

### KEY FINDINGS

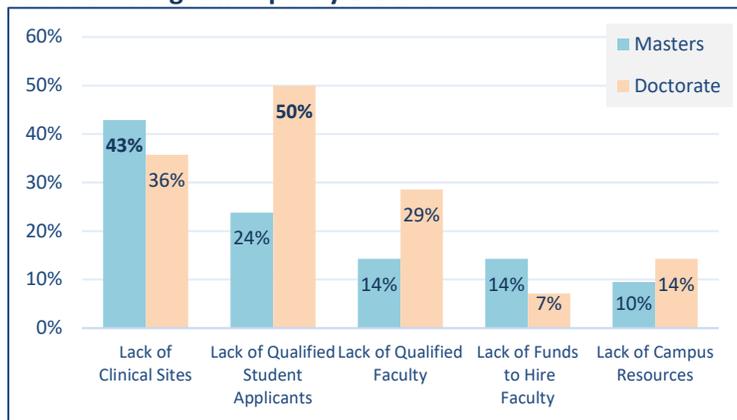
The following presents **key findings** regarding Florida's post-licensure (RN to BSN, Master's, Doctorate) nursing education system for Academic Year (AY) 2018-19. The full report details information on program characteristics, capacity, and student demographics. Implications and recommendations are discussed.

#### Post-Licensure Capacity, Enrollment & Graduation

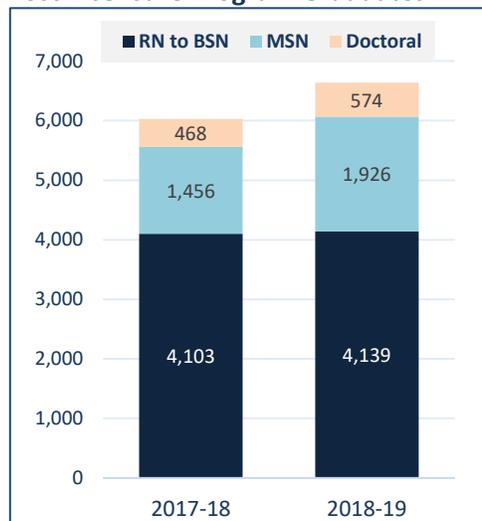
	RN to BSN	MSN	DNP	PhD/Doc
# Qualified Applicants	9,336	3,767	1,305	301
# Students Admitted	8,345	3,111	905	242
# Admitted & Enrolled	6,322	2,517	746	185
% Declined Applications	11%	17%	31%	20%
# Total Enrollment	9,876	3,895	1,859	409
# Student Graduates	4,103	1,456	414	54

- **53 RN to BSN, 63 MSN, and 26 Doctoral programs** were reported.
  - The number of RN to BSN and MSN programs reported increased
  - One less doctoral program was reported compared to 2018
- **Enrollment and graduations increased** since Fall 2018...
  - **RN to BSN** and **MSN** programs enrolled and graduated fewer students *per program*, on average
  - The average number of enrolled students and graduates per **doctoral** program increased
- The most common barrier to maximizing MSN program capacity was a **lack of clinical sites** (43%). Doctoral programs expressed a **lack of qualified student applicants** (50%).
- Post-licensure students were more **racially diverse** than the Florida population.
- Post-licensure students were more likely to be **over the age of 30**
  - 59% of MSN, 53% of RN to BSN, and 49% of doctoral students

#### Graduate Program Capacity Barriers



#### Post-Licensure Program Graduates



#### Recommendations

1. **Maintain and fund consistent, long-term data collection, analysis, and reporting systems** from which policy decisions can be based and trends can be monitored over time.
2. **Evaluate challenges and concerns regarding clinical placement locations and preceptors**, including trends toward requiring payment for preceptors and/or bringing students to practice settings.
3. **Develop strategies to capture student information from national, online nursing programs** that enroll Florida students to have a more complete picture of Florida nurses' enrollment in higher education.
4. **Analyze the impact that the pursuit of advanced education has** on the number and retention of nurses working in direct care positions.



# Florida's Nursing Education Programs Academic Year 2018-19

## Post-Licensure Registered Nurse (RN) Education

## CONTENTS

Background .....	1
Data Source .....	1
Overview of Responding Programs.....	2
Post-Licensure Curriculum Options.....	2
Program Capacity and Admissions .....	3
Barriers to Maximizing Post-Licensure Capacity .....	5
Total Post-Licensure Enrollment .....	5
Post-Licensure Nurse Graduates .....	6
Student Demographics.....	7
Race/Ethnicity.....	7
Gender Distribution .....	8
Age Distribution .....	8
Discussion.....	9
Recommendations.....	11
References .....	13

# Florida Post-Licensure Registered Nurse Education: Academic Year 2018-19

## BACKGROUND

The Florida Center for Nursing (FCN, the Center) has collected data on Florida’s nursing education programs since 2007 to report trends in nursing education and the nurse faculty workforce.<sup>1</sup> This report presents Academic Year (AY) 2018-19 and trend data for Florida’s **post-licensure/graduate registered nurse (RN) programs**.<sup>2</sup> Exploring trends over time enables outcome monitoring and identification of promising practices and areas for improvement consistent with corresponding demand.

The Center provides data collection, analysis, and reports to provide 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 advance the training of licensed RNs and include Registered Nurse to Bachelor of Science in Nursing (RN to BSN), Master of Science in Nursing (MSN), Doctor of Nursing Practice (DNP), Doctor of Philosophy (PhD) programs, and nursing certificates. Upon completion of some masters and doctorate programs, registered nurses transition to an Advanced Practice Registered Nurse (APRN) license.<sup>3</sup> These roles include: Nurse Practitioner (NP), Certified Nurse Midwife (CNM), Clinical Nurse Specialist (CNS), and Certified Registered Nurse Anesthetist (CRNA).

