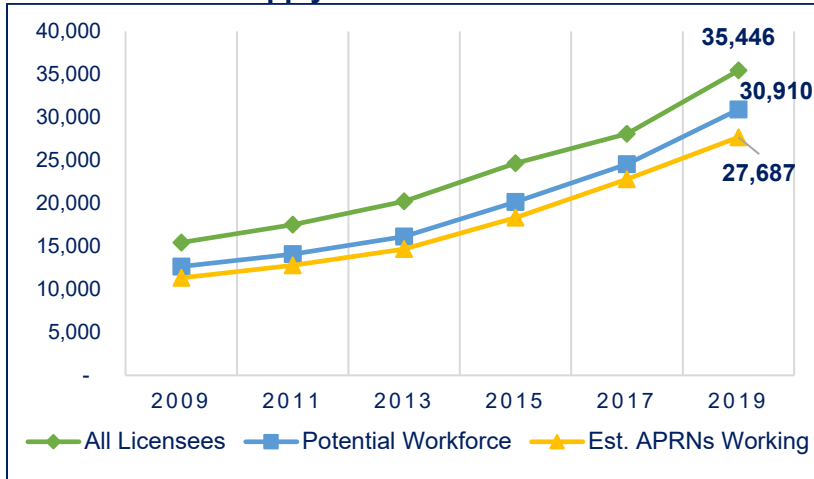


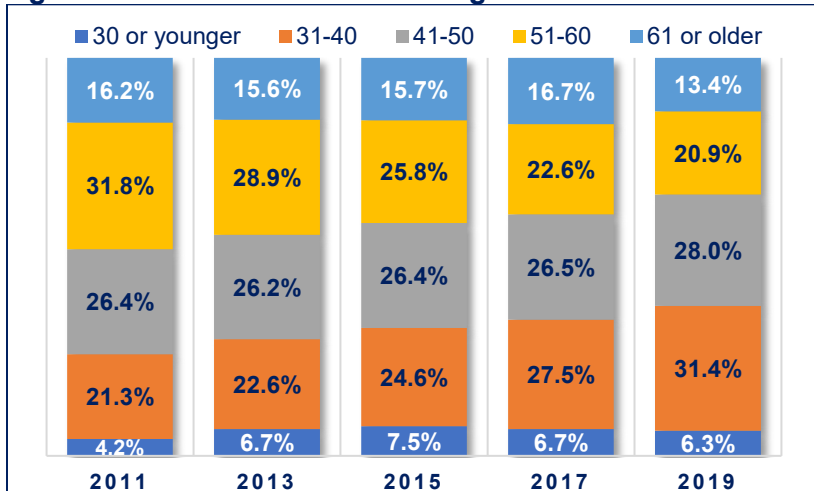
KEY FINDINGS

The following information represents **key findings** on Florida's Advanced Practice Registered Nurse (APRN) workforce supply as of the 2018-2019 renewal cycle. Trends, implications, and recommendations are provided.

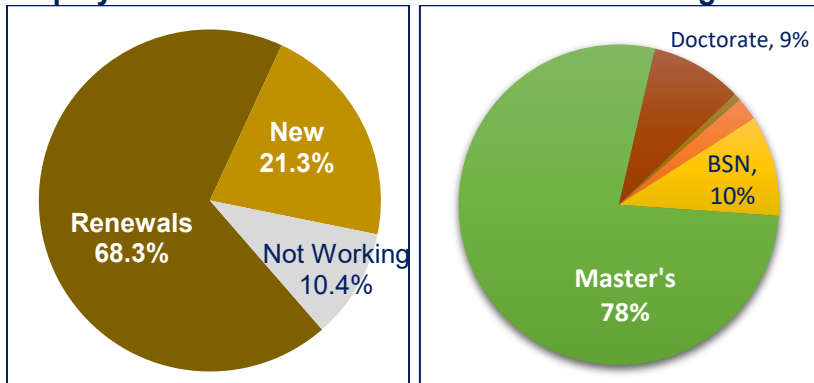
Florida's APRN Supply Trend



Age Distribution Trend of Working APRNs



Employment and Education Attainment of Working APRNs



- In 2018, Florida transitioned from an ARNP credential to an **APRN license**.
- Florida's potential APRN workforce **increased** 25% since 2016-2017.
- 90% of the potential APRN workforce is estimated to be **working** in Florida.
- **Hospitals and physician offices** employed about 64% of working APRNs in 2018-2019.
- 87% of working APRNs reported holding **master's or doctorate degree**.
- The proportion of working APRNs with a **doctorate degree (9%) doubled**, consistent with IOM recommendations.
- About 26% of APRNs working in Florida are **55 or older** and may begin to phase out of the workforce in the next 5 to 10 years.
- The average **full-time equivalency (FTE)** of working APRNs was 0.90.
- Nurses over the age of 65 have a sharp decline in the average FTE compared to other age groups.
- There were **62 direct care APRNs** working in patient care areas per 100,000 people in Florida.

Recommendations

1. **Support FCNs research efforts** and analysis.
2. Expand nursing **education program data collection** to post-licensure graduate programs.
3. Support state and industry collaboration to strengthen tracking of **impact of NLC membership**.
4. Support research on the **impact of APRN licensure changes** on the nursing workforce and care delivery.



Florida's 2018-2019 Advanced Practice Registered Nurse (APRN) Workforce Supply: Characteristics and Trends

June 2020



Addressing Nurse Workforce Issues for the Health of Florida

Visit our site at: www.FICenterForNursing.org

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BACKGROUND

The Florida Center for Nursing (FCN, the Center), in partnership with the Florida Board of Nursing (FBON) and Florida Department of Health Division of Medical Quality Assurance (MQA) has collected nurse workforce data since 2008 via a voluntary Workforce Survey. The survey is integrated into the online license renewal process for all nurse licensees.



This report provides information on Florida’s **advanced practice registered nurse (APRN)** population using data collected during the biennial license renewal cycle of January 2018 – December 2019.¹ Data used for this report represent the best approximation of renewal statuses as of December 31, 2019 to describe the current population of licensees. Findings describe characteristics of Florida’s nurse population, such as size, demographics, and employment information.

Implications and trends over time are discussed when possible. Data on the state’s supply of nurses provides valuable information to nurse employers, nursing schools, nurse faculty, workforce planners, and policy makers.

