

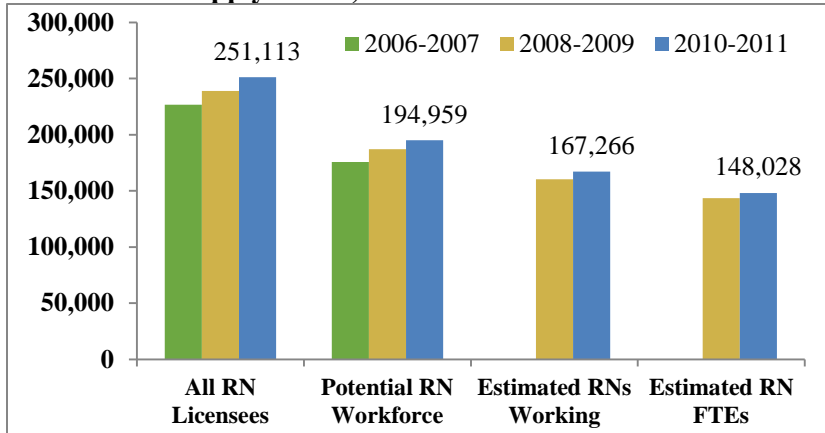


Florida's RN & ARNP Supply

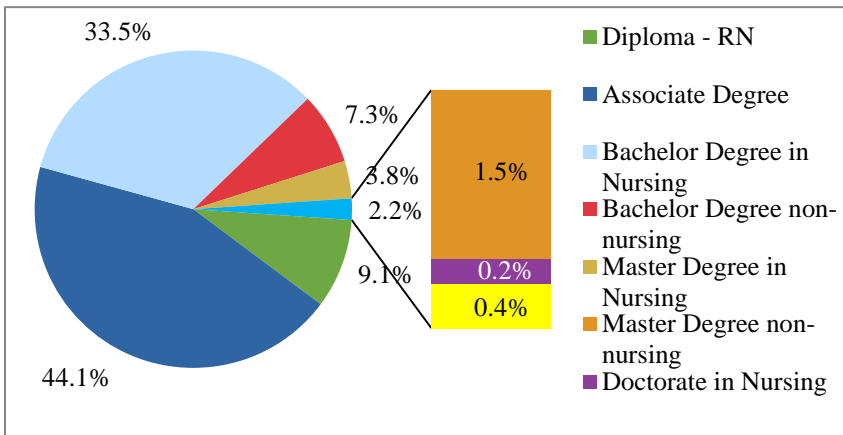
October 2012

The information below represents the **key findings** on the supply of RNs and ARNPs in Florida. Employment information is provided in this report. Trend analysis is provided for 2007, 2009, and 2011 when available.

Florida's RN Supply Trend, 2006-07 to 2010-11



Highest Education Level of RNs Working in Nursing



RN Workforce Gains and Losses, 2008-09 to 2010-11



Recommendations

1. Increase activities to improve retention of all nurses with emphasis on Florida's existing nurse workforce.
2. Educational advancement of all nurses to increase the number of RNs with a BSN, number of faculty, number of ARNPs in primary care.
3. Continue to enhance production of new nurses while developing models of incumbent worker education and training to meet the diverse hiring needs of Florida's health industry.
4. Support the Center's research effort to assure adequacy of supply yet maximize use of resources.

Florida's Registered Nurse & Advanced Registered Nurse Practitioner Supply: 2010-2011 Workforce Characteristics and Trends

Background

This report provides information on Florida's registered nurse (RN) and advanced registered nurse practitioner (ARNP) workforces using data collected from January 2010 – December 2011. Characteristics of the nurse workforce, such as size, demographics, and employment information, are described herein. The report also tracks changes in the growth of the nurse workforce since the 2006-07 renewal cycle, and compares trends to the data from the 2008-2009 license renewal cycle 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. 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 integrated into the online license renewal process for all nurse licensees. More information about the nursing license renewal process and the Workforce survey can be found in the Center's 2010 technical report.¹ A separate report provides results and analysis for licensed practical nurses.²

Florida's RN and ARNP Supply as of December, 2011

The nurse license renewal cycle is completed every two years, with the most recent renewal cycle from January 2010 through December 2011. The Center used a data extract in late December 2011 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. The Workforce Survey response rate among RNs and ARNPs renewing their licenses was 93.6 percent during the 2010-2011 renewal cycle. RNs newly licensed in Florida during this same period have the option to participate in the survey, although to do so requires extra effort as it is not incorporated in the application process. Twenty-four percent of the newly licensed RNs did complete the Workforce Survey before their renewal period.

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 from 2010.¹

Almost 251,000 RN licenses populated the nurse licensure database as of December 2011, but far fewer are actually in Florida's RN workforce (Figure 1). About 195,000 (78%) met the criteria for being counted as part of the *potential* RN workforce: an active license, Florida address, and no disciplinary restrictions. This group of RNs is capable of providing nursing labor

in Florida, but some are working in other fields or not working at all. We estimate that about 86 percent of the *potential* RN workforce, or 167,000, are *actually* working in nursing in Florida. Finally, since some RNs work part-time, Florida’s number of full-time equivalent (FTE) RNs is lower still at an estimated 148,000.

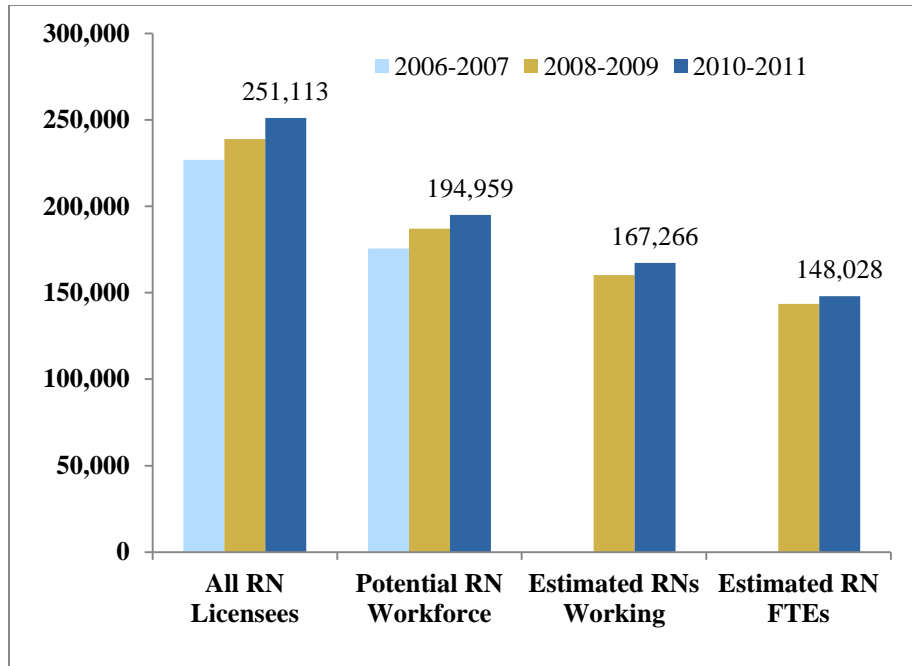


Figure 1. Florida’s RN Supply Trend, 2006-07 to 2010-11
 Estimated number of working RNs and RN FTEs was not available for 2006-2007 data.

Analysis of trends show an increase in the potential RN workforce and in the number of working RNs. Florida’s potential RN workforce has grown from 175,500 in 2006-2007, to 195,000 in 2010-2011. Accordingly, the estimated number of working RNs has increased by about 7,000 over the past two renewal periods, from 160,000 in 2008-2009 to 167,000 in 2010-2011.

The number of ARNPs has also increased since 2006-2007 (Figure 2). The estimated percentage of currently working ARNPs is 91 percent, about 5 percentage points higher than the estimated working RNs. 12,800 ARNPs are estimated to be working in nursing in 2010-2011, an increase of 1,500 ARNPs from 2008-2009.

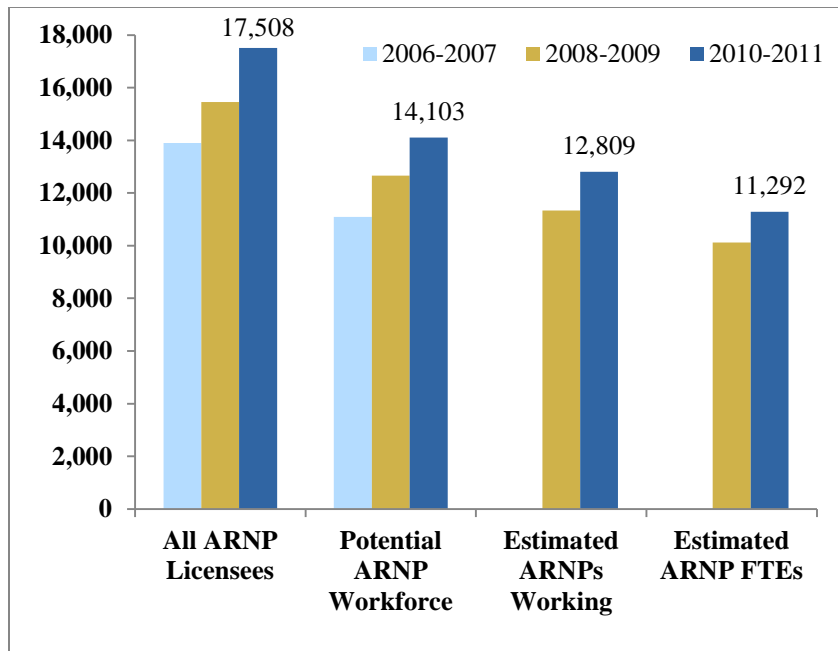


Figure 2. Florida's ARNP Supply Trend, 2006-07 to 2010-11
 Estimated number of working ARNPs and ARNP FTEs was not available for 2006-2007 data.

