



# Florida's Advanced Registered Nurse Practitioner Supply: 2014-2015 Workforce Characteristics and Trends

**May 2016**



**Addressing Nurse Workforce Issues for the Health of Florida**

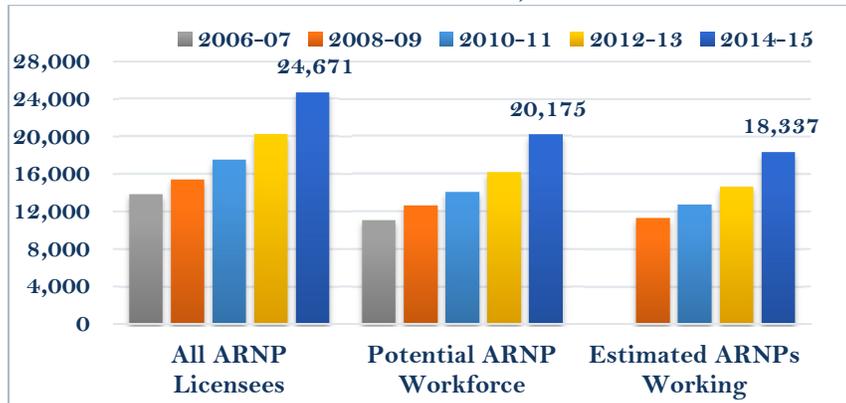
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The information below represents the **key findings** on Advanced Registered Nurse Practitioner (ARNP) supply and workforce in Florida. Trend analysis is provided for 2007 through 2015 when available.

**Trends in Potential ARNP Workforce, 2008-09 to 2014-15**

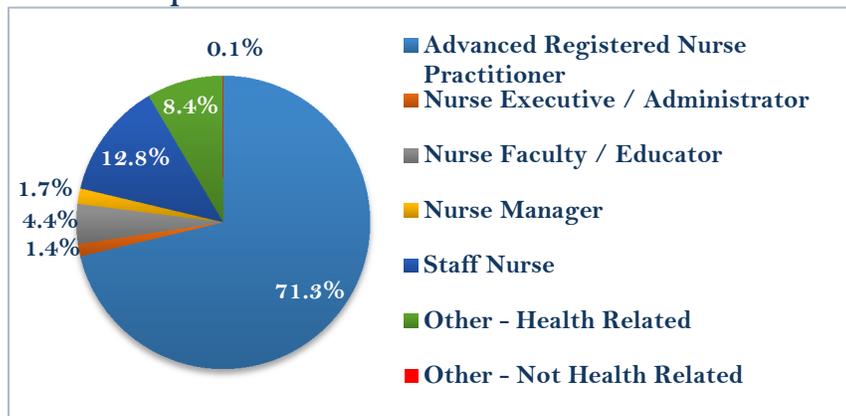


- The ARNP workforce **increased** by about 4,000 from 2012-13 to 2014-15. Most of this growth is due to RNs upgrading to ARNP/CNS.
- An estimated **91%** of the potential workforce are working
- About 39% of ARNPs work in **primary care** settings.
- About 3% have occupational titles of nurse executive/administrator or manager.
- When ARNPs are not working, it is commonly due to **school or home/family obligations**.
- The most **common employment settings** for ARNPs are hospitals and health provider offices.
- 41.5% of ARNPs are over 50 years and can be expected to retire within 10-15 years.
- Retirement of FL's aging nurse workforce will result in loss of highly skilled mentors with years of organizational and experiential knowledge.

**ARNP Workforce Gains and Losses**



**ARNP Occupational Titles**



**Recommendations**

1. Evaluate and project growth in academic programs to determine the ability to meet demand of consumers and to replace retiring ARNPs.
2. Increase activities to improve retention and extend the work life for Florida's existing ARNP workforce, including accommodating the effects of aging on nurses' ability to continue to practice.
3. Support the Center's research efforts and analysis of workforce trends to assure adequacy of supply of all types of nurses while maximizing use of limited fiscal resources.

## INTRODUCTION

The Florida Center for Nursing (Center), in partnership with the Florida Board of Nursing and Florida Department of Health, Division of Medical Quality Assurance, has collected nurse workforce data since January 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 registered nurse practitioner (ARNP) population using data collected during the license renewal cycle from January 2014 – December 2015. Unless otherwise noted, advanced registered nurse practitioners are comprised of Nurse Practitioners, Certified Nurse Midwives, Certified Registered Nurse Anesthetists, and Clinical Nurse Specialists. Characteristics of the nurse population and workforce, such as size, demographics, and employment information, are described herein. Current information is also compared to data from previous license renewal cycles. Data on the state's supply of nurses provides valuable information to nurse employers, nursing schools, nurse faculty, workforce planners, and policy makers.

