Nursing Data and Analysis

New Jersey Collaborating Center for Nursing

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Vision

- To be the dominant voice on nursing workforce solutions for New Jersey citizens.

Mission

- Ensure that competent, future-oriented, diverse nursing providers are available in sufficient numbers and preparation to meet the demand of the evolving healthcare system in New Jersey.
- Transform the healthcare system through research and innovative model programs.
- Create a central repository for education practice and research related to the nursing workforce.
- Engage academic/practice partners, inter-professional colleagues, government and legislative agencies, consumers, business, and industry.
- Promote a positive image for nursing.

NOTE:

Any future modifications to this report will be published electronically.
For the most recent data on the New Jersey Nursing Workforce, visit www.njccn.org.

Contents

Introduction

The New Jersey Collaborating Center for Nursing (NJCCN) is the primary source for data on New Jersey's nursing workforce. NJCCN serves as a catalyst for the implementation of innovative education and practice models using data to create programs that address needs in the state. To that end, NJCCN conducts an annual survey of all nursing education programs on behalf of the New Jersey Board of Nursing (NJBON). This Educational Capacity Survey allows NJCCN to monitor enrollment and graduation trends as well as demographics of both students and faculty. These data contribute to the **supply** data.

Working collaboratively with NJBON, NJCCN also collects workforce data at time of licensure for Registered Nurses (RNs), Licensed Practical Nurses (LPNs), and Advanced Practice Nurses (APNs). In 2018, NJBON transitioned its survey questions to the Nursys® Licensure and Workforce tool to align with national datasets. The Educational Capacity and Workforce data together create our understanding of the **supply** of nurses in New Jersey.

Based on the national trends and the need to monitor and prepare the workforce, NJCCN has determined that using real-time **demand data** is an important first step in evaluating demand for nursing in New Jersey. While survey data for a specific industry is important, the limited response rate of surveys and the delays in obtaining primary data in real-time do not make these methods a first-tier approach. Quality data are a prerequisite for effective workforce planning and policymaking for the nursing workforce. Healthcare workforce forecasting models provide a means for making future projections, which can be valuable in quantifying the supply, distribution, and demand of nurses and are critical to designing programs and policies that will ensure access to care and an effective healthcare system (Bienemy, 2015).

Forecasting nursing workforce supply and demand is complex. State-level data may be more detailed than national data, leading state-level projections to differ substantially from their national counterparts. Some variables, such as changes in healthcare or population shifts within New Jersey, may be too difficult to factor into the model. Though the goal is to provide current data on supply and demand, one must view this report in the context of volatility. Workforce data should to be viewed with the following caveats:

- National estimates may differ from state data substantially
- Nurses work in teams and therefore other healthcare workforce members data are also important to consider (e.g. Certified Nursing Assistants, Home Health Aides, and MDs)
- Projections that are further out in years have a greater error rate
- Data are only as good as the information that is provided by the respondent

How to Use the Report

This report is broken up into the following chapters, with references and a glossary at the end:

- Chapter 1: Educational Capacity Report
- Chapter 2: Workforce Supply Data
- Chapter 3: Workforce Demand Data

Executive Summary

The Center's 2018 edition of the Annual Data Report provides detailed information on supply (educational capacity and workforce data) as well as demand data across settings. Supply and demand are used to project nursing capacity based on potential retirements across settings. These data will provide direction for ensuring that we meet the needs of New Jersey citizens.

Factors that may influence the supply and demand of nurses in New Jersey include but are not limited to aging baby boomers; the number of nurses retiring annually; healthcare reform changes; and physician retirement (Buerhaus, Skinner, Auerbach, and Staiger, 2017).

Table 1: Nurses per capita (Nurses per 100k population)

	New Jersey	**National Range**
RNs	888	704-1,515
LPNs	183	63-440

(NCSBN, 2018)

Supply and Demand Projections for New Jersey

Registered Nurses

Health Resources and Services Administration (HRSA, 2017) shows inequitable distribution and shortage of RNs in New Jersey by 2030. However, migration from surrounding states may eliminate this shortage. The biggest concerns for New Jersey are:

- Adequate faculty to prepare nurses. Aging faculty and the increasing risk of retirement impacts ability to train a more highly educated nursing workforce.
- New nurses staying in acute care setting instead of shifting to out-of-hospital areas of need.

Licensed Practical Nurses

- HRSA (2017) data show an excess supply of LPNs for New Jersey by 2030.
- NJCCN (2018) data continues to show an excess of LPNs. However, decline in the graduation rates may resolve this issue.

Advanced Practice Nurses

Access to care is an issue in New Jersey with 13 of the 21 counties showing a shortage of primary care providers. This could be lessened by modernizing the regulation for APN practice in New Jersey. Currently, 22 states and the District of Columbia have changed regulations to eliminate this barrier by eliminating the required contract with physicians. This change can help with both the mental health crisis and primary care being available to vulnerable populations and communities across New Jersey.

"Policy Analysis: Improving Access to Care for New Jersey" can be accessed at:
http://www.njccn.org/wp-content/uploads/2019/06/APN-Policy-Analysis-from-NJCCN.pdf

Home Health Aides

New in the report this year is information about the New Jersey Home Health Aide (HHA) workforce. Considering the aging population, the need for HHAs is expected to grow. According to the Bureau of Labor Statistics, the demand for HHAs in New Jersey was 84% higher than the national average in 2018. As the first step to understanding the HHA workforce, organizations that offer HHA training courses in NJ were surveyed about their courses and the demographic characteristics of individuals who took these courses. The employers also reported that the majority of HHAs were employed as per diem. This information had a low response rate, so further exploration is needed.

Methodology

Supply

Supply data are derived both from the entrance of new nurses (educational capacity) into the system as well as the data on the current workforce.

Educational Capacity

An email letter describing the purpose of the New Jersey Educational Capacity Survey was sent to the dean of each nursing program in New Jersey with a portable document file (pdf) of the questionnaire and a glossary of terms. The questionnaire included all items from the nurse minimum dataset (N-MDS) as outlined by the National Forum of Nursing Workforce Centers. Additional questions were added to provide additional context. Data were reviewed for completeness and consistency and adjusted as appropriate. When discrepancies in the data were found, the school was contacted for clarification. This is self-reported data which can have errors in how the school interprets or completes the survey.

