that **Florida’s RN programs do not currently have the capacity to admit, enroll, and educate all qualified applicants.**

**Figure 3. Pre-licensure ADN and BSN Enrollment and Declined Qualified Applicants, AY 2016-17 to AY 2017-18**

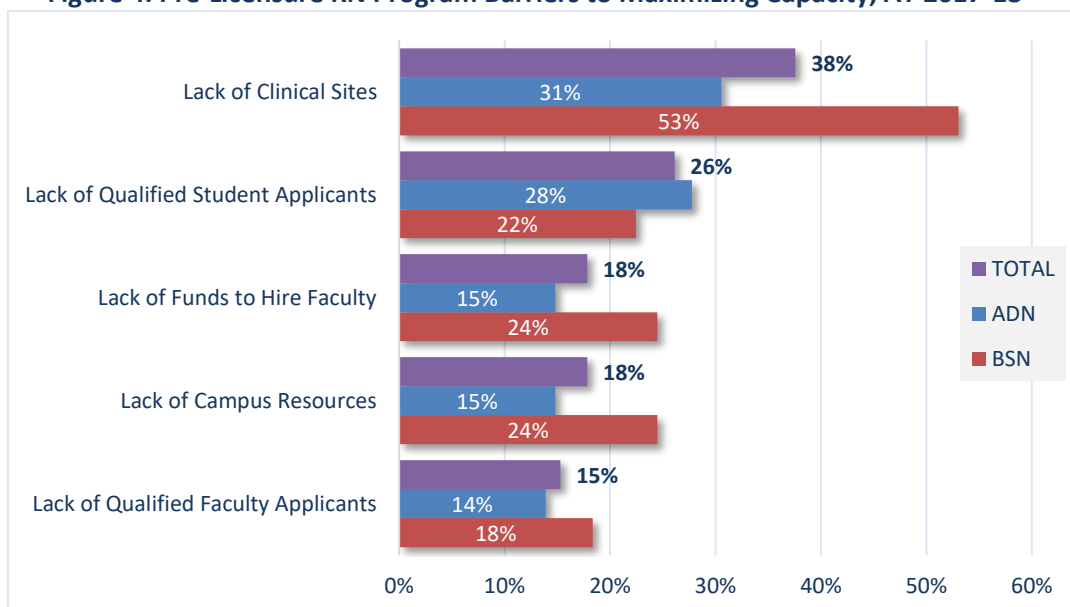


Counts do not represent all Florida RN programs. Trend data should be interpreted with caution as response rates vary over time.

**Barriers to Maximizing Pre-Licensure RN Program Capacity**

The previous section discussed RN program capacity and qualified applications denied admission. RN programs typically admit more students than they are capable of seating, yet seats remain vacant each year and qualified applicants continue to be declined admission. This section considers barriers to maximizing program capacity, or the factors reported by participating programs which prevent them from accepting more qualified students.

**Figure 4. Pre-Licensure RN Program Barriers to Maximizing Capacity, AY 2017-18**





In the 2017-18 academic year, pre-licensure RN programs’ **most common barrier to accepting more students was a lack of clinical sites for interactive learning (38%)** (Figure 4, previous page). Thirty-one percent (31%) of ADN programs and 53% of pre-licensure BSN programs reported that a lack of clinical sites affected their capacity. This was also the most common barrier in AY 2016-17, though a smaller portion of ADN programs and a greater portion of BSN programs experienced this during AY 2017-18.

Additionally, 26% of all RN programs reported a lack of qualified students affecting their ability to maximize their program capacity. This issue is inconsistent with the overall number of qualified applicants collectively reported by RN programs and may suggest that certain programs are more likely than others to receive an abundance of qualified applicants. The proportion of BSN programs (22%) and ADN programs (28%) reporting this issue declined, compared to AY 2016-17 (28% and 39%, respectively).

The third most common barrier was a lack of campus resources (e.g. classroom/lab space, budget constraints) (18%). In AY 2016-17, 24% of programs reported this issue, indicating a smaller portion of programs struggling with access to campus resources. However, all comparisons over time should be interpreted with caution as response rates vary over time and may alter proportional values.