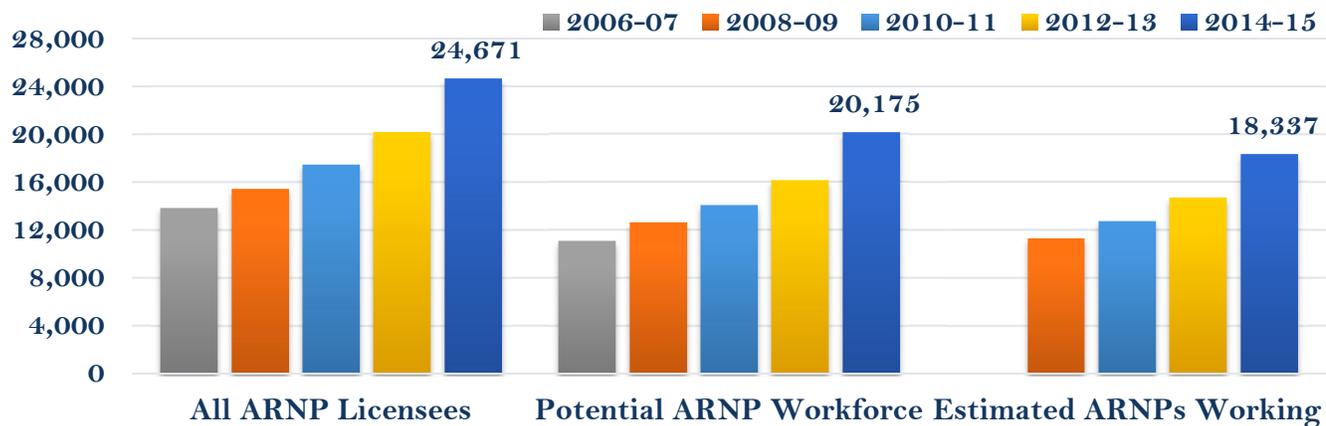
## FLORIDA'S ARNP SUPPLY AS OF DECEMBER, 2015

The nurse license renewal cycle is completed every two years, with the most recent renewal cycle from January 2014 through December 2015. The Center used a data extract in late December 2015 to represent the current population of licensees.

When Florida's nurses renew their licenses online, they have the option to participate in the Center's Workforce Survey. ARNPs newly licensed in Florida during this same period are given the option to participate in the survey, although to do so requires extra effort as it is not incorporated in the application process. The overall Workforce Survey response rate among all ARNPs regardless of state of residence or license status was 80.4% during the 2014-2015 renewal cycle; 91% of those renewing and 27% of the new licensees participated in the survey.

The Center uses responses to the workforce survey to estimate the number of nurses working in Florida. Because response rates were lower than 100 percent, this estimate was calculated by extrapolating survey results for certain questions to nurses who did not respond to the Workforce Survey. More information about the data processes can be found in the Center's technical report.<sup>1</sup>

The number of ARNPs has increased significantly since 2006-2007 (Figure 1). Although Florida had nearly 25,000 licensed ARNPs, 20,175 met the criteria for being counted as part of the *potential* ARNP workforce: an active license, Florida address, and no disciplinary restrictions. This group of ARNPs is capable of providing nursing labor in Florida, however some are working in other fields or not working at all. An estimated 18,337 ARNPs are currently working, nearly a 25% increase (or 3,600) from 2012-2013.



**Figure 1. Florida's ARNP Supply Trend, 2006-07 to 2014-15**

Note: Estimated number of working ARNPs was not available for 2006-2007 data.

The ARNP potential workforce is mostly comprised of Nurse Practitioners (see Table 1). About 17% are Certified Registered Nurse Anesthetists (CRNA), and 3.8% are Certified Nurse Midwives (CNM). The percentage distribution among the categories has remained about the same over the past 2 cycles with the exception of the nurse practitioners, which decreased by 13 percentage points; this is likely due to an increase in the proportion of non-responders. The largest percentage change since the last cycle was observed among CNMs at 41.7% followed by CNSs at 21.6% and CRNAs at 13.9%

**Table 1. License and Certificate Categories**

	2012-13		2014-15	
<b>ARNP</b>	16,035		20,034	
Nurse Practitioner	11,597	71.8%	11,840	58.7%
Certified Nurse Midwife	542	3.4%	768	3.8%
Certified Registered Nurse Anesthetist	3,009	18.6%	3,427	17.0%
Both (Midwife and CRNA)	4	0.0%	-	-
Not Specified	883	5.5%	3,999	19.8%
<b>CNS</b>	116	0.7%	141	0.7%
<b>Total</b>	<b>16,151</b>	<b>100%</b>	<b>20,175</b>	<b>100%</b>

## ARNP WORKFORCE GAINS AND LOSSES

To further investigate net change in the potential nurse workforce, the Center tracked individual licensees into and out of the workforce over the two-year period. During the past two years, the potential nurse workforce had the highest gain of 5,231 ARNPs since 2008-09 while the loss was comparable to previous renewal cycles at 1,163 (see Figure 2). This resulted in a net increase of 4,068 ARNPs over the past two years, the highest since 2008-09.