Current Workforce Data

Licensure is renewed for all nursing categories every two years. Thus, every year, half of the APN, RN, and LPN licensure data are collected through the BON licensure data. At the end of the two-year period, the data are merged and analyzed collectively. These data are voluntarily self-reported by the nurses in the state. The data are provided to a third-party vendor and used by the BON prior to being sent to the Center for analysis. Because it is self-reported, these data can have errors. In 2018, the BON changes its survey questions to the Nursys® Licensure and Workforce tool. Data for 2018-2019 were collected using the Nursys® tool.

Demand

Demand data that determines workforce trends in real-time is important for predicting the job market. As such, the Center is using Labor Insight™ designed by Burning Glass Technologies (BGT). Labor Insight™ draws on a comprehensive database of real-time demand on a national, state, and regional level. This database can track and analyze employer hiring activities by industry, occupation, education, and skills to help provide direction. Labor Insight™ obtains data on online job postings from up to 40,000 sources, which is mined and coded from each posting to describe skills, education, and experience. O*Net is the nation's primary source of occupational information and is developed under the sponsorship of the US Department of Labor/Employment and Training Administration. The O*Net Standard Occupational Classification (O*Net –SOC) is used to standardize the approach to postings for the data report.

The NJCCN used data mined from BGT to determine the demand for nurses in the state of New Jersey. The O*Net –SOC taxonomy was used to standardize the occupation-specific indicators. The job ads were reviewed to eliminate any per diem positions, out-of-state commuters, temporary positions, and postings that had job openings outside of New Jersey.

There are several limitations of BGT data. A major limitation is that online job advertisements are only partially representative of the labor market and the demand for labor. Current approaches to advertising also include newspapers, career fairs, and social networking (American Psychological Association APA, 2015). Another limitation is that one job posting may advertise the need for multiple nurses, but will only register as a single post in the database. Duplicate postings are common and may be missed even though BGT uses an algorithm to remove duplications in each 60-day timeframe. If a job is not filled and is reposted within this 60-day timeframe, it will be a duplicate that cannot be screened out. The use of O*Net-SOC also creates a limitation because it classifies most RNs under a single code (291141.00) and provides special codes only for Acute Care Nurses (291141.01) and Critical Care Nurses (291141.03), which creates challenges for breaking the codes down into more pinpointed specialties and subfields. Lastly, because new web sources of online job ads are continuously added by BGT, samples of job advertisements from different time periods are incomparable (APA, 2015). Thus, BGT data cannot be used to study longitudinal changes in the online labor market (APA, 2015).

Projection of Nurse Retirement

The 2017 report had a complete analysis of projected nurse retirements, which can be found at http://www.njccn.org/wp-content/uploads/2019/08/11-Chapter-4-Projection.pdf. This year's publication builds on that report by providing an update based on 2019 data.

Chapter 1

Educational Capacity Report

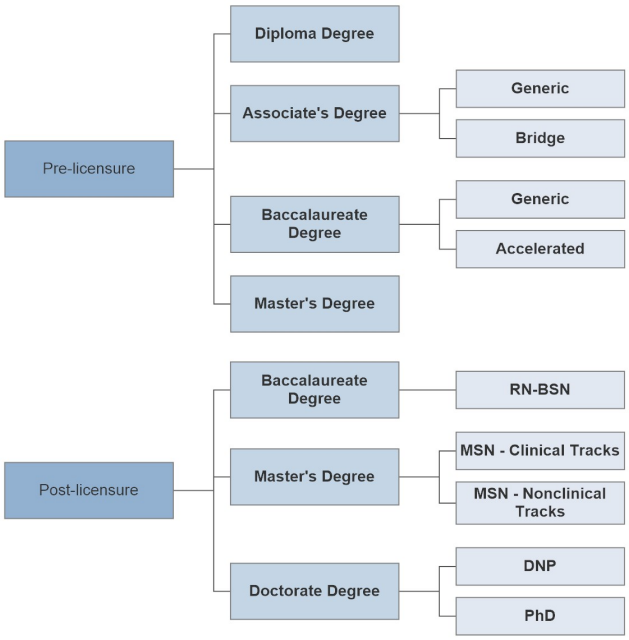
This chapter presents program information and statistics on students and faculty in New Jersey's nursing education programs. These data were self-reported by schools in the the 2017-2018 NJCCN Educational Capacity Survey. This survey is distributed annually by NJCCN and compliance is reported to the NJBON.

The first section of this chapter presents program information and student data for pre-licensure and post-licensure programs for Registered Nurse (RN) education (see **Figure 1.1**). The second section presents program information and student data for Licensed Practical Nurse (LPN) education programs. The third section describes faculty employment and demographic data.

Educational Capacity Report-RN

Overview

Figure 1.1: Pre-Licensure and Post-Licensure Nursing Program Types



There are 47 schools in New Jersey that provide RN education. This report includes data for the 45 schools that responded to NJCCN's Educational Capacity Survey. Pre-licensure programs qualify graduates to sit for the National Council Licensure Examination for Registered Nurses (NCLEX-RN). These include Diploma in Nursing (DIP); Associate Degree in Nursing (ADN); Baccalaureate of Science in Nursing (BSN); and Pre-licensure Master's in Nursing (Pre-licensure MSN). Please note that though Associate Degree programs may be Associate Degree in Nursing (ADN), Associate of Science Degree in Nursing (ASN) or Associate of Applied Science in Nursing (AAS), for the purposes of this report, all Associate Degree Programs are abbreviated as ADN.

Post-licensure programs provide additional credentials for graduates who have already attained their RN licensure. These include RN-BSN Programs for Registered Nurses who obtained their degree at the Diploma or Associate level; Post-Licensure Master's Degrees (Post-licensure MSN) in clinical or non-clinical tracks; Doctorate of Nursing Practice (DNP); and Doctor of Philosophy in Nursing (PhD).