However, it is important to note that 36% of pre-licensure RN programs (38% of ADN programs and 31% of BSN programs) indicated their program did not experience any factors preventing them from accepting more qualified students. This, paired with programs admitting more students than their programs are capable of seating, suggests that vacant seats may relate more to individual student circumstances and preferences preventing enrollment following admission to RN programs.

### **Total Student Enrollment**

Total student enrollment represents the number of students enrolled at any stage of a given program.<sup>8</sup> According to participating programs, the number of students enrolled in pre-licensure RN programs in Florida increased for ADN programs (1%) and decreased (-6%) for BSN programs since the previous academic year (Table 4).

**Responding programs reported 22,402 students at any stage of ADN curriculum, and 9,224 students enrolled in BSN programs.** These values underrepresent nursing program enrollment as the survey response rate is less than 100%.

Compared to responding programs’ September 2017 enrollment, BSN second degree programs experienced the greatest increase (13%) in total enrollment, while generic BSN programs experienced the greatest decrease in student enrollment (-9%). ADN Bridge program enrollment also decreased (-5%) while enrollment in traditional ADN program increased 3%.

**Table 4. Enrollment in Responding Programs by Curriculum, as of September 30, 2018**

	# Enrolled	% Change since 2017
ADN - Generic	18,878	2.7%
ADN - Bridge	3,524	-5.0%
<b>Total ADN</b>	<b>22,402</b>	<b>1.4%</b>
BSN - Generic	7,808	-8.7%
BSN – 2 <sup>nd</sup> Degree	1,416	12.7%
<b>Total BSN</b>	<b>9,224</b>	<b>-5.9%</b>
<b>TOTAL ENROLLMENT</b>	<b>31,626</b>	<b>-0.8%</b>

Counts include survey participants only and do not represent all Florida RN programs. Trend data should be interpreted with caution as response rates vary over time.

<sup>8</sup> The previous section discussed newly admitted and enrolled students. Total student enrollment includes new students and those further along in the program prior to graduation.

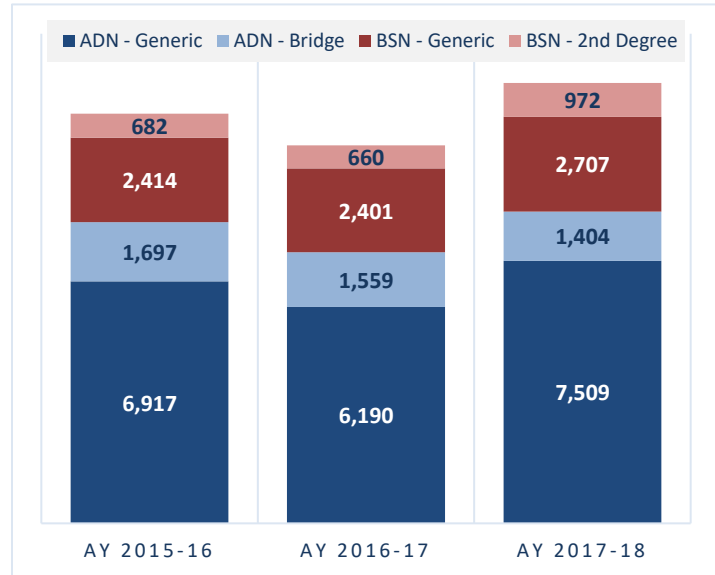
## Pre-Licensure Registered Nurse Graduates

AY 2017-18 participants reported **8,913 graduates from ADN programs and 3,679 graduates from BSN programs** (Figure 5). Compared to the previous academic year, the number of graduates increased 16%.

The only decrease in graduates (10%) was seen in the ADN bridge programs. This may relate to varying response rates or may be an indicator of the current state of ADN bridge programs. More research is needed to identify factors affecting these trends.

**BSN second degree programs experienced a 47% increase** compared to the number of graduates reported by responding programs in the last survey cycle. However, the number of graduates is less than 1,000 so small increases may appear more inflated.

