**FCN** Florida Center for Nursing

Florida Post-Licensure Registered Nurse Education: Academic Year 2016-2017

The information below represents the **key findings** regarding the post-licensure (RN-BSN, Master's, Doctorate) nursing education system in Florida. This report details information on student education capacity, discusses implications, and proposes research and policy recommendations.

Post-Licensure Nursing Programs Capacity, AY 2016-2017

	RN-BSN	MSN	PhD	DNP
# of QUALIFIED applications	7,982	3,250	110	1,215
# of students ADMITTED	7,542	2,453	90	781
# declined qualified applications	440	797	20	434
% declined qualified applications	5.5%	24.5%	18.2%	35.7%
# of NEW enrollees	5,170	2,122	73	673
# of students graduated	3,911	1,477	41	278

Trend in Post-Licensure Nurse Graduates, 2007-2017
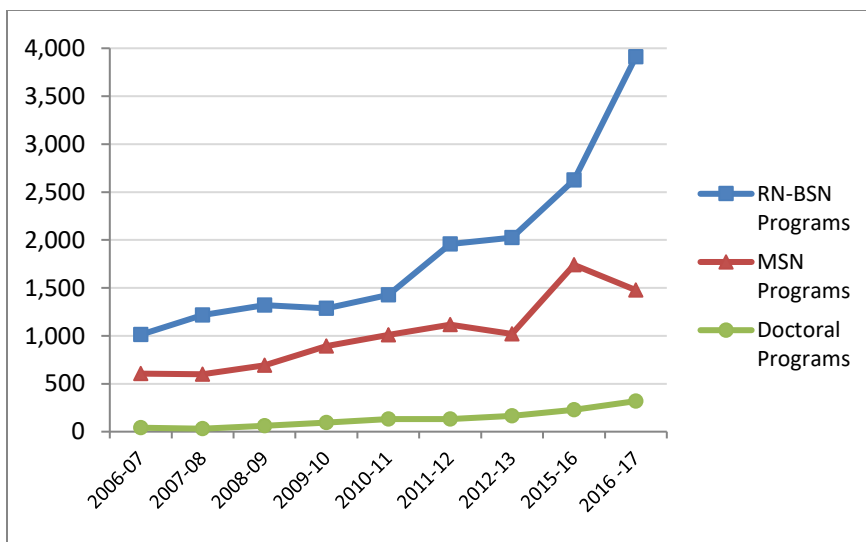
Barriers to Maximizing Program Capacity
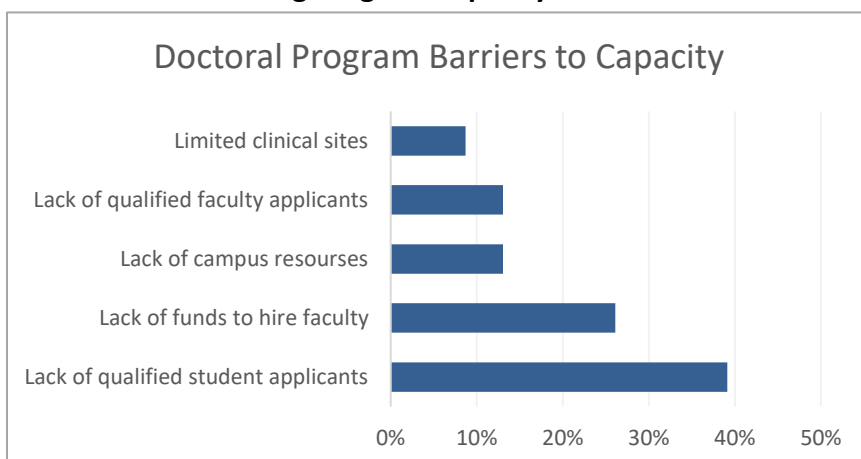
- 58 RN-BSN, 33 Master's, and 21 Doctoral programs participated in the survey.

- Graduate changes since 2015-2016:
  - **RN-BSN graduates increased** 50%
  - **Master's graduates decreased** 15%
  - **Doctoral graduates increased** 40%
- Enrollment since 2012-2013:
  - RN-BSN programs increased 67%
  - Master's enrollment increased 59%
  - PhD enrollment increased slightly.
  - DNP enrollment more than doubled.
- The major **barrier to maximizing program capacity** in doctoral programs is not having enough qualified student applicants.

