

# 2018 National Sample Survey of Registered Nurses

## Brief Summary of Results



**U.S Department of Health and Human Services  
Health Resources and Services Administration  
Bureau of Health Workforce  
National Center for Health Workforce Analysis**



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## EXECUTIVE SUMMARY

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The National Sample Survey of Registered Nurses (NSSRN) is the longest running survey of registered nurses (RNs) in the United States. Since its inaugural assessment in 1977, the NSSRN has provided educators, health workforce leaders, and policymakers with key details and developments of the nursing workforce supply. Considered the cornerstone of nursing workforce data, this comprehensive exploration provides a dynamic status of the RN population by revealing their demographics, educational attainment, licenses and certifications, and employment characteristics. These continued data collections have supported evaluations of government RN workforce programs, assisting in critical decision making affecting the U.S. healthcare system. Highlighting the intricacies of the current RN status is essential for developing strategies that address present-day healthcare challenges and the evolving nursing workforce needs.

Since the last survey administration in 2008, the NSSRN questionnaire underwent a complete content review, and large improvements were made based on changes in US health care landscape and best practices in survey methodology. The latest survey also aims to reduce redundancy in the collection of data and lower the response burden on participants. The 2018 NSSRN comprises questions derived from both the National Sample Survey of Nurse Practitioners (NSSNP) and the NSSRN for one concise survey capturing a broader RN workforce and is the first production implementation that provides data for both RNs and Nurse Practitioners (NPs) at the state and national levels.

In collaboration with the U.S Census Bureau, the National Center for Health Workforce Analysis administered the 10<sup>th</sup> NSSRN data collection in 2018. From April 2018 to October 2018, a total of 50,273 registered nurses completed the survey via a web instrument or a paper questionnaire with an unweighted response rate of 50.1 percent (49.1% weighted). This instrument gathered data from participants with active RN licenses from all U.S. states revealing a comprehensive look into the RN workforce.

### Key Findings

- ❖ There are an **estimated 3,957,661 licensed registered nurses living in the United States**. In 2017, roughly 83 percent (3,272,872 RNs) held a nursing related job.
- ❖ The **average age of an RN was 50 years old**; however, most nurses (53%) were less than 50 years old.
- ❖ Nurses are more diverse today than shown in the 2008 NSSRN study. Both minority groups and men have seen a slight increase within the RN population.
- ❖ **Most of the RN workforce is college educated (63.9%)**. Of them, nurses with a master's or doctorate degree accounted for 19.3 percent.
- ❖ Advanced Practice RNs account for approximately 11.5 percent of the nursing workforce.
- ❖ **Telehealth capabilities were reported in 32.9 percent of nurses' workplaces**. Among them, 50.3 percent of nurses used telehealth in their practice.
- ❖ **Median earnings for full-time RNs were \$73,929**, while part-time RNs earned a median amount of \$39,985.

## Summary of Survey Methodology

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In order to capture the current state of the RN workforce, the 2008 NSSRN questionnaire was revised and tested to minimize respondent response time burden and includes questions for Nurse Practitioners and on new health care delivery patterns.

A sample of 102,690 registered nurses were randomly selected from over 4.6 million licensure records provided by the National Council of the State Boards of Nursing and individual state nursing boards. The licensure records were sorted by state, license type (RN or NP), and demographic variables. Sampling rates from each state were then determined to set a baseline for representation.

Data collection for the NSSRN spanned 24 weeks. The survey offered respondents the opportunity to participate via a web instrument or paper questionnaire, after being contacted by mail. Additionally, respondents had access to a staffed questionnaire assistance telephone line where they could receive login assistance, language support, or other assistance. A total of 50,273 eligible participants completed this survey with an unweighted response rate of 50.1 percent (49.1% weighted).

Additional information about the development, plan, and operations for the 2018 NSSRN can be found in the Technical Documentation for the NSSRN located on the National Center for Health Workforce Analysis' NSSRN website.<sup>1</sup>

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<sup>1</sup> <https://bhw.hrsa.gov/health-workforce-analysis/data/national-sample-survey-registered-nurses>

## Initial Findings from the NSSRN Survey

### The Workforce

As of December 31, 2017, there were an estimated 3,957,661 actively licensed registered nurses living in the United States, a 29 percent increase from 2008. Of those, 3,272,872 (83%) were actively licensed and employed in nursing (a 26% increase from 2008). Approximately 40% of the current RN workforce graduated from their initial nursing program in 2005 or later (*Figure 1*). In 2017, respondents had an average of 18.9 years of experience post initial RN licensure.

Figure 1: *Distribution of RNs by Graduation Year*



\*Data for this time period reflects more than a two-year interval. As the survey sample was selected from a list of licensed nurses constructed from different sources during year 2017, the count of new graduates in the most recent year(s) may not be fully reflected in the “2015 and later” estimate.

### Demographics and Diversity

The average age of respondents was 47.9 years old, with nearly half (47.5%) of all RNs aged 50 or older (Figure 2). Figure 3 shows that White, non-Hispanic RNs accounted for the largest proportion (73.3%), followed by Hispanic RNs (10.2%), Black, non-Hispanic, RNs (7.8%), Asian, non-Hispanic RNs (5.2%), and multiple races (1.7%). Racial and ethnic minority groups accounted for 26.7 percent of the RNs in this study. In particular, for RNs who graduated in the past two decades, the proportion of minority groups (those of not NH White descent) appeared to be higher when compared to those licensed prior to that period. This increase in proportion in minority groups is largely driven by Hispanic RNs (Figure 4).