**Figure 2. Florida’s ARNP Workforce Gains and Losses, 2008-09 to 2014-15**

Table 2 displays the sources of additional nurses to the potential nurse workforce in 2014-15. The main contributor to the increase in ARNPs is the 3,855 RNs who upgraded their license from RN to ARNP (3,836) or CNS (19); 1,211 more than the last renewal cycle. 228 ARNPs/CNS’ endorsed into Florida, 207 moved into the potential workforce via address change, and 593 changed to an eligible status. Most of the new CNS additions to the nurse supply also occurred through license upgrading.

**Table 2. New Additions to the Potential ARNP Workforce**

	ARNP	CNS
New Licensee by Exam	55 <sup>a</sup>	-
New Licensee by Endorsement	215	13
New Florida Address	205	2
Changed to eligible status	587	6
Changed to active status	6	-
Unknown New Licensee	287	-
Upgrade to ARNP/CNS	3,836	19
<b>Total Additions</b>	<b>5,191</b>	<b>40</b>

<sup>a</sup>ARNPs who are new licensees by exam may be graduates of direct-entry MSN programs.

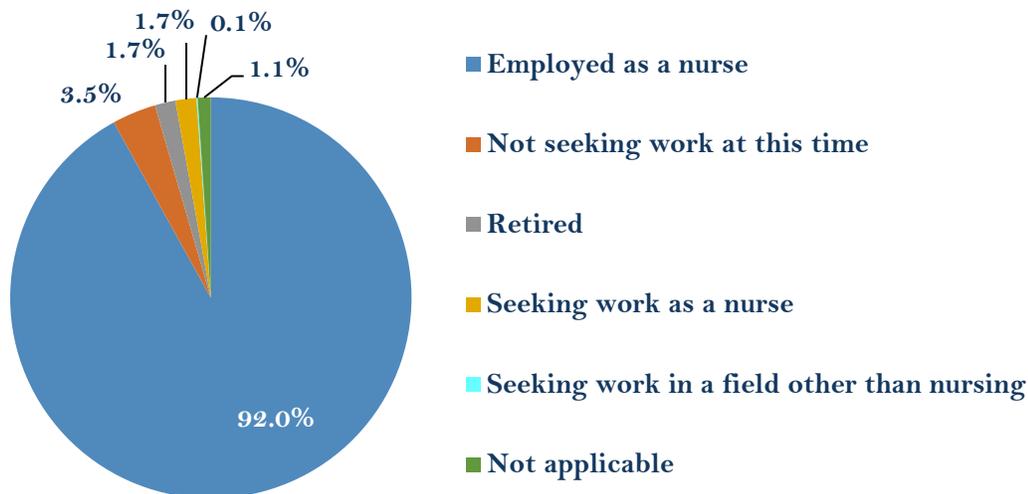
**Table 3. Losses from the Potential ARNP Workforce**

	n
Failed to Renew	562
No longer living and/or working in FL	466
License Went Null and Void	50
Changed to Inactive Status	13
Changed to Retired Status	61
Disciplinary Action	6
Obligations/Probation	5
<b>Total Attrition</b>	<b>1,163</b>

Forty-eight percent of the loss from the potential workforce was due to a failure to renew their license as scheduled in 2014 or 2015 (see Table 3). Also, about 40% indicated that they no longer live or work in Florida. Unfortunately, when nurses do not renew their nursing license, it is not possible to determine whether they did so in order to move out of state, work outside the field of nursing, or retire. Thus, the numbers falling into many of the other categories may be much higher than reported. The workforce losses were similar in number to the last renewal cycle.