New Jersey schools offer the following pre-licensure and post-licensure programs. Each school may have multiple programs. For example, one school could have both a Generic ADN and an ADN-Bridge program.

Table 1.1: New Jersey RN Programs

Pre-licensure Nursing Programs
5 Diploma
28 Associate (17 Generic and 11 Bridge)
26 Baccalaureate (16 Generic, 10 Accelerated)
1 Pre-licensure Master's
Post-licensure Nursing Programs
19 RN-BSN
12 Post-licensure Master's, Clinical Tracks
12 Post-licensure Master's, Non-Clinical Tracks
9 Doctorate of Nursing Practice
3 Doctor of Philosophy (PhD) in Nursing

Data for the rest of this chapter only include respondent programs/schools.

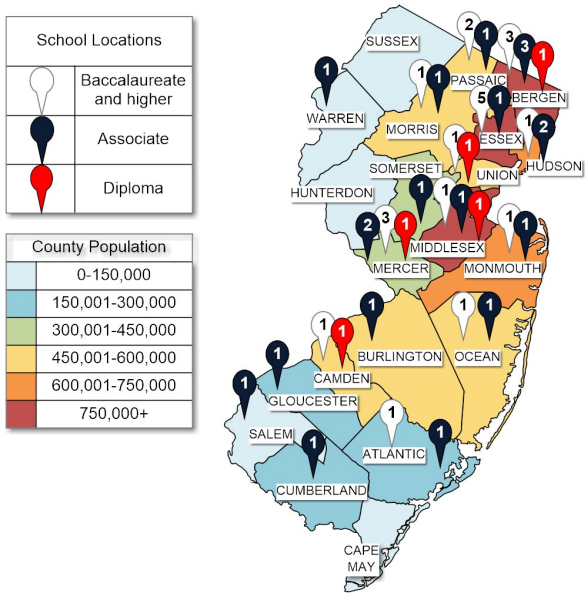
Table 1.2: Federal tax classification status

	DIP	**ADN**	**BSN and Higher Degree**
	N=5	N=18	N=22
Public	0 (0%)	16 (89%)	10 (45%)
Private/For-profit	0 (0%)	2 (11%)	0 (0%)
Private/Non-profit	5 (100%)	0 (0%)	12 (55%)

*N is the number of respondent schools.

Figure 1.2 displays the primary location of New Jersey's 47 nursing schools, inclusive of programs that did not participate in the 2017-2018 survey. Many Baccalaureate and Associate Degree programs also have satellite locations that are not noted on this map.

Figure 1.2: Geographic Distribution of RN Programs' Primary Campuses



In **Figure 1.2**, the number in each pin represents the number of nursing schools of that type located in the county. The accompanying County Population chart provides context so that the density of programs may be compared to the density of population (United States Census Bureau, 2016). Nursing programs are generally concentrated in more populous counties, especially Essex and Bergen counties.

In the Educational Capacity Survey, NJCCN presented possible reasons for why respondents rejected qualified applicants. Additional reasons provided by respondents in a comment box included lack of available science faculty and lab space for science courses, a cap on the number of students permitted to enroll in the program, and insufficient budget. As shown in **Table 1.3**, the most common reasons for ADN schools to reject qualified applicants were lack of qualified faculty (50% of schools) and lack of clinical sites (44% of schools). Most Baccalaureate and higher degree programs did not reject any qualified applicants; those that did reported an even distribution across the given categories.

Table 1.3: Reason for rejection of qualified applicants

	DIP N=5	**ADN** N=18	**BSN and Higher Degree** N=22
No applications rejected	2 (40%)	6 (33%)	15 (68%)
Lack of qualified faculty	0 (0%)	9 (50%)	3 (14%)
Lack of clinical space	2 (40%)	6 (33%)	3 (14%)
Limited classroom space	2 (40%)	6 (33%)	4 (18%)
Lack of clinical sites	1 (20%)	8 (44%)	4 (18%)
Other	0 (0%)	1 (6%)	3 (14%)

*N is the number of respondent schools.

Pre-Licensure Programs

Program Characteristics

This section presents information about the format and content of New Jersey's pre-licensure education programs. Pre-licensure programs are those that prepare students for the **initial** National Council Licensure Exam for Registered Nurses (NCLEX-RN) that leads to licensure as a registered nurse. All survey respondents were accredited nursing education programs.

Self-reported data in **Table 1.4** indicate that programs are primarily face-to-face. Some schools offer hybrid programs, but there are no exclusively online pre-licensure programs at this time.

Table 1.4: Delivery format of pre-licensure programs

	DIP	**ADN** Generic	**ADN** Bridge	**BSN** Generic	**BSN** Accel.	**MSN**
Face-to-Face	4	12	8	14	9	1
Hybrid	1	6	4	2	1	0

In NJCCN's Educational Capacity Survey, clinical practice time may be hands-on or set in skill lab, simulation lab, or other settings. As shown in **Table 1.5**, a majority of clinical practice time is hands-on across all levels of pre-licensure RN education.

Table 1.5: Format of Clinical Practice Time (%)

	DIP N=5	**ADN** Generic N=17	**ADN** Bridge N=11	**BSN** Generic N=16	**BSN** Accel. N=10	**MSN** N=1
Skill Lab	24(%)	14(%)	11(%)	15(%)	16(%)	10(%)
Simulation Lab	8(%)	9(%)	9(%)	11(%)	11(%)	10(%)
Hands-On	68(%)	70(%)	80(%)	74(%)	72(%)	80(%)
Other	0(%)	7(%)	0(%)	0(%)	2(%)	0(%)

*N is the number of respondent programs.

Table 1.6 on the following page shows the time elapsed between student graduation and employment as a nurse. According to **Table 1.6**, 55% of graduates from Generic BSN programs secured their first job within 0-7 months of graduation. Graduates from Diploma and ADN programs took longer. The data indicate that 74% of Diploma graduates, 51% of Generic ADN graduates, and 54% of ADN Bridge graduates took 8 or more months to find employment. Tracking of new graduate employment is not easily captured.