Recommendations

1. Create incentives for nurses to seek advanced education, and support existing nurses to further their education, from RN-BSN to doctoral education. This provides a pool of nurses to meet industry needs and builds a nurse faculty pipeline.

2. Maintain and fund a consistent, long-term data collection, analysis, and reporting system in order to provide critical information on which to base funding and policy decisions.

3. Identify a way to effectively capture student information from online-only out-of-state nursing programs that enroll Florida students to have a more complete picture of Florida nurses' pursuit of higher education.

Addressing Nurse Workforce Issues for the Health of Florida

Florida's 2016-2017
Nursing Education Programs:

Post-Licensure
Registered Nurse Education

Contents

Data are from responding schools only unless indicated otherwise.

Florida Post-Licensure Registered Nurse Education: Academic Year 2016-2017

Background

The number of nurse education programs in Florida has grown considerably since 2007, when the Florida Center for Nursing (Center) first initiated the annual nursing education program survey. Program growth has been in response to demand from potential nursing students, demand from employers, and future expected 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 program 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 initiate and/or modify policies and regulations, guide funding decisions, and to plan strategic use of resources.

This report describes information for post-licensure RN programs – Registered Nurse to Bachelor of Science in Nursing (RN to BSN), Master of Science in Nursing (MSN and RN to MSN), Doctorate in Nursing Practice (DNP), Doctorate of Philosophy (PhD) degrees, and certification programs for Academic Year (AY) 2016-2017. Upon completion of some master and doctorate in nursing practice programs registered nurses transition to an Advanced Registered Nurse Practitioner (ARNP) license. Categories of ARNP include: Nurse Practitioner (NP), Certified Nurse Midwife (CNM), and Certified Registered Nurse Anesthetist (CRNA). This report highlights trends in results since the Center began data collection and analysis. The implications are discussed and research and policy recommendations are offered.

Please note that effective in 2018, the licensure title changed to Advanced Practice Registered Nurse which is consistent with titling used in the majority of states and territories. Additionally, the Clinical Nurse Specialist (CNS) has been added as an APRN certification category. These changes will be reflected in future reports.

Data Source

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

Nursing education programs are identified from the Board of Nursing website, which maintains an updated database of Licensed Practical Nurse (LPN), Associate Degree in Nursing (ADN) and

pre-licensure Bachelor of Science in Nursing (BSN) programs. The Board of Nursing does not track nursing programs that do not lead to a new license, such as RN-BSN, and some Master and Doctoral programs. Thus the Center expanded the Board of Nursing list of programs by identifying those offering a full range of academic programs.

Eighty-three percent of the programs offering BSN or higher degrees responded to the survey (Table 1). Many of the BSN and higher schools also have RN-BSN, Master's and Doctoral programs. The Florida legislature has modified statute to allow state community colleges to transition to state colleges offering baccalaureate degrees in addition to the Associate Degree in Nursing. Thus there are RN to BSN programs offered in multiple venues: state colleges, state universities and colleges offering four year and higher degrees, and online only programs operating in Florida that may be based in another state. Response rates of each type of program are not possible since we do not have an accurate count of the actual number of these programs in the state.

Table 1. Response Rates for Florida's Post-Licensure Nursing Programs, AY 2016-2017

Type of Program	Total # of Schools	Responding Programs	Response Rate
BSN or higher	70	58	82.9%
RN-BSN	N/A	33	N/A
MSN	N/A	21	N/A
PhD	N/A	8	N/A
DNP	N/A	15	N/A

N/A = information not available. Response rate cannot be determined when total counts of schools offering corresponding program is not available

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

Overview of Responding Programs

Programs, Curriculum Options, and Accreditation

Table 2 provides details of the programs and curriculum options available in Florida's nursing schools as of September 30, 2017, based on survey responses. It is important to note that pre-licensure ADN and BSN nursing programs increase the supply of RNs, whereas post-licensure programs (e.g., RN-BSN, Master's, Doctoral) advance the education level of already licensed RNs. When students are enrolled in a program leading to licensure as an advanced registered nurse practitioner (ARNP) – nurse practitioner (NP), certified registered nurse anesthetist (CRNA),

certified nurse midwife (CNM) – or clinical nurse specialist (CNS), these are distinct categories of licensure.