Figure 5. Pre-Licensure RN Graduates, by Curriculum



Counts include survey participants only and do not represent all Florida RN programs. Trend data should be interpreted with caution as response rates vary

Compared to AY 2016-17, generic ADN program graduates increased 21% and generic BSN programs increased 13%. **Generic ADN programs remain the largest producer of RN graduates, although growth in BSN program graduates highlight the increasing influence of hiring preferences in the nursing industry** (see Figure 5).<sup>9</sup> Compared to the reports of participating programs in the previous survey cycle, traditional ADN, BSN, and second degree BSN programs experienced a recovery from decreases in total graduates.

All nursing graduates must also successfully pass the NCLEX to be licensed to practice, graduation alone is not sufficient. The Florida Center for Nursing produces an annual report assessing nursing programs' NCLEX passage rates. The Center's report on Florida's 2018 NCLEX passage rates by nursing education program will be available by mid-April 2019.

## STUDENT DEMOGRAPHICS

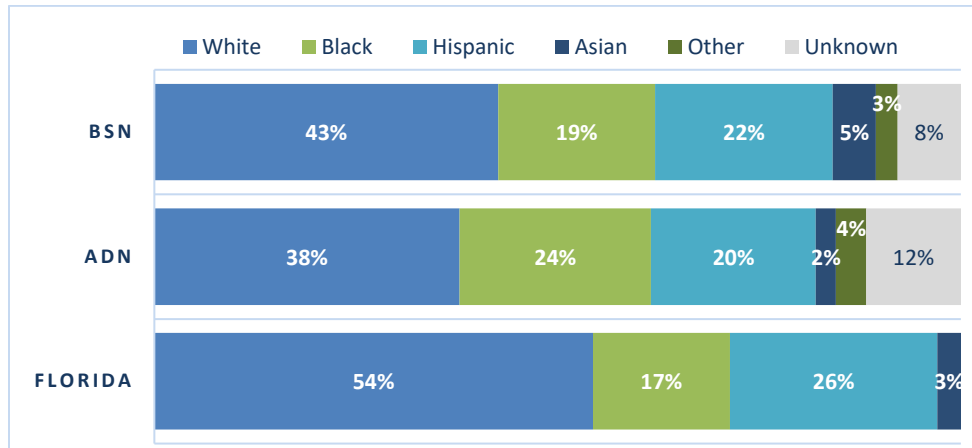
### Race/Ethnicity and Gender of Pre-Licensure RN Students

Figure 6 describes the proportion of RN students enrolled as of September 30, 2018 by race/ethnicity by program type. White and Hispanic students form a larger part of BSN programs (43% and 22%, respectively) compared to ADN programs (38% and 20%). On the other hand, ADN programs have a slightly larger portion of Black/African American students compared to BSN programs (Figure 6, next page). As of September 30, 2018, **Black students represent a smaller portion of pre-licensure program enrollment as education level advances**. Black LPN students represent 42% of LPN students (Florida Center for Nursing, 2019), 24% of ADN programs, and 19% of BSN Programs.

<sup>9</sup> Fluctuating trends may correlate with varying response rates over time. Additional research should compare new program growth with the number of graduates of each program type to identify patterns in program production of graduates over time.

Asian students were slightly more represented in BSN programs (5%) compared to ADN programs (2%). About 3% of BSN and 4% of ADN students were of some other race, including Hawaiian/Pacific Islander, Native American/Alaska Natives, and all other race/ethnicities. Race was unknown for 8% of enrolled BSN and 12% of ADN students.