Table 1.6: Time to employment after graduation (%)

	DIP N=384	**ADN** Generic N=1074	**ADN** Bridge N=628	**BSN** Generic N=975	**BSN** Acc. N=291	**MSN** N=22
0-3 Months	0%	10%	3%	38%	27%	30%
4-7 Months	23%	13%	2%	17%	7%	10%
8-11 Months	34%	38%	6%	8%	9%	10%
12+ Months	40%	13%	48%	2%	1%	0%
Unknown/Do not Track	3%	26%	41%	34%	56%	50%

*N is the number of graduates.

Pre-Licensure Application, Admission, Enrollment, and Graduation

The total number of applicants reported by each school may be greater than the raw number of applicants if an individual applied to more than one school. Our data do not provide unique identifiers for each applicant, and thus a student applying to two programs will be counted twice. **Table 1.7** through **Table 1.10** provide the number of pre-licensure applicants, admitted students, enrollees, and graduates for the 2018 academic year and four-year trended data for 2015-2018.

In **Table 1.7**, the number of Available Seats (Available) is a count of the total number of seats available for newly admitted students. Qualified Applicants (Qualified) are those who submitted complete applications on time and met all institutional requirements for formal admission to the nursing program. Admitted Applicants (Admitted) are those who received official notice from the program that they were invited to begin the nursing program. Enrollees are those who actually enrolled in the program.

Table 1.7: Pre-licensure student application, admission, and enrollment 2018

	DIP N=5	**ADN** Generic N=17	**ADN** Bridge N=11	**BSN** Generic N=16	**BSN** Acc. N=10	**MSN** N=1
Available	1014	1746	815	2303	377	30
Qualified	1292	2247	901	6510	528	50
Admitted	949 (74%)	1795 (80%)	784 (87%)	4272 (66%)	479 (91%)	50 (100%)
Enrollees	791 (83%)	1484 (83%)	749 (96%)	1505 (35%)	338 (71%)	17 (34%)

*N is the number of respondent programs.

Table 1.8: Pre-licensure student application, admission, and enrollment trend 2015-2018

	2015 N=42	**2016** N=39	**2017** N=41	**2018** N=42
Available	5348	4989	5289	5908
Qualified	10,531	10,529	9113	11,528
Admitted	6967	6872	7140	8329
Enrollees	4677 (67%)	4396 (64%)	4549 (64%)	4884 (59%)

*N is the number of respondent schools.

Table 1.9 shows the total number of students enrolled in pre-licensure programs each year, inclusive of all students from new enrollees through those in their final year. According to program directors, the number of reported enrollees in Diploma programs dropped in 2018 due to changes in reporting and clerical errors. However, enrollment in ADN programs and Generic BSN programs increased, keeping total enrollment numbers relatively stable.

Table 1.9: Pre-licensure total student enrollment trend 2015-2018

	2015 N=42	**2016** N=39	**2017** N=41	**2018** N=42
DIP	2971 (28%)	2867 (26%)	3055 (25%)	1584 (14%)
ADN	3360 (31%)	3493 (31%)	3931 (32%)	4100 (35%)
BSN (Generic)	3719 (35%)	3984 (35%)	4575 (37%)	5055 (44%)
BSN (Accelerated)	578 (5%)	793 (7%)	671 (1%)	806 (7%)
MSN	41 (0%)	87 (1%)	43 (0%)	42 (0%)
Total	**10,669**	**11,224**	**12,275**	**11,587**

*N is the number of respondent schools.

There were a total of 3374 graduates from pre-licensure nursing programs in 2018. This includes 384 Diploma graduates, 1074 from generic ADN programs, 628 from ADN Bridge programs, 975 from generic BSN programs, 291 from Accelerated BSN programs, and 22 from the pre-licensure MSN program. The data in table 1.10 show a 6.7% increase in the number of pre-licensure graduates from 2015-2018.

Table 1.10: Pre-licensure student graduation trend 2015-2018

	2015 N=42	**2016** N=39	**2017** N=41	**2018** N=42
DIP	457	484	457	384
ADN Generic	1002	883	1008	1074
ADN Bridge	522	355	337	628
BSN Generic	788	869	966	975
BSN Accelerated	368	384	330	291
MSN	24	32	24	22
Total	**3161**	**3007**	**3122**	**3374**

*N is the number of respondent schools.

NCLEX-RN Pass Rates for Pre-Licensure Students

Nursing students must pass the National Council Licensure Exam (NCLEX-RN) to receive licensure as an RN. **Table 1.11** shows the pass rates for first-time, U.S.-educated candidates who took the NCLEX-RN in 2018 (NCSBN, 2019). These data are inclusive of schools that did not respond to the 2018 NJCCN Educational Capacity Survey.

Table 1.11: Pass rates for NCLEX-RN taken in 2018

	Candidates	**Total Passed**	**Pass Rate (%)**
Diploma	383	347	91%
ADN	1,595	1,408	88%
BSN	1,373	1,248	91%
Total	**3,351**	**3,003**	**90%**

Pre-Licensure Student Demographics

Table 1.12 describes pre-licensure student student demographics. This is inclusive of all students matriculating in the 2018 academic year, from new enrollees to those who are about to graduate. Any student data that was not known by respondent schools is marked DND for "Did not Disclose."

Table 1.12 shows demographic data for pre-licensure nursing students. Pre-licensure nursing students are primarily female, with the highest percentage of female students (91%) in ADN Bridge programs. The highest percentage of male students (29%) are in the pre-licensure MSN program. Most students across all levels of pre-licensure education are White. ADN Bridge programs are the exception, with 60% of their students reported as Black/African American.

Most students in generic ADN programs, ADN Bridge programs, and pre-licensure MSN programs are in higher age brackets than students in generic BSN programs. ADN Bridge programs have the highest percentage of students over the age of 40. The mean age was calculated by weighting the median values of each age range.

Table 1.13 describes four-year trends in pre-licensure nursing student demographics. Students in 2018 showed a slight decrease in racial/ethnic diversity as compared to previous years. White/ Caucasian student are consistently the largest racial/ethnic group among pre-licensure students from 2015-2018.