RN-BSN programs, which move associate degree or diploma prepared RNs to the baccalaureate level, **are the most numerous type of post-licensure programs**. RN-BSN curricula were offered by 33 programs. State colleges offering ADN degrees increasingly offer this post-licensure mobility curriculum, as are online-only programs. Numerous online-only RN-BSN programs are offered throughout the United States, enabling students located anywhere to continue their education. The Center only surveys programs that have a physical location in Florida, as they will have the largest number of Florida-based students. Efforts to collect data from out-of-state programs operating in Florida have generally not been successful.

Table 2. Post-Licensure Programs and Curriculum Options AY 2016-2017

Post-licensure and Certificate Programs	#
RN-BSN Program (Post-licensure)	**33**
MSN Programs	**21**
- Nurse Practitioner Program	15
- Nurse Educator Curriculum	13
- Leadership/Management Curriculum	12
- Nurse Anesthetist Program	4
- Clinical Nurse Specialist Curriculum	1
- Clinical Nurse Leader Curriculum	1
- Nurse Midwife Program	0
Doctoral Programs	
- Ph.D. Curriculum	8
- DNP Curriculum	15
Certificate Programs	
- Education	5
- NP Family Practice	5
- NP Adult Gerontology	3
- Administration	2
- NP Acute Care	2
- NP Pediatrics	1
- Other Certificate	8

Note: Curriculum counts exceed program counts because many programs offer multiple curriculum options.

Many of the state's universities offer graduate degrees in nursing. Twenty-one schools offered a master's degree in nursing (MSN) in one or more of the following specialties: nurse practitioner (15), nurse educator (13), leadership (12), nurse anesthetist (4), clinical nurse specialist (1), and

nurse leader (1). It is noteworthy that no MSN programs reported having a midwifery program. Eight schools offered PhD programs and 15 offered Doctorate of Nursing Practice (DNP) programs.

In addition to degree-granting programs, 9 schools reported having graduate certificate programs. Common types of certificate programs were nurse educator (5), nurse practitioner (NP) family practice (5), NP adult gerontology (3), nursing administration (2), NP acute care (2), and NP pediatrics (1) programs. Though these programs do not culminate in an academic degree, they provide education opportunities to nurses who already hold an advanced degree but want to broaden their knowledge and employment opportunities.

Post-Licensure Program Measures

Admission, enrollment and graduation measures for post-licensure programs in AY 2016-2017 are shown in Tables 3 through 5. Far fewer qualified applications are declined admission to post-licensure programs compared to pre-licensure programs. **Only 5.5% of applications were declined admission to RN-BSN programs** (Table 3). For MSN programs (Table 4), the percentage varied given the specialty. Nurse practitioner (NP) and Certified Registered Nurse Anesthetist (CRNA) programs had high percentages of declined applications (31 and 48 percent respectively). Other MSN programs had much lower percentages. Doctorate of Nursing Practice (DNP) programs turned away twice as many applications as did PhD programs (Table 5).

Table 3. RN-BSN Programs Admission, New Enrollment and Graduation, AY 2016-2017

	RN-BSN
# QUALIFIED applications	7,982
# students ADMITTED	7,542
# declined qualified applications	440
% declined qualified applications	5.5%
# NEW enrollees	5,170
# GRADUATES	3,911

Table 4. MSN Programs Admission, New Enrollment and Graduation, AY 2016-2017

	MSP	MSN						Total
	NP	Educ	Lead.	CNS	CNL	CRNA	MW	
# QUALIFIED applications	1,956	451	590	1	22	230	0	3,250
# students ADMITTED	1,353	401	556	1	22	120	0	2,453
# declined qualified applications	603	50	34	0	0	110	0	797
% declined qualified applications	30.8%	11.1%	5.8%	0.0%	0.0%	47.8%	0.0%	24.5%
# NEW enrollees	1,227	315	485	0	18	77	0	2,122
# GRADUATES	1,049	170	170	3	11	74	0	1,477

Note: MSN curriculum options include students entering with a Bachelor's degree as well as RN-MSN students entering without a Bachelor's degree. The number of RN-MSN students is very small.

Data are from responding schools only unless indicated otherwise.