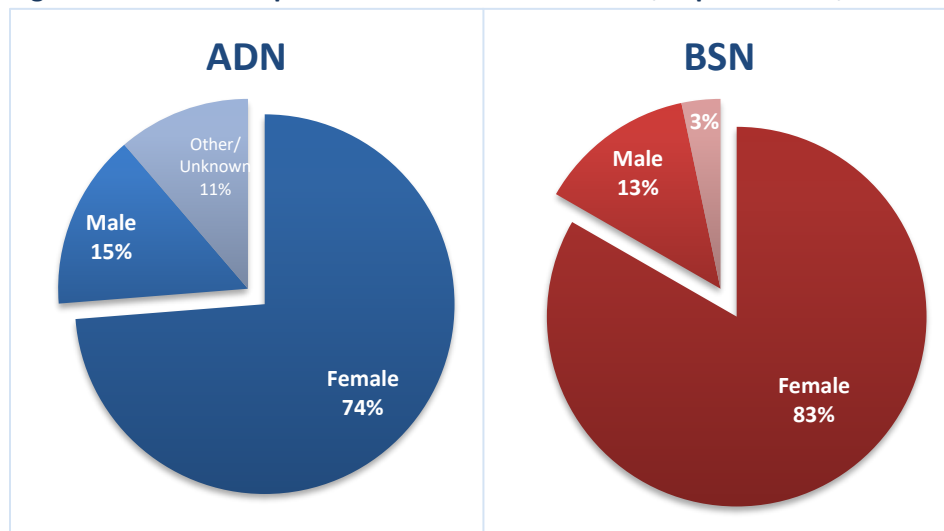
**Figure 6. Racial/Ethnic Composition of Students Enrolled in Florida RN Programs, September 30, 2018 and 2017 Florida Census Data**



**Overall, ADN and BSN programs are more racially/ethnically diverse compared to the state of Florida’s population** (Figure 6). In 2018, Black/African Americans represented 17% of Florida’s population (United States Census Bureau, 2018), while Black students comprised 19% of BSN and 24% of ADN programs. Compared to Florida’s population, Asian students are proportionately represented in ADN programs and overrepresented in BSN programs (United States Census Bureau, 2018).

**The RN student population enrolled in September 2018 is more racially diverse compared to RNs estimated to be working in Florida in 2017** (Florida Center for Nursing, 2018). White RNs comprised 63% of the RN workforce, compared to 43% of BSN students and 38% of ADN students. Hispanics comprised about 13% of the RN workforce, and Black RNs represented 14% of the workforce in Florida.

**Figure 7. Gender Composition of Florida RN Students, September 30, 2018**



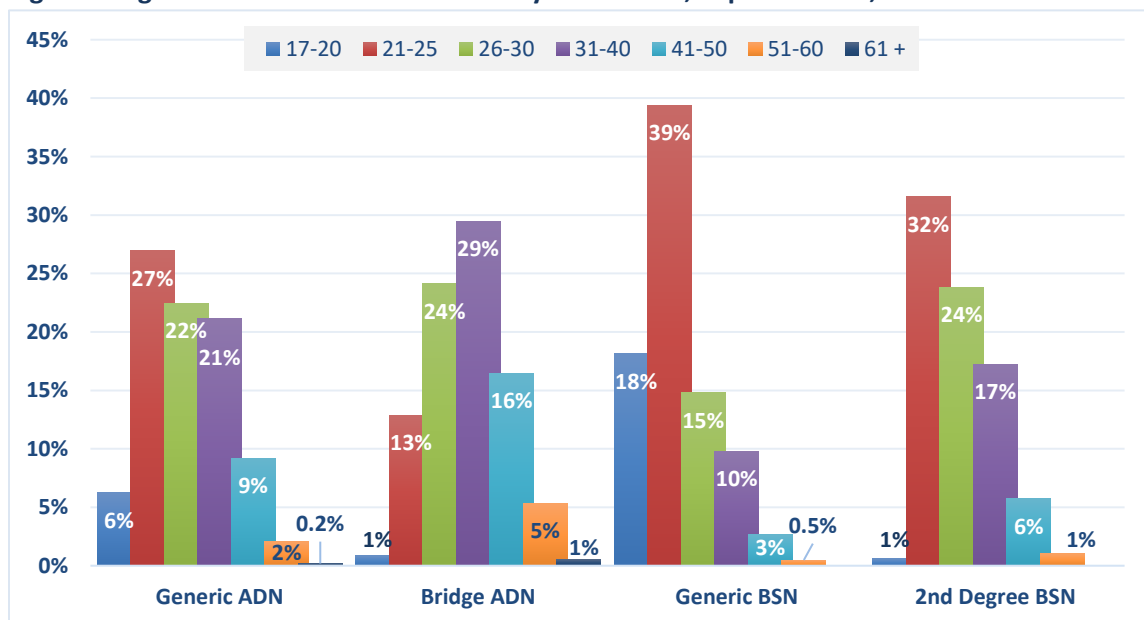
Responding RN programs indicated that **15% of ADN and 13% of BSN students enrolled on September 30, 2018 were male** (Figure 7). The proportion of male students decreased slightly compared to the previous survey cycle, although varying response rates over time may contribute to this difference. The proportions of males in ADN and BSN are slightly higher than the most recently reported gender distribution of Florida’s RN workforce (11.5%) (Florida Center for Nursing, 2018). Males remain underrepresented in nursing education programs and the nursing workforce, compared to the overall population. Responding programs indicated some other or unknown gender for 11% of ADN and 3% of BSN students.