Men in nursing also continue to be a growing demographic in nursing. In 2018, male RNs represented 9.6 percent of the population, an increase from 7.1 percent in the 2008 NSSRN study.

Figure 1: Distribution of RNs by Age

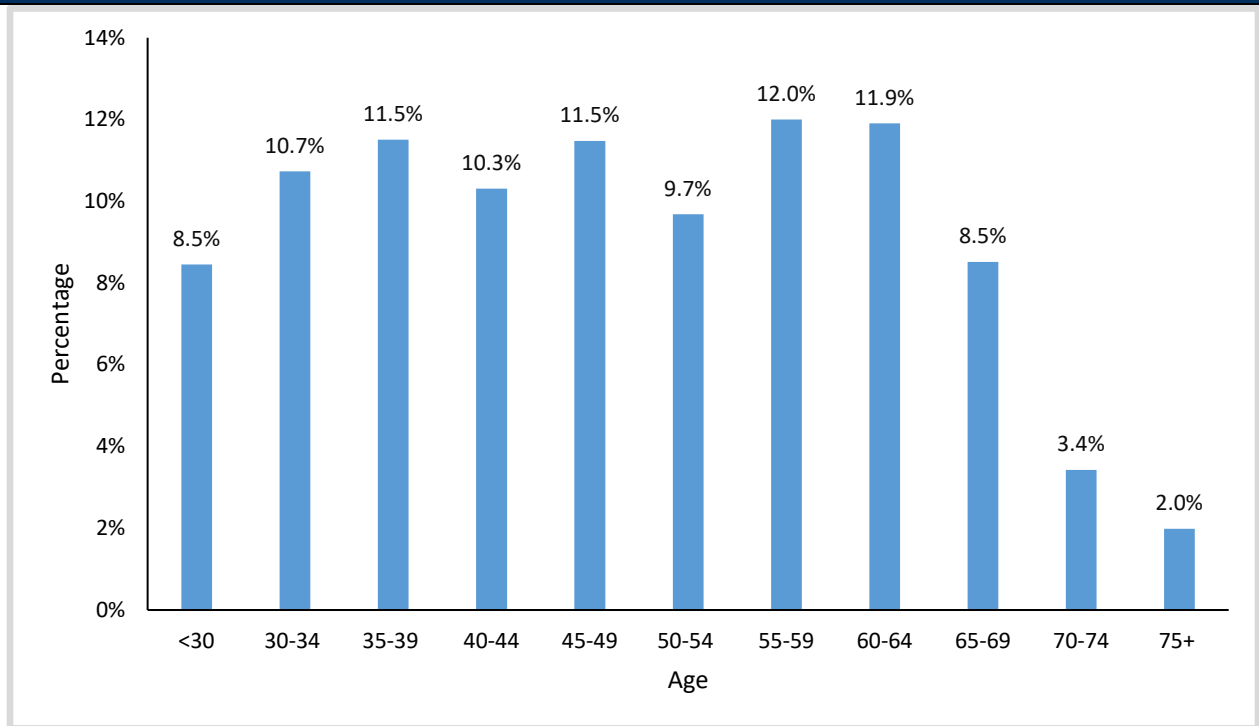




Figure 2: Distribution of RNs by Race and Ethnicity

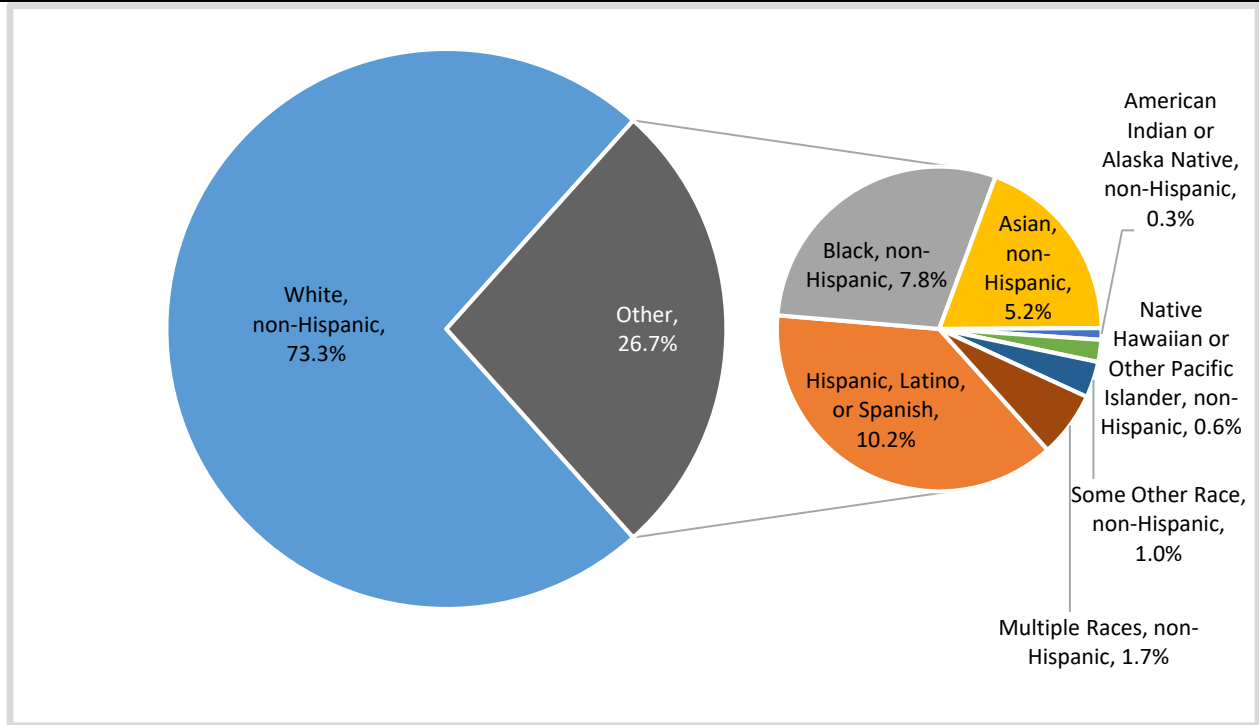
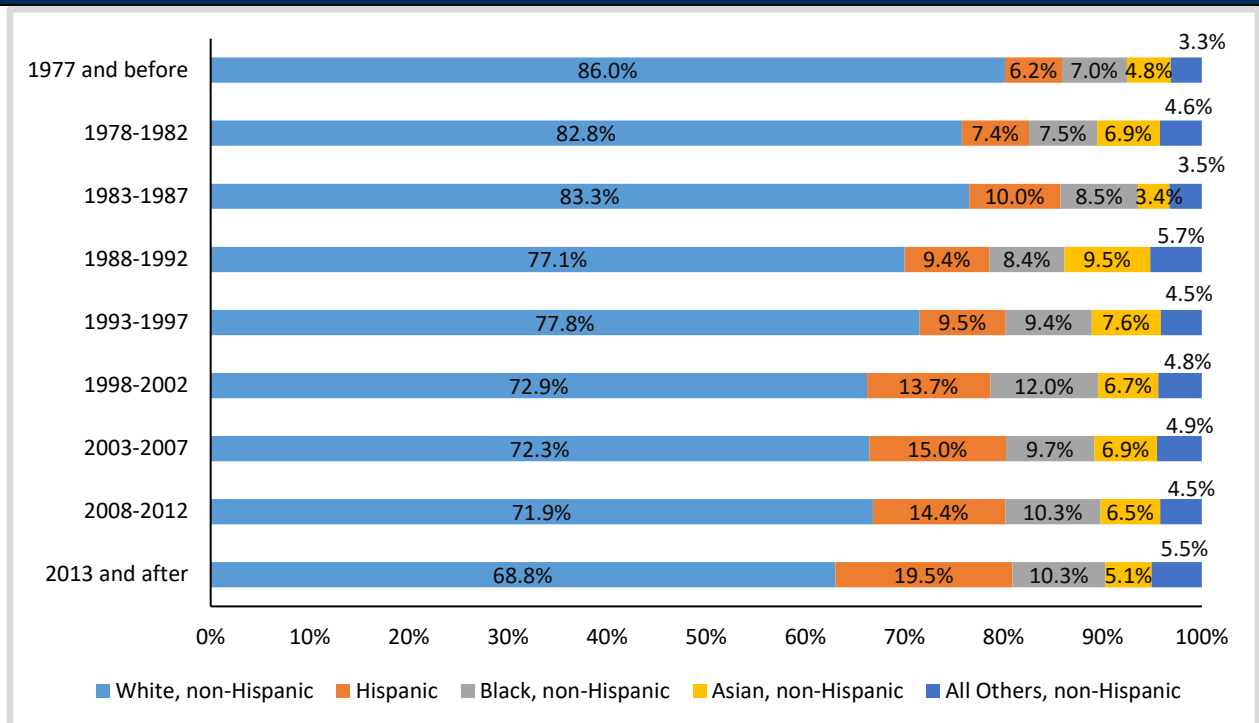


Figure 3: Distribution of Race and Ethnicity by Initial Nursing Program Graduation Year



## Education and Training

In the 2018 survey, the most commonly reported initial educational qualification for registered nurses in the United States were the Associate (48.5%) and Bachelor (39.2%) degrees (*Figure 5*). When asked about the highest nursing or nursing-related educational attainment, nearly two-thirds of the RNs (63.9 %) had a Bachelor degree or higher (44.6% earned a Bachelor degree and 19.3% earned a graduate degree) (*Figure 6*). An estimated 5.0 percent of registered nurses in the United States completed their training outside of the United States and nearly half of them were from the Philippines, followed by Canada and India.