Table 5. Doctoral Programs Admission, New Enrollment and Graduation, AY 2016-2017

	Doctoral		Total
	PhD	**DNP**	
# QUALIFIED applications	110	1,215	1,325
# students ADMITTED	90	781	871
# declined qualified applications	20	434	454
% declined qualified applications	18.2%	35.7%	34.3%
# NEW enrollees	73	673	746
# GRADUATES	41	278	319

Total student enrollment in post-licensure programs also varied by program, as shown in Table 6. RN-BSN programs reported the largest number of currently enrolled students at 10,437. MSN programs reported 4,541 total enrolled students. **Nurse Practitioner programs enrolled more than half of MSN enrollees**, followed by Leadership/Management, Nurse Educator, and Nurse Anesthetist, programs.

Table 6. Total Enrollment of Post-Licensure Students by Curriculum Track, AY 2016-2017

Curriculum Track	Total Enrollment 9/30/2017
RN-BSN	**10,437**
Master's Programs total	**4,541**
Nurse Practitioner	2,644
Nurse Educator	723
Leadership/management	995
Clinical Nurse Specialist	2
Clinical Nurse Leader	42
Certified Nurse Anesthetist	135
Certified Nurse Midwife	0
Doctoral Programs total	**1,724**
Ph.D.	256
DNP	1,468
Total Post-Licensure Students	**16,702**

Twenty percent of doctoral students were enrolled in PhD programs. Increasing enrollment in nurse education programs and PhD programs is critical for building the nurse faculty workforce, thus reducing roadblocks to program expansion and contributing more RNs to the workforce.

Trends in Total Post-Licensure Enrollments
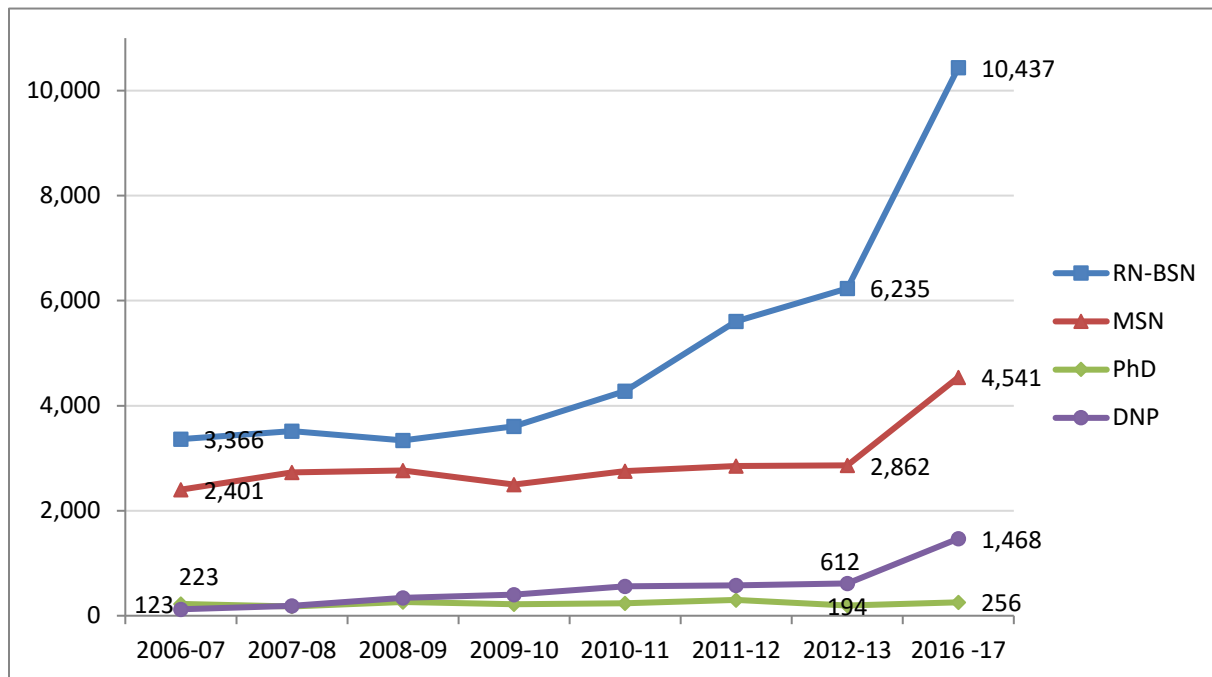
Figure 1. Trends in Total Enrollment for Post-Licensure Programs, 2007-2017

Ten-year trends in post-licensure total enrollment are presented in Figure 1. **Since 2007, RN-BSN program enrollments have tripled**, as more nurses pursue Bachelor's degrees. Master's degree programs nearly doubled enrollment, with much of that increase occurring since 2012-2013. PhD enrollment has remained essentially flat over the years, while DNP enrollment has increased ten-fold. Although the **increase in MSN educator enrollments is encouraging, it is concerning that PhD program enrollment remains the same as 2007**. More PhDs are needed to provide upper-level education in the State's universities to prepare more faculty for the future.