Findings highlight nursing program growth and capacity, barriers to expansion, and trends over time. Implications and recommendations are offered. Additional information on the FCN Education Survey, Florida’s LPN and pre-licensure RN program students and faculty can be found in companion reports.

### Data Source

Data for this report are from the 2019 Florida Center for Nursing *Survey of Nursing Education Programs*.<sup>4</sup> FCN identified education programs 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 by National Council Licensure Examination (NCLEX) code. The Board of Nursing does not track post-licensure nursing programs that do not lead to a new license. Participants with a pre-licensure NCLEX code were able to provide information on affiliated post-licensure programs.

Survey invitations were sent to all active programs with NCLEX codes listed on the Board of Nursing’s website in September 2019. FCN emailed a survey link to the last known Dean or Program Director for each program on October 1, 2019 and made multiple efforts to contact each school. In total, FCN requested information from 143 ADN and 81 BSN programs. The Board of Nursing does not provide a comprehensive list of post-licensure nursing programs; thus, response rates are not calculable for this

<sup>1</sup> No data available for AY 2013-14 and AY 2014-15 due to low response rates and lack of resources to administer the annual survey, respectively.

<sup>2</sup> According to responses to the Center’s survey of nursing education programs

<sup>3</sup> Effective in 2018, licensure title changed to APRN from Advanced Registered Nurse Practitioner (ARNP), as labeled in previous reports. Clinical Nurse Specialist (CNS) has also been added as an APRN certification category.

<sup>4</sup> Since 2017, program participation is mandated in statute re: collection of education program data (FS 464.019(10)).

program type. Data presented here were offered voluntarily by pre-licensure participants who also offered one or more post-licensure programs.

Pre-licensure RN programs had an overall response rate of 97%.<sup>5</sup> Among the 182 RN programs with students enrolled, 53 provided information for RN to BSN programs, 21 provided information about master’s degree program(s), 14 reported one or more doctoral programs, and 16 reported certificate curricula.<sup>6</sup>

**Table 1. Post-Licensure Program Participants, AY 2018-19**

	Program Surveyed		TOTAL
	ADN	BSN	
Response Rate (%)	96.5%	97.5%	<b>96.9%</b>
Respondents with Enrollment	115	67	<b>182</b>
<b><u>Post-Licensure Program(s) Reported</u></b>			
RN to BSN	28	25	<b>53</b>
Master's	-	21	<b>21</b>
Doctoral	-	14	<b>14</b>
Certificates	-	16	<b>16</b>

Compared to AY 2017-18, sixteen (16) more RN to BSN programs were reported. The increase in RN to BSN programs reported may be attributed to the **industry’s increasing preference for nurses educated at the baccalaureate level**. Increases may also be attributed, in part, to increased response rate among pre-licensure RN programs. There was a net increase of two (2) MSN programs since AY 2017-18, and a net increase of one (1) doctoral program. Despite slight increases, there does not appear to be notable growth in graduate-level education programs in Florida.

The sections below describe characteristics of post-licensure programs as reported by RN respondents.

## OVERVIEW OF RESPONDING PROGRAMS

### Post-Licensure Curriculum Options

Twenty-eight (28) ADN and 25 BSN programs reported offering RN to BSN curriculum, resulting in a total of **53 reported RN to BSN programs** with students enrolled.

Twenty-one (21) BSN programs offered a total of **63 master’s level curricula**. The number of available master’s program tracks increased from 46 in AY 2017-18. Thirty-five (35) *Nurse Practitioner (NP)* curricula were offered,<sup>7</sup> including. Acute Care, Adult/Gerontology, Emergency, Family Health, Pediatric/Child Health, Psychiatric/Mental Health, Women’s Health, and all other NP programs. Among NP programs, Family Health (n = 14) and Adult/Gerontology (n = 8) curricula were most common. Participants also reported 12 *nurse educator* MSN and seven (7) *leadership/management (L/M)* programs.

**The number of nurse educator programs reported quadrupled** compared to AY 2017-18. There were fewer than five *Certified Registered Nurse Anesthetist (CRNA)*, *Clinical Nurse Specialist*, or *Clinical Nurse Leader* curricula reported, each. Five participants also reported some other MSN degree not listed. **Although each curriculum leads to distinct categories of licensure, master’s programs will be grouped into four categories: *Nurse Practitioner; Nurse Educator, Leadership/Management, and Other MSN Programs*, to retain anonymity for this report.**<sup>8</sup>

<sup>5</sup> RN response rate increased 14% since 2018. Increased participation may be attributed to FCN outreach and, importantly, a citation and \$1,000 penalty imposed by the Florida Department of Health for non-participation.

<sup>6</sup> No information on certificates available, other than the types of certificate programs offered.

<sup>7</sup> Seventeen (17) programs reported one or more NP program, but eight (8) NP program types were offered to survey respondents. Participants were able to select more than one response, resulting in a total of 35 NP programs offered.

<sup>8</sup> Fewer than five program participants in a given category increases the risk of identification of individual programs

Fourteen (14) BSN participants reported offering **26 doctoral programs**. Eleven (11) had Advanced Practice Doctor of Nursing Practice (DNP-AP) programs, six (6) reported Executive Leadership DNP programs (DNP-EL), and nine (9) had Nursing PhD or other nursing doctoral degree programs (Table 2).<sup>9</sup>

Sixteen (16) BSN programs reported offering a total of **43 certificate programs**. Certificate programs do not result in an academic degree but provide education opportunities to nurses with advanced degrees to broaden their knowledge and employment opportunities.