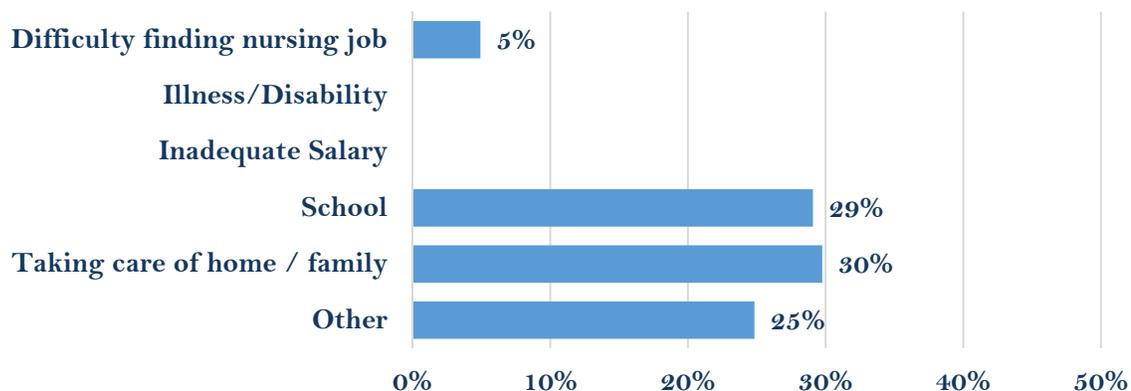
## EMPLOYMENT CHARACTERISTICS

Of the ARNPs responding to the workforce survey, 92% indicated they are working as nurses in Florida (Figure 3). Florida’s workforce participation rate of ARNPs has remained constant since the 2012-13 supply report. About 3% are not seeking work at this time, 2% are retired but still have an active license, and 2% are seeking work as a nurse. A negligible number is looking for work in a field other than nursing. The “Not applicable” category is an artifact of the questionnaire and may indicate that someone is employed outside of nursing.



**Figure 3. Work Status of ARNPs in 2014-15**

We took a closer look at the nurses who were not currently employed (i.e., they responded to the employment status question as not seeking work at this time, seeking work as a nurse, seeking work in a field other than nursing), with a survey question that asked them to indicate their reasons (more than one response was possible). Within this group, the reasons for unemployment were varied (see Figure 4). The most common reasons ARNPs were not employed were taking care of home and family (30%) and currently in school (29%). These percentages are slightly lower than 2012-13 responses.



**Figure 4. Reasons ARNPs are Not Working**

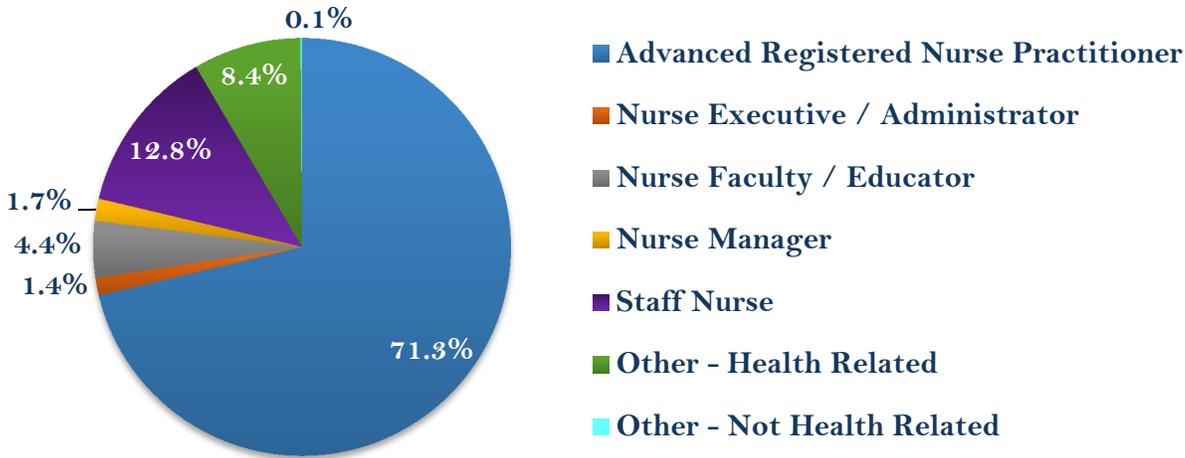
Table 4 shows the number and percentage of ARNPs employed by care setting from the past four Nurse Workforce Survey cycles. The majority of these nurses (44.3% or 8,114) are working in hospitals. ARNPs working in hospitals has almost doubled since 2008. The second largest employment setting for ARNPs is Offices of Physician or Health Providers, employing an estimated 3,865 (21.1%). Other prominent employment settings are ambulatory care (7.1%), nursing education (4.2%), and public or community health (4.2%). The percentages of ARNPs employed by industry remained almost the same over the past two surveys. However, the number of nurses employed in hospitals increased by almost 1,600 people. Similar to the last renewal cycle, over 6,300 ARNPs work in primary care settings (school health, public health, community health, corrections, home health, long term care, ambulatory care, or physician/health provider offices).