Trends in Post-Licensure Nurse Graduates

The number of post-licensure graduates has changed significantly since 2006-2007 (Figure 2). The number of all types of post-licensure graduates has increased, especially that of RN-BSN, which has tripled in the ten years and increased by 50 percent over just the last year. The number of doctoral graduates increased 40 percent over just the last year. However, in the past year the rate of growth for MSNs fell by 15 percent. This may reflect an undercount of post-licensure graduates in Florida because not all of the programs surveyed responded. However, the **transition within academia preparing ARNPs in DNP programs, as opposed to MSN programs** is the likely cause and accounts for the increase in DNP program enrollments. Furthermore, these post-licensure programs are now offered online through many different colleges, and the Center is not able to track those graduates. Nevertheless, all of these post-licensure programs have seen an increase in the number of graduates over the years and we can anticipate the number of nurses with advanced degrees to gradually increase.
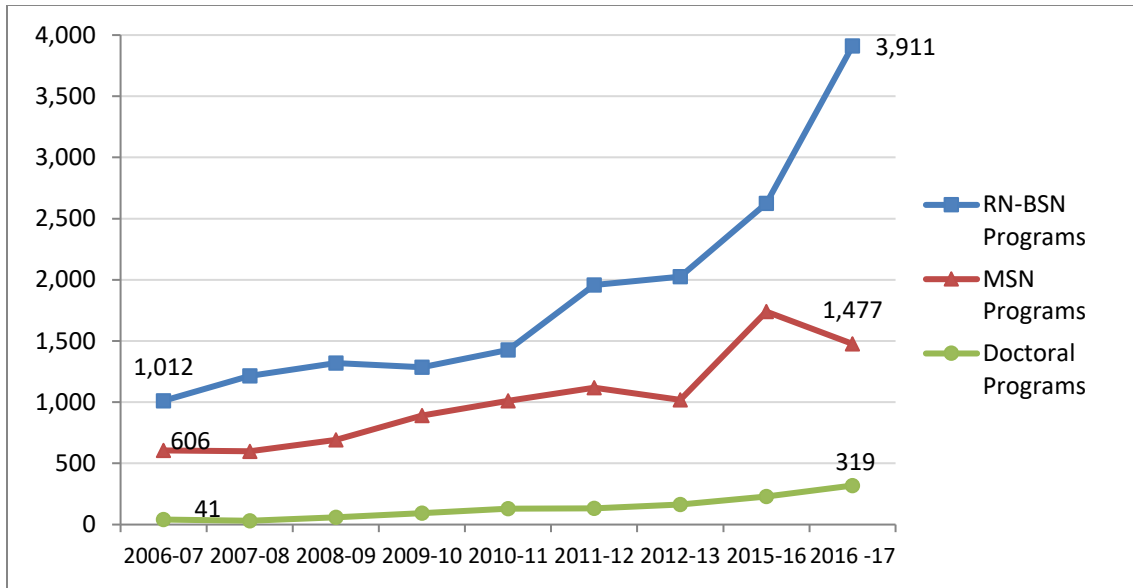
Figure 2. Post-Licensure Nurse Graduates, 2007-2017