Family Practice (n = 9), Adult/Gerontology (n = 8), and Psych/Mental Health (n = 7) **nurse practitioner certificates were most commonly reported**.

Six (6) offered Education certificates. Five (5) respondents reported other certificates not provided in the survey options. Fewer than five (5) respondents offered Acute Care, Emergency, or Pediatrics graduate certificates.

**Table 2. Post-Licensure Curriculum Options, AY 2018-19**

	# Programs Offered
<b>RN to BSN Programs</b>	<b>53</b>
<b>Master’s Degree Programs</b>	
MSN - Nurse Practitioner	35
MSN - Nurse Educator	12
MSN - Leadership/Management	7
MSN - Other	9
<b>Doctoral Programs</b>	
DNP Advanced Practice	11
DNP Executive Leadership	6
PhD or Other	9
<b>Certificates</b>	<b>43</b>

Program/Curriculum counts may exceed the number of respondents as participants may offer multiple curriculum of each program type  
*MSN – Other* includes CRNA, CNS, and CNL curricula in addition to the “Other MSN” option provided on the survey, grouped to retain anonymity due to small response counts

**Program Capacity and Admissions**

Table 3 describes program capacity – the **ability to enroll new students** – for post-licensure programs in AY 2018-19. Collectively, RN to BSN program participants received applications from over 9,300 qualified applicants and admitted more than 8,300. About 11% of qualified applicants were denied admission. An estimated 6,322 students enrolled in reported RN to BSN programs (Table 3). Responding master’s programs received 3,551 qualified applications in total and admitted 2,899 applicants. Seventeen percent (17%) of all reported MSN applicants were declined admission. A total of 2,365 MSN enrollees were reported. **Nurse Practitioner MSN programs received the most applications, admitted, and enrolled the largest number of new students.**

**Table 3. Program Capacity for Post-Licensure Programs, by Curriculum AY 2018-19**

	RN to BSN	MSN Programs				Doctoral Programs		
		NP	N/E	L/M	Other <sup>a</sup>	DNP - AP	DNP - EL	PhD/Other
# Qualified Applicants	9,336	2,018	626	667	456	1,201	104	301
# Students Admitted	8,345	1,609	569	633	300	801	104	242
# Admitted & Enrolled	6,322	1,404	431	450	232	667	79	185
% Declined Applications	11%	20%	9%	5%	34%	33%	0%	20%

Note: Responding programs only. Does not represent 100% of post-licensure nursing education capacity in Florida.

<sup>a</sup> Due to low response counts, **combines** Certified Registered Nurse Anesthetist (CRNA), Clinical Nurse Specialist, Clinical Nurse Leader with “Other” MSN programs to retain program anonymity.

<sup>9</sup> To retain anonymity, “Other Doctoral Degrees” were combined with PhD programs, as fewer than 5 “other” doctoral programs responded to the survey.

In total, responding doctoral programs received 1,606 applications from qualified prospective students and admitted 1,147 applicants. About 29% of applicants were declined admission, including 33% of Advance Practice DNP applicants and 20% of PhD or other doctoral program applicants. Responding Executive Leadership DNP programs admitted 100% of new applicants. Doctoral programs collectively enrolled 931 new students in AY 2018-19. **Almost 72% of all new doctoral students were enrolled in Advanced Practice DNP programs.**

Because some RN to BSN and graduate programs offer an unlimited number of seats, it is difficult to accurately calculate the number of seats left vacant. Additional research is needed to explore RN to BSN and graduate program capacity issues which result in qualified applicants being denied admission.

The proportion of students declined admission to RN to BSN programs (11%) was about the same as AY 2017-18 (Figure 1). While more RN to BSN programs were reported and capacity increased, the **average number of qualified RN to BSN applicants, students admitted, and enrolled students per program decreased.** Since the total number of RN to BSN programs in Florida is unavailable, decreases in averages may either suggest an inflated perception of growth due to response rate increases or more RN to BSN programs available, each enrolling smaller cohorts, on average.

The proportion of students declined admission to MSN programs reported in AY 2018-19 (17%) decreased compared to AY 2017-18 (22%), and the number of qualified applicants, admitted, and enrolled students increased slightly. In the previous survey cycle, there were an average of 39 new students enrolled in each MSN curriculum. In the current cycle, an average of 40 new students were enrolled per program.

The average number of qualified applicants, admitted, and enrolled students per doctoral program also increased. In AY 2017-18, an average of 26 new students were enrolled in each doctoral curriculum, compared to 36 students enrolled in each program, on average, in AY 2018-19 (Figure 1). While admission increased, the proportion of applicants declined admission also increased, suggesting that prospective doctoral students increasingly outnumber the capacity of Florida’s available programs.

**This report provides a cursory understanding of program capacity.** As mentioned above, we do not have a comprehensive count of all post-licensure programs, and 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, as prospective students may apply to multiple programs in the state. Additional research is needed to understand program capacity and the intent of prospective students more fully.