FLORIDA’S TRANSITION FROM ARNP TO APRN

Effective October 1, 2018, Florida transitioned the advanced registered nurse practitioner (ARNP) and clinical nurse specialist (CNS) certifications to an advanced practice registered nurse (APRN) licensure. This transition enables greater consistency with national models of education, licensure, and certification to improve access to safe and quality care. Through the FDOH technical transition, APRN records were established for all existing ARNP licensees, while the ARNP records were downgraded to RN so that these nurses would retain that license.² Following the conversion, new APRN licensees can be established in Florida based on a nurse’s attainment of an RN license in another state, as well.

The technical transition from ARNP certification to APRN licensure, Florida joining the National Licensure Compact (NLC), and other technical changes to FDOH databases during this renewal cycle have impacted the Center’s historical tracking of APRNs. The Center’s nurse workforce survey technical document (2020) provides more insight into the trends most impacted, and notations will be made throughout this report. **Unless otherwise specified, the term APRN will be used throughout this report, including discussion of trends over time, and should be interpreted to include the ARNP/CNS certification prior to the 2018 transition.**

¹ Renewal deadlines are April 30th of year 1 and year 2, and July 30th of year 2. December data are used to provide an extra window of time for renewals to best represent nurses’ license status immediately prior to the start of the next calendar year/renewal cycle.

² Following the conversion, APRNs are not required to maintain their RN license in Florida and may choose to relinquish this license. Similarly, Florida RNs can no longer “upgrade” to an APRN license as this is now a distinct licensure (Florida Board of Nursing, 2020). These changes will impact FCN’s licensure tracking over time.

FLORIDA'S APRN SUPPLY AS OF DECEMBER 2019

Florida's population of advanced practice nurses continued to grow during the 2018-2019 renewal cycle. More than 26,000 renewing and over 9,000 newly licensed APRNs held a Florida license in December 2019.³ Among them, 30,910 (89%) met the criteria to be counted in the **potential APRN workforce: an active license, Florida address, and no disciplinary restrictions.**⁴

In total, the potential workforce includes 23,392 renewing and 7,518 newly licensed APRNs. Among them, 27,687 (90%) were estimated to be working in nursing in Florida (Figure 1). Compared to the 2016-2017 renewal cycle, the number of licensed APRNs in the potential workforce and those estimated to be working increased substantially (26% and 21%, respectively).

A 26% increase to the potential workforce continued the substantial upward growth of the APRN workforce, despite a slight dip observed in 2016-2017 (22%) (Figure 2).⁵ However, growth trends should be interpreted with caution due to potential impacts of the ARNP to APRN conversion. Additionally, estimated counts include last known practicing/mailling address provided to the Board of Nursing, the accuracy of which is not known.

Figure 1: Florida's APRN 10-Year Supply Trend



Figure 2: Potential APRN Workforce and Estimated Growth



30,910 *Renewing APRNs & New Licensees in the Potential Workforce*

³ Based on MQA License Status Definitions (<https://apps.mqa.doh.state.fl.us/MQASearchServices/LicStatus.html>). Includes all statuses that maintain a Florida license. Does not exclude those ineligible to practice.

⁴ Excludes some nurses that may be eligible to practice based on MQA License Status Definitions. Includes only nurses with a Florida address and maintaining a Clear and Active license, or a Temporary Military/Military Active license.

⁵ The Center typically reports details of the numbers and reasons for gains and losses to the potential workforce, yet substantial changes to the tracking of APRNs following the licensure conversion resulted in substantial errors and a lack of confidence in reporting, and these numbers are not presented in the current report. See the Center's 2020 Technical Document for more details.

Nurse Licensure Compact (NLC) Multi-State License



The Nurse Licensure Compact (NLC) allows licensed practical and registered nurses to become licensed to practice in any member state without obtaining a separate license in each state (National Council of State Boards of Nursing, Inc., 2020). Florida joined the NLC in 2018. As a result, the current renewal cycle is the first where nurses whose home state is Florida could renew, or become newly licensed, with a compact/multistate license. For an APRN to hold a multi-state license, they would have to maintain an RN license in addition to their APRN license as Florida has not joined the APRN Compact.

NLC membership also means that nurses may deactivate their Florida RN license in favor of a multistate license with primary residence in another state. These nurses remain eligible to practice in Florida but do not maintain residency in Florida and no longer renew their license through the Florida system. While counts of deactivated licenses are not available for APRNS, more than 2,000 RNs deactivated their Florida license since Florida joined the NLC. Future trending of APRN licensure attainment may be impacted by NLC membership, yet little is known about the impact to date and it is uncertain whether Florida will join the APRN Compact.

Characteristics of Newly Licensed Nurses

A total of 9,188 ARRNs newly licensed between 2018 and 2019 held a valid license as of December 31, 2019. Among them, **7,518 newly licensed APRNs were added to the potential workforce in 2018-2019**. This includes nurses who (a) received their original license by exam, endorsement, or other method (i.e. military licensure) between January 1, 2018 and December 31, 2019, (b) maintain an active license, (c) have no disciplinary restrictions, and (d) have a valid Florida address.

Compared to the previous renewal cycle, the number of APRNS newly licensed in 2018 or 2019 quadrupled. In 2016-2017, 1,767 new licensees were reported, suggesting that over 7,400 *more* APRNs were licensed in 2018-2019. This substantial growth in new licensees is likely impacted by the October 2018 conversion from ARNP to APRN and may not accurately reflect a substantial influx of new licensees.⁶ Yet the proportion of new licensees was almost evenly divided between those licensed in 2018 and those licensed in 2019 (Table 1, next page).

The APRN technical conversion also appears to have impacted FDOH database tracking of original license transaction descriptions (e.g. licensed by exam or endorsement), so little can be confirmed regarding the reasons for this substantial growth. Additional collaboration with FDOH and industry leaders is needed for further insight.

⁶ Although FDOH representatives indicated to the Center that the new APRN license includes the original date of licensure carried over from the ARNP/CNS certification and APRN program contacts indicated that there were no substantial increases in graduates during this period.