**Table 4. ARNPs Employed by Setting, 2008-09 to 2014-15**

	2008-09		2010-11		2012-13		2014-15	
	n	%	n	%	n	%	n	%
Academic Setting	561	5.0	649	5.1	716	4.9	772	4.2
Ambulatory Care	1,179	10.4	1,141	8.9	1,326	9.0	1,309	7.1
Corrections Facility	114	1.0	127	1.0	129	0.9	224	1.2
Healthcare Consulting / Product Sales	27	0.2	31	0.2	34	0.2	337	1.8
Home Health Care	143	1.3	188	1.5	281	1.9	361	2.0
*Hospice	-		-		-		176	1.0
Hospital	4,296	37.9	5,568	43.5	6,527	44.4	8,114	44.3
Insurance Company	32	0.3	20	0.2	31	0.2	55	0.3
Long-Term Care	230	2.0	362	2.8	409	2.8	479	2.6
Occupational Health	80	0.7	95	0.7	106	0.7	202	1.1
Physician or other Health Provider Office	2,988	26.4	3,010	23.5	3,347	22.8	3,865	21.1
*Policy / Planning / Regulatory / Licensing Agency	-		-		-		13	0.1
Public/Community Health	537	4.7	605	4.7	693	4.7	768	4.2
School Health	94	0.8	110	0.9	118	0.8	139	0.8
Temporary Agency	37	0.3	15	0.1	18	0.1	59	0.3
*Urgent Care/Walk-in Clinic	-		-		-		603	3.3
Other	1,016	9.0	888	6.9	972	6.6	862	4.7

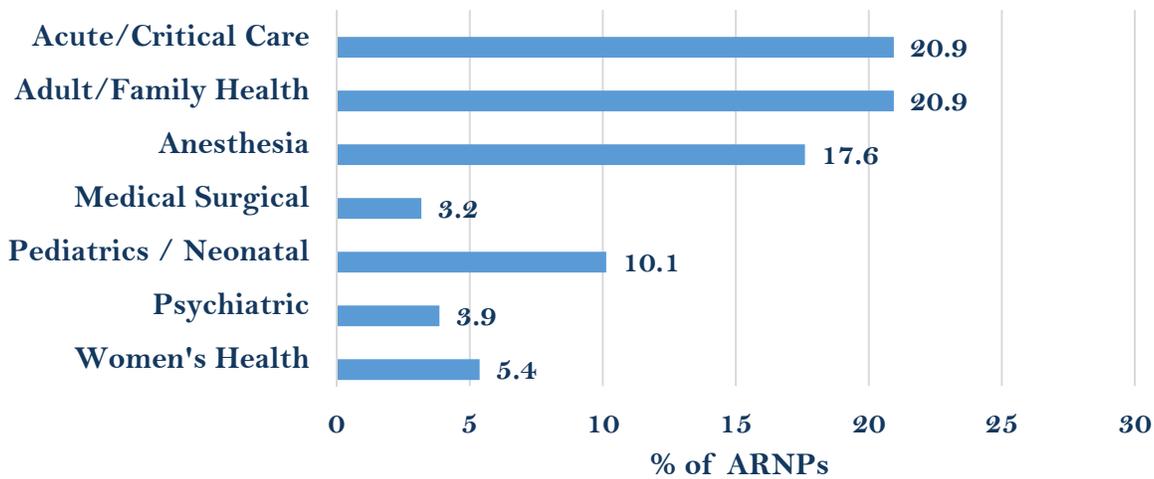
\*Data unavailable for 2008-2013 renewal cycles.

The Workforce Survey also inquired about a number of employment details: occupational titles, occupational specialty, hours worked per week, and full-time/part-time status. The majority of ARNPs (71.3%) had the title of Advanced Registered Nurse Practitioner and 12.8% had the title of Staff Nurse (see Figure 5). Fewer than two percent were Nurse Administrators or Executives.



*Figure 5. ARNP Occupational Titles*

In terms of specialization, about 21% of ARNPs specialized in acute/critical care and adult/family health, 17.6% specialized in anesthesia, and 10.1% in pediatrics/neonatal (see Figure 6).



*Figure 6. ARNP Clinical Practice Areas*

**Table 5. Employment Detail for ARNPs Working in Nursing**

	2008-09	2010-11	2012-13	2014-15
<b>Employment Status (%)</b>				
FT	79.8	81.9	81.4	80.5
PT	14.5	13.5	13.7	13.7
Per Diem/Agency	5.6	4.6	4.8	5.8
<b>Multiple Jobs? (%)</b>				
Yes	21.0	17.0	16.9	17.3
No	79.0	83.0	83.1	82.7
<b>Hours Per Week (%)</b>				
20 or fewer	6.7	7.8	7.7	8.2
21-30	7.9	7.8	8.4	8.7
31-35	5.0	5.9	5.3	5.5
36-40	32.4	45.4	46.6	45.6
41-50	39.5	25.8	24.9	24.6
51 or more	8.7	7.4	7.1	7.4
<b>Average FTE*</b>	<b>0.89</b>	<b>0.88</b>	<b>0.89</b>	<b>0.88</b>

\*FTE = Full-time equivalent

The percentage of ARNPs reporting working full-time has remained about the same since the previous license renewal cycle (see Table 5). Eighty-one percent of Florida’s ARNPs work full-time, still much higher than the 74.6% national estimate.<sup>4</sup> The distribution of hours worked and percentage working multiple jobs also remains similar to the previous survey.