**Figure 1. Average Post-Licensure Enrollment and Declined Applicants, Per Curriculum AY 2017-18 to AY 2018-19**



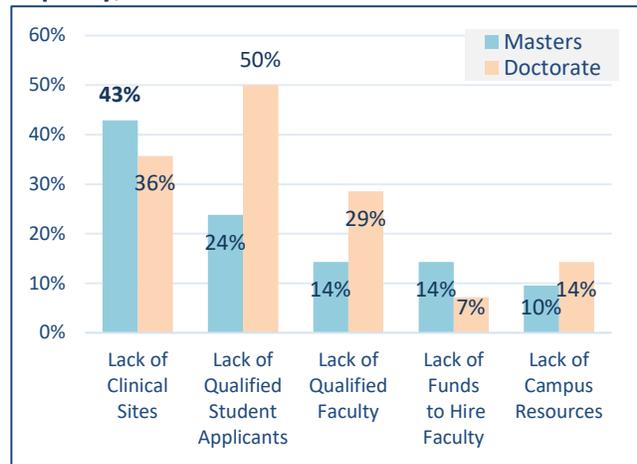
Represents averages per curriculum only, not statewide enrollment. [Total counts reported / total number of curriculum reported, per program type]. Rates do not account for variations within curricula of each program type.

### Barriers to Maximizing Post-Licensure Capacity

The most common barrier to maximizing MSN program capacity was a lack of clinical sites for interactive learning experiences (43%). Also, 24% reported a lack of qualified student applicants. Fourteen percent (14%) cited a lack of qualified faculty and 14% lacked funds to hire faculty (Figure 2).

The most common barrier to maximizing doctoral program capacity was a lack of qualified students (50%). Thirty-six percent (36%) reported lack of clinical sites and 28% lacked funds to hire faculty (Figure 2). In the previous survey cycle, no doctoral programs reported lacking qualified student applicants, while this barrier has become the most commonly reported concern.

**Figure 2. Graduate Program Barriers to Maximizing Capacity, AY 2018-19**



May exceed 100% as participants could select more than one response; Excludes RN to BSN programs as distinctions between pre- and post-licensure BSN barriers are not available for all programs.

Reports of limited qualified applicants are inconsistent with reported program capacity measures, as total counts of MSN and doctoral qualified applicants outnumber admitted students. This may suggest that some programs are more likely than others to receive an abundance of qualified applications. Additionally, 29% of MSN program respondents and 7% of doctoral respondents reported no barriers to program capacity, further highlighting the likelihood of variations in capacity concerns.

### Total Post-Licensure Enrollment

Table 4 describes total student enrollment in responding post-licensure programs. **Survey participants with post-licensure programs reported a total of 17,202 students enrolled in September 2019.** RN to BSN programs had 10,391 students enrolled. Master’s degree programs had 4,543 enrolled students, with 61% of MSN students enrolled in Nurse Practitioner programs. Doctoral programs, including DNP, PhD, and other doctoral programs had 2,268 enrolled students, with Advanced Practice DNP programs enrolling 80% of doctoral students.

Compared to the previous survey cycle, **reported post-licensure enrollment increased 8% overall.** Reported MSN enrollment increased most substantially (+17%) compared to RN to BSN programs (5%) or doctoral enrollment (8%).

Among MSN curricula, Nurse Educator and Leadership/Management enrollment decreased. In the previous cycle, Nurse Educator programs were included in the “Other” category as fewer than five respondents reported Nurse Educator programs, compared to 12 respondents in the current survey cycle. The increase in available programs makes the decrease in combined total enrollment notable. On the

**Table 4. Enrollment in Responding Post-Licensure Programs by Type, as of September 30, 2019**

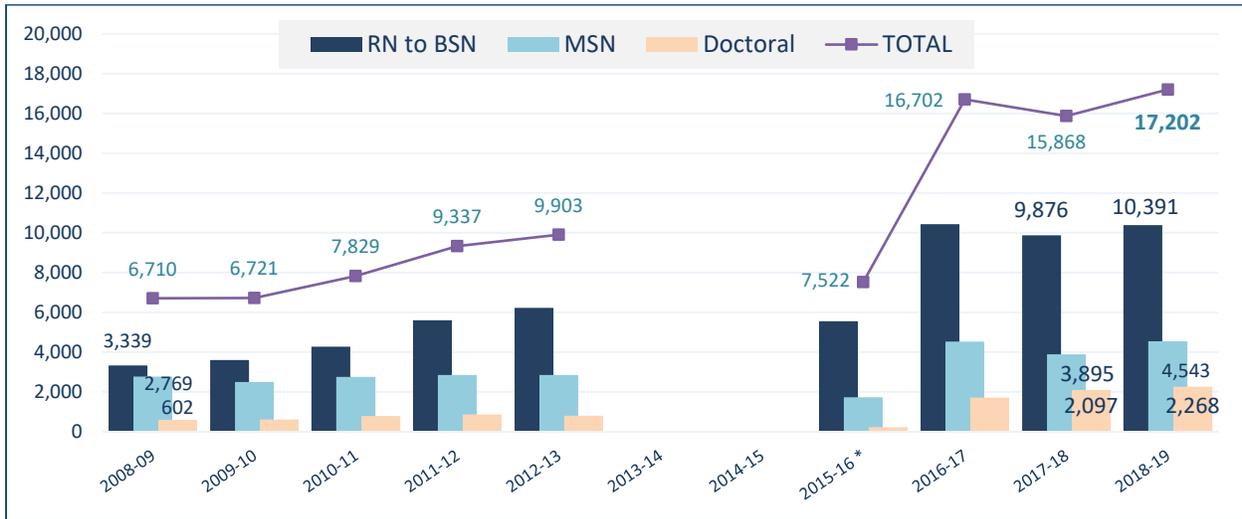
	# Enrolled	% Change since 2018
<b>RN to BSN Total</b>	<b>10,391</b>	<b>5%</b>
Nurse Practitioner	2,781	25%
Nurse Educator	658	-7%
Leadership/Management	737	-4%
All Other MSN Programs	367	+
<b>Master’s Degree Total</b>	<b>4,543</b>	<b>17%</b>
Advance Practice DNP	1,682	10%
Executive Leadership DNP	177	22%
PhD + Other Doctoral	409	-5%
<b>Doctoral Programs Total</b>	<b>2,268</b>	<b>8%</b>
<b>TOTAL ENROLLMENT</b>	<b>17,202</b>	<b>8%</b>

Survey participants only, does not represent all post-licensure programs. Trends should be interpreted with caution as response rates vary.