Table 1: Characteristics of Newly Licensed APRNs

	N	%
Licensed In...		
2018 (Jan – Dec)	3,786	50.4%
2019 (Jan – Dec)	3,732	49.6%
Race/Ethnicity		
Asian	456	6.1%
Black	1,267	16.9%
Hispanic	1,898	25.3%
White	3,601	47.9%
Other	203	2.7%
Gender		
Female	6,230	82.9%
Male	1,233	16.4%
Age Group		
30 or younger	1,340	17.8%
31-40	3,029	40.3%
41-50	2,014	26.8%
51-60	938	12.5%
61-70	183	2.4%
71 or older	11	0.2%
Est. Working		
No	901	12.0%
Yes	6,581	87.5%
Average Age		40.8

Note: Counts/proportions may not equal 100% due to missing data; includes nurses with clear and active licenses and Florida addresses only. Type of new licensure is not described here due to potential FDOH recoding of Original Transaction Description since the conversion of ARNP certification to APRN licensure (e.g. 4,429 were listed as newly licensed by exam, 11 were listed as other, and no description was provided for 3,078 new APRNs (all of whom were licensed in 2018 suggesting this was impacted by conversion).

About 48% of new licensees were white, 25% were Hispanic, and 17% were black. (Table 1). A substantially larger portion of new licensees were white in 2016-2017 (72%) compared to the current cohort. The new cohort of APRNs continue to be female dominated, although about 16% were male, similar to the proportions in 2016-2017.

The average age of new APRNs was about 41 years old. A slightly larger portion of new licensees were 40 or younger (48%), compared to 2016-2017 (47%), although more than one-quarter of the new APRNs were between 41 and 50 (27%).

Almost 88% of newly licensed APRNs in the potential workforce were estimated to be working in nursing in Florida.

Interestingly, almost 85% of newly licensed APRNs participated in the Nurse Workforce Survey, providing further evidence that this population may be impacted by the conversion from ARNP. Typically, newly licensed nurses are not exposed to the survey until their first renewal period. In 2016-2017, zero (0) newly licensed advanced practice nurses participated in the survey.

In total, 29,105 APRNs participated in the Nurse Workforce Survey, including 22,744 renewing APRNs and 6,361 nurses newly licensed between 2018 and 2019. Survey response represents a 94% response rate among APRNs in the potential workforce and a 10% response rate increase since 2016-2017. Responses were used to estimate the number of clear and active APRNs working in nursing in Florida, resulting in an estimated total of 27,687 APRNs working in Florida.

An estimated **27,687** new and renewing RNs are working in Florida

The following sections consider employment and demographic characteristics of APRNs estimated to be working in Florida during the 2018-2019 renewal cycle, based on responses to the Nurse Workforce Survey.

EMPLOYMENT CHARACTERISTICS

An estimated 90% of all APRNs in the potential workforce are working in nursing in Florida (Figure 3), including 21,106 renewing and 6,581 newly licensed APRNs.⁷ The proportion of renewing APRNs estimated to be working decreased about three percentage points since the 2016-2017 renewal cycle.

Employment Settings

Consistent with previous renewal cycles, most APRNs are working in hospitals (44%) and physician’s offices (20%). Another 6% worked in ambulatory care and 5% worked in public/community health (Table 2). APRNs were least likely to report employment in policy/planning settings or staffing agencies. Beginning in 2018, two new setting categories were added (dialysis centers and telehealth). These were also among the least common employment settings for APRNs.

Figure 3: Estimated Employment of 2018-2019 Potential APRN Workforce

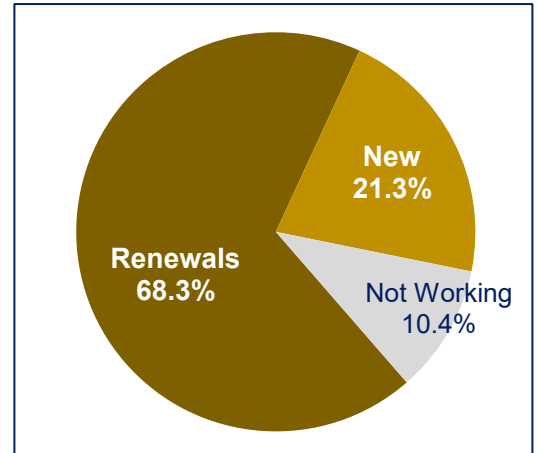


Table 2: APRNs Employed by Setting, 2010-2011 to 2018-2019

Employment Setting	2010-11	2012-13	2014-15	2016-17	2018-19
Academic Setting	5.1%	4.9%	4.2%	3.9%	3.3%
Ambulatory Care	8.9%	9.0%	7.1%	6.6%	6.3%
Corrections Facility	1.0%	0.9%	1.2%	0.6%	0.9%
Dialysis Center †	-	-	-	-	0.3%
Healthcare Consulting / Product Sales	0.2%	0.2%	1.8%	0.2%	0.4%
Home Health Care	1.5%	1.9%	2.0%	2.1%	2.5%
Hospice *	-	-	1.0%	1.0%	1.0%
Hospital	43.5%	44.4%	44.3%	50.2%	44.0%
Insurance Claims/Benefits	0.2%	0.2%	0.3%	0.3%	0.4%
Nursing Home, Extended Care, Assisted Living	2.8%	2.8%	2.6%	2.7%	3.2%
Occupational Health	0.7%	0.7%	1.1%	0.6%	0.5%
Other	6.9%	6.6%	4.7%	4.4%	4.6%
Physician or other Health Provider Office	23.5%	22.8%	21.1%	18.3%	19.8%
Policy, Planning, Regulatory, Licensing Agency *	-	-	0.1%	0.0%	0.0%
Public/Community Health	4.7%	4.7%	4.2%	3.4%	5.3%
School Health Services	0.9%	0.8%	0.8%	0.6%	0.4%
Telehealth †	-	-	-	-	0.3%
Temporary/Staffing Agency	0.1%	0.1%	0.3%	0.1%	0.1%
Urgent Care/Walk-in Clinic *	-	-	3.3%	3.0%	4.3%