Student Demographics

Race/Ethnicity

The racial and ethnic diversity of the post-licensure nursing student population is reported in Figure 3. About 61 percent of RN-BSN students are White, 16 percent are Black, and 17 percent Hispanic. **MSN and Doctoral programs have a lower proportion of white students and higher proportion of non-white students**. In contrast, 63 percent of Florida's RN workforce is White, 14 percent is Black, and 12 percent is Hispanic,[1] and Florida's population demographics for 2017 are reported as 54 percent White, 17 percent Black, and 26 percent Hispanic.[2]
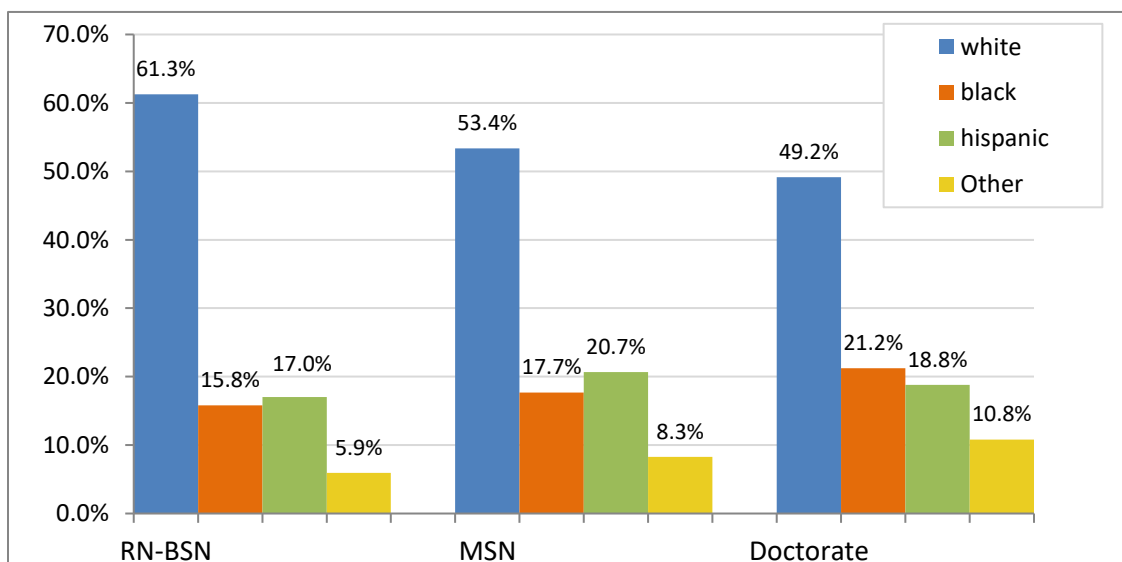

Figure 3. Race and Ethnicity of Post-Licensure Nursing Students, 9/30/2017, By Program

As the race and ethnicity of the student population continues to diversify, racial and ethnic diversity will gradually increase within the entire licensed nurse population, thus better mirroring Florida's population at large.

Gender

Men account for 14 percent of the student population in RN-BSN programs, 13 percent in MSN programs, and 17 percent in RN-BSN programs (Figure 4). This is **slightly more than Florida's current RN workforce**, in which 11 percent are male.[1] As more men enter nursing school, the number of men in the profession will likewise gradually increase.

Age Distribution

Student age varies by program (Figure 5). Twenty-five percent of RN-BSN students
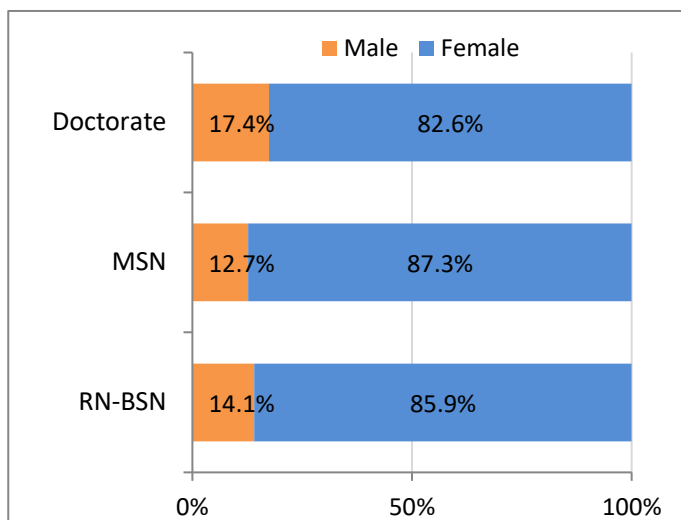
Figure 4. Gender of Post-Licensure Nursing Students, 9/30/2017, By Program