**Age Distribution of Pre-Licensure RN Students**

Figure 8 depicts the age distribution of RN students by curriculum type as of September 30, 2018. **Overall, BSN students are younger than ADN students.** About 53% of ADN students were 30 or younger, compared to 70% of BSN students. Students enrolled in generic BSN programs were more likely to be between the ages of 17 and 20 (18%) or between 21 and 25 (39%) compared to any other pre-licensure RN curriculum (Figure 8).

Responding **ADN programs had larger portions of students over the age of 40**, compared to BSN programs. Regardless of curriculum, 13% of ADN students were over the age of 40, compared to 4% of BSN students. Students enrolled in Bridge ADN programs were also older, on average, compared to students in generic programs, highlighting the nature of bridge programs, where students with existing healthcare training are moved more quickly through their RN education.

**Figure 8. Age Distribution of RN Students by Curriculum, September 30, 2018**



Proportions do not equal 100% due to unknown/unreported ages for 13% of enrolled RN students.

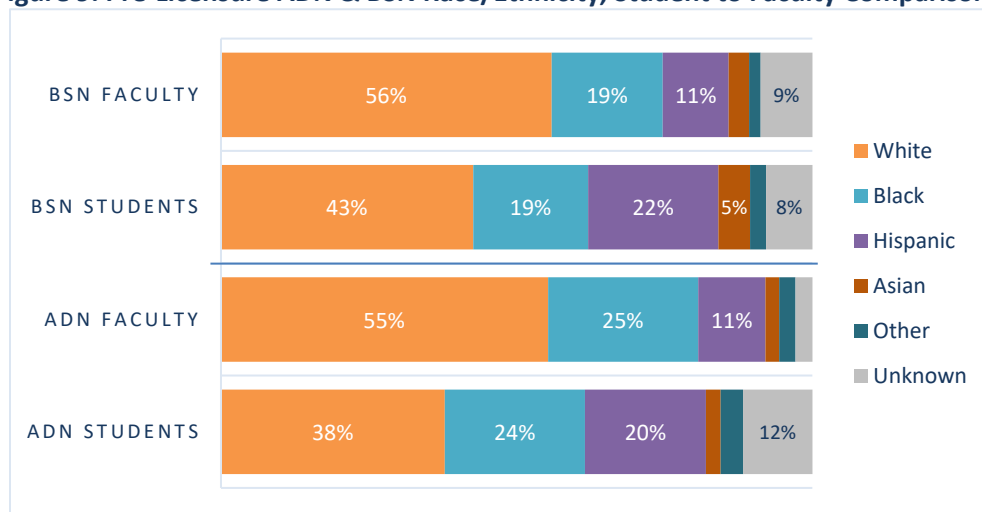
Interestingly, second degree BSN students were proportionately younger than bridge ADN students. Second degree BSN programs are also designed to move students with previous education through the RN program more quickly. Thirty-three (33%) of second degree BSN students from responding schools were 25 or younger, compared to 14% of bridge ADN students. Conversely, 24% of second degree BSN students were over the age of 30, compared to 51% of bridge ADN students.

As would be expected, the youngest students are enrolled in generic/traditional programs, compared to those targeting students with existing experience. However, younger students of traditional college age are more likely to be enrolled in a BSN program, compared to older students, while ADN students are more distributed among various ages.