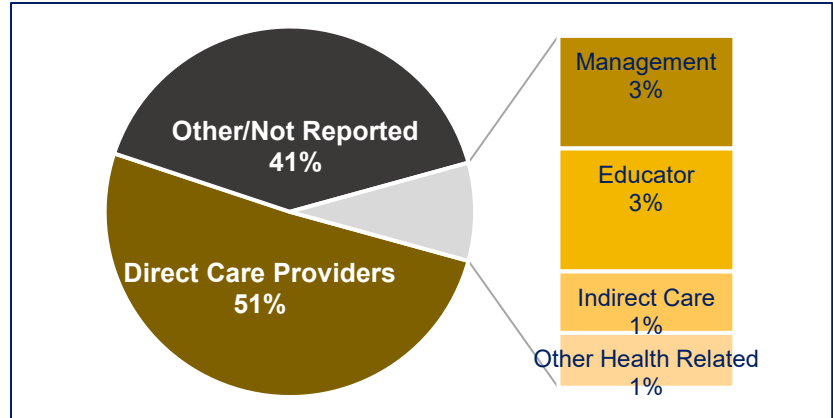
Note: Beginning in 2016-2017, data represents working survey respondents in potential workforce only, totals may not equal 100% due to missing data/non-response, * Categories added in 2014-15 cycle; † Categories added in 2018-19 cycle

⁷ Working status is estimated using survey responses to employment variables, reported addresses, and statistical imputation methods among non-responders to most closely approximate the total workforce in Florida.

Position Titles and Practice Areas

About half of the employed APRNs (51%) reported working as direct care providers, including advanced practice nurses (36%) and staff nurses (15%). About 3% held management positions, 3% were educators, and 2% worked in indirect care or other health related positions (Figure 4).

Figure 4: Position Titles of Working APRNs



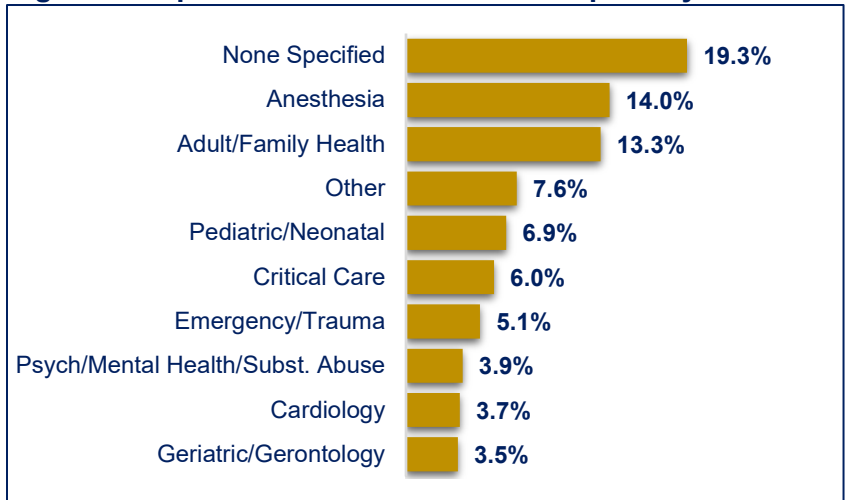
However, these counts must be interpreted with caution as a substantial number of APRNs estimated to be working in Florida (41%) did not provide a response to this question. Because the responses were not reported, rather than reported as “other,” in addition to a substantial increase of not reported responses compared to the previous survey cycle, this may suggest errors in the survey response process and/or unknown technical challenges impacted by the conversion from ARNP to APRN.

Among the working APRNs that did not describe their position title...

- 39% also did not report their specialty, while 18% specialized in anesthesia
- 60% worked in hospitals or physician’s offices
- 29% were over the age of 55
- These nurses have been licensed in Florida for an average of 10 years

Similarly, about 19% of APRNs estimated to be working did not specify a clinical practice specialty area (Figure 5). Another 14% reported specializing in anesthesia, 13% specialized in adult/family health, and 8% reported some other specialty not listed.

Figure 5: Top 10 APRN Clinical Practice Specialty Areas



Among the working APRNs that did not provide a specialty or specified some “other” area...

- 69% also did not report their position title
- 52% worked in physician’s offices or hospitals
- 56% indicated plans to continue as they currently are for the next five years
- 26% were over the age of 55
- These nurses have been licensed in Florida for an average of 8 years.
- Almost 1,000 unique detailed specifications were provided

Separate analyses are needed to explore open ended responses provided for “Other” specialties to identify patterns. In the future, the Florida Center for Nursing may need to consider additional data cleaning or revisions to position titles and settings more applicable to working nurses’ experiences.

Three new specialty categories were added to the survey during this cycle. Cardiology (4%) was among the top ten most common specialty areas (Figure 5), while nephrology (0.6%), and telehealth (0.1%) were among the least commonly selected specialties.

Employment Detail

The proportion of APRNs working full-time (80%) decreased about one percentage point since the 2016-2017 cycle. Yet the proportion of nurses in the potential workforce working full-time in nursing in Florida has remained relatively consistent in the past five renewal cycles (Table 3). The proportion of APRNs reporting per diem or “as needed” employment has increased from about 4.6% in 2010-2011 to about 6.9% in 2018-2019.

Table 3: Employment Detail for Working APRNs, 2010-11 to 2018-19

	2010-11	2012-13	2014-15	2016-17	2018-19
Employment Status					
Full-Time	81.9%	81.4%	80.5%	80.8%	79.8%
Part-Time	13.5%	13.7%	13.7%	12.8%	13.3%
Per Diem/Agency	4.6%	4.8%	5.8%	6.4%	6.9%
Hours Per Week					
20 or fewer	7.8%	7.7%	8.2%	6.9%	7.9%
21-30	7.8%	8.4%	8.7%	8.8%	9.2%
31-35	5.9%	5.3%	5.5%	4.8%	4.3%
36-40	45.4%	46.6%	45.6%	48.6%	47.4%
41-50	25.8%	24.9%	24.6%	21.6%	19.2%
51 or more	7.4%	7.1%	7.4%	6.6%	7.4%
Multiple Jobs	17.0%	16.9%	17.3%	17.0%	17.2%
Average FTE	0.88	0.89	0.88	0.91	0.90

Proportions may not equal 100% due to missing/improbable values excluded

About 47% of employed APRNs worked 36-40 hours and about 7% worked more than 40 hours in a typical week. The average FTE for APRNs was about 0.90, although the median value was 1.0, indicating that the average is skewed downward by lower outliers.

Nurse Workforce by State Population

Changing patient populations and population size drive the demand for healthcare. As of July 2019, Florida’s population comprised an estimated 21,477,737 people.⁸ Examination of the 2018-2019 renewal cohort estimates about 27,687 APRNs working in nursing in Florida, resulting in about 129 APRNs per 100,000 population in 2019. However, not all nurses estimated to be working in Florida provide direct care in patient care settings.