Table 1 details the trends in the size of the potential RN and ARNP workforce during licensure cycles from 2006-2007, 2008-2009, and 2010-2011. Florida's potential RN workforce gained 7,866 nurses between December 2009 and December 2011, a 4.2 percent increase over two years (average annual increase of 2.1 percent, Table 1). The potential ARNP workforce gained about 1,400 nurses, an 11.3 percent increase over two years, and more than double the increase in RNs. Clinical Nurse Specialist (CNS) is a new license designation as of 2008, and has increased by 23 people over the past two years. *(Note: In most of the following tables, CNS licensees are combined with ARNPs.)*

Table 1. Change in Potential RN/ARNP Workforce Size, 2006-07 to 2010-11

	2006-2007	2008-2009	2010-2011	% Change from 2006-2007 to 2008-2009	% Change from 2008-2009 to 2010-2011
RN	175,581	187,093	194,959	6.6%	4.2%
ARNP	11,094	12,603	14,027	13.6%	11.3%
CNS	0	53	76	n/a	43.4%
Total	186,675	199,749	209,062	7.0%	4.7%

The rate of growth in Florida's potential nurse workforce has slowed by about 2.3 percent over the past two years. The Center's report on the 2008-2009 licensure cycle showed the RN potential workforce increased by 6.6 percent and the ARNP potential workforce increased by 13.6 percent.³ The newest data shows an increase of 4.2 percent for RNs and 11.3 percent for ARNPs, indicating a growth slowdown for both RNs and ARNPs. National nurse workforce models predict a slower growth in the RN workforce between 2010 and 2015 as the

unemployment rate drops and nurses leave the workforce.⁴ Florida’s slower nurse workforce growth rate from 2010-2011 compared to 2008-2009 could reflect the beginning of this phenomenon.

To investigate net change in the potential nurse workforce, the Center tracked individual licensees into and out of the workforce over the two-year period. We found that the potential nurse workforce actually gained 27,646 RNs and 2,549 ARNPs, but during the same time 19,873 RNs and 1,069 ARNPs were lost from the potential nurse workforce to create the net change (Figures 3 and 4, Appendix Table A1). In this 2010-2011 renewal cycle, Florida gained about the same number of RNs, but lost about 3,700 more RNs and 419 more ARNPs (23 percent more RNs and about 64 percent more ARNPs) as compared to the 2008-2009 renewal cycle. Thus, the slower rate of growth of the RN and ARNP workforces can be attributed to the increase in attrition from these workforces.

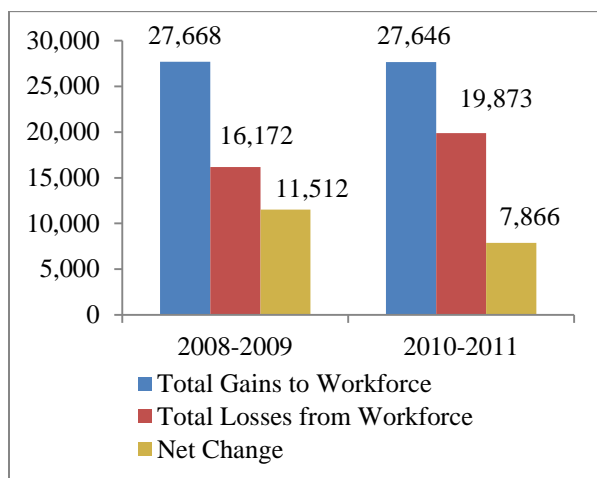


Figure 3. Florida’s RN Workforce Gains and Losses, 2008-09 to 2010-11

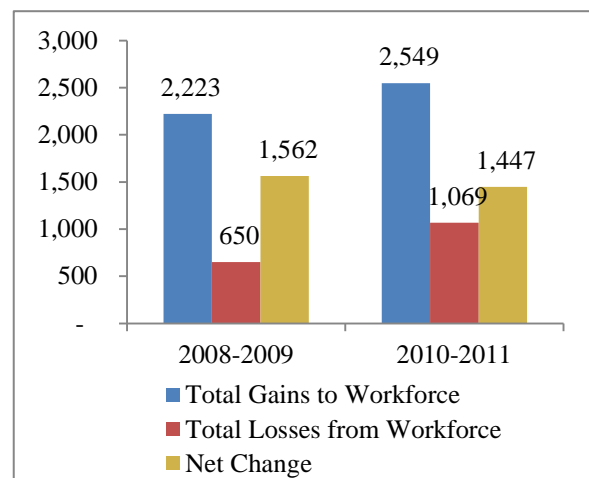


Figure 4. Florida’s ARNP Workforce Gains and Losses, 2008-09 to 2010-11

Table 2 shows the sources of additional nurses to the potential nurse workforce in 2010-2011. The largest category for RNs is “New Licensee by Exam” (15,471 RNs), which typically indicates a nurse who has been educated in Florida and took the NCLEX-RN licensing exam here. There were about 1,200 more new licensees by exam compared to 2008-2009, which is to be expected as several new nursing schools have opened and other schools have increased their number of admitted students. Another 6,887 RNs endorsed into Florida with a nursing license from another state, and more than 3,200 existing Florida RNs moved into the potential workforce by changing their information to a Florida address.

Table 2. New Additions to the Potential Nurse Workforce, 2010-2011

	RN		ARNP		CNS
New Licensee by Exam	15,471 ^a	↑	4 ^b	--	0
New Licensee by Endorsement	6,887	↑	127	↓	4
New Florida Address	3,208	↑	162	↓	0
Changed to eligible status	1,945	↑	92	↑	1
Changed to active status	132	↓	8	--	0

	RN		ARNP		CNS
Unknown New Licensee	1	--	0	--	0
Upgrade to ARNP/CNS	2	--	2,125	↑	26
Total Additions	27,646		2,518		31

^aNew RN licensees by NCLEX examination include LPNs who became RNs during the past two years.

^bARNPs who are new licensee by exam may be graduates of direct-entry MSN programs.

↑ indicates an increase compared to 2008-2009. ↓ indicates a decrease compared to 2008-2009.

The majority of ARNPs enter the nurse supply by upgrading their license from RN to ARNP, but 127 endorsed into Florida and 162 moved into the potential workforce via address change. The endorsement and address change categories had one-half to two-thirds fewer ARNPs than last time. Most of the new CNS additions to the nurse supply occurred through license upgrading.

More than half of nurses lost from the potential RN workforce (8,941 RNs) failed to renew their nursing license as scheduled in 2010 or 2011 (Table 3). Unfortunately, when nurses drop their nursing license, we do not learn 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 in reality. Over 6,500 RNs were dropped from analysis because their address indicates they are no longer living and/or working in Florida, almost double the number with an address change from 2008-2009.

Table 3. Losses from the Potential Nurse Workforce, 2010-2011

	RNs		ARNPs	
Failed to Renew	8,941	↓	338	↑
No longer living and/or working in FL	6,538	↑	584	↑
Lost to RN Population due to ARNP/CNS Upgrade	1,781	↑	N/A	--
License Went Null and Void	958	↓	55	--
Changed to Inactive Status	380	↓	13	--
Changed to Retired Status	472	↑	28	--
Disciplinary Action	212	↑	11	--
Obligations/Probation	477	--	39	--
Other Reason for Attrition	114	--	1	--
Total Attrition	19,873		1,069	

↑ indicates an increase compared to 2008-2009. ↓ indicates a decrease compared to 2008-2009.

Employment Characteristics of RNs and ARNPs

The Center estimates that 86 percent of the *potential* RN workforce and 91 percent of the *potential* ARNP workforce are *actually* working as nurses in Florida (Figure 5). Florida's workforce participation rate of RNs has increased by about half a percent and ARNPs participation has increased by about one percent from our 2010 supply report. An increase in workforce participation was expected during the recession, as nurses who worked part-time or had left the field returned to work and others delayed retirement.

About 5 percent of RNs and 3 percent of ARNPs are not seeking work at this time, and about 4 percent of RNs and 2 percent of ARNPs are retired but still have an active license. Two percent of ARNPs and three percent of RNs are seeking work as a nurse, and a negligible number are 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.