## DEMOGRAPHICS

Demographic characteristics of working ARNPs are shown in Table 6 by type. While still dominated by white women, the field is becoming more diverse with the proportion of minority ARNPs increasing three percentage points since the last renewal cycle (26% to 29%). CNMs are the most diverse group while CNSs are the least. About 66% of CNSs and 58% of CNMs are over the age of 50 years. The overall average age of ARNPs is 47.4 years and 41.5% are of ages 51 and older. This group of Baby Boomers can be expected to begin retirement within 5-10 years. The 21-30 age group comprises only 7.5% of ARNPs; consequently this small population is not nearly enough to refill the coming exodus of the retirees.

**Table 6. Demographic Characteristics of ARNPs Working in Nursing**

	NP	CNM	CRNA	CNS	Total
<b>Race/Ethnicity</b>					
White	69.7%	62.6%	75.4%	81.3%	70.9%
Black	12.2%	18.5%	6.5%	6.3%	10.9%
Hispanic	11.3%	6.2%	10.3%	3.9%	11.2%
Asian	4.4%	9.5%	5.0%	6.3%	4.6%
Native American	0.3%	0.0%	0.2%	0.0%	0.2%
Other	2.1%	3.3%	2.6%	2.3%	2.2%
<b>Gender</b>					
Female	90.8%	97.9%	64.2%	95.3%	85.4%
Male	9.2%	2.1%	35.8%	4.7%	14.6%
<b>Age</b>					
21-30	5.9%	4.5%	3.4%	2.3%	7.5%
31-40	23.4%	16.4%	26.4%	14.1%	24.6%
41-50	26.5%	21.2%	28.6%	17.2%	26.4%
51-60	28.4%	28.5%	23.6%	38.3%	25.8%
61 or older	15.8%	29.4%	18.0%	28.1%	15.7%

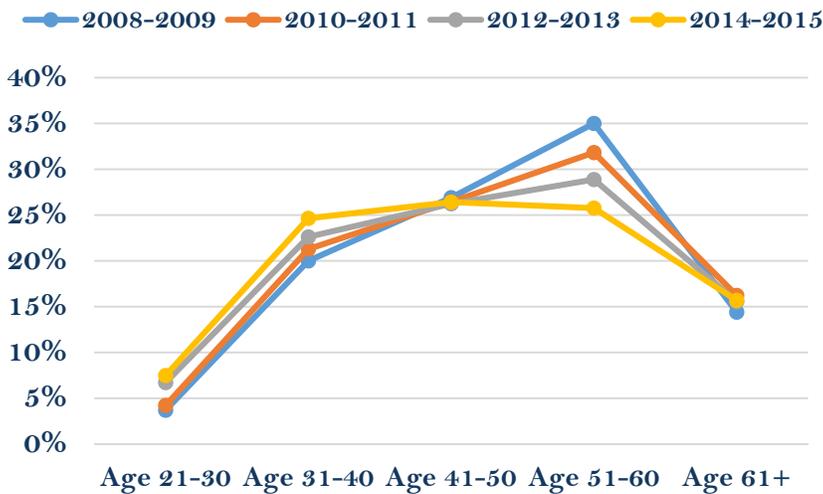
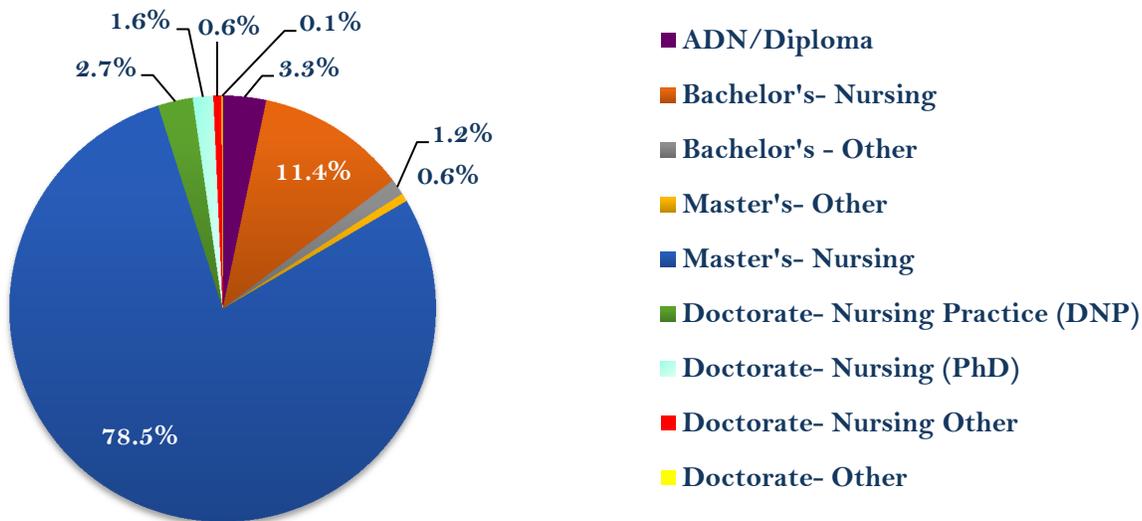