are age 30 or younger, indicating these nurses are quickly returning to school to obtain their Bachelor's degrees. About 29 percent of Master's and Doctoral students are age 21-30 (at the Master's level no students were 17 -20 years of age), indicating that people are entering these graduate programs soon after finishing their first nursing degrees. Interestingly, doctoral students are even younger, with 39 percent between 21and 30 (no students younger than 21).
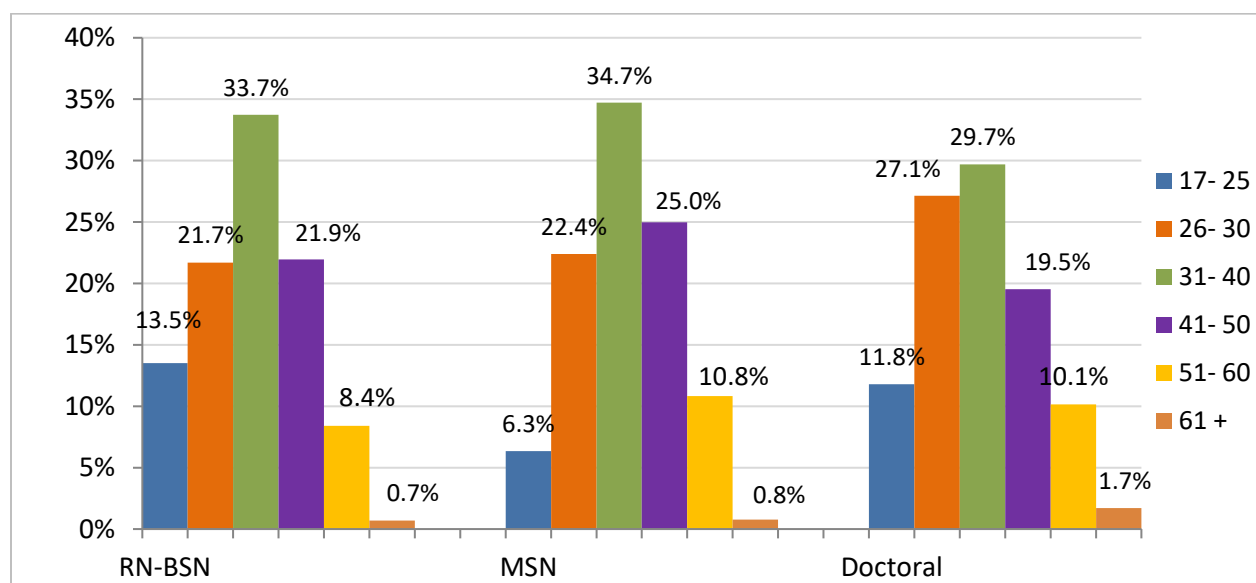
Figure 5. Percentage of Post-Licensure Nursing Students by Age Group, 9/30/2017

Data are from responding schools only unless indicated otherwise.

Barriers to Maximizing Post-Licensure Program Capacity

Barriers to admitting more doctoral students are shown in Figure 6 (data on MSN students were not available). In AY 2016-2017 **nearly 40 percent of doctoral programs reported a lack of qualified student applicants**. Lack of funds to hire faculty were reported by over 25 percent of programs. Lack of campus resources and lack of faculty applicants were an issue with 13 percent of programs. Only 9 percent of programs reported a problem with limited clinical sites.
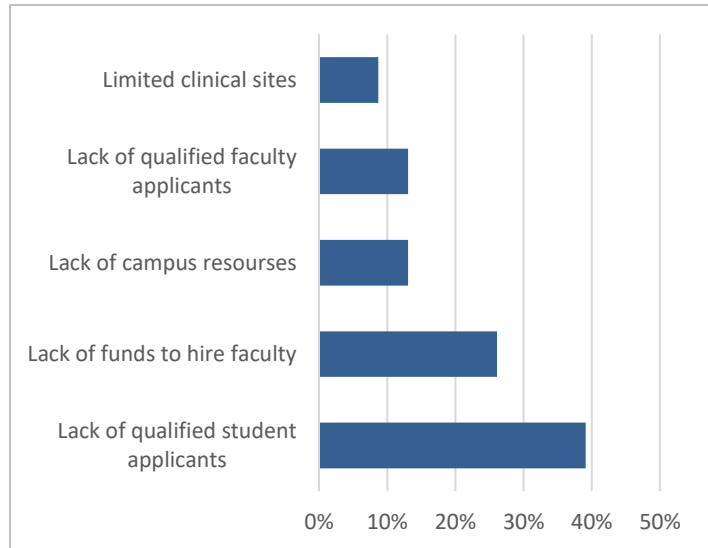
Figure 6. Reported Barriers to Maximizing <u>Doctoral</u> Program Capacity in AY 2016-2017

Discussion

Thirty-three RN-BSN programs, 21 Master's, 8 PhD, and 15 DNP programs responded to the survey. These programs have 10,437 RN-BSN students, 4,541 Master's students, and 1,724 Doctoral students, for a total of 16,702 post-licensure students currently enrolled. Though these numbers are undercounts of the total student enrollment statewide in post-licensure nursing programs, as the survey response rate was less than 100 percent; they provide excellent information for discussion and trend identification.