⁸ Based on US Census Bureau Quick Facts estimates (<https://www.census.gov/quickfacts/fact/table/FL,US/PST045219>)



An estimated 89% of working nurses are employed in inpatient, outpatient/office, or other settings which are most likely to provide patient care.⁹ Among them, 54% were direct care providers.¹⁰ When these proportions are considered, there were an estimated **62 APRNs providing direct care in patient care settings, per 100,000 people** in the Florida population.

In 2018-2019 there were about 39 working APRNs or 19 direct care APRNs per 100 hospital beds in the state. **All counts should be interpreted with caution as they are based on estimates and do not consider FTE status which may reduce the total number of hours of care provided by each working RN.** Counts may also be underrepresented as 41% of working APRNs did not report a position title and may or may not be providing direct care in Florida.

Gaps between estimates of APRNs employed in nursing in Florida, estimates of those providing direct care in patient care settings, and a substantial count of unknown position titles highlight the importance of detailed analyses and the need for accurate, nurse employer driven demand data. This information also raises the question of the nurses that are *eligible* to practice direct care in Florida yet work in non-direct care settings as it pertains to assumed shortages in bedside nursing.

FULL TIME EQUIVALENCY (FTE) STATUS

A full-time equivalency (FTE) value represents the annual workload of employees. FTE is the ratio of hours worked by an employee in a given time period by the number of hours considered full-time for that same period.¹¹ **The estimated average FTE for all working APRNs was 0.90.**¹²

FTE by Age Group

Figure 6 depicts the average FTE and estimated number of working APRNs by age group. The average FTE is relatively consistent for each age group, except for a sharp decrease among the oldest APRNs estimated to be working. The youngest APRNs also lower average FTEs than those over 30, but have a higher average FTE than those over 65, despite representing a similar proportion of all working APRNs. Working APRNs between 66 and 70 had an average FTE of 0.77 and working APRNs over the age of 71 had an average FTE of 0.63. These may be nurses transitioning out of the workforce and/or retired nurses who are actively employed part time, per diem, or providing services and expertise as needed.

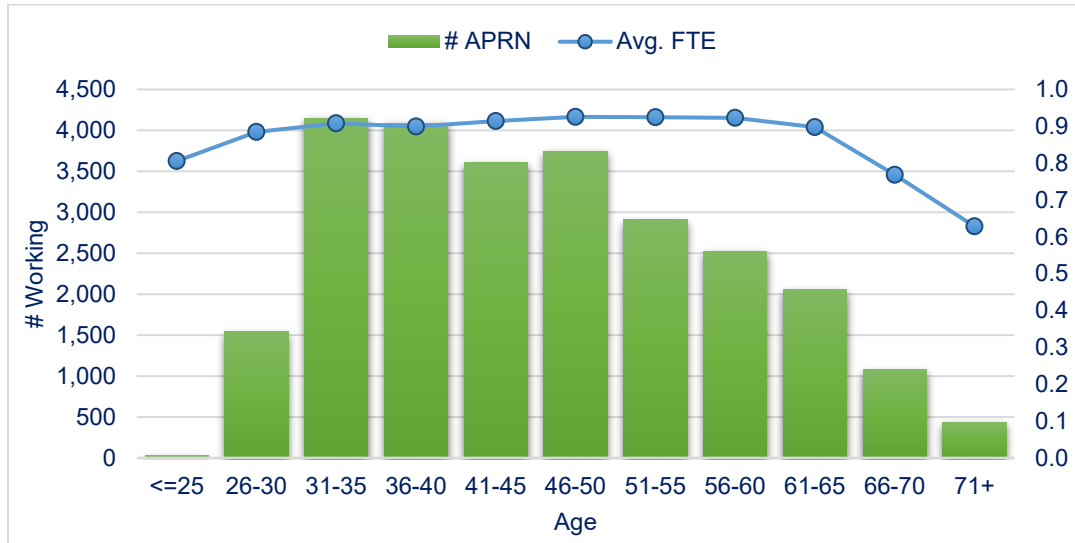
⁹ Based on weighted proportions. Excludes academic settings, healthcare consulting/product sales, insurance claims/benefits, policy, planning, regulatory, licensing agency, and all listed as “other”.

¹⁰ Based on weighted proportions. Includes advanced practice nurse, staff nurse, and travel nurse positions only. Beginning in 2020, the survey asks if participant provides direct care services in their primary position. Preliminary impact of this revision will be available in the 2022 report.

¹¹ 1,872 hours per year are considered full-time to represent a minimum of three 12 hour shifts per week (36 hours), year-round.

¹² Excludes nurses who reported that they were working, but indicated 0 hours per week

Figure 6: Average FTE and Number Working APRNs by Age, 2018-2019



FTE by Employment Setting

Table 4 shows the proportion of working APRNs survey respondents in each industry with a 1.0 FTE value.¹³ A 1.0 FTE indicates full-time, year-round employment of at least 36 hours per week.¹⁴ Lower ratios indicate more participants working less than full time.

Hospitals and physician’s offices employ most APRNs. Among each of them, 71% of APRNs have an FTE value of 1.0, indicating that about 29% of APRNs in the two most common employment settings work less than full time.

Overall, the proportion of 1.0 FTE APRNs (69%) decreased since 2017 (75%). Previously, 79% of hospital APRNs and 74% of APRNs in physician’s offices were working at least 1,872 hours per year, compared to 71% each in the current cycle.

A small number of APRNs worked in policy/planning settings, and 100% of them had a 1.0 FTE value. The second highest proportion of 1.0 FTE APRNs (81%) were in

Table 4: Proportion of 1.0 FTE Working APRNs and Average FTE by Employment Setting, 2018-2019

Setting	% with 1.0 FTE	Overall Avg. FTE
Academic Setting	67%	0.87
Ambulatory Care Setting	61%	0.86
Correctional Facility	73%	0.89
Dialysis Center	68%	0.89
Healthcare Consulting/ Sales	57%	0.76
Home Health	59%	0.83
Hospice	77%	0.91
Hospital	71%	0.92
Insurance Claims/Benefits	81%	0.93
Nursing Home/Extended Care	75%	0.92
Occupational Health	75%	0.89
Other	64%	0.86
Physician's Office	71%	0.91
Public/Community Health	100%	1.00
Policy/Planning/Reg./Licensing	69%	0.88
School Health Service	50%	0.81
Telehealth	74%	0.90
Temporary / Staffing Agency	53%	0.69
Urgent Care/Walk-in Clinic	60%	0.89
Total (All Settings)	68.7%	0.90

Note: Represents working APRNs with an FTE value of 1.0/est. total APRNs working in that industry. Lower % and ratios indicate more APRNs reporting part-time positions.