Figure 7 displays the age distribution patterns of working ARNPs. The proportion of ARNPs over the age of 50 years has decreased from 49.4% in 2008-09 to 41.5% in 2014-15. Conversely, the youngest ARNP age group has increased in size by about four percentage points in the same timeframe (3.7% to 7.5%). While this trend is indicative of a small shift to a younger workforce, the workforce will likely be reduced as a larger portion is aging and entering retirement in the next 5 to 15 years. The retirement of older, experienced nurses will result in a loss of highly skilled mentors with years of organizational and experiential knowledge.

**Figure 7. Age Distribution Trends of Working ARNPs**

### ACADEMIC ACHIEVEMENT

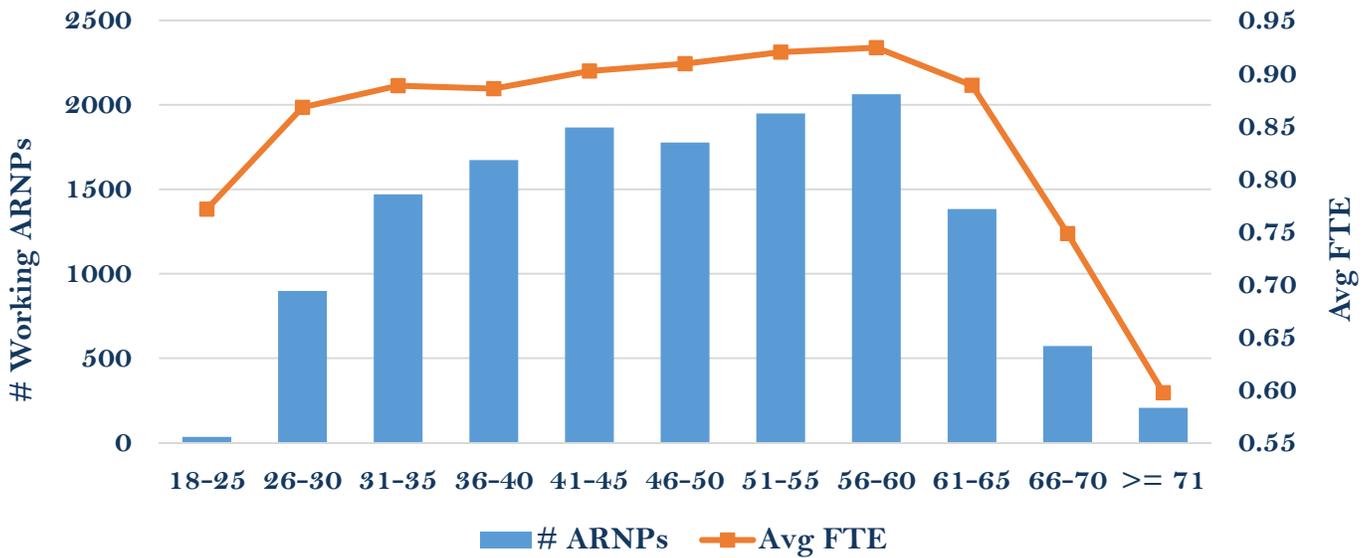
Educational attainment of nurses has become a national topic of discussion since the 2010 Institute of Medicine’s report, “The Future of Nursing: Leading Change, Advancing Health”.<sup>5</sup> Recommendation 5 of the report is to double the number of nurses with a doctorate degree by 2020. The vast majority of ARNPs (78%) hold a master’s degree in nursing, and 5% have a doctorate degree in nursing (see Figure 8). Approximately 2.4% have a bachelor’s, master’s, or doctorate outside of nursing as their highest degree. According to the National Sample Survey of Nurse Practitioners, 5% of nurse practitioners have a doctoral degree in nursing and the 6% who do not have a graduate degree (compared to 16% in FL) were grandfathered into the licensure requirement for a graduate degree.<sup>6</sup>



**Figure 8. Highest Educational Degree of ARNPs Working in Nursing**

## FTES BY AGE AND EMPLOYMENT SETTING

A full-time equivalent (FTE) indicates the workload of an employee and refers to the ratio of hours worked by an employee in a given time period by the number of hours considered full-time for that same given time period. Among all working ARNPs, the average proportion of a full-time equivalent (FTE) position was 0.88. The average FTE by age group is shown in Figure 9. The average FTE ranges from 0.87 to 0.92 among nurses age 26-60 years. As nurses get older, they often work fewer hours, and this becomes very apparent in the 61 and older age groups. Average FTE begins to drop off sharply at age 66. Nurses aged 51-60 are the largest age cohort of ARNPs with the highest average FTE, and this is the group that can be expected to reduce their number of hours worked or leave the workforce entirely over the next decade.