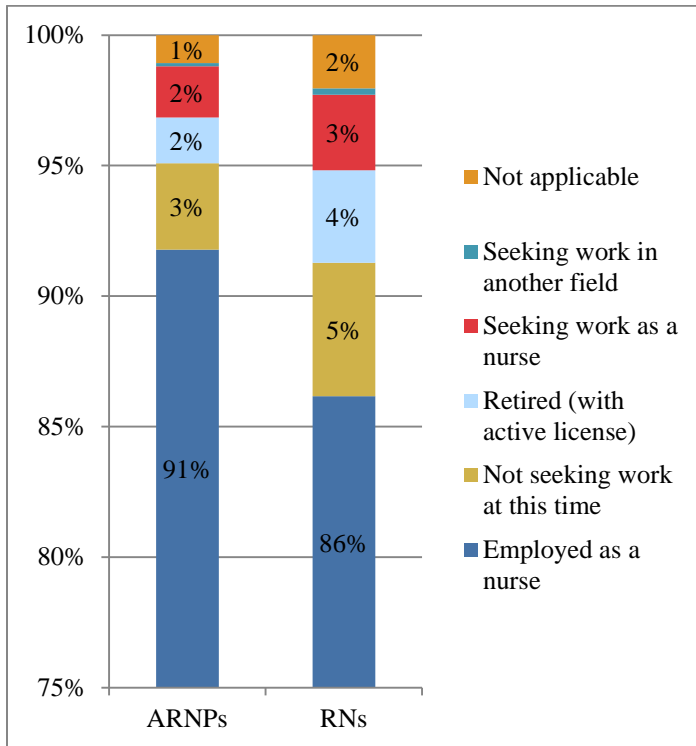


Figure 5. Work Status of RNs and ARNPs in 2010-2011

We took a closer look at those RNs and ARNPs 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 those who were not currently working to indicate their reasons (more than one response was possible). This group consisted of 720 ARNPs and 14,876 RNs. Within this group, the reasons for unemployment were varied. Forty-four percent of not employed RNs (6,510 RNs) indicated they were taking care of home or family (Figure 6). Almost 16 percent of the unemployed RNs (2,381 RNs) indicated difficulty finding a nursing position, as did 13 percent of ARNPs (97 ARNPs). Twenty-eight percent of ARNPs (199 ARNPs) and 6 percent of RNs (967 RNs) responded that school responsibilities were the reason they were not currently employed. Appendix Table A2 compares demographics of RNs working and not working in nursing. Those not working in nursing tend to be age 61 or older, white, and female.

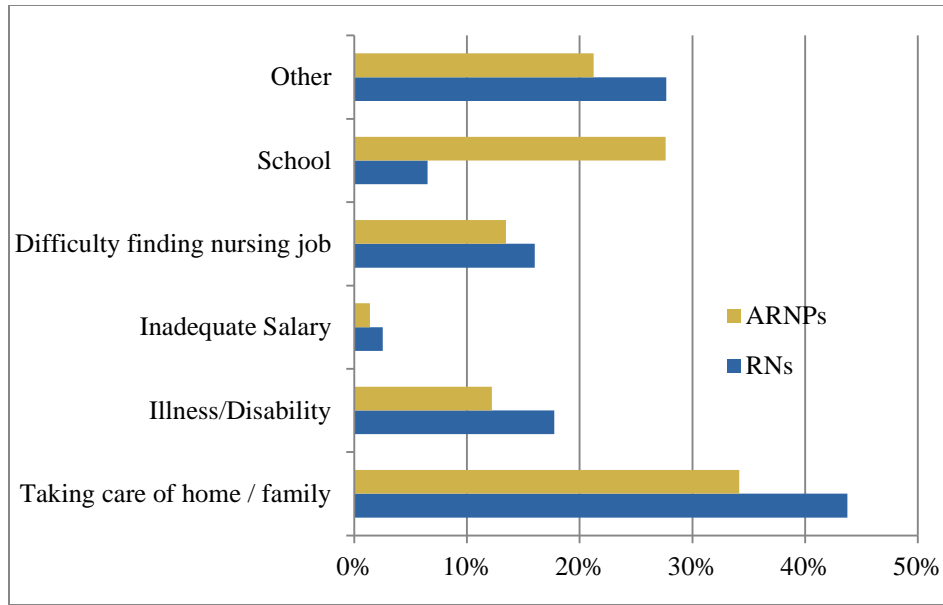


Figure 6. Reasons Nurses are Not Working, 2010-2011

The majority of working RNs (63.7%, or an estimated 106,515 RNs) are working in hospitals (Table 4). The second largest employment setting for RNs is home health care, employing an estimated 14,318 RNs or 8.6 percent of all employed nurses. Other prominent employment settings for RNs include ambulatory care (4.5%), long term care (5.4%), and physician or other provider offices (3.1%). Like RNs, the largest proportion of ARNPs work in hospitals (43.5%, or an estimated 5,568 ARNPs). In contrast to RNs, about one-quarter of ARNPs (23.5%) work in physician or other provider offices. Other prominent employment settings for ARNPs include ambulatory care (8.9%), academic nursing education (5.1%), and public/community health (4.7%).

Table 4. Employment Setting for RNs and ARNPs Working in Nursing, 2010-11

	RN			ARNP		
	%	Estimated #	Change from 2009 ¹	%	Estimated #	Change from 2009 ¹
Ambulatory Care	4.5	7,544	↓	8.9	1,141	↓
Corrections Facility	0.9	1,422	↑	1.0	127	↑
Healthcare Consulting / Product Sales	0.5	803	↓	0.2	31	↔
Home Health Care	8.6	14,318	↑	1.5	188	↑
Hospital	63.7	106,515	↑	43.5	5,568	↑
Insurance Company	1.5	2,542	↓	0.2	20	↓
Long-Term Care	5.4	9,032	↑	2.8	362	↑
Nursing Education - Academic Setting	1.6	2,626	↑	5.1	649	↑
Occupational Health	0.3	535	↓	0.7	95	↑
Physician or other Health Provider Office	3.1	5,102	↓	23.5	3,010	↔

	RN			ARNP		
	%	Estimated #	Change from 2009 ¹	%	Estimated #	Change from 2009 ¹
Public/Community Health	2.2	3,613	↓	4.7	605	↑
School Health	1.1	1,823	↑	0.9	110	↑
Temporary Agency	0.3	418	↓	0.1	15	↓
Other	6.6	10,989	↑	6.9	888	↓
Total Working Nurses	100.0	167,266		100.0	12,809	

¹ Estimated change in the number of nurses employed in each employment setting from 2008-09 to 2010-11. ↑ indicates an increase in the number of nurses employed in a setting. ↓ indicates a decrease in the number of nurses employed in a setting. ↔ indicates the number of nurses remained about the same.

The distribution of nurse employment among the various employment settings has changed since 2008-2009. Although the percentage of RNs working in hospitals is the same as our last report, the estimated number of RNs working in hospitals has increased by about 4,000 people. Both the percentage and the estimated number of RNs employed in home health care and long-term care have increased. The increases in the number of employees in the hospital, home health, and long-term care settings correspond to the increased demand for RNs in these industries documented in the Center’s report on demand for nurses.⁵ The percentage of ARNPs employed in hospitals increased by over 4 percent (an estimated 1,200 ARNPs) since the Center’s 2008-2009 report. Although the percentage of ARNPs employed in physicians’ offices decreased, the estimated number of ARNPs employed in this industry remained about the same.

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. Seventy-eight percent of ARNPs had the title of Advanced Practice Nurse, and 10 percent had the title of Staff Nurse (Figure 7). The majority of RNs were staff nurses (72.5%), and almost 11 percent were nurse managers. Fewer than four percent of RNs and fewer than two percent of ARNPs were Nurse Administrators or Executives.