¹³ Employment setting is only available for survey participants who provided information for this question (n = 25,537). Estimated proportion of 1.0 FTEs is based on survey respondents only.

¹⁴ See FCN’s 2020 Technical Report for more details about FTE calculation

insurance claims/benefits workplaces. The average FTE value in these settings was 0.93.

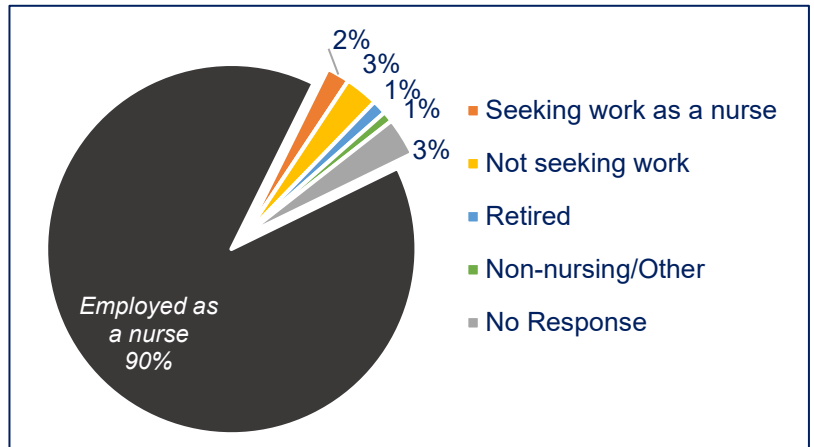
Healthcare consulting/sales and temporary/staffing agents had the lowest average FTEs. School health services had the smallest proportion of APRNs (50%) working at a 1.0 FTE (Table 4).

UNEMPLOYMENT

While about 90% of the potential APRN workforce were estimated to be working in nursing in Florida, **10% were either unemployed or working outside of nursing at the time of their license renewal** (Figure 7). This group only includes APRNs that remain eligible to practice, with no disciplinary restrictions, and a Florida address, yet do not appear to be working in nursing.

Three percent (3%) of APRNs in the potential workforce were not seeking work, followed by 2% of APRNs that were seeking work as a nurse – representing around 500 APRNs. Another 1% reported they were retired (but still have an active license and remain in the potential workforce).

Figure 7: Employment Status of APRNs (Weighted)



Weighted to represent all RNs, including non-responders. "Employed in non-nursing/Other" includes "Not Applicable (Employed for Pay)" category removed in 2019. Beginning in 2019, display logic restricted unemployment status question to participants indicating they were not employed.

Unemployment Reasons

Among unemployed APRNs that were not seeking employment (3%) at the time of their renewal...

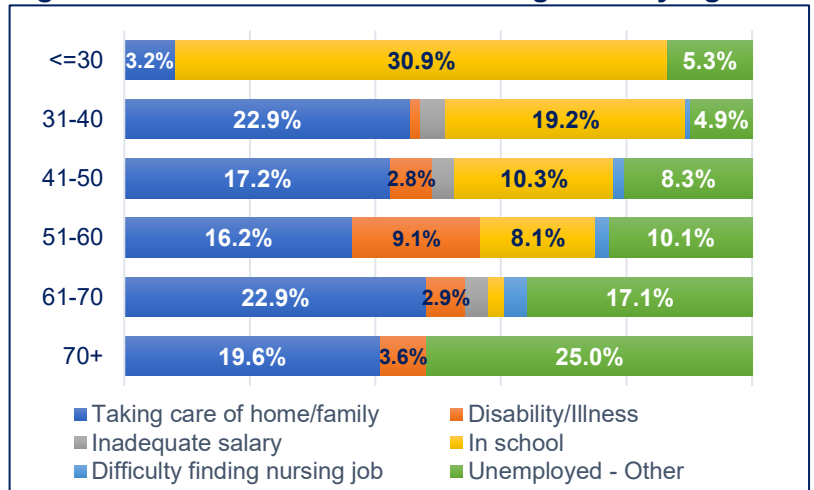
- 18.5% were taking care of home/family
- 12.5% were in school
- 3% were unemployed due to disability or illness
- 2% reported inadequate salaries in nursing or difficulty finding nursing positions (n < 20).

Unemployment reasons among APRNs not seeking employment varied by age group (Figure 8).

Participants thirty or younger were the most likely to be in school (31%) but much less likely to be taking care of home and family compared to other groups. Family obligations were most common among 31-40 and 61-70 unemployed APRNs not seeking work.

Disability/illnesses were most common among 51-60-year-old APRNs (9%). "Other" unemployment reasons were

Figure 8: Reasons APRNs Not Seeking Work by Age



Weighted to represent total unemployed/not seeking population. Proportions will not equal 100% as participants can select multiple responses.

increasingly common with age, suggesting perhaps that older APRNs not seeking work were more likely to be transitioning out of the workforce entirely.

DEMOGRAPHICS

APRN Workforce Diversity

Table 5 shows demographic characteristics of APRNs estimated to be working in nursing compared to the potential APRN workforce¹⁵ and Florida population.¹⁶ APRNs estimated to be working in Florida closely resemble the race/ethnicity and gender characteristics of the total potential APRN workforce.

Compared to the Florida population, Asian and White nurses are overrepresented in the APRN workforce. Black and Hispanics appear to be underrepresented in the APRN workforce, although the latter should be interpreted with caution as Hispanics are represented in multiple categories within US Census data.

The APRN workforce remains largely female dominated, although compared to 2016-2017, the proportion of males working as APRNs in Florida increased about one percentage point.