† Other MSN programs include any curricula with fewer than 5 programs reported (to retain anonymity) + Other MSN category. Comparisons not available as programs included fluctuate each year

other hand, nine (9) participants offered Leadership/Management programs in AY 2017-18, while only seven (7) offered this curriculum in the current survey cycle, making enrollment decreases more expected.

**Figure 3. Total Reported Enrollment in Post-Licensure Programs, 10-Year Trend**



Data not available for AY 2013-14 or AY 2014-15; Trend data should be interpreted with caution due to varying response rates over time. Counts may underrepresent student enrollment as responses do not represent 100% of post-licensure programs  
 \* Response rates were particularly low for post-licensure programs in AY 2015-16 and will not accurately represent total student enrollment.

In the past ten (10) years, total reported enrollment in post-licensure nursing education programs has almost tripled. **Between AY 2008-09 and AY 2018-19, reported RN to BSN enrollment increased 209%, MSN program enrollment increased 89%, and doctoral programs have 5.6 times as many students compared to ten years ago.**<sup>10</sup> Total reported enrollment also increased for each post-licensure program type since AY 2017-18, although total growth in RN to BSN programs is minimal given that 16 additional programs reported having students enrolled in an RN to BSN program compared to the previous cycle.

Despite these comparisons, it is important to interpret trend data with caution as response rates vary over time, and survey respondents may not represent a comprehensive or consistent population for effective comparison.<sup>11</sup> Total enrollment is likely higher than what is presented here, and trends over time may over- or under-estimate enrollment patterns.

### Post-Licensure Nurse Graduates

**Post-licensure participants reported a total of 6,639 graduates in AY 2018-19.** RN to BSN programs graduated the largest proportion of students trained at the post-licensure level (62%), followed by graduates of master’s in nursing programs (29%). About 9% of post-licensure graduates earned doctorates, including 396 reported DNP graduates and 178 reported PhD or other doctoral graduates.

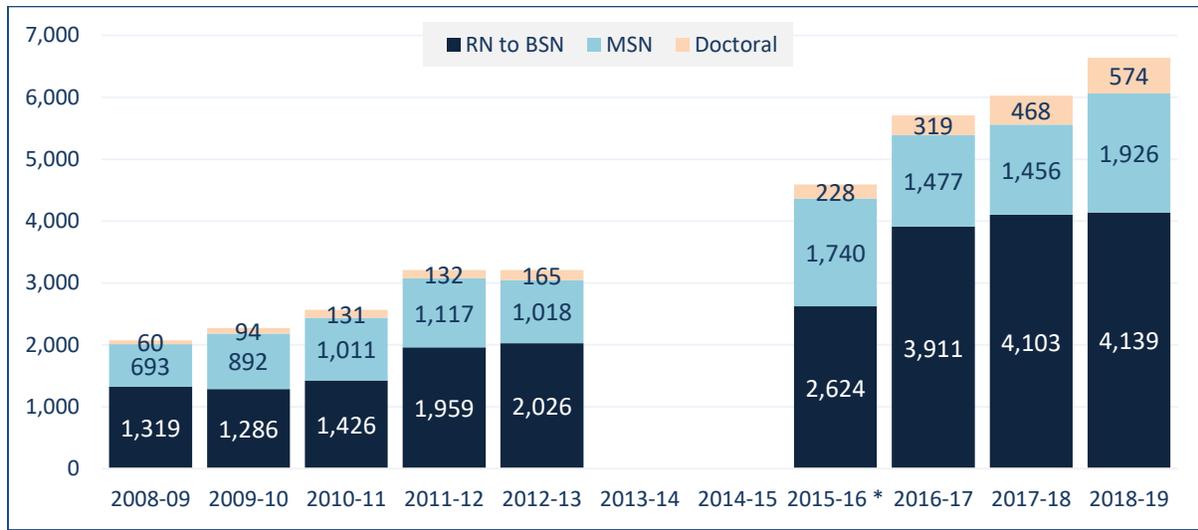
Between AY 2017-18 and AY 2018-19, the total number of graduates increased. RN to BSN graduates from responding programs increased 1%, while responding programs reported 23% more doctoral graduates than respondents in AY 2017-18 and 32% more master’s level graduates were reported. Overall, about 600 more post-licensure graduates were reported in AY 2018-19, compared to AY 2017-18.

<sup>10</sup> Due to low response rates and budgetary limitations, enrollment data were not available between AY 2013-14 and AY 2014-15. Similarly, response rates were particularly low for post-licensure programs in AY 2015-16.

<sup>11</sup> The Center is unable to determine response rates or request data from 100% of post-licensure programs in Florida.

Sixteen more RN to BSN programs were reported, suggesting that previous total counts may have been underestimates. When the number of respondents were considered, the average number of RN to BSN graduates per responding program decreased from 111 in AY 2017-18 to 78 per program in AY 2018-19. The increase in more program respondents may also suggest the emergence of new programs resulting in smaller graduating class sizes, on average. MSN graduates decreased an average of about one graduate per responding program since AY 2017-18, and doctoral graduates increased, on average, per responding program. The total number of graduates reported for PhD or other doctoral programs increased most notably (↑ 230%), while the number of executive leadership DNP graduates decreased about 63%.