**Figure 9. Number of ARNPs Working and Average FTE by Age Category**

Table 7 shows the estimated number of FTEs as well as the average proportion of an FTE worked by nurses in each healthcare setting. Hospitals contain the largest proportion of FTEs at 7,297 followed by Physician’s Offices (3,404) and Ambulatory Care (1,066). ARNPs working for hospitals, long-term care and insurance claims/benefits worked the most hours per week as evidenced by their higher average FTE of 0.9 or higher, while those working in staffing agencies worked the fewest.

**Table 7. Estimated and Average FTEs by Setting**

Setting	Estimated Number of FTEs	Average FTE
Academic Setting	633	0.83
Ambulatory Care Setting	1,066	0.82
Community Health	437	0.87
Correctional Facility	187	0.85
Home Health	298	0.84
Hospital	7,297	0.91
Occupational Health	173	0.85
Other	718	0.84
Physician's Office	3,404	0.89
Public Health	226	0.87
School Health Service	110	0.80
Assisted Living Facility	74	0.90
Healthcare Consulting/Product Sales	295	0.87
Hospice	157	0.89
Insurance Claims/Benefits	49	0.91
Nursing Home/Extended Care	358	0.91
Policy/Planning/Regulatory/Licensing Agency	12	0.87
Temporary / Staffing Agency	41	0.72
Urgent Care/Walk-in Clinic	527	0.88

Note: A full-time position is 1.0 FTE. Higher average FTEs indicate more full-time positions and lower average FTEs indicate more part-time positions.

## NURSE WORKFORCE BY STATE POPULATION

Growth in the number of nurses does not take into account the changing patient population driving the demand for healthcare. To better understand the nurse supply in relation to the state's population, we compared the number of working ARNPs to the size of the state's population<sup>7</sup> and to the number of hospital beds.<sup>8</sup> Statewide, we estimated 93 working ARNPs per 100,000 population, an increase from 77 in 2012-13 and 66 in 2010-11.<sup>9</sup> Furthermore, the estimated number of employed ARNPs per 100 hospital beds in Florida was 29.2, up from an estimated 24.5 in 2010-11. In 2011, there were an estimated 58 nurse practitioners per 100,000 population nationwide.<sup>10</sup>

## CONCLUSION

Florida's ARNP potential workforce has grown by over 4,000 nurses since 2012-13, and most of this growth is due to RNs advancing their education to that of an ARNP or CNS. The ARNP population remains similarly distributed among employment settings, though the number employed per 100,000 population has increased from 77 to 92.5. This increase in the number of employed ARNPs per 100,000 population points to several intertwining population and economic factors. As Florida's population ages and the number of hospitals continues to grow, the demand for nurses in the state likewise rises. Additionally, ARNPs can provide primary care and augment the state's supply of primary care providers, thus creating more employment opportunities for ARNPs and aiding in meeting the primary care provider demand associated with the Affordable Care Act.

Although the continued growth in the ARNP population is a positive sign, it is important to keep in mind that 41.5% of ARNPs are over 50 years of age and this group of Baby Boomers is expected to begin retirement within 5-10 years. The youngest age group (21-30 year olds) comprises only 7.5% of the ARNP population, which is not nearly enough to replace those leaving the workforce. The coming retirement of Florida's

ARNPs will result in a loss of highly skilled mentors with years of organizational and experiential knowledge, and a reduction in the size of the workforce. At the same time, the societal factors of an aging population needing more care and increased access to healthcare for the general population will continue to increase Floridians' demand for healthcare. Consequently, the ARNPs' role as primary healthcare providers will continue to grow as their workforce size diminishes.

## **RECOMMENDATIONS**

*Recommendation 1.* Evaluate and project growth in academic programs to determine the ability to meet demand of consumers and to replace retiring ARNPs.

*Recommendation 2.* Increase activities to improve retention and extend the work life for Florida's existing ARNP workforce, including accommodating the effects of aging on nurses' ability to continue to practice.

*Recommendation 3.* Support the Center's research efforts and analysis of workforce trends to assure adequacy of supply of all types of nurses while maximizing use of limited fiscal resources.

## **ACKNOWLEDGEMENTS**

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