Table 1.12: Pre-licensure student demographics

	DIP N=1584	**ADN Generic N=3107**	**ADN Bridge N=993**	**BSN Generic N=5055**	**BSN Accel. N=806**	**MSN N=42**
Gender						
Female	1355 (86%)	2548 (82%)	899 (91%)	4394 (87%)	657 (82%)	30 (71%)
Male	229 (15%)	453 (15%)	94 (10%)	643 (13%)	147 (18%)	12 (29%)
Transgender	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
DND	0 (0%)	106 (3%)	0 (0%)	18 (0%)	2 (0%)	0 (0%)
Race/Ethnicity						
American Indian	11 (1%)	5 (0%)	9 (1%)	15 (0%)	0 (0%)	0 (0%)
Asian	140 (9%)	298 (10%)	59 (6%)	780 (15%)	85 (11%)	3 (7%)
Black/African Am.	463 (29%)	389 (12%)	595 (60%)	659 (13%)	92 (11%)	7 (17%)
Hawaiian/Pacific Isl.	20 (1%)	13 (0%)	6 (1%)	30 (1%)	2 (0%)	0 (0%)
White/Caucasian	466 (29%)	1612 (52%)	132 (13%)	2402 (48%)	352 (44%)	25 (60%)
Hispanic/Latino	345 (22%)	506 (16%)	107 (11%)	849 (17%)	100 (12%)	2 (5%)
Other	9 (1%)	15 (1%)	3 (0%)	32 (1%)	0 (0%)	0 (0%)
2+ Races	57 (4%)	54 (2%)	16 (2%)	157 (3%)	99 (12%)	2 (5%)
DND	73 (5%)	215 (7%)	66 (7%)	131 (3%)	76 (9%)	3 (7%)
Age						
17-20	69 (4%)	268 (9%)	5 (1%)	2458 (49%)	0 (0%)	0 (0%)
21-25	443 (28%)	1147 (37%)	85 (9%)	1779 (35%)	339 (42%)	4 (10%)
26-30	425 (27%)	685 (22%)	222 (22%)	383 (8%)	237 (29%)	32 (76%)
31-40	423 (27%)	651 (21%)	408 (41%)	230 (5%)	161 (20%)	5 (12%)
41-50	186 (12%)	283 (9%)	233 (24%)	89 (2%)	53 (7%)	1 (2%)
51-60	37 (2%)	62 (2%)	37 (4%)	12 (0%)	16 (2%)	0 (0%)
61+	1 (0%)	7 (0%)	3 (0%)	0 (0%)	0 (0%)	0 (0%)
DND	0 (0%)	4 (0%)	0 (0%)	104 (2%)	0 (0%)	0 (0%)
Mean Age	**30.9**	**29.1**	**35.8**	**21.8**	**29.1**	**28.8**

*N is the number of students.

Table 1.13: Pre-licensure student demographic trend 2015-2018

	2015 N=42	**2016 N=39**	**2017 N=41**	**2018 N=42**
Gender				
Female	9080 (85%)	9482 (85%)	10,440 (85%)	9883 (85%)
Male	1538 (14%)	1599 (14%)	1748 (14%)	1578 (14%)
Transgender	0 (0%)	0 (0%)	3 (0%)	0 (0%)
DND	51 (0%)	16 (1%)	84 (1%)	126 (1%)
Race/Ethnicity				
American Indian	39 (0%)	26 (0%)	32 (0%)	40 (0%)
Asian	1207 (11%)	1238 (11%)	1305 (11%)	1365 (12%)
Black/African Am.	2268 (21%)	2263 (20%)	2574 (21%)	2205 (19%)
Hawaiian/Pacific Isl.	66 (1%)	72 (1%)	39 (0%)	71 (1%)
White/Caucasian	4324 (41%)	4617 (41%)	4870 (40%)	4989 (43%)
Hispanic/Latino	1754 (16%)	1872 (17%)	2163 (18%)	1909 (16%)
Other	140 (1%)	105 (1%)	72 (1%)	59 (1%)
2+ Races	212 (2%)	263 (2%)	368 (3%)	385 (3%)
DND	659 (6%)	768 (7%)	815 (7%)	564 (5%)
Age				
17-20	2443 (23%)	2549 (23%)	2737 (22%)	2800 (24%)
21-25	3314 (31%)	3417 (30%)	3608 (29%)	3797 (33%)
26-30	1912 (18%)	1749 (16%)	2049 (17%)	1984 (17%)
31-40	1788 (17%)	2019 (18%)	1965 (16%)	1878 (16%)
41-50	768 (7%)	866 (8%)	848 (7%)	845 (7%)
51-60	173 (2%)	273 (2%)	178 (1%)	164 (1%)
61+	10 (0%)	21 (0%)	10 (0%)	11 (0%)
DND	261 (2%)	330 (3%)	880 (7%)	108 (1%)
Total Students	**10,669**	**11,096**	**12,275**	**11,587**

*N is the number of respondent schools across all pre-licensure settings.

Post-Licensure Programs

Program Characteristics

Post-licensure programs provide additional credentials for graduates who have already attained their RN licensure. **Table 1.14** describes the delivery format of post-licensure programs. Except for PhD programs, post-licensure programs are delivered in a variety of online, face-to-face, and hybrid formats.

Table 1.14: Delivery format of post-licensure programs

	RN-BSN	**MSN** Clinical	**MSN** Non-Clinical	**DNP**	**PhD**
	N=19	N=12	N=12	N=9	N=3
Exclusively Online	3	3	4	4	0
Face-to-Face	2	5	5	2	3
Hybrid	14	4	5	3	0

*N is the number of respondent programs.

Post-Licensure Application, Admission, Enrollment, and Graduation

The total number of applicants reported by each school may be greater than the raw number of applicants if an individual applied to more than one school. Our data do not provide unique identifiers for each applicant, and thus a student applying to two programs will be counted twice. The following four tables provide post-licensure application, admission, enrollment, and graduation rates for the 2018 academic year and four-year trended data for 2015-2018.