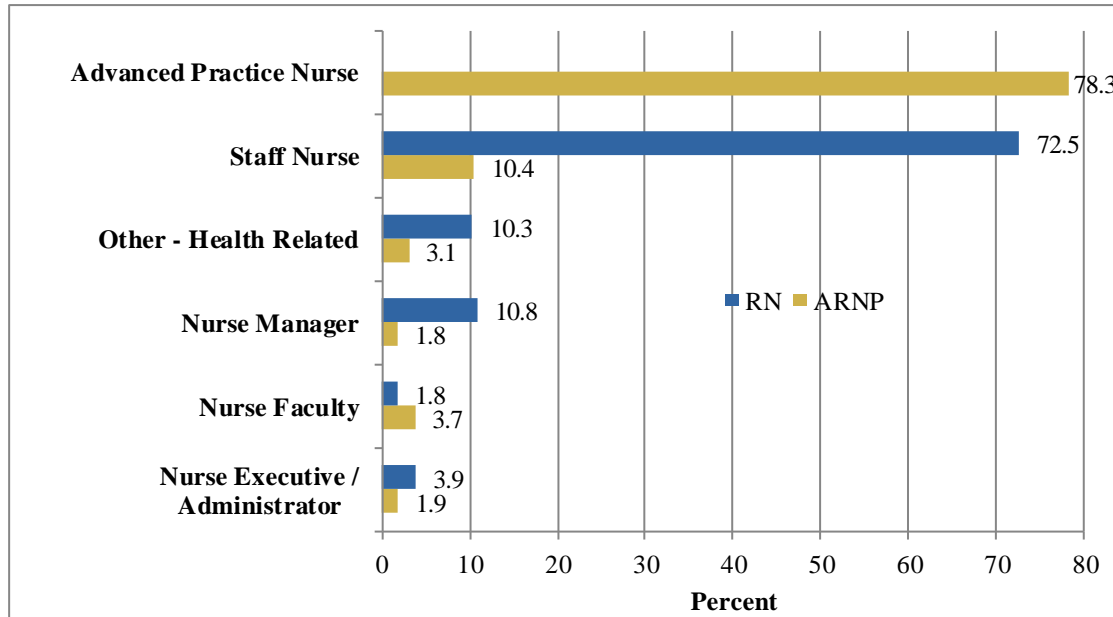


Figure 7. Occupational Titles of RNs and ARNPs, 2010-11

Nurses’ reported clinical specialties varied between RNs and ARNPs. About 21 percent of ARNPs specialized in anesthesia, 21 percent specialized in adult/family health, 11 percent in acute/critical care, and 9 percent in pediatrics/neonatal (Figure 8). By contrast, 27 percent of RNs specialized in acute/critical care, 14 percent in medical/surgical, followed by home health (7%) and pediatrics/neonatal (6%).

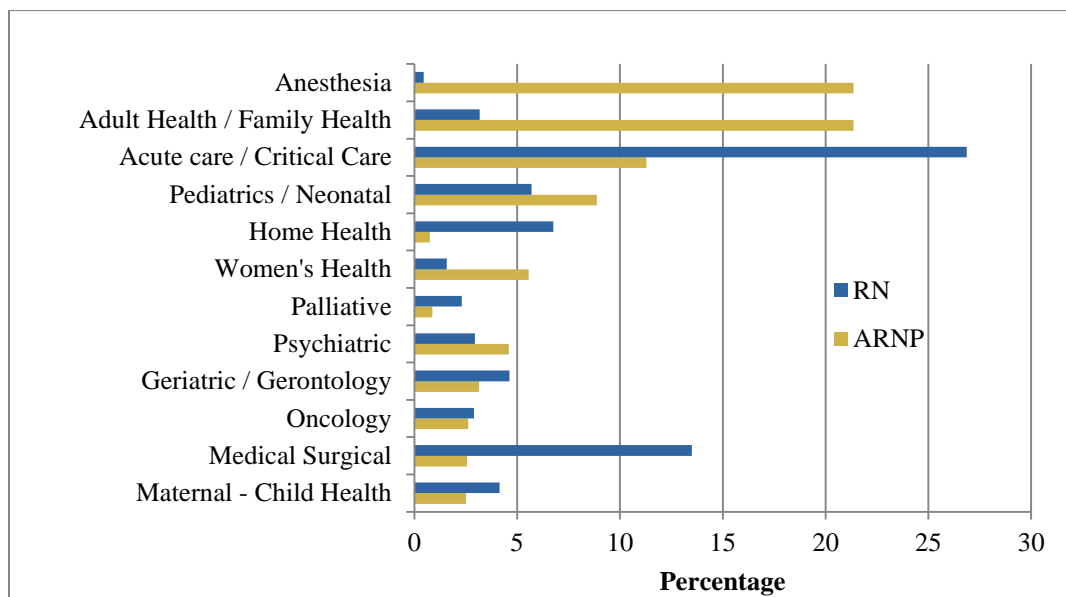


Figure 8. Clinical Specialty of RNs and ARNPs

The percentage of RNs reporting working full-time has increased by three percent (to 82.5%) and for ARNPs has increased by 2 percent (to 81.9%) since the previous license renewal cycle (Table 5). The proportion of Florida’s RNs and ARNPs working full-time continues to be much

higher than the 74.6 percent national estimate.⁶ Likewise, the percentage of RNs and ARNPs working part-time, temporary or per diem positions has decreased over the past two years. The data also show a decrease in the percentage of RNs and ARNPs working multiple jobs. Perhaps those who were working multiple part-time jobs transitioned into full-time employment, thus decreasing the percentage of nurses with multiple jobs.

Since the Center’s last survey, there has been a shift in the reported number of working hours per week. In 2008-09, 48 percent of RNs reported working 36 to 40 hours per week, but 60 percent of RNs reported working these hours in 2010-11. Correspondingly, about 16 percent of RNs reported working 41 to 50 hours per week, down from 27 percent in 2008-09. The same shift is seen among the ARNPs, with 45 percent working 36 to 40 hours per week (up from 32% in 2008-09) and about 26 percent working 41 to 50 hours per week (down from 39.5% in 2008-09). The average FTE has remained about the same for both RNs and ARNPs.

Table 5. Employment Detail for RNs and ARNPs Working in Nursing

	RNs		ARNPs	
	2008-09	2010-11	2008-09	2010-11
Employment Status (%)				
FT	79.5	82.5	79.8	81.9
PT	11.0	9.5	14.5	13.5
Per Diem/Agency	9.6	8.1	5.6	4.6
Multiple Jobs? (%)				
Yes	16.1	12.0	21.0	17.0
No	83.9	88.0	79.0	83.0
Hours Per Week (%)				
20 or fewer	5.8	6.7	6.7	7.8
21-30	7.9	7.6	7.9	7.8
31-35	4.8	4.1	5.0	5.9
36-40	48.3	60.3	32.4	45.4
41-50	27.2	16.3	39.5	25.8
51 or more	5.9	5.1	8.7	7.4
Average FTE*	0.9	0.88	0.89	0.88

*FTE = Full-time equivalent position

Demographics of RNs and ARNPs

Demographic characteristics of working RNs and ARNPs are shown in Table 6. About 66 percent of RNs and nearly 76 percent of ARNPs are white. About 90 percent of RNs and 86 percent of ARNPs are women. The average age of working nurses in Florida is about 49 years. Appendix Tables A3 and A4 illustrate race/ethnicity by age group, indicating that younger nurses are more diverse than their older peers. Appendix Table A5 shows trends in demographic

characteristics for the *potential* nurse workforce based on licensure data, showing the overall workforce is becoming more racially/ethnically diverse but is also aging. The percentage of men in the potential RN workforce has slightly increased from 9.4 percent in 2007 to 10 percent in 2011, but the percentage of men in the potential ARNP workforce has remained steady at 14 percent.

Table 6. Demographic Characteristics of RNs and ARNPs Working in Nursing, 2010-11

	RNs	ARNPs		RNs	ARNPs
Race/Ethnicity	%	%	Age	%	%
White	66.4	75.5	21-30	7.7	4.2
Black	12.7	8.7	31-40	18.9	21.3
Hispanic	9.3	8.3	41-50	26.0	26.4
Asian	7.3	3.9	51-60	30.5	31.8
Native American	0.2	0.2	61 or older	16.9	16.2
Other	4.2	3.4	Average Age	48.8	49.2
Gender	%	%			
Women	89.9	85.6			
Men	10.1	14.4			

Figure 9 graphically depicts the age distribution of RNs and ARNPs working in nursing. Seventeen percent (23,800) of working RNs are over age 61, representing a large group who may potentially leave the nurse workforce within 5 years. The even larger cohort of nurses age 51-60 represents about 30 percent (42,933) of working nurses, and this group can be expected to phase out of the workforce when their retirement begins within 5 to 10 years. Furthermore, the proportion of RNs age 61 and older in the potential nurse workforce has increased from 14.7 percent in 2007 to 20.5 percent in 2011 (Appendix Table A5). The potential ARNP workforce age 61 and older has increased from 11.8 percent in 2007 to 18.5 percent in 2011. Consequently, within the next 15 years, Florida can expect a large exodus of nurses from the workforce based on the aging workforce.

As Florida’s workforce ages, the retirement of older, experienced nurses will result in a loss of highly skilled mentors with years of organizational and experiential knowledge. Furthermore, the size of the nurse workforce will likely be reduced as the cohort of younger nurses is much smaller than the older age cohorts – only 7.7% (10,822) of RNs are under age 30 compared to 31% aged 51-60. Without an infill of younger nurses, Florida could again be facing a nursing shortage within 15 years. This coincides with societal factors increasing the demand for healthcare: an aging population needing more care and increased access to healthcare for the general population.