The *Patient Protection and Affordable Care Act* (PPACA) will increase access to health care which will increase demand for health care providers. Advanced registered nurse practitioners (ARNPs) will be increasingly utilized as primary care providers with implementation of the PPACA. ARNPs can provide quality primary care and expand healthcare access for all Floridians, as well as helping fill the gap left by the primary care physician shortage. Recognizing the need for data about the ARNP profession, this year the Center revised the survey to collect admission, enrollment, and graduation data for specific types of advanced practice nurse master's and doctorate in nursing practice programs: Nurse Practitioner, CRNA, midwife, and holistic nursing. We now have the ability to track this program capacity and graduation information and analyze changes over time.

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.[3] **The annual number of post-licensure graduates continues to increase** since 2007, with the exception of MSN programs. RN-BSN graduates increased 50 percent since AY 2015-2016 and doctoral graduates increased 40 percent. In MSN programs the

number of graduates fell 15 percent from AY 2015 -2016 to AY 2016-2017. However, the number of enrollments in AY 2016 -2017 has nearly doubled so it is possible that the decrease in MSN graduates is only temporary. Additionally, **the transition to offer ARNP programs at the doctoral level may also account for the reduction in MSN graduates**. Future data will tell whether this graduate decrease is a one-time occurrence or a trend. And, considering both MSN and DNP graduates completing the ARNP programs of study will provide a more accurate accounting.

Some doctoral programs indicated several **barriers to maximizing program capacity as reasons for slowing growth**. The most commonly reported barrier is lack of qualified student applicants, followed by lack of funds to hire faculty, lack of faculty applicants, lack of campus resources and limited clinical sites. Lack of funds to hire faculty is a common challenge for all levels of nursing education (LPN, ADN, BSN, and higher), and is reported year after year.

The Center surveyed Florida's nurse employers in summer 2015, and results indicated that most of their difficult to fill positions required additional education and/or experience, and could not be filled by new graduates. The post-licensure education programs in this report address the employers' needs by providing educational advancement opportunities for their employees. Employers could encourage and incentivize nurses with Associate Degrees to obtain their BSN, thus increasing the education level of their nurse workforce. Incentives should also be in place to promote baccalaureate prepared nurses to enter graduate education.

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. **Create incentives for nurses to seek advanced education, from RN to BSN and graduate studies; support existing nurses to further their education; and build a nurse faculty pipeline.** The complexities of health care, combined with the need to work smarter and more effectively as a collaborative team, support the need to advance the education of all nurses. Strategic effort must be made to transition nurses progressively up the clinical and academic levels, including the need for more nurses prepared with doctoral degrees to fill the growing faculty shortage and the increasing needs for advanced practice nurses. This is also consistent with the recommendations of the IOM report to advance the education of employed nurses[3], specifically to achieve 80% of employed RNs having a baccalaureate degree in nursing or higher degree and to double the number of doctoral prepared nurses by 2020.

2. **A consistent, long-term data collection, analysis, and reporting system must be maintained and adequately funded to provide critical information on which to base funding and policy decisions.** The Florida Legislature established the Florida Center for Nursing in 2001 to address issues related to the nursing shortage in Florida. The first of the three mandates

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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.

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. Currently the Center is limited to surveying programs based in Florida, as they are able to clearly identify Florida-based students. Efforts to collect data from out-of-state programs operating in Florida have not been successful. Several online programs reported it was difficult to isolate Florida students for reporting purposes as the programs teach students from all over the country. Capturing Florida student information from these programs would provide more complete and accurate data.

Contributors: Lynn Unruh, PhD, RN, Professor, Health Management & Informatics, University of Central Florida; and Mary Lou Brunell, MSN, RN, Executive Director, Florida Center for Nursing

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