**Figure 4. Graduates of Responding Post-Licensure Programs, 10 Year Trend**



\* Response rates were particularly low for post-licensure programs in AY 2015-16. Data not available for AY 2013-14 or AY 2014-15; Counts may underrepresent graduates as responses do not represent 100% of post-licensure programs Trends should be interpreted with caution due to varying response rates over time

Long-term trends indicate continued growth in the total number of reported post-licensure graduates (Figure 4). Since AY 2008-09, graduates of RN to BSN programs more than tripled and MSN graduates grew 178%. There were almost ten times as many doctoral graduates in AY 2018-19, compared to AY 2008-09. However, trends should be interpreted with caution as the Center does not have data from 100% of post-licensure programs in the state, and response rates vary over time. Furthermore, post-licensure programs are also offered online through national colleges, and the Center is not able to track programs operating outside of Florida, whose graduates may enter the workforce within our state.

Nevertheless, post-licensure programs continue to show increases in graduates which is beneficial to the healthcare and patient safety (Robert Wood Johnson Foundation, 2013) although it may leave the potential for increased gaps in bedside nursing (Kacik, 2018).

## STUDENT DEMOGRAPHICS

### Race/Ethnicity

Figure 5 (next page) describes the race/ethnicity of students enrolled in responding post-licensure programs as of September 2019 and the 2019 racial distribution of the Florida population.

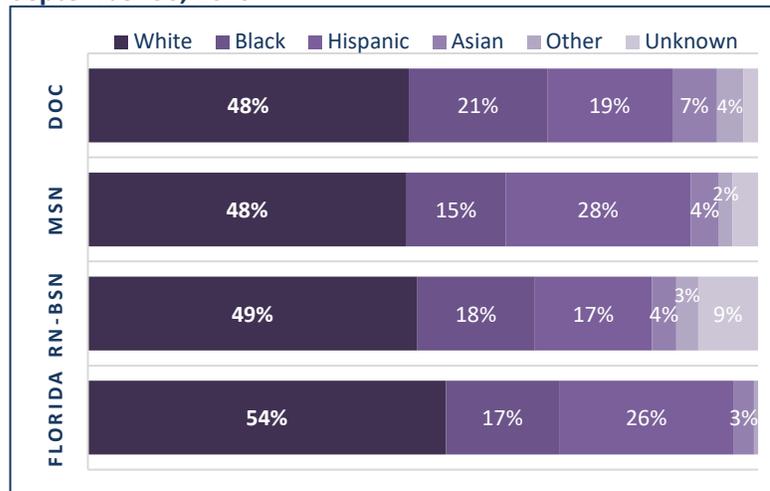
Students of color comprise larger proportions of post-licensure programs compared to 2018 (Florida Center for Nursing, 2019). In the previous survey cycle, 57% of RN to BSN students and 57% of MSN students were white, compared to 49% and 48% in 2019. Hispanic students comprised 28% of MSN

program enrollment in 2019, compared to 15% in 2018. Black students have been similarly represented in post-licensure programs in the past two years. Compared to 2018, race/ethnicity was reported as unknown for a greater portion of RN to BSN enrolled students.

**Florida’s post-licensure enrollment was reportedly more racially diverse compared to the state’s population.**

Florida’s population was five to six percentage points more white than post-licensure students. Black students were slightly more represented in doctoral (21%) and RN to BSN (18%) programs compared to the Florida population (17%) (United States Census Bureau, 2019). Asians were also more represented in post-licensure programs compared to the population (3%). Hispanic students remain underrepresented in doctoral and RN to BSN programs compared to the Florida population (26%).

**Figure 5. Race/Ethnicity of Post-Licensure Nursing Students, September 30, 2019**

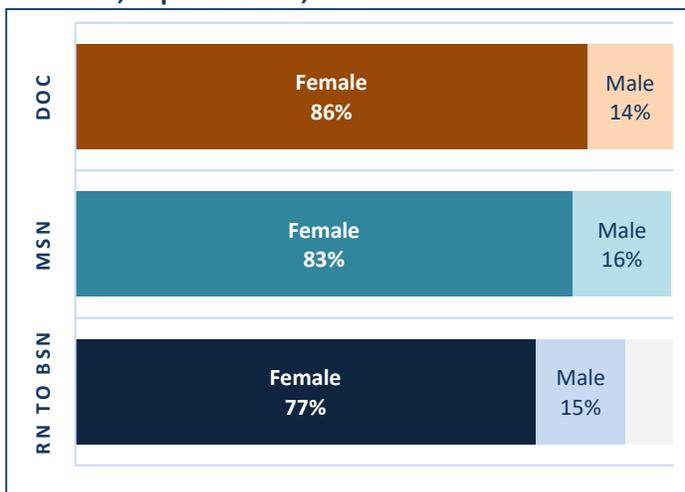


**Greater diversity among post-licensure students may reflect expected increases in future workforce diversity.** However, more research is necessary to identify whether these patterns remain consistent with newly licensed and employed nurses in Florida.

**Gender Distribution**

In September 2019, males comprised 15% of RN to BSN, 16% of MSN, and 14% of doctoral students (Figure 6).