**Student to Faculty Demographic Comparison**

Figures 9 and 10 present demographic comparisons between RN faculty and student populations. According to responding programs, **students in pre-licensure ADN and BSN programs<sup>10</sup> were more racially diverse, compared to their faculty.<sup>11</sup>** More than half of BSN (56%) and ADN faculty (55%) were white, compared to 43% and 38% of students, respectively. In both program types, more students were identified as Hispanic, compared to their faculty members. The proportion of Black/African American faculty and staff were comparable for both pre-licensure program types (see Figure 9). Black faculty and students comprised a larger portion of their respective populations than BSN faculty and students.

**Figure 9. Pre-Licensure ADN & BSN Race/Ethnicity, Student to Faculty Comparison**

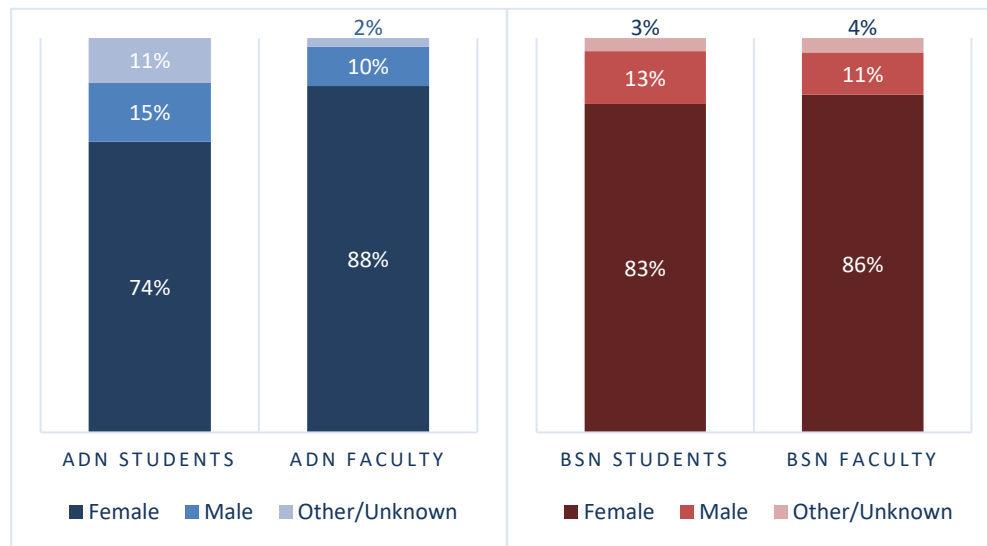


Similarly, **more students than faculty were identified as male** (Figure 10, next page). Males comprised 5% more of the ADN student population, and 2% of the BSN student population, compared to their faculty counterparts. Regardless, the nursing education system remains female-dominated.

**Figure 10. Pre-Licensure ADN & BSN Gender, Student to Faculty Comparison**

<sup>10</sup> Responding programs only. Counts combine students of traditional and bridge/2<sup>nd</sup> degree pre-licensure programs.  
<sup>11</sup> Combines full- and part-time faculty of bridge/2<sup>nd</sup> degree and traditional programs. Responding programs only.

Demographic comparisons between students and faculty may highlight the increasing diversity in the



nursing profession, among younger and newer nurses. Similar comparisons over time may also tell us who in the profession is more likely to pursue a career in nursing education, compared to practicing nursing in direct or indirect care settings. Research also suggests (CITATIONS) that minority students thrive more under the mentorship of faculty members with similar demographic characteristics. Efforts to advance inclusivity and diversity in the nursing profession should continue to monitor characteristics of students, faculty, and those who successfully enter the nursing workforce.

## DISCUSSION

The total number of pre-licensure registered nursing programs tripled since 2009 yet program growth has slowed in recent years. Between AY 2016-17 and AY 2017-18, the number of ADN programs stayed the same (n = 143). Meanwhile, BSN programs experienced a net increase of six programs (n = 76), which may relate to a growing emphasis on educating nurses at the baccalaureate level (Institute of Medicine (IOM), 2010) and industry preferential hiring of BSN graduates. However, **ADN programs continue to produce the majority of RN graduates** (n = 8,913, 71%), compared to BSN programs (n = 3,679, 29%). The number of graduates increased 16% since AY 2016-17, with increases in all curricula except ADN Bridge programs. Despite increases, the production of BSN graduates leaves Florida a long way from the IOM charge to have 80% of the nurse workforce with a BSN or higher by 2020 (Institute of Medicine (IOM), 2010). There continues to be a need for critical planning regarding new nursing programs, student enrollment, and program graduation in Florida.