In **Table 1.15**, the number of Available Seats is a count of the total number of seats available for newly admitted students. Qualified Applicants (Qualified) are those who submitted complete applications on time and who met all institutional requirements for formal admission to the nursing program during the reporting period. Admitted Applicants (Admitted) are those who received official notice from the program that they were invited to begin the nursing program during the reporting period. Enrollees are those who actually enrolled in the program.

The trend in **Table 1.18** shows a decline in the number of RN-BSN and MSN graduates and an increase in the number of DNP graduates.

Table 1.15: Post-licensure student application, admission, and enrollment 2018

	RN-BSN N=19	**MSN** Clinical N=12	**MSN** Non-Clinical N=12	**DNP** N=9	**PhD** N=3
Available	4402	1614	1234	276	18
Qualified	1273	515	210	288	13
Admitted (%)	1250 (98%)	473 (92%)	188 (90%)	287 (100%)	13 (100%)
Enrollees (%)	855 (68%)	231 (49%)	162 (86%)	187 (65%)	12 (92%)

*N is the number of respondent programs.

Table 1.16: Post-licensure student application, admission, and enrollment trend 2015-2018

	2015 N=17	**2016** N=16	**2017** N=18	**2018** N=20
Available	5109	4945	4548	6310
Qualified	2775	2953	2311	2299
Admitted (%)	2675 (96%)	2833 (96%)	2207 (95%)	2211 (96%)
Enrollees (%)	1932 (72%)	1613 (57%)	1398 (63%)	1447 (65%)

*N is the number of respondent schools.

Table 1.17: Post-licensure total student enrollment trend 2015-2018

	2015 N=17	**2016** N=16	**2017** N=18	**2018** N=20
RN-BSN	3600 (57%)	2604* (52%)	2140 (47%)	1947 (49%)
MSN Clinical	1268 (20%)	1064* (21%)	1185 (26%)	825 (21%)
MSN Non-Clinical	792 (12%)	541* (11%)	489 (11%)	410 (10%)
DNP	589 (9%)	677* (14%)	704 (15%)	738 (18%)
PhD	88 (1%)	84* (2%)	82 (2%)	85 (2%)
Total	**6337**	**4970**	**4600**	**4005**

*2016 program enrollment rates were inflated beyond the number of students reported in each race and age category. Enrollment rates were imputed to match proportionately. N is the number of schools.

Table 1.18: Post-licensure graduation trend 2015-2018

	2015 N=17	**2016** N=16	**2017** N=18	**2018** N=20
RN-BSN	1068	1063	662	745
MSN	601	616	469	377
DNP	93	88	116	137
PhD	14	7	3	10
Total	**1776**	**1774**	**1250**	**1269**

*N is the number of respondent schools.

Post-Licensure Student Demographics

Table 1.19 describes post-licensure student student demographics. This is inclusive of all students matriculating in the 2018 academic year, from new enrollees to those who are about to graduate.

Table 1.19: Post-licensure student demographics

	RN-BSN	**MSN**	**MSN** Clinical	**DNP** Non-Clinical	**PhD**
	N=1947	**N=825**	**N=410**	**N=738**	**N=85**
Gender					
Female	1657 (85%)	735 (89%)	344 (84%)	623 (84%)	75 (88%)
Male	273 (14%)	87 (11%)	48 (12%)	115 (16%)	10 (12%)
Transgender	1 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
DND	16 (1%)	3 (0%)	18 (4%)	0 (0%)	0 (0%)
Race/Ethnicity					
American Indian	1 (0%)	1 (0%)	2 (0%)	1 (0%)	0 (0%)
Asian	184 (9%)	140 (17%)	54 (13%)	113 (15%)	9 (11%)
Black/African Am.	230 (12%)	133 (16%)	52 (13%)	167 (23%)	11 (13%)
Hawaiian/Pacific Isl.	22 (1%)	5 (1%)	6 (2%)	4 (1%)	0 (0%)
White/Caucasian	990 (51%)	393 (48%)	206 (50%)	329 (45%)	51 (60%)
Hispanic/Latino	212 (11%)	109 (13%)	46 (11%)	81 (11%)	8 (9%)
Other	15 (1%)	5 (1%)	2 (0%)	2 (0%)	0 (0%)
2+ Races	50 (3%)	10 (1%)	4 (1%)	8 (1%)	1 (1%)
DND	243 (12%)	29 (4%)	38 (9%)	33 (4%)	5 (6%)
Age					
17-20	2 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
21-25	189 (10%)	151 (18%)	24 (6%)	70 (9%)	0 (0%)
26-30	327 (17%)	147 (18%)	75 (18%)	238 (32%)	3 (4%)
31-40	576 (30%)	289 (35%)	109 (27%)	220 (30%)	19 (22%)
41-50	498 (26%)	198 (24%)	108 (26%)	138 (19%)	36 (42%)
51-60	293 (15%)	28 (3%)	79 (19%)	60 (8%)	24 (28%)
61+	35 (2%)	4 (0%)	7 (2%)	12 (2%)	3 (4%)
DND	27 (1%)	8 (1%)	8 (2%)	0 (0%)	0 (0%)

*N is the number of students.

Post-licensure nursing students are primarily female, with the highest percentage of female students (88%) in PhD programs. The highest percentage of male students (16%) are in DNP programs. Most students across all levels of post-licensure education are White/Caucasian, with the highest percentage of White/Caucasian students (60%) in PhD programs. The mean age of post-licensure students is 38.5. The mean age was calculated by weighting the median values of each age range. In 2018, 50% of post-licensure students were White/Caucasian, 15% Black/African American, 12% Asian, and 11% Hispanic/Latino.