Age Distribution

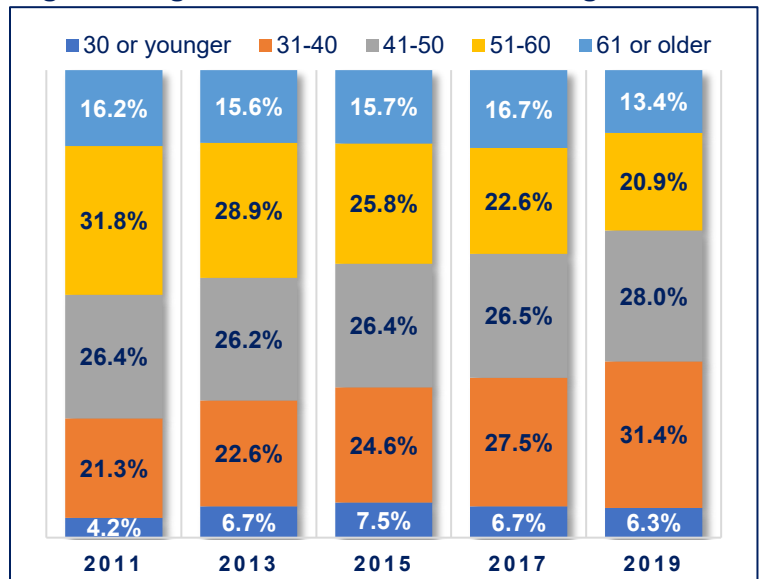
The average age of APRNs estimated to be working (46.1)¹⁷ is reflective of the total potential APRN workforce (46.6). The APRN median age was 45.0. About 13% of the APRN workforce were over the age of 60, compared to 16% of all APRNs in the potential workforce. The potential workforce may be slightly older, in part, due to nurses transitioning out of the workforce while maintaining an active Florida license. About 2% of APRNs in the potential workforce and 2% of those estimated to be working were over the age of 70.

Table 5: Florida APRNs and Population Demographics

	Working APRNs	Potential Workforce	Florida Population
Race/Ethnicity			
Asian	5.3%	5.2%	3.0%
Black	14.1%	13.5%	16.9%
Hispanic	16.7%	16.3%	26.1%†
White	61.7%	62.4%	53.5%
Other	2.1%	2.2%	2.8%
Gender			
Female	84.4%	84.5%	51.1%
Male	15.5%	15.2%	48.9%

† Hispanic category may be overrepresented as US Census includes Hispanics in multiple race categories. Working APRN proportions are weighted to represent the total estimated population of working APRNs

Figure 9: Age Distribution Trend, Working APRNs



Comparisons may vary due to exclusion of newly licensed nurses in some survey cycles. 2018-2019 counts reflect weighted proportions among survey respondents.

¹⁵ Clear and active APRN licenses with Florida address(es)

¹⁶ As of July 1, 2019, (United States Census Bureau, 2019)

¹⁷ Weighted value to approximate total population estimated to be working

About 20.5% of the Florida population were 65 or older, compared to 11% of the potential APRN workforce and 7.5% of APRNs estimated to be working. There were proportionally more working APRNs that were 40 or younger and fewer over the age of 50, compared to the 2016-2017 workforce (Figure 9, previous page). However, proportions should be interpreted with caution as the previous cycle did not include any nurses newly licensed during that period.

In total, **about 3,700 APRNs in the potential workforce that were estimated to be working were over the age of 60 and may leave the workforce in the next five to ten years.**¹⁸ More research is needed to explore whether and when APRNs are retiring, their employment settings as they age, and the proportion of APRNs that may be leaving direct care positions in patient care settings as they retire, in relation to the replacement rate of younger cohorts.

ACADEMIC ACHIEVEMENT

In 2010, the Institute of Medicine’s (IOM) published recommendations to “support efforts to improve the health of the U.S. population through the contributions nurses can make to the delivery of care” (p. 4). IOM stated that growing demands on nurses in care delivery requires higher levels of education and training for nurses. As a result, IOM recommended doubling the proportion of nurses with a doctorate degree by 2020.

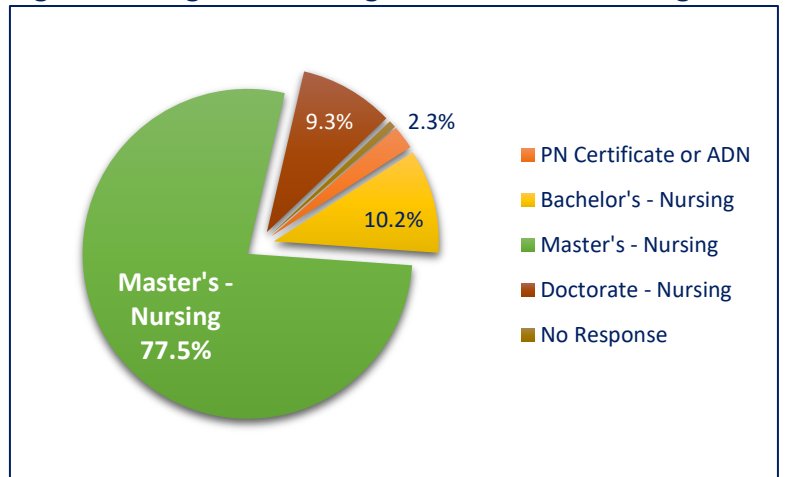
87% of working APRNs hold a Master’s or Doctorate degree in nursing.

Highest Education in Nursing

According to self-reported educational attainment, 87% of APRNs estimated to be working in Florida were practicing with a master’s or doctorate degree in nursing in 2018-2019 (Figure 10). Compared to 2016-2017, the proportion of APRNs with a graduate degree increased 19 percentage points, while the proportion of APRNs with a BSN (10%) or lower (2%) is less than half of what it was in 2016-2017 (31%).

This decrease of lower education attainment of working APRNs may suggest an aging out of APRNs credentialed prior to the establishment of minimum education requirements. However, counts should be interpreted with caution as education attainment is limited to self-reported values and response error may impact the accuracy of the estimates.¹⁹

Figure 10: Highest Nursing Education of Working APRNs



¹⁸ From total population estimated to be working regardless of survey participation (n=30,910)

¹⁹ When respondents did not answer the highest nursing degree question, but provided an initial nursing degree, the latter was substituted. Additionally, a small number of participants reported a higher “initial” nursing degree than reported as their “highest” degree. In these instances, the value for initial degree was substituted for the highest degree value.

The proportion of Florida APRNs with a doctorate degree in nursing nearly doubled since 2016-2017. In the previous renewal cycle, 5% of participants reported holding a nursing doctorate degree compared to 9% in the current cycle (Figure 10, previous page).