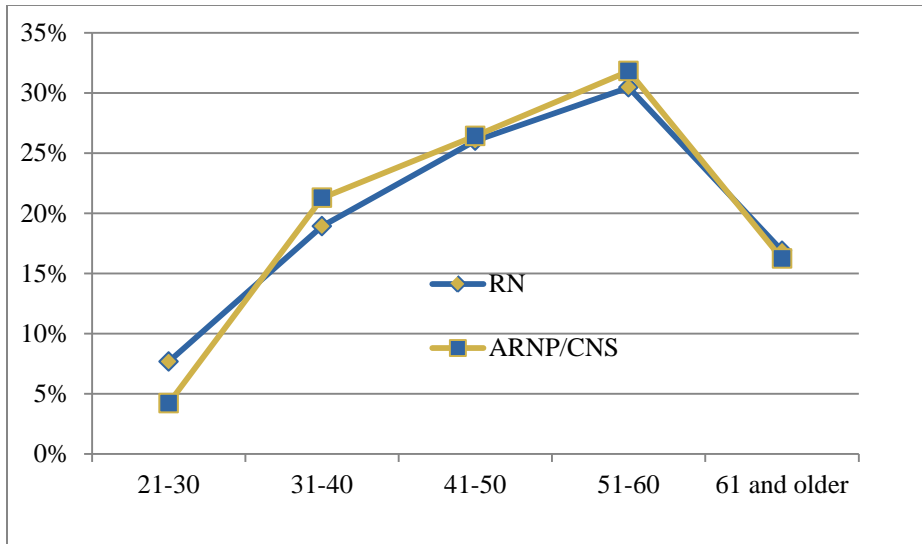


Figure 9. Age Distribution for RNs and ARNPs Working in Nursing

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”.⁷ Recommendation 4 of the report is to increase the proportion of nurses with a baccalaureate degree to 80 percent by 2020. In Florida, more than half of the RN workforce (53%) has an RN diploma or RN associate’s as the highest degree (Figure 10). One-third of working RNs have a baccalaureate degree in nursing, and 7.3 percent have a Bachelor’s degree in another field. Only 6 percent have a master’s or higher degree. Nationally, the percentage of RNs with a baccalaureate degree in nursing or a higher degree (in any field) is 48.8 percent, compared to 39.5 percent in Florida.⁸ Florida’s percentage of RNs with a baccalaureate degree in nursing or a higher degree in any field has increased about two percent (from 37.3%) since the Center’s last report. The vast majority of ARNPs (78.5%) hold a master’s degree in nursing, and another 3.5 percent have a nursing doctorate.

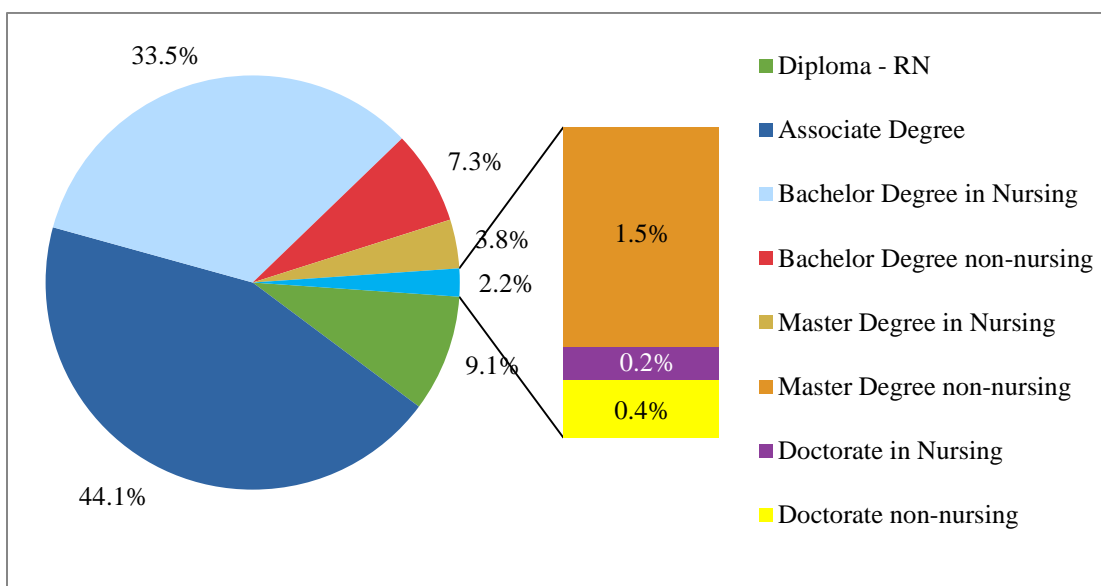


Figure 10. Highest Educational Degree of RNs Working in Nursing

FTEs by Age and Employment Setting

Among all working nurses, the average proportion of a full-time equivalent (FTE) position was .88 for RNs and ARNPs. As nurses get older, they often work fewer hours, and this is noticeably apparent in the 61 and older age group. The average FTE by age group is shown in Figures 10 and 11. For RNs, the 21-30 age group has the highest average FTE of 0.93, then average FTE hovers near 0.9 until nurses are older than 60 years, after which the average FTE drops to 0.78. For ARNPs, average FTE increases in each age category to a peak of 0.91 for ages 51-60, before declining to 0.8 at ages 61 and older. For both groups, nurses aged 51-60 are the largest age cohort 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.

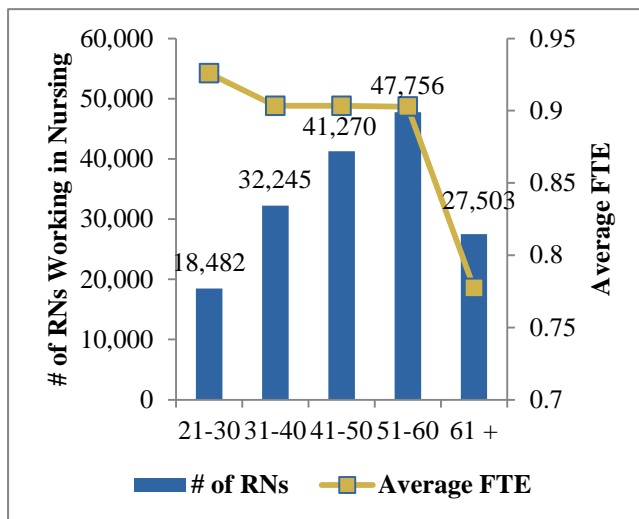


Figure 10. Number of RNs Working and Average FTE by Age Category

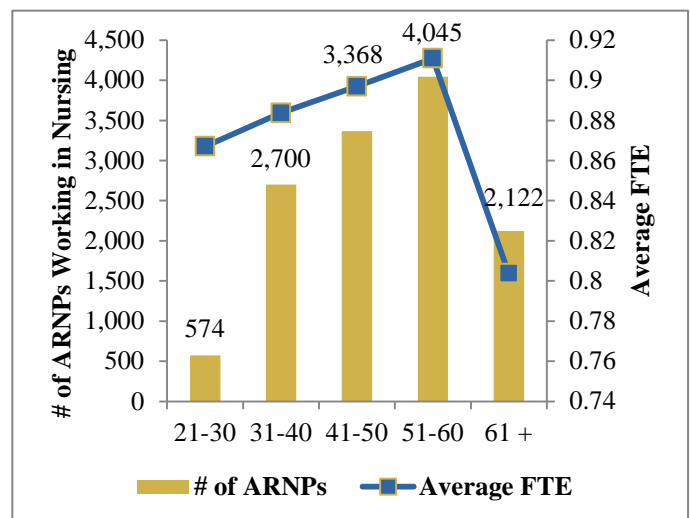


Figure 11. Number of ARNPs Working and Average FTE by Age Category

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 96,923 (an estimated 3,500 more FTEs than during 2008-2009) for RNs and 5,067 for ARNPs (an estimated 1,000 more FTEs). RNs working for insurance companies, correctional facilities, policy, and hospitals worked the most hours per week as evidenced by their higher average FTE. RNs working for temporary agencies and school health worked the fewest hours per week.

Table 7. Estimated and Average FTEs* by Setting, 2010-2011

	RNs		ARNPs	
	Estimated FTEs	Average FTE	Estimated FTEs	Average FTE
Academic Setting	2,087.9	0.810	548.3	0.851
Ambulatory Care Setting	6,251.5	0.843	936.3	0.829
Community Health	1,248.7	0.819	308.1	0.875
Correctional Facility	1,317.8	0.935	113.7	0.909
Healthcare Consulting / Sales	652.3	0.825	24.6	0.824
Home Health	11,755.9	0.833	140.7	0.752
Hospital	96,923.0	0.925	5,066.7	0.919
Insurance Claims / Benefits	2,359.6	0.943	18.0	0.901
Long-term Care	7,890.1	0.888	327.0	0.909
Occupational Health	54.0	0.875	83.9	0.891
Physician's Office	4,238.7	0.844	2,656.5	0.889
Policy	93.3	0.933	8.9	0.803
Public Health	1,869.9	0.919	217.6	0.889
School Health Service	1,391.0	0.772	92.3	0.850
Temporary Agency	57.9	0.638	10.2	0.655
Other	9,036.6	0.861	739.2	0.853
Grand Total	148,028		11,292	

*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.