Figure 4: Initial Nursing Education

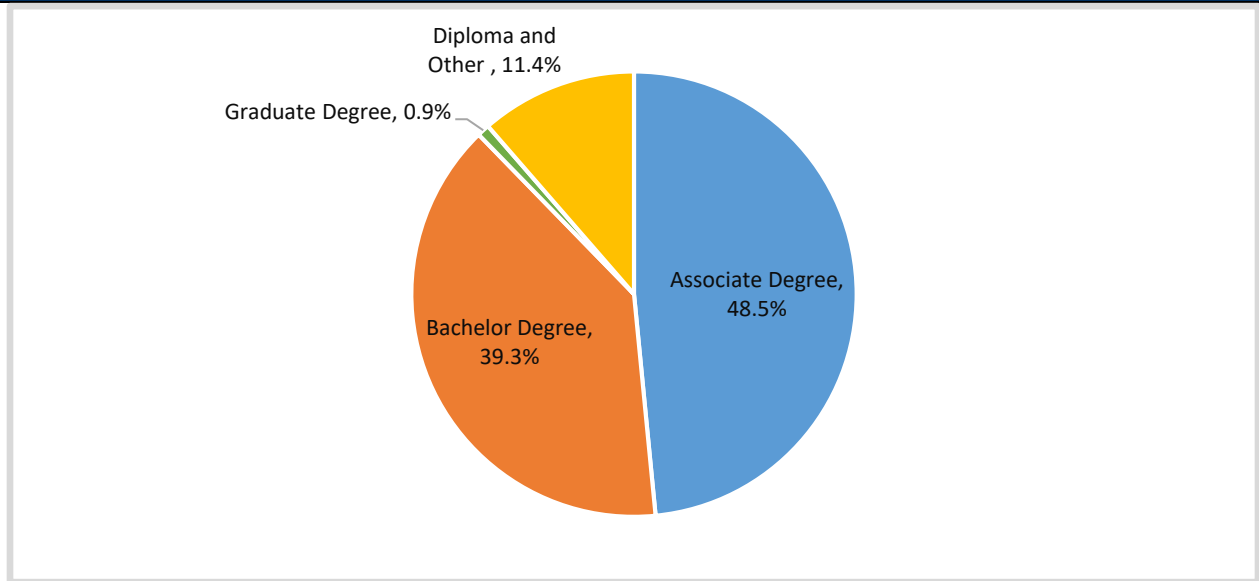