**Figure 6. Gender Distribution of Post-Licensure Nursing Students, September 30, 2019**



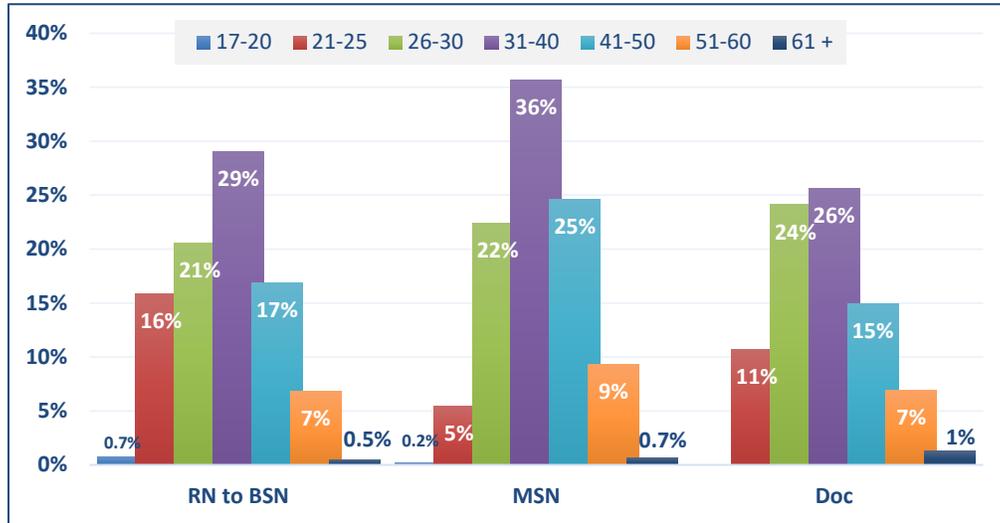
Compared to 2018, the proportion of male MSN students increased four percentage points, and the proportion of male doctoral students increased about one percentage point. Varying response rates may account for fluctuations in student characteristic proportions. Gender was reported as other/unknown for 8% of RN to BSN students which may, in part, suggest that some programs do not maintain demographic records of their enrolled students.

**Age Distribution**

Figure 7 (next page) depicts the age distribution of post-licensure nursing students by program type. There were no students under the age of 21 reported by responding doctoral programs, and this age group represented less than 1% of RN to BSN and MSN students. Since these programs require prior education/licensure before enrollment, it is not unexpected that few students would be in the youngest age categories. Similarly, students over the age of 60 comprise 1% or less for each post-licensure type,

suggesting that older nurses have already attained their desired terminal degrees or are much less likely to pursue formal education programs as they approach retirement.

**Figure 7. Age Distribution of Post-Licensure Nursing Students by Program, September 30, 2019**



Proportions do not equal 100% due to unknown/unreported ages for 8% of all enrolled post-licensure students.

About 37% of RN to BSN, 28% of MSN, and 35% of doctoral students were 30 or younger. On the other hand, 24% of RN to BSN, 35% of MSN, and 23% of doctoral students were 40 or older. **The largest proportions of students in responding post-licensure programs were between the ages of 31 and 40.** Responding master’s programs continue to have the largest concentration of students in this age group (36%), compared to RN to BSN (29%) and doctoral (26%) programs, although students between 31 and 40 increased for each program type since 2018 (Florida Center for Nursing, 2019).

**Responding master’s programs had a larger proportion of older students compared to both RN to BSN and doctoral programs.** This may indicate that younger students are choosing either an RN to BSN program during or following their initial licensure or entering straight into a doctorate program rather than pursuing a master’s degree separately. However, since a larger *number* of students were reported in MSN compared to doctoral programs, more research is necessary to understand post-licensure pathways.

Since 2018, the proportion of RN to BSN students that were 30 or younger increased three percentage points, while MSN students under the age of 31 decreased about one percentage point. The proportion of RN to BSN students over the age of 40 increased two percentage points and the proportion of MSN students over the age of 40 increased about five percentage points since 2018. In 2019, ages were unknown for 10% of RN to BSN, 2% of MSN, and 16% of doctoral students in responding programs.

These proportions represent only a cursory view of student characteristics as data from every post-licensure program operating in Florida are unavailable.

## DISCUSSION

Survey respondents reported a total of 53 RN to BSN programs, 63 master’s programs, and 26 doctoral programs, including 17 DNP and 9 PhD or other doctorate curriculum. In September 2019, participating programs had **17,202 students enrolled**. RN to BSN participants enrolled 60% of all post-licensure students in Fall 2019, followed by MSN programs (26%) and doctoral programs (13%). The average

number of students enrolled in each RN to BSN program decreased, with 14 more programs reported, and a net increase of only 515 more enrolled students reported. In 2018, there was an average of 267 students enrolled in each reported RN to BSN program, while in 2019, 196 students were enrolled in each RN to BSN program, on average. More research is needed to identify whether fewer students are enrolling in RN to BSN programs or whether more programs are available across the state despite minimal increased demand among students, resulting in smaller class sizes.

Similarly, 17 more MSN curricula were reported compared to 2018, and the average number of students per program decreased from 85 students to 72 students. Between 2018 and 2019, there was a net increase of 648 enrolled students, indicating that more research is needed to explore the increasing availability of MSN curricula in the state in relation to students pursuing these degrees. In contrast, one less doctoral program was reported in 2019, compared to 2018, and the average number of students per responding program increased from 78 to 87 enrolled students. There was a net increase of 171 enrolled doctoral students in 2019, with Advanced Practice DNP programs continuing to enroll the largest proportion of doctoral students. While doctoral programs continue to represent the smallest portion of post-licensure program enrollment, overall, there appears to be an increasing interest in these degrees and fewer programs are taking on more students.

However, few conclusions can be made regarding trends across multiple years, and **numbers will underrepresent statewide enrollment** as survey participants do not represent 100% of post-licensure programs in Florida, the total number of post-licensure programs is not known, and enrollment of students in non-Florida based online nursing programs statewide are not calculable. As a result, estimates of graduate level training programs, and the future supply of nurses with advanced training, is limited.