Table 1.20: Post-licensure student demographic trend 2015-2018

	2015 N=17	**2016 N=16**	**2017 N=18**	**2018 N=20**
Gender				
Female	5709 (90%)	4407 (89%)	3709 (81%)	3434 (86%)
Male	628 (10%)	556 (11%)	482 (10%)	533 (13%)
Transgender	0 (0%)	0 (0%)	0 (0%)	1 (0%)
DND	2 (0%)	7 (0%)	409 (9%)	37 (1%)
Race/Ethnicity				
American Indian	9 (0%)	7 (0%)	4 (0%)	5 (0%)
Asian	671 (11%)	515 (10%)	500 (11%)	500 (12%)
Black/African Am.	938 (15%)	565 (13%)	600 (13%)	593 (15%)
Hawaiian/Pacific Isl.	47 (1%)	35 (1%)	55 (1%)	37 (0%)
White/Caucasian	3370 (53%)	2481 (50%)	1946 (42%)	1969 (50%)
Hispanic/Latino	545 (9%)	502 (10%)	435 (9%)	456 (11%)
Other	29 (0%)	12 (0%)	15 (0%)	24 (0%)
2+ Races	55 (1%)	69 (1%)	59 (1%)	73 (2%)
DND	673 (11%)	693 (14%)	986 (21%)	640 (9%)
Age				
17-20	8 (0%)	52 (1%)	30 (1%)	2 (0%)
21-25	433 (7%)	576 (12%)	301 (7%)	434 (11%)
26-30	1163 (18%)	1080 (22%)	790 (17%)	790 (20%)
31-40	2042 (32%)	1350 (27%)	1177 (26%)	1213 (30%)
41-50	1635 (26%)	1068 (21%)	959 (21%)	978 (24%)
51-60	887 (14%)	553 (11%)	570 (12%)	484 (12%)
61+	89 (1%)	69 (1%)	57 (1%)	61 (2%)
DND	80 (1%)	222 (4%)	716 (16%)	43 (1%)
Total Students	**6337**	**4970**	**4600**	**4005**

*N is the number of respondent schools.

Table 1.21: New Jersey's RN Education Programs

School Name	County	*DIP*	*ADN Bridge*	*ADN Generic*	*BSN Generic*	*BSN Accel.*	*Pre MSN*	*RN-BSN*	*Post MSN*	*DNP*	*PhD*
Atlantic Cape Community College	Atlantic		x	x							
Bergen Community College	Bergen		x								
Berkeley College	Passaic					x					
Bloomfield College	Essex				x			x			
Brookdale Community College	Monmouth		x	x							
Caldwell University	Essex				x	x		x			
Chamberlain University	Middlesex				x						
College of Saint Elizabeth	Morris							x	x		
County College of Morris	Morris		x	x							
Cumberland County College	Cumberland		x	x							
Eastern International College*	Hudson		x								
Eastwick College*	Bergen		x								
Essex County College	Essex		x	x							
Fairleigh Dickinson	Bergen				x	x		x	x	x	
Felician University	Bergen				x	x		x	x	x	
Georgian Court University	Ocean				x			x			
Holy Name Medical Center	Bergen	x									
Hudson County College	Hudson		x								
Jersey College at Ewing	Mercer			x							
Jersey College at Teterboro	Bergen			x							
JFK Muhlenberg Snyder	Middlesex	x									
Kean University	Union							x	x		x
Mercer County Community College	Mercer		x								
Middlesex County College	Middlesex		x								
Monmouth University	Monmouth				x			x	x	x	
Montclair State University	Essex				x			x	x		
New Jersey City University	Hudson					x		x	x		
Ocean County College	Ocean		x								
Our Lady Lourdes	Camden	x									
Passaic County Community College	Passaic		x	x							
Ramapo College	Bergen				x			x	x		
Raritan Valley Community College	Somerset		x	x							
Richard Stockton University	Atlantic				x	x		x	x		
Rider University	Mercer							x			
Rowan College	Burlington		x								
Rowan College of South Jersey	Gloucester		x	x							
Rutgers School of Nursing, Newark	Essex				x	x		x	x	x	x
Rutgers School of Nursing, Camden	Camden				x	x		x		x	
Saint Peter's University	Hudson				x			x	x	x	
Salem Community College	Salem			x							
Seton Hall University	Essex				x	x	x		x	x	x
Saint Francis Medical Center	Mercer	x									
The College of New Jersey	Mercer				x			x	x		
Thomas Edison State University	Mercer					x		x	x	x	
Trinitas School of Nursing	Union	x									
Warren County Community College	Warren		x								
William Patterson University	Passaic				x			x	x	x	

*Schools did not provide data.

Educational Capacity Report-LPN

Overview

This report includes data for 27 of the 35 schools in New Jersey that provide LPN education. LPN programs prepare students for the National Council Licensure Examination for Practical Nurses (NCLEX-PN), which leads to licensure as a LPN. Of the 27 respondent schools, only 71% are currently accredited.

Table 1.22: Federal Tax Classification

	LPN N=27
Public	17 (63%)
Private/For-Profit	10 (37%)
Private/Non-Profit	0 (0%)

*N is the number of respondent schools.

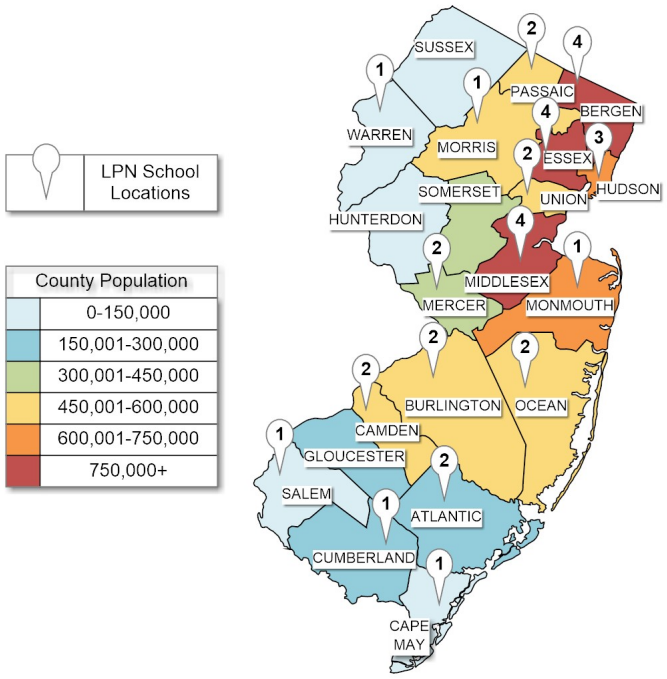
Table 1.23: Accreditation Status

	LPN N=27
Accredited	22 (71%)
Not Accredited/In Progress	5 (16%)

*N is the number of respondent schools.