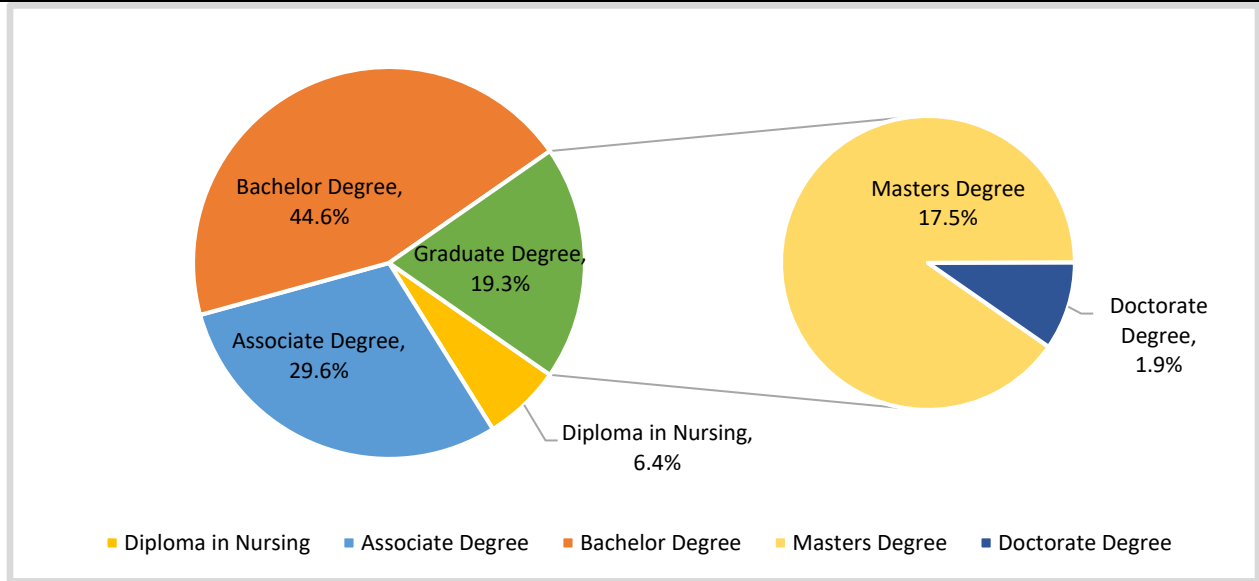
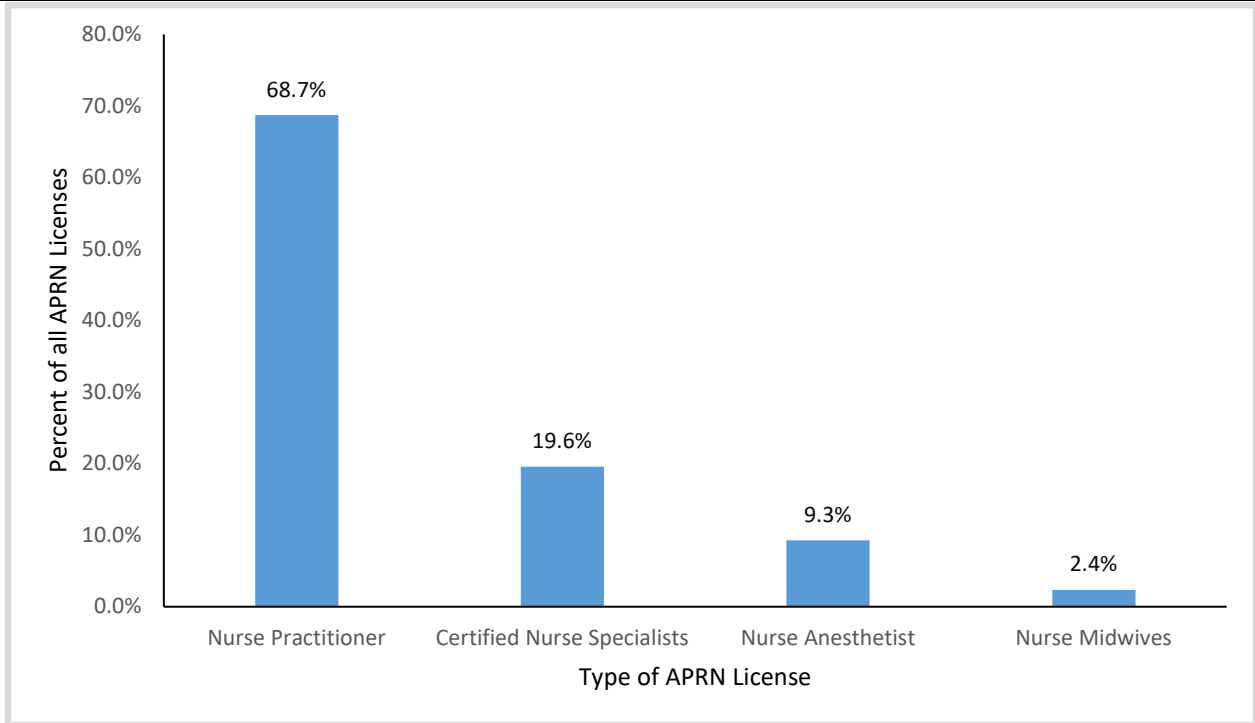