Advanced Practice Nursing Credentials

Among APRNs estimated to be working in nursing in Florida, 68% were credentialed as nurse practitioners, representing about 18,838 working APRNs. Another 15% were certified registered nurse anesthetists (CRNA) and 15% did not specify additional credentials. Only 2%, or about 556 working APRNs reported they were certified nurse midwives (CNM) (Table 6).

Table 6: Credentials of Working APRNs

License and Certificate Categories	%
Nurse Practitioner	68%
Certified Nurse Midwife	2%
Certified Registered Nurse Anesthetist	15%
APRN - No Credentials Specified	15%

^a Proportions based on working survey respondents only. Counts of clinical nurse specialists not available for this cohort as this was previously a separate licensure category. CNS status as a survey option became effective January 2020.

DISCUSSION

The prevalence of nurse practitioners can compensate for a diminishing supply of primary care physicians. Florida’s APRN population continues to grow at a steadier rate compared to RN or LPN nurses in the state. As of December 2019, Florida’s potential nursing workforce included almost 31,000 APRNs, a 26% increase since 2017. Florida’s transition from the ARNP certification to the APRN licensure resulted in technical changes that made calculating gains and losses to the advanced practice workforce unreliable. However, it is evident that although APRNs reflect the smallest group of nurses, the growth of this population relative to the 6.5% growth in RNs and a 2% decrease in the LPN population suggests that Florida nurses are pursuing more advanced training and practice environments. These changes may provide insight into the future supply of nurses as well as the work environments or career goals that nurses find desirable. The rate of growth may also suggest that graduate education systems are more able to meet demand for APRNs than the RN or LPN education systems.

Florida also joined the National Licensure Compact (NLC) in 2018, which enables licensed practical and registered nurses the flexibility to obtain licensure in the state of their primary residence while remaining eligible to work in other member states. To date, the impact of Florida’s NLC membership on the nurse workforce is unknown. Detailed and collaborative research is necessary to understand the full impact of the compact on Florida’s nursing workforce and, specifically, the prevalence of APRNs participating in the NLC as registered nurses.

Overall, 90% of APRNs in the potential workforce are estimated to be working in nursing in Florida. While the total number of licensed APRNs in the potential workforce and those estimated to be working continue to increase, the proportion of working APRNs decreased about three percentage points since the 2016-2017 renewal cycle. This decrease suggests further insight needed into tracking losses to the workforce as these APRNs may be working in other states, temporarily or involuntarily unemployed, or transitioning out of the workforce.

Among the 10% of APRNs in the potential workforce that reported they were not working in Florida, about one-third of them were not seeking work primarily due to home/family obligations, disability/illnesses, continued education. Age variations among unemployed APRNs not seeking work suggest that older APRNs may be transitioning out of the workforce entirely, while younger APRNs were unemployed while completing their education.

Florida is faced with population growth and an aging population both of which increase the demand for health workers. Since APRNs can provide primary care and augment the state’s supply of primary care providers, it is important to ensure an adequate supply of qualified advanced practice nurses to aid primary care provider demand. Though adoption of the nationally recognized advanced practice title was viewed as a great success by Florida nurses, the signing of House Bill 607 into law March 11, 2020 is a far greater achievement. APRNs can now register for autonomous practice which removes the requirement of an established protocol with a supervising physician. It is likely that Florida will see continuing increased interest among younger nurses to advance their practice and a reduction in the occurrence of APRNs leaving to relocate in a state offering autonomous practice.

While continued growth and high employment rates among the APRN population is a positive sign, about 27% of working APRNs are 55 or older and this group of Baby Boomers is increasingly becoming eligible for retirement within 5-10 years. The youngest age group (30 or younger) represent about 6% of working APRNs population, however, 31 to 40-year-old APRNs increased from the previous renewal cycle, which may indicate some contribution to growing concerns about an aging nursing population. Regardless, retirement of Florida’s APRNs will result in a loss of highly skilled mentors with years of organizational and experiential knowledge. At the same time, societal trends of aging populations needing more care and increased access to healthcare for the general population will continue to increase Floridians’ demand for healthcare.

Some transition in employment settings is evident with a steady decline in APRNs working in academic settings, ambulatory care, and school health while there was a slight uptick in those working in urgent care, public/community health, and home health/hospice. The absence of industry-based demand data complicates the ability to analyze employment trends, state current needs, or project future workforce demand. Further research in partnership with health care employers is critical to frame policy and resource allocation recommendations. Knowing which specialties are needed and in what settings would inform planning by academia and fill the knowledge gaps that currently exist.

RECOMMENDATIONS

- Recommendation 1.* Support the Center’s research efforts and analysis of workforce trends to ensure the Center attains the best data on the supply of all types of nurses to enhance the ability to propose policy recommendations and to maximize the use of limited resources.
- a. Continue to require the Florida Department of Health and Board of Nursing to support the Center’s data collection efforts and Nurse Workforce Survey revisions designed to increase clarity and efficiency for participants and minimize errors in responses.
 - b. Promote nurse employer participation in providing demand data and consider a role for the Agency for Health Care Administration in industry data collection to improve accuracy of shortage projections and recommended interventions.
- Recommendation 2.* A consistent means of identifying and collecting information on graduate education programs is critical to estimate future supply of APRNs. The

statutory requirement that pre-licensure LPN and RN education programs provide program data to the FCN should be extended to APRN programs.

Recommendation 3. Florida’s involvement in the National Licensure Compact creates opportunities for non-Florida residents to work in our state and for Florida residents to work out of state. However, “there is no clear picture about the implications of NLC on comprehensive state nursing workforce data or policy planning” (Reichhardt & Bitton, 2020, p. 6). State and industry leaders must collaborate to gather data on the work patterns of nurses with a multi-state license regardless of their home state. Analyses should include the prevalence of APRNs holding dual licensure as RNs to participate in the NLC.

Recommendation 4. There have been two significant legislative changes for advanced practice nurses in Florida including a title change from Advanced Registered Nurse Practitioners (ARNP) to Advanced Practice Registered Nurses (APRN) and the establishment of autonomous practice. State-funded evaluations of how these changes impact the nursing workforce and the quantity and quality of care delivered should be conducted.

ACKNOWLEDGEMENTS

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