**The impact of program growth or a ‘leveling off’ of education programs and the production of new graduates depend on demand.** Expansion of nursing education programs must be balanced with healthcare employers’ ability to hire newly licensed nurses and the state’s anticipated future need for RN graduates as the population ages and grows while older nurses are retiring or working fewer hours. In 2015, employers reported continued high demand for RNs, 12,500 RN position vacancies, and an estimated future need for 10,000 RN positions (Florida Center for Nursing, 2016). However, data on Florida’s industry demand is lacking. Limited resources and low response rates have made it difficult for the Center to measure more current demand.

Although growth has slowed for ADN programs, **program capacities continue to be constrained**. Overall, 38% of RN programs reported a lack of clinical sites for interactive learning as a barrier to expanding program capacity and enrolling more students. Just over More than half of the BSN program respondents (53%) and 33% of ADN programs experienced a lack of clinical sites. Just over a quarter (26%) of participants (28% ADN, 22% BSN) also reported a lack of qualified student applicants as a program barrier. None-the-less, between AY 2016-17 and AY 2017-18, the total number of reported qualified applicants increased for ADN programs and second degree BSN programs. Generic BSN programs experienced a minor decrease in the number of qualified applicants. However, counts may reflect survey participation and response rate variations over time. More research is needed at the regional and program level to determine if some schools are disproportionately receiving applications from qualified candidates compared to others.

Collectively, RN program respondents received 32,773 applications from qualified candidates and reported a total of 21,876 seats available for new students. Programs admitted 596 more students than they were able to seat, likely due to the probability that some applicants would receive multiple offers and/or not enroll following admission. A total of 19,395 admitted students were enrolled at the beginning of the academic year, resulting in more than 2,400 seats left vacant. More information is needed to understand the impact of vacant seats, particularly when qualified students are not admitted due to perceived or actual program capacity barriers. To be strategic about the recruitment and production of new RNs and growth within the profession, **enrollment counts and seat vacancies must also be compared to estimated future demand**. Without quality demand data, it is difficult to presume whether these vacancies are problematic or a natural course of the RN demand.

Total student enrollment as of September 30, 2018 decreased about 1% compared to the counts reported for September 2017. Second degree BSN program enrollment increased 13%, for an average number of 71 students per responding program. Generic ADN program enrollment increased about 3%, with an average of 176 students per program. Conversely, Generic BSN program enrollment decreased 9% and ADN Bridge enrollment decreased 5% compared to previous year estimates. The average number of generic BSN students enrolled on September 30, 2018 was 173 per program, while ADN bridge programs had about 73 students per responding program. Enrollment counts help estimate program capacity, the number of future graduates, and the future supply of the RN workforce. Yet, with limited quantitative evidence of employer demand, only descriptive information is available for industry assessment.

Program quality and cost-effectiveness continue to be in need of examination. The Center holds the position that it is crucial to evaluate the impact of new nursing education programs, in terms of student quality, cost-benefit analysis of the programs, and health industry assessment of the program’s graduates’ ability to meet employment needs. The Florida Legislature recognizes the importance of increasing the availability of nursing education programs and the pool of licensed, qualified nurses in the state (FS 464.019). Though limited resources are available for objective assessments of new programs, the National Council of State Boards of Nursing Licensure Examination passage rates for first-time takers from pre-licensure RN programs are known. In the 2018 calendar year, Florida’s combined (associate and bachelor’s degree) passage rate for RNs was 72.7% compared to the national average of 88.3%, ranking Florida 52<sup>nd</sup> out of 55 US States and Territories. (Florida Board of Nursing, 2019). **Florida’s NCLEX rankings are of critical concern and in need of significant action** to achieve an acceptable statewide passage rate and demonstrate a satisfactory return on the State’s investment. Additionally, programs whose NCLEX passage rates fall more than 10 percentage points below the national average must initiate a corrective plan of action. If unsuccessful, the program would lose its license to operate in Florida. The Center’s analysis and report on Florida’s 2018 NCLEX passage rates by nursing education program will be available in April 2019.