Regional Nurse Supply and Growth

Both statewide and within each region, the potential nurse workforce has grown since 2007-08 (Table 8, Figure 12). Statewide, the potential nurse workforce grew 11.3 percent for ARNPs and 4.2 percent for RNs from 2009 to 2011. The percentage growth in RNs was higher than the statewide average in the East Central and North Central regions, which added about 1,800 and 1,000 RNs respectively. The slowest growth was in the Southwest, Southeast, and Northwest regions, which all grew at about two percent. ARNP percentage growth was highest in the South, East Central, and Northeast regions. ARNP growth was about half of the statewide average in the Southwest and Northwest regions.

Table 8. Trends in Potential RN and ARNP Workforce Growth by Region, 2006-07 to 2010-11

Region	Potential RN Workforce			Potential ARNP Workforce		
	2006-07	2008-09	2010-11	2006-07	2008-09	2010-11
South	36,020	37,835	39,374	2,183	2,467	2,822
Southwest	10,141	11,032	11,269	720	809	858
Southeast	17,590	18,240	18,706	1,085	1,222	1,345
East Central	31,431	33,857	35,688	1,600	1,865	2,143
West Central	42,192	44,844	46,791	2,797	3,201	3,506
Northeast	14,488	15,704	16,393	841	992	1,148
North Central	13,792	14,919	15,895	1,193	1,338	1,473
Northwest	9,823	10,637	10,826	670	761	808
Statewide	175,581	187,093	194,959	11,094	12,656	14,103

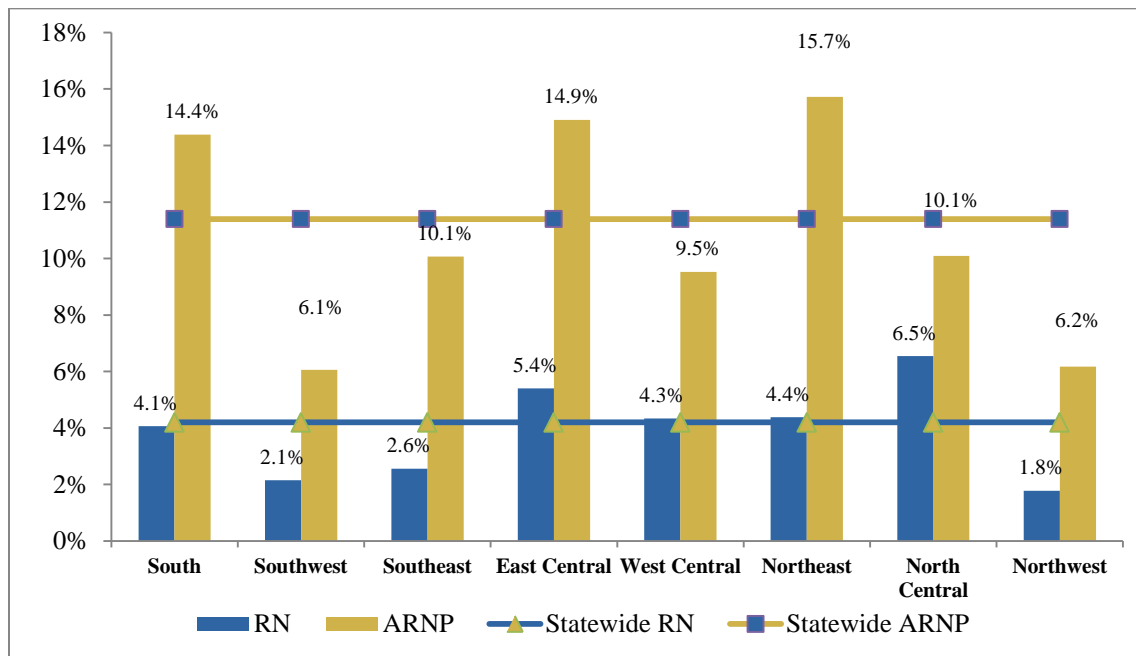


Figure 12. Percentage Growth in RN and ARNP Supply, 2008-09 to 2010-11, by Region

To better understand the nurse supply in relation to the state’s population, we compared the number of working nurses (2010-2011) to the size of the state’s population⁹ and to the number of hospital beds.¹⁰ Statewide, we estimated 885 working RNs per 100,000 population in 2011, an increase from 849 working RNs per 100,000 population in 2009.³ This increase was consistent in

all regions of Florida, although southern regions remain below the state average (Figure 13). The national estimate is 874 RNs per 100,000 population.¹¹ Furthermore, the estimated number of employed RNs per 100 hospital beds increased to 263, up from an estimated 254 employed RNs per 100 hospital beds in 2009.

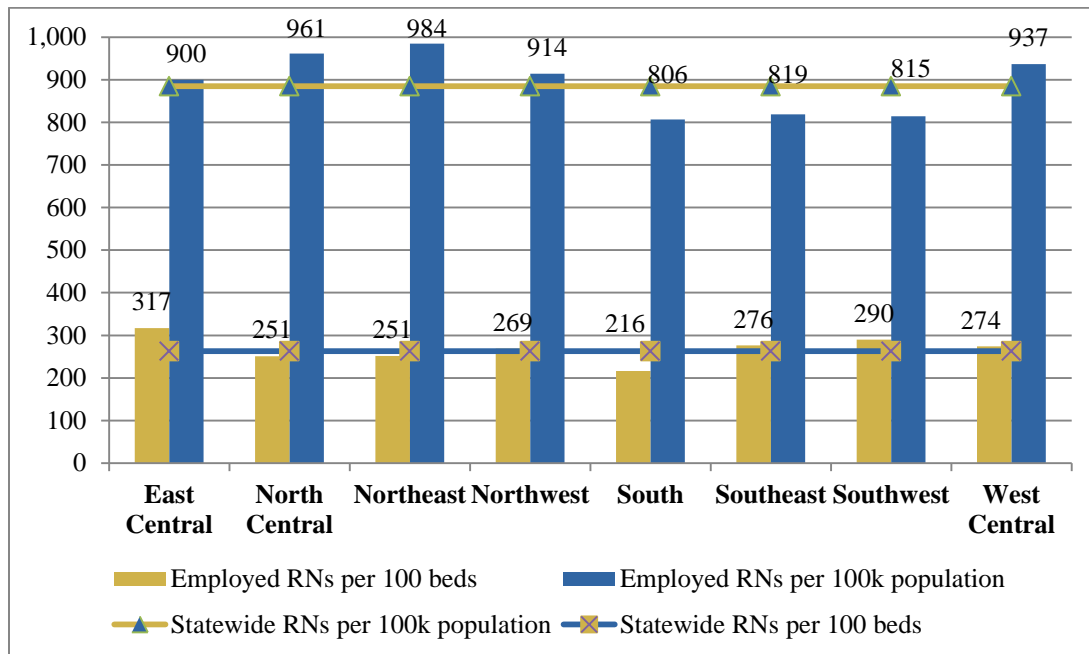


Figure 13. Employed RNs per 100k population and per 100 hospital beds

This increase in the number of employed RNs per 100,000 population points to several intertwining population and economic factors. Nationally, hospital employment of RNs has increased in 2007, 2008, and 2010; at the same time the nation’s unemployment has remained high.^{4,12} As Florida’s population ages and growth in the number of hospitals continues, 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 care provider demand associated with the Affordable Care Act.