Figure 5: Highest Nursing and Nursing-Related Educational Attainment



Registered nurses may expand their scope of practice by earning a graduate degree and an advanced practice certification including Nurse Practitioner (NP), Certified Nurse Specialist (CNS), Certified Registered Nurse Anesthetist (CRNA), and Certified Nurse Midwife (CNM). This survey estimates that 11.5 percent of RNs (n=439,527) have completed their training for advanced practice, an increase from 8.1 percent in 2008. Figure 7 highlights the breakdown of all Advanced Practice Registered Nurse (APRN) licenses.<sup>2</sup> NPs accounted for 68.7 percent of all APRN licenses, followed by CNSs (19.6%), CRNAs (9.3%), and CNMs (2.4%).

Figure 6: Distribution of Advanced Practice Registered Nurse Licenses



<sup>2</sup> Nurses may hold multiple APRN licenses. Figure 7 displays the distribution of APRN licenses.

## Employment

Among the 3,272,872 RNs who were employed in nursing, 78.9 percent worked full-time. Figure 8 shows the distribution of full-time and part-time RNs who are currently employed by age. Most nurses reported working in a hospital (59.9%), while others reported working at clinics and ambulatory settings (15.6%), other inpatient settings (8.3%), and other types of settings (16.2%). When compared to women, the percentage of men who reported working in a hospital was higher (67.8% for men and 55.6% for women) (Figure 9). Approximately 16.6 percent of employed nurses did not have direct patient care as part of their duties in their primary nursing position. Of the nurses who were actively licensed to practice but had left their position held at the end of 2017, 12.9 percent reported that they stopped working due to retirement. Table 1 in the appendix shows RN employment by state.

Figure 7: Distribution of Full-Time/Part-Time Employment by Age Group

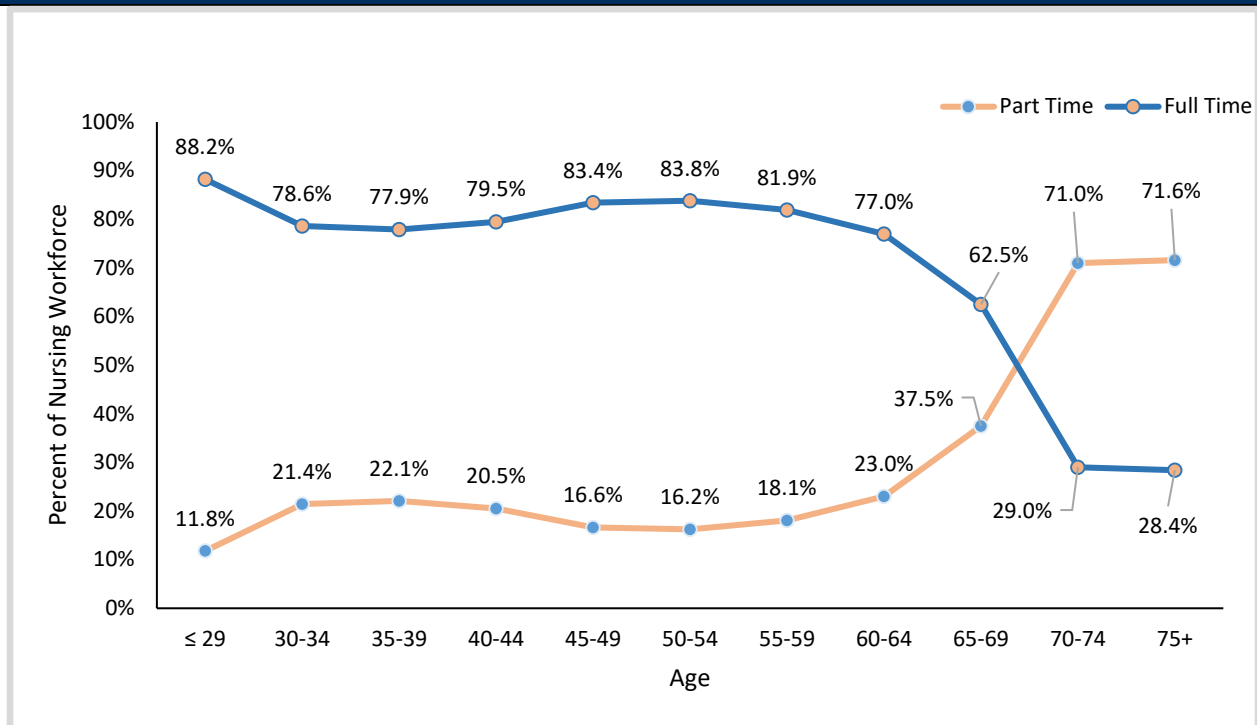
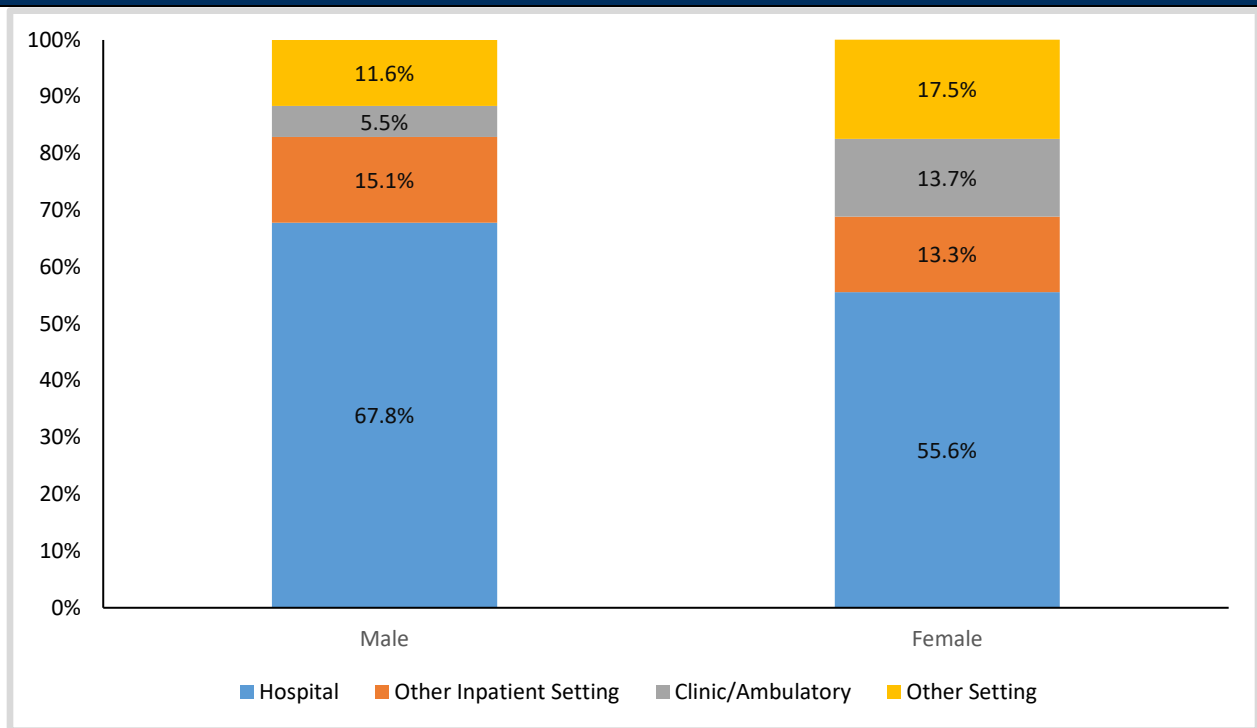