The Florida Legislature (2014) established a **requirement for all pre-licensure RN programs to be nationally accredited** within five years of their first student enrollment or by July 1, 2019, if first enrollment was prior to July 1, 2014. Sixty-one percent (61%) of responding programs were accredited at the time of data collection (49% ADN, 86% BSN), a slight decrease (-3%) compared to the AY 2016-17 respondents. Decreasing accreditation rates may be related to several factors including a variance in survey participation by accredited schools or an increase in newer programs not yet accredited. Another 29% of RN programs were in the process of accreditation. In total, fewer than 20 RN programs that participated in the survey were not yet accredited or in the accreditation process, representing 13% of ADN and 4% of BSN program respondents. These likely include newly established programs and those which may be at risk of closing following the July 1, 2019 statutory requirement.

Overall, 83% of pre-licensure RN programs provided program information in the 2018 Florida Center for Nursing Survey of Nursing Education Programs, including **108 ADN programs and 49 BSN programs with students enrolled**. Although response rates increased slightly compared to AY 2016-17, without 100% participation, the results presented in this report do not represent a complete picture of pre-licensure registered nursing education in Florida. However, patterns, trends, and counts described give insight into a large portion of these programs. The Center’s results and information are used to align the needs of nurse employers to new graduates needing jobs, to align future student capacity in nursing programs with anticipated future nurse employment opportunities in the local community, to plan for strategic expansion of nursing programs, and to plan for faculty workforce needs. Stakeholders must be committed to support the Center’s efforts to acquire quality and meaningful data for these goals to be achieved.

### Recommendations

The Center offers the following research and policy recommendations based on current analyses of Florida’s pre-licensure RN education ability to contribute to efforts to address nurse workforce issues and the health of Florida’s population. These recommendations should be a starting point for education stakeholders and policy makers working to make valuable contributions to the nurse workforce.

1. **A critical assessment of the appropriateness and quality of education of new and existing RN programs is needed to determine their impact on the students, nursing workforce and healthcare industry.** The addition of programs and new students is not a guarantee of new nurses entering the workforce in jobs for which they are qualified. An assessment of whether students are completing the appropriate level of education, successfully passing the national examination for licensure, and securing employment in Florida must be completed. Additional critical evaluations include a 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. Current estimates of demand are lacking in Florida due to limited resources and low response rates. An interdisciplinary group of professional and workforce stakeholders should be involved in these analyses to ensure a meaningful and detailed assessment of the nursing education and workforce pipeline.
2. **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 nursing manpower 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.



Since 2010, the Center has only received state funds in support of this mandate for one fiscal year (2015-2016). To achieve this mandate, the Center needs fiscal resources as well as the authority to collect appropriate data. In particular, the Center lacks resources to collect and analyze data assessing Florida's demand for nurses. Such data would support development of a more complete picture of the nursing workforce pipeline from initial education through retirement. Since RNs comprise a majority of the nurse workforce, demand data is particularly important to ensure that the future supply of nurses accurately reflects Florida's needs, and that quality education programs are supported to ensure that the demand is met.

Florida's legislature should implement a sustainable funding mechanism for the Center to accomplish its statutory mandate and establish consequences for failure to participate in the Center's data request efforts.

3. **New methods of education, clinical and didactic, should be developed to accommodate the learning style of diverse students, address the critical shortage of clinical capacity, and prepare newly licensed RNs to work in non-traditional settings.** Education systems should embrace new technologies and develop key partnerships to ensure future nurses are up to date on emerging advancements, such as robotics and simulations. Aligning educational technology with students' diverse learning styles will improve the educational experience. Generational differences should also be considered. While about 70% of BSN students are 30 or younger, almost half of ADN students (43%) were 31 or older. These groups may have different learning styles, professional goals, personal barriers or motivations, etc. Responses to the Center's 2015 demand survey indicated that staff RN positions are difficult to fill in skilled nursing facilities, home health, public health and hospice. The education system tends to reinforce the adage that new graduates should start working in a hospital setting. Exposure to varied settings such as public health, home health, and skilled nursing, would broaden the students' experience and introduce them to new career pathways while more effectively meeting industry demand.

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