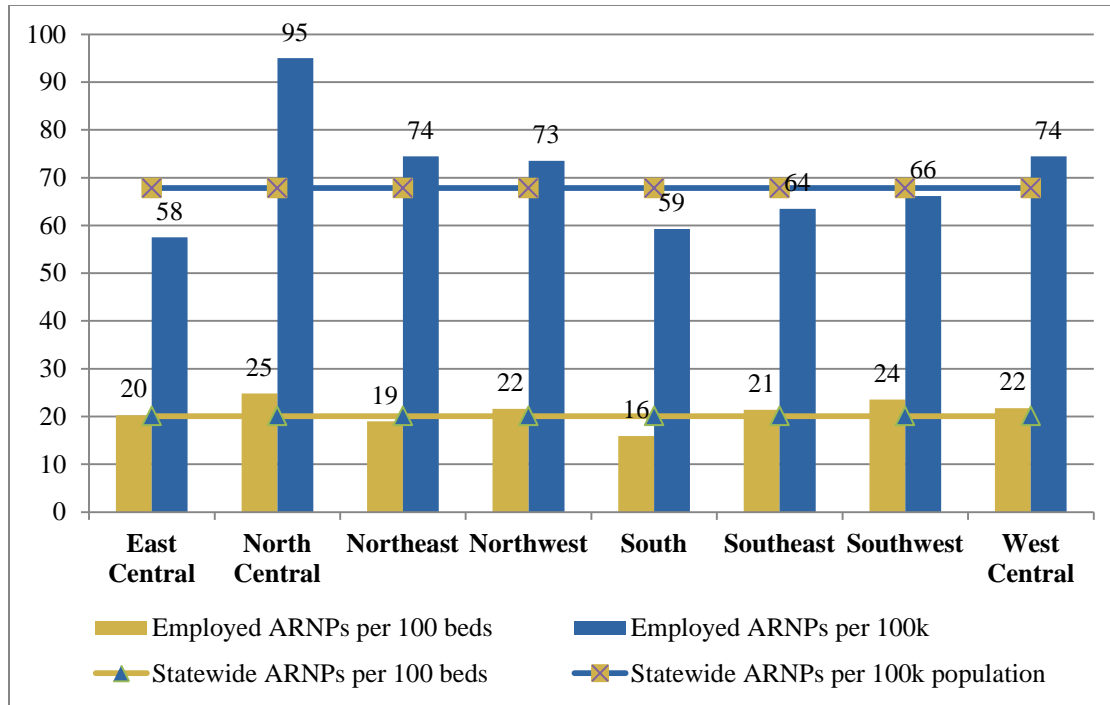


Figure 14. Employed ARNPs per 100k population and per 100 hospital beds

Conclusions and Recommendations

Multiple workforce trends are evident in this latest review of Florida’s nurse supply data, and relate to the shifting workforce and population demographics as well as the continued economic difficulties facing the state. The supply of nurses in the state has steadily increased from 2006-2007 to 2010-2011. In 2006-07, there were 175,581 RNs in the potential nurse workforce, but in 2010-11, 194,959 RNs comprised the potential nurse workforce, an increase of 19,378. Accordingly, the number of nurses working in nursing has also increased. Florida’s RNs have a workforce participation rate of 86 percent, which is an increase of about half a percent since 2009. Similarly, ARNPs workforce participation has increased by about one percent to 91 percent. An increase in workforce participation was expected during the recession, as nurses who worked part-time or had left the field returned to work and others delayed retirement. However, it is important to note that an increasing pattern of loss of nurses is emerging, an increase in the number of nurses leaving the potential workforce was evident, as 3,701 more RNs left Florida’s workforce during 2010-2011 compared to 2008-2009.

Recommendation 1. Increase activities to improve retention of Florida’s existing nurse workforce, including accommodating the effects of aging on a nurses’ ability to continue to practice.

Even with the evident growth, it is important to note that an increasing pattern of loss of nurses is emerging. When comparing the two most recent renewal cycles, we found that the potential RN workforce actually gained 27,646 RNs. However, during the same time, 19,873 RNs left the

workforce – about 3,700 more RNs than during the previous cycle. This level of loss negates the strategy of increasing production of new nurses as a solution to the nursing shortage.

The aging nurse workforce continues to point toward a future critical occurrence of a large group of experienced nurses leaving the workforce at the same time as an aging population needs more nursing care. Almost 17 percent of working RNs are over age 61, and this group will presumably be reducing their hours of work and/or retiring within the next 5 to 10 years. It is critical that employers work to address work environment challenges faced by older nurses in an effort to extend their work life.

Recommendation 2. Promote and facilitate educational advancement of all nurses to increase the number of RNs with a BSN, increase the number of nurses qualified to teach, and increase the number of ARNPs working in primary care.

The IOM report recommends advancement of education for all nurses. Though emphasis is on attaining a high percent of RNs prepared with a Bachelor of Science degree in nursing or higher degree, the need to increase the number of nurses with graduate degrees is evident. The aging nurse population is of critical concern in academic settings where loss of faculty to retirement will exacerbate the already present shortage of nurse faculty. An anticipated challenge with implementation of the Affordable Care Act is adequacy of the supply of primary care providers to meet the increasing demand. ARNPs can assist in meeting this need. Hence, creating and promoting advanced education opportunities for RNs should be a priority for Florida’s nurse education programs and employers.

Recommendation 3. Continue to enhance production of new nurses while developing models of incumbent worker education and training to meet the diverse needs of Florida’s health industry.

Shifting employment patterns are evident, shown by an increase in the number of nurses employed in hospitals, long-term care, and home health care settings. Our Workforce Demand Report⁵ revealed that these fields had a strong current and future need for RNs, and indeed this is verified by the employment increase in these settings. When asked about difficult to fill positions, employers responding to our survey who represent six industry settings consistently report the need for nurses with advanced education and/or practical experience.

Recommendation 4. Support the Center’s research effort and analysis of workforce trends to assure adequacy of supply of all types of nurses while maximizing use of limited fiscal resources.

As this report demonstrates, the value of information is increased when there is evidence of repeated demonstration of outcomes and the ability to identify trends. The Center’s data collection, analysis, and reporting provides an extremely valuable source of information for use by legislators, academics, industry representatives, nurse executives, workforce policy efforts and other stakeholders. However, fiscal support of the ongoing program is critical to sustain this rich resource for Florida. The Center’s status as a state entity brings with it access to state data

collected by other agencies and increased credibility that may not be available to an independent entity or one supported by a proprietary organization.

Acknowledgements:

The Florida Center for Nursing wishes to thank all of the nurses who took the time to complete the Center's survey. We also wish to thank our partner state entities, the Florida Board of Nursing and Medical Quality Assurance, for their assistance with the data collection. This research would not be possible without their valuable contributions.

Staff Contributors: Michelle M. Yore, MSPH and Mary Lou Brunell, MSN, RN

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Appendix A: Data Tables

Table A1. Components of Net Change in the Potential Nurse Workforce, 2010-2011

	RNs	ARNPs
Total Gains to Potential Workforce	27,646	2,549
Total Losses from Potential Workforce	19,873	1,069
Net Change in the Potential Workforce	7,866	1,457

Note: The difference between gains and losses does not precisely equal net change due to the complexity of tracking individual nurses.

Table A2. Comparison of Working and Not Working RNs and ARNPs

	RNs		ARNPs	
	Working	Not Working	Working	Not Working
Race/Ethnicity	%	%	%	%
White	66.4%	80.6%	75.5%	80.8%
Black	12.7%	6.6%	8.7%	7.0%
Hispanic	9.3%	4.6%	8.3%	6.4%
Asian	7.3%	2.7%	3.9%	2.8%
Native American	0.2%	0.3%	0.2%	0.2%
Other	4.2%	5.3%	3.4%	2.8%
Gender	%	%	%	%
Female	89.9%	92.9%	85.6%	90.4%
Male	10.1%	7.1%	14.4%	9.6%
Age	%	%	%	%
21-30	7.7%	2.4%	4.2%	5.4%
31-40	18.9%	9.0%	21.3%	16.4%
41-50	26.0%	16.0%	26.4%	18.3%
51-60	30.5%	27.2%	31.8%	24.6%
61 or older	16.9%	45.3%	16.2%	35.3%

Table A3. Race/Ethnicity of RNs by Age Group

Race/Ethnicity	Age 18-30	Age 31-40	Age 41-50	Age 51-60	Age 61+
White	60.4%	55.4%	63.9%	74.2%	78.2%
Black	13.6%	15.8%	13.7%	9.3%	9.0%
Hispanic	15.7%	14.9%	11.2%	5.2%	3.0%
Asian/Pacific Islander	6.8%	10.8%	7.5%	5.5%	3.0%
Native American	0.2%	0.2%	0.2%	0.3%	0.2%
Not Reported	0.6%	0.8%	2.0%	4.5%	5.6%
Other	2.6%	2.1%	1.5%	1.1%	1.0%

Table A4. Race/Ethnicity of ARNPs by Age Group

Race/Ethnicity	Age 18-30	Age 31-40	Age 41-50	Age 51-60	Age 61+
White	74.2%	68.0%	71.5%	80.7%	85.6%
Black	8.1%	9.8%	10.2%	7.1%	6.6%
Hispanic	10.6%	13.7%	10.4%	4.7%	2.6%
Asian/Pacific Islander	4.4%	5.3%	4.4%	3.5%	1.8%
Native American	0.0%	0.0%	0.2%	0.3%	0.2%
Not Reported	0.6%	1.2%	1.8%	2.4%	2.3%
Other	2.0%	2.0%	1.6%	1.2%	0.9%

Table A5. Trends in Potential Workforce Demographics, 2007-2011

	Potential RN Workforce			Potential ARNP Workforce		
	2007	2009	2011	2007	2009	2011
Age Categories	%	%	%	%	%	%
21-30	9.6	9.0	10.0	4.3	4.0	4.5
31-40	19.8	18.4	17.9	19.9	19.4	20.5
41-50	27.4	24.5	23.4	29.9	25.8	25.5
51-60	28.5	29.2	28.2	34.1	34.0	30.9
61 or older	14.7	18.9	20.5	11.8	16.9	18.5
Average Age	47.7	49.0	48.8	48.5	49.9	49.2
Avg. Yrs. Licensed in FL	14.2	14.4	14.7	17.5	17.9	17.9
Gender	%	%	%	%	%	%
Female	90.6	90.4	90.0	85.8	85.7	85.9
Male	9.4	9.6	10.0	14.2	14.3	14.1
Race/Ethnicity	%	%	%	%	%	%
White	73.0	71.6	67.9	81.4	80.0	76.4
Black	11.2	11.7	11.9	7.8	8.0	8.4
Hispanic	7.2	8.3	8.9	5.8	6.9	7.9
Asian	6.9	6.8	6.5	3.4	3.5	3.8
Native American	0.2	0.2	0.2	0.2	0.2	0.2
Others	1.5	1.5	4.6	1.3	1.3	3.3