Figure 8: Distribution of Employment Setting by Sex



### Telehealth

Telehealth technologies in the workplace were reported by 32.9 percent of nurses (*Figure 10*). Of those nurses, 50.3 percent reported using some form of telehealth in their primary nursing position. Participants of the survey were asked what type of telehealth they utilized as part of their work. *Provider-to-provider consults* accounted for 54.4 percent of type of telehealth usage and *RN to patient direct calls* accounted for 49.2 percent (*Figure 11*).

Figure 9: Telehealth in the Workplace

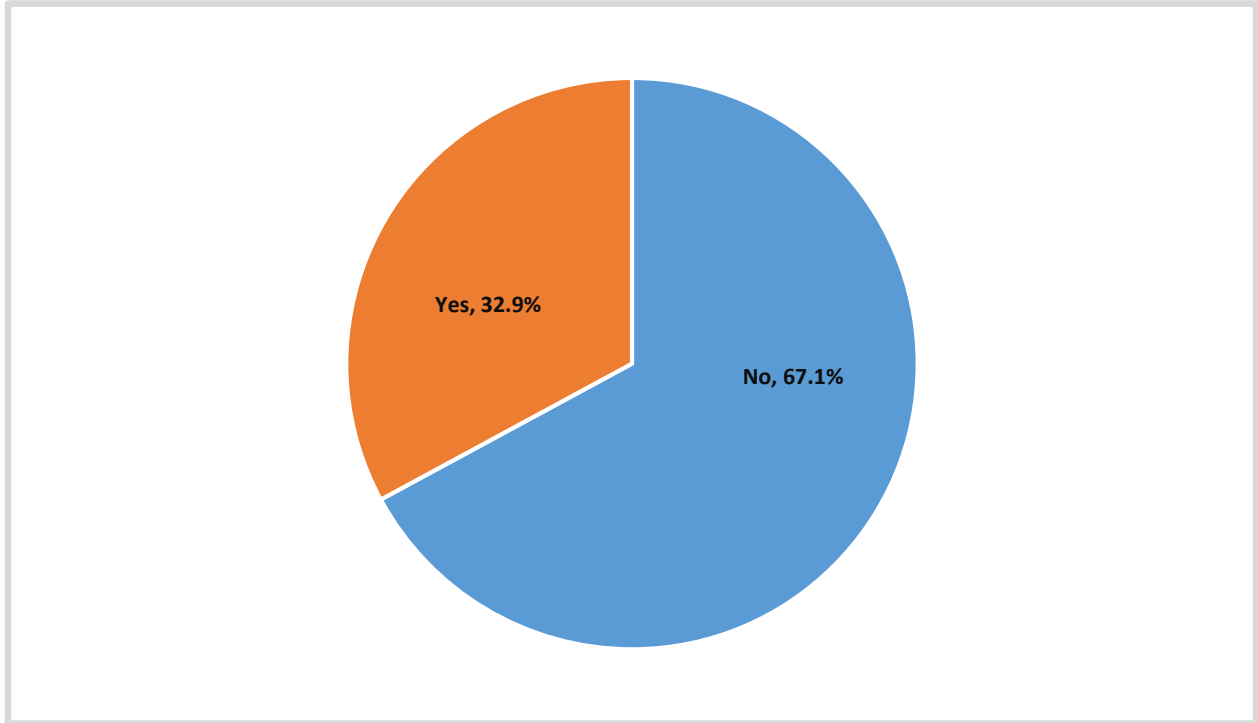
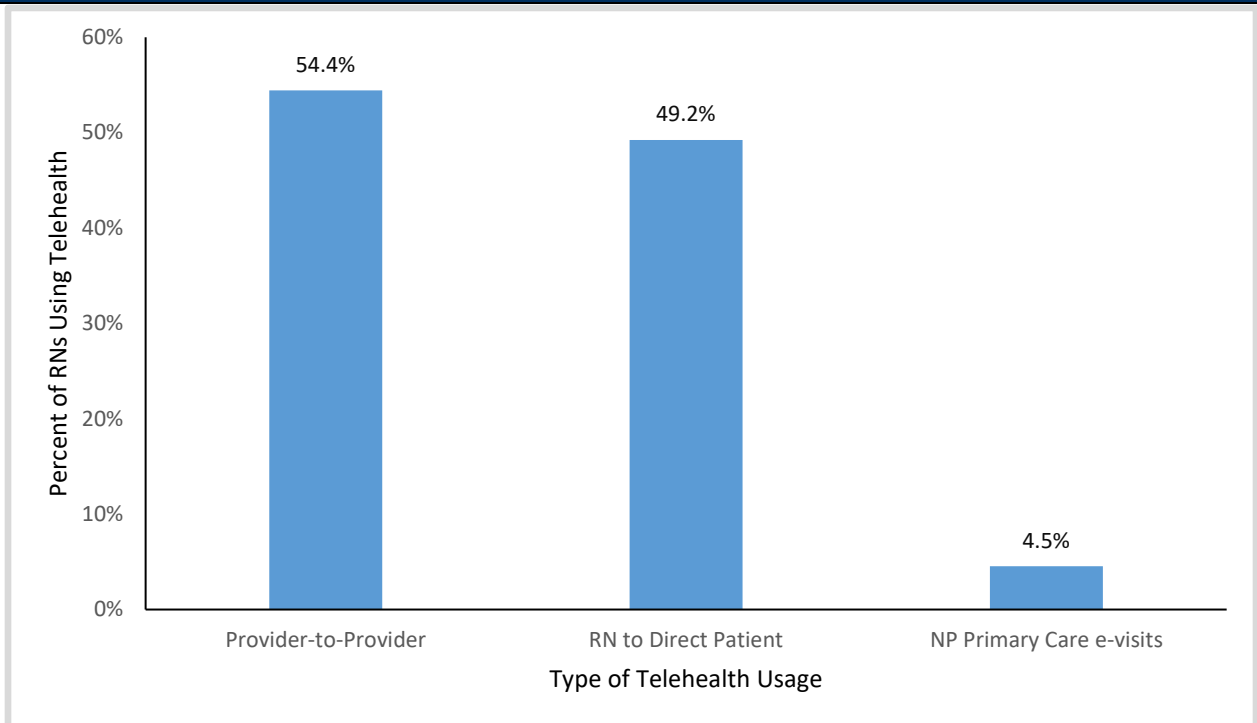


Figure 10: Telehealth Usage by RNs



\*Participants in this study had the option to select all that applied for this question

## Salary and Earnings

In 2018, the median earnings for full-time RNs was \$73,929, while part time RNs earned a median of \$39,985. The median earnings for RNs with and without a graduate degree are shown in Figure 13. The highest median earnings were reported by Nurse Anesthetists (\$161,076), followed by Certified Nurse Midwives (\$102,115), and Nurse Practitioners (\$99,962) (Figure 14). Men in nursing also had higher median earnings (\$79,928) when compared to female nurses (\$71,960) (Figure 12).