Efforts to expand the Advanced Practice Registered Nurse (APRN) scope of practice continue, which may result in greater utilization of APRNs as primary care providers to meet anticipated increase in future demand and reduce the burden of physician shortages in the state. Florida’s graduate programs must be prepared to respond quickly and provide the needed supply of APRNs. Data on Florida’s industry *demand* for advanced practice nurses are lacking. Additional resources and research are necessary to assess the future of each group of APRNs, by practice area and employment setting.

APRN licensures also include Certified Nurse Midwife (CNM) and Clinical Nurse Specialist (CNS) training, yet only one program respondent reported offering a CNS program (with zero enrollees or graduates reported), and Florida has not had any CNM program respondents in recent years. Little is known about whether Florida-based students are enrolling in these programs elsewhere, and whether industry demand is impacted by the lack of CNM and CNS programs in Florida. More research is needed regarding the demand of Certified Nurse Midwives and Clinical Nurse Specialists in the state to identify if Florida is underproducing these nurses.

The 2010 Institute of Medicine (IOM) report recommends that nurses achieve higher levels of education and training through an improved education system that promotes seamless academic progression. It further recommends that the proportion of working nurses with a baccalaureate in nursing or higher degree increase to 80 percent by 2020, and to double the number of nurses with a doctorate degree by 2020 (Institute of Medicine (IOM), 2010). The **reported number of graduates with a BSN or higher<sup>12</sup> represent about 53% of all RN graduates in 2019**. This proportion remains a long way from the IOM’s 80% recommendation yet represents an increase of nine percentage points compared to graduates reported in 2010. **The number of reported 2019 doctoral graduates in Florida was about six times greater than those reported in 2010.**

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<sup>12</sup> Includes number of post-licensure graduates and reported pre-licensure BSN graduates

Despite overall enrollment growth, half (50%) of the responding doctoral programs reported a lack of qualified student applicants as a barrier to maximize program capacity within one or more of their doctoral curricula, while none of the participants in the previous survey cycle cited this concern. On the other hand, the most common barrier to maximizing program capacity for MSN participants was a lack of clinical sites (43%). Twenty-four percent (24%) of MSN participants considered a lack of qualified applicants to be a barrier and 36% of doctoral participants reported a lack of clinical sites, suggesting that these two concerns remain the top issues for graduate-level education programs in Florida. Anecdotal reports have expressed concerns about access to clinical sites, citing payments required for placement and to cover the cost of preceptors. Schools may have disproportionate access to clinical sites based on potential cost and available funds. This barrier should be explored in greater detail, with consideration given to potential conflicts of interest and access to resources.

Though increasing enrollments in post-licensure programs and the resulting increase in graduates may be beneficial, there may be unintended consequences of advanced education. When nurses working in direct care positions advance their education with the intent to acquire an advanced practice license, the industry loses a qualified, experienced bedside registered nurse. Though there is an absence of precise demand data, it is generally understood that vacancy and turnover rates for RNs are rising while a growing and aging population suggests increasing demand for nurses within Florida. More information is needed regarding the personal and/or structural reasons for why and when experienced nurses leave bedside nursing in favor of advanced training and practice. Preliminary patterns suggest that effort must be taken to improve the work environment and culture enabling RNs to have a satisfying and worthwhile career at the bedside. Such efforts should also address earning potential so that nurses do not have to leave bedside nursing to achieve reasonable income for themselves and their families.

### **Recommendations**

Based on current analyses, the Center offers the following research and policy recommendations regarding Florida's post-licensure nurse education 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 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). The legislature responded to the prior recommendation that the Center be given the authority to collect appropriate data by mandating nursing program participation in the FCN's annual survey. However, to fully achieve this mandate, the Center needs fiscal resources as well. Further, in addition to education data, the Center needs resources and the authority to collect workforce demand data. Such data would support development of a more complete picture of the nursing workforce pipeline from initial education through retirement. Demand data is largely a missing piece in understanding the correlation between industry and state needs.

Florida’s legislature should put in place a sustainable funding mechanism for the Center to accomplish its statutory mandate. FCN’s analysis of supply, education, and demand data would facilitate the state’s ability to be responsive to the health industry’s workforce needs.

2. **Evaluate challenges related to attainment of clinical placement locations and preceptors.** Increasing reports across the nation indicate a trend toward charging for the ability to bring students to practice settings and/or requiring payment of preceptors. The prevalence of these expectations in Florida and their implications should be analyzed. Concerns regarding the potential for conflict of interest and a negative effect on supply, must be addressed.
3. **Identify a way to effectively capture student information from online-only out-of-state nursing programs that enroll Florida students.** Numerous online-only RN-BSN programs are offered throughout the United States, enabling students located anywhere to continue their education. Florida based nurses may apply to out-of-state graduate education programs that offer curricula online with minimal requirements to attend in person sessions. Currently the Center is limited to surveying programs based in Florida, as they can clearly identify Florida-based students. Efforts to collect data from out-of-state programs operating in Florida have not been successful. Several online programs had difficulty isolating Florida students for reporting purposes as they teach students from all over the country. Identifying a mechanism to collect information from all programs serving Florida’s nurses would provide more complete and accurate data about the state’s future workforce.
4. **Complete an analysis of the impact that front-line, direct care nurses returning to school has on the availability of nurses to work in direct care positions.** Since AY 2008-09, graduates of RN to BSN programs more than tripled and MSN graduates grew 178%. There were almost ten times as many doctoral graduates in AY 2018-19, compared to AY 2008-09. Though this increase in post-licensure graduates is beneficial, it may result in a decrease in the number of RNs choosing to work in direct care. Analysis of the frequency of and reasons for nurses seeking higher education may give direction to nurse administrators trying to implement practices to improve retention of nurses at the bedside.

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