Table A6. RN Education Distribution for Each Healthcare Setting (Excludes ARNPs)

RN Employment Settings	Diploma or Associates	Bachelor's in Nursing	Bachelor's in field other than nursing	Master's in Nursing	Master's in field other than nursing	Doctorate in Nursing	Doctorate in field other than nursing
Academic Setting	14.7%	29.3%	4.9%	40.0%	3.0%	7.2%	0.9%
Ambulatory Care Setting	55.7%	32.8%	6.6%	3.2%	1.1%	0.2%	0.3%
Community Health	45.9%	35.7%	9.5%	4.4%	3.3%	0.2%	1.0%
Correctional Facility	68.4%	20.9%	7.4%	1.9%	1.2%	0.1%	0.1%
Healthcare Consulting / Product Sales	34.1%	42.7%	11.1%	7.0%	3.7%	0.7%	0.6%
Home Health	60.7%	24.5%	8.0%	2.4%	2.1%	0.1%	2.1%
Hospital	51.9%	36.2%	6.9%	3.3%	1.2%	0.1%	0.3%
Insurance Claims / Benefits	48.5%	33.4%	11.2%	3.4%	3.2%	0.0%	0.3%
Nursing Home / Extended Care / Assisted Living Facility	65.0%	23.0%	7.4%	2.4%	1.6%	0.1%	0.5%
Occupational Health	45.2%	35.2%	11.6%	4.3%	3.6%	0.0%	0.0%
Other	54.0%	28.6%	9.1%	4.4%	3.2%	0.3%	0.5%
Physician's Office	62.1%	28.5%	6.8%	1.7%	0.4%	0.1%	0.4%
Policy / Planning / Regulatory / Licensing Agency	35.1%	42.2%	11.6%	6.3%	4.5%	0.0%	0.4%
Public Health	44.2%	40.0%	8.5%	4.6%	2.3%	0.1%	0.3%
School Health Service	47.1%	38.4%	8.4%	3.8%	1.7%	0.1%	0.5%
Temporary Agency	58.7%	27.6%	7.6%	4.4%	1.5%	0.0%	0.3%

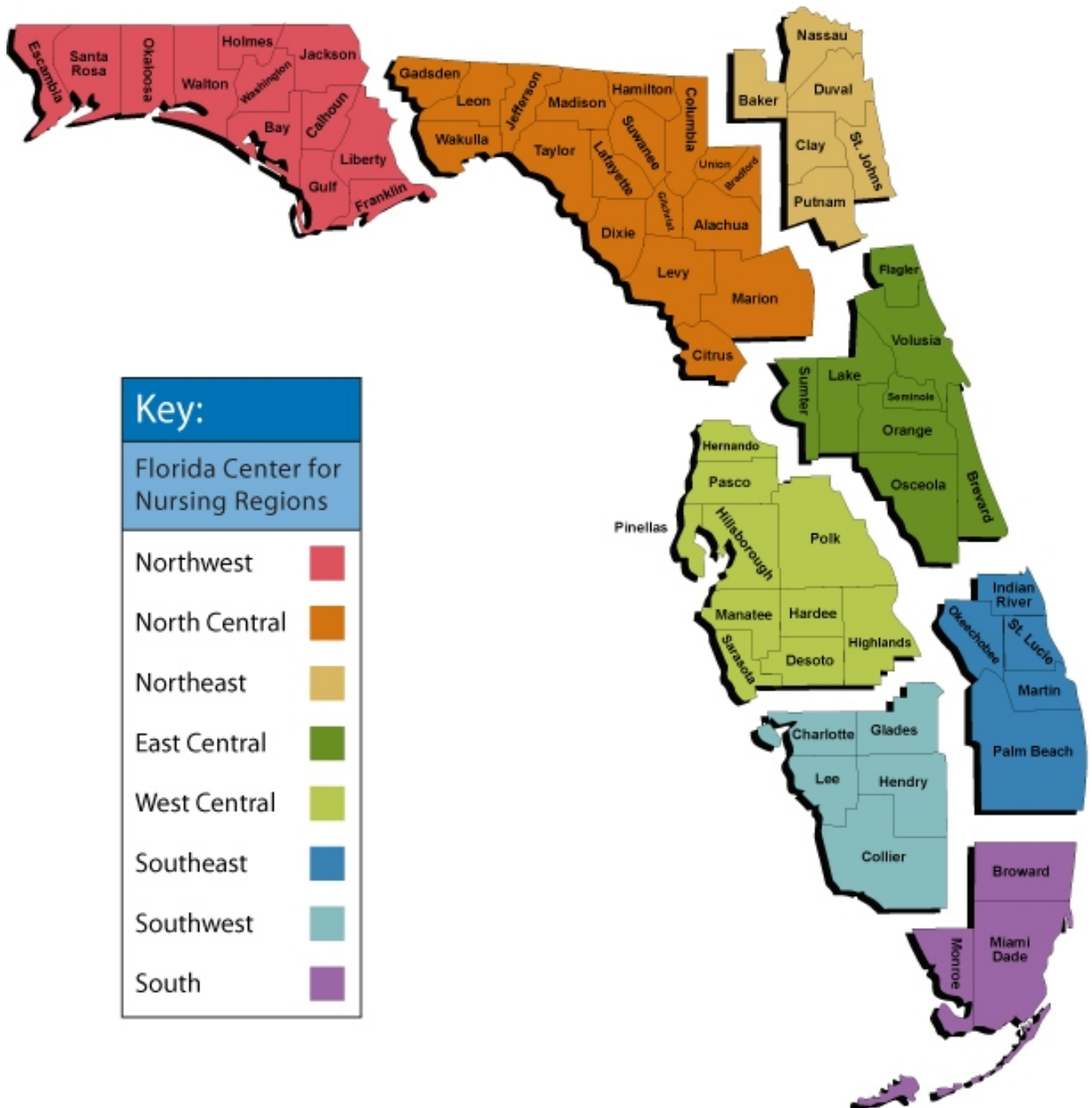
Table A7. RN Age Distribution of Each Healthcare Setting (excludes ARNPs)

Employment Setting	21-30	31-40	41-50	51-60	61 or older
Academic Setting	2.3%	9.3%	18.1%	40.0%	30.3%
Ambulatory Care Setting	2.4%	13.4%	27.5%	37.6%	19.1%
Community Health	2.9%	11.4%	22.5%	34.0%	29.2%
Correctional Facility	3.6%	12.0%	23.7%	37.4%	23.3%
Healthcare Consulting / Product Sales	1.8%	11.3%	25.5%	39.9%	21.5%
Home Health	2.6%	12.2%	26.0%	32.7%	26.5%
Hospital	10.5%	23.0%	26.9%	27.7%	11.9%
Insurance Claims / Benefits	1.0%	9.5%	24.7%	41.1%	23.7%
Nursing Home / Extended Care / Assisted Living Facility	3.9%	12.9%	24.1%	32.4%	26.7%
Occupational Health	0.9%	6.8%	20.5%	41.3%	30.5%
Other	2.1%	9.4%	21.6%	36.7%	30.2%
Physician's Office	4.6%	16.0%	26.7%	33.7%	19.0%
Policy / Planning / Regulatory / Licensing Agency	0.0%	8.6%	20.9%	41.0%	29.5%
Public Health	3.2%	11.9%	21.2%	35.2%	28.5%
School Health Service	1.8%	9.5%	27.0%	38.8%	22.9%
Temporary Agency	3.8%	14.2%	25.3%	29.4%	27.3%

Table A8. RN Age Distribution for Each Education Group (excludes ARNPs)

	18-30	31-40	41-50	51-60	61+
Diploma – RN	0.6%	5.6%	17.3%	33.8%	42.8%
Associate Degree	7.6%	20.0%	28.2%	30.7%	13.4%
Bachelor's in Nursing	11.9%	23.2%	26.0%	27.5%	11.3%
Bachelor's in other field	2.6%	17.7%	25.3%	32.1%	22.3%
Master's Degree in Nursing	2.3%	11.0%	23.3%	39.6%	23.8%
Master's in other field	0.3%	6.5%	20.2%	35.8%	37.2%
Doctorate in Nursing	0.9%	7.2%	18.1%	39.4%	34.4%
Doctorate in other field	0.4%	7.8%	43.5%	30.4%	18.0%

Appendix B: County Composition of FCN Regions



Key:	
Florida Center for Nursing Regions	
Northwest	■
North Central	■
Northeast	■
East Central	■
West Central	■
Southeast	■
Southwest	■
South	■