Figure 11: Median Full-Time Earnings by Sex



Figure 13: Median Full-Time Earnings by Degree Type

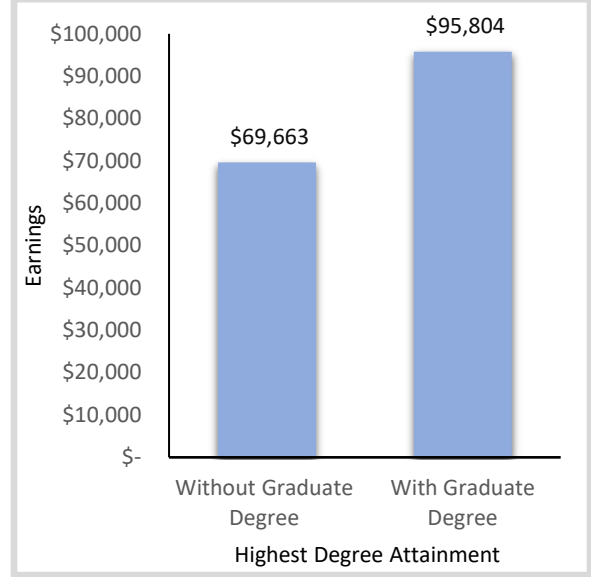
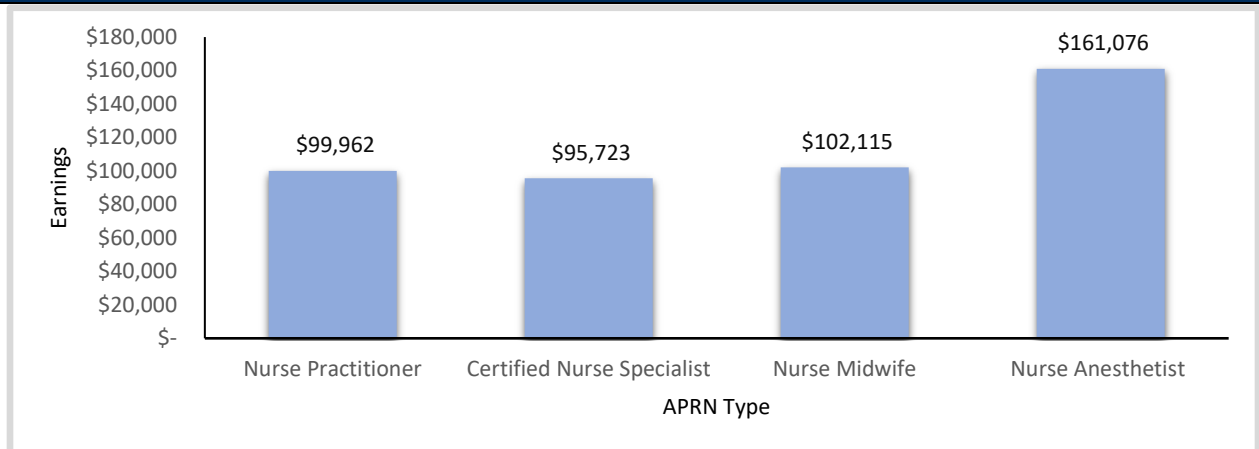


Figure 12: Median Full-Time Earnings by Advanced Practice Type



## Appendix

Table 1: RN Employment by State

State/Census Division	Total Active Licenses	Percent Employed <sup>3</sup>	Percent Unemployed
<b>New England</b>			
CONNECTICUT	52,265	82.7%	17.3%
MAINE	21,535	79.9%	20.1%
MASSACHUSETTS	111,545	83.5%	16.5%
NEW HAMPSHIRE	18,400	89.7%	10.3%
NEW ENGLAND OTHER*	22,464	87.8%	12.2%
<b>Middle Atlantic</b>			
NEW JERSEY	97,103	84.6%	15.4%
NEW YORK	238,280	81.7%	18.3%
PENNSYLVANIA	193,212	81.5%	18.5%
<b>East North Central</b>			
INDIANA	97,223	80.0%	20.0%
ILLINOIS	157,452	80.9%	19.1%
MICHIGAN	137,541	77.8%	22.2%
OHIO	184,000	82.4%	17.6%
WISCONSIN	88,565	80.3%	19.7%
<b>West North Central</b>			
IOWA	46,180	84.2%	15.8%
NEBRASKA	25,044	92.6%	7.4%
KANSAS	42,927	81.6%	18.4%
MINNESOTA	89,047	83.8%	16.2%
MISSOURI	92,982	82.4%	17.6%
WEST NORTH CENTRAL OTHER*	25,734	89.2%	10.8%
<b>South Atlantic</b>			
DELAWARE	15,894	86.1%	13.9%
WASHINGTON DC	13,028	95.8%	4.2%
FLORIDA	272,378	78.7%	21.3%
GEORGIA	108,599	85.1%	14.9%
MARYLAND	68,323	87.7%	12.3%
NORTH CAROLINA	120,647	84.7%	15.3%
SOUTH CAROLINA	40,586	78.7%	21.3%
VIRGINIA	89,801	84.7%	15.3%
WEST VIRGINIA	26,592	85.5%	14.5%
<b>East South Central</b>			
ALABAMA	62,725	81.9%	18.1%
KENTUCKY	60,983	85.2%	14.8%
MISSISSIPPI	41,331	87.7%	12.3%
TENNESSEE	91,974	88.9%	11.1%
<b>West South Central</b>			
ARKANSAS	36,726	82.0%	18.0%
LOUISIANA	54,067	85.5%	14.5%

<sup>3</sup> Employment may include self-employment



State/Census Division	Total Active Licenses	Percent Employed <sup>3</sup>	Percent Unemployed
<b>OKLAHOMA</b>	44,199	80.2%	19.8%
<b>TEXAS</b>	278,983	81.3%	18.7%
<b>Mountain</b>			
<b>ARIZONA</b>	75,566	80.2%	19.8%
<b>COLORADO</b>	66,179	81.9%	18.1%
<b>IDAHO</b>	18,766	82.3%	17.7%
<b>NEW MEXICO</b>	23,215	84.9%	15.1%
<b>UTAH</b>	33,899	85.8%	14.2%
<b>NEVADA</b>	28,244	88.7%	11.3%
<b>MOUNTAIN OTHER*</b>	23,073	81.8%	18.2%
<b>Pacific</b>			
<b>ALASKA</b>	10,298	87.9%	12.1%
<b>CALIFORNIA</b>	365,464	81.5%	18.5%
<b>HAWAII</b>	20,006	84.2%	15.8%
<b>OREGON</b>	46,490	88.6%	11.4%
<b>WASHINGTON</b>	78,127	88.4%	11.6%

\* The weighted or unweighted cell counts for the population of active nurse licenses in these states did not meet the Census disclosure avoidance standards for the Public Use File data. Please access the NSSRN Technical Report for more information.

New England Other: Rhode Island, Vermont  
West North Central Other: North Dakota, South Dakota  
Mountain Other: Montana, Wyoming