Figure 1.3 displays the primary location of New Jersey's 35 practical nursing programs, inclusive of programs that did not participate in the 2017-2018 survey. The number in the pin represents the number of practical nursing programs located in the county. The County Population chart provides context so that density of programs may be compared to density of population (United States Census Bureau, 2016).

Figure 1.3: Geographic Distribution of LPN Programs' Primary Campuses



In the Educational Capacity Survey, NJCCN presented possible reasons for why respondents rejected qualified applicants. One school stated an "other" reason, but did not specify in the space provided.

Table 1.24: Reason for rejection of qualified applicants

	LPN N=27
No applications rejected	22 (81%)
Lack of qualified faculty	2 (7%)
Lack of clinical space	0 (0%)
Limited classroom space	3 (11%)
Lack of clinical sites	1 (4%)
Other	1 (4%)

*N is the number of respondent schools.

Program Characteristics

This section presents information about the format and content of New Jersey's LPN education programs. Data in **Table 1.25** indicate that programs are primarily face-to-face. Some schools offer hybrid programs, but there are no exclusively online LPN programs at this time.

Table 1.25: Delivery format of LPN programs

	LPN N=27
Face-to-Face	24 (89%)
Hybrid	3 (11%)

*N is the number of respondent schools.

In NJCCN's Educational Capacity Survey, clinical practice time may be hands-on or conducted in skill lab, simulation lab, or other settings. As shown in **Table 1.26**, 63% of clinical practice time is hands-on.

Table 1.26: Format of clinical practice time (%)

	LPN N=27
Skill Lab	25%
Simulation Lab	12%
Hands-on	63%
Other	1%

*N is the number of respondent schools.

As shown in **Table 1.27**, 42% of graduates secured their first job within 0-7 months of graduation.

Table 1.27: Time to employment after graduation (%)

	LPN N=27
0-3 Months Post Graduation	14%
4-7 Months Post Graduation	28%
8-11 Months Post Graduation	16%
12+ Months Post Graduation	5%
Unknown/ Do not Track	38%

*N is the number of respondent schools.

LPN Application, Admission, Enrollment, and Graduation

The total number of applicants reported by each school may be greater than the raw number of applicants if an individual applied to more than one school. Our data do not provide unique identifiers for each applicant, and thus a student applying to two programs will be counted twice. **Table 1.28** provides four-year trended data for LPN student application, enrollment, and graduation rates.

The number of Available Seats is a count of the total number of seats available for newly admitted students. Qualified Applicants are those who submitted complete applications on time and met all institutional requirements for formal admission to the nursing program. Admitted Applicants are those who received official notice from the program that they were invited to begin the nursing program. Enrollees are those who actually enrolled in the program.

Table 1.28: LPN student application, admission, and enrollment 2018 (%)

	2015 N=32	**2016** N=31	**2017** N=31	**2018** N=27
Available Seats	3515	2862	3007	2612
Qualified Applicants	3286	2882	3116	3170
Admitted Applicants	2530 (77%)	2265 (79%)	2232 (72%)	2352 (74%)
Enrollees	2117 (84%)	1882 (83%)	1982 (89%)	1897 (81%)
Graduates	1543	1247	1220	1323

*N is the number of respondent schools.

NCLEX-PN Pass Rates for LPN Students

LPN students must pass the National Council Licensure Exam (NCLEX-PN) to apply for licensure as an LPN. **Table 1.29** shows the pass rates for first-time, U.S.-educated candidates who took the NCLEX-PN in 2018 (NCSBN, 2019). These data are inclusive of schools that did not respond to the 2018 NJCCN Educational Capacity Survey.

Table 1.29: 2018 NCLEX-PN pass rate in New Jersey

	Number of NCLEX-PN Tests
Total Delivered	1,648
Total Passed	1,337
Overall Pass Rate	(81%)

LPN Student Demographics

Table 1.30 shows four years of LPN student demographic data from 2015-2018. This is inclusive of all students matriculating in the 2018 academic year, from new enrollees to those who are about to graduate.Students are primarily 89% female and 50% Black/African American. The mean age for LPNs in 2018 was 25.8. The mean age was calculated by weighting the median values of each age range.

Table 1.30: LPN student demographics trend 2015-2018

	2015 N=2250	**2016 N=2146**	**2017 N=2363**	**2018 N=2438**
Gender				
Female	1958 (87%)	1862 (87%)	2081 (88%)	2178 (89%)
Male	292 (13%)	282 (13%)	281 (1%)	257 (11%)
Transgender	0 (0%)	0 (0%)	1 (00%)	0 (0%)
DND	0 (0%)	2 (0%)	0 (0%)	3 (0%)
Race/Ethnicity				
American Indian	5 (0%)	3 (0%)	7 (0%)	14 (1%)
Asian	107 (5%)	107 (5%)	119 (5%)	123 (5%)
Black/African American	1078 (48%)	1075 (50%)	1199 (51%)	1214 (50%)
Hawaiian/Pacific Islander	23 (1%)	31 (1%)	15 (1%)	6 (0%)
White/Caucasian	470 (21%)	420 (20%)	420 (18%)	427 (18%)
Hispanic/Latino	313 (14%)	330 (15%)	396 (17%)	449 (18%)
Other	35 (2%)	32 (1%)	19 (1%)	15 (1%)
2+ Races	35 (2%)	18 (1%)	21 (1%)	41 (2%)
DND	184 (8%)	130 (6%)	167 (7%)	149 (6%)
Age				
17-20	110 (5%)	98 (5%)	127 (1%)	142 (6%)
21-25	534 (24%)	516 (24%)	562 (24%)	536 (22%)
26-30	547 (24%)	534 (25%)	608 (26%)	620 (25%)
31-40	651 (29%)	595 (28%)	641 (27%)	729 (30%)
41-50	268 (12%)	255 (12%)	314 (13%)	316 (13%)
51-60	104 (5%)	111 (5%)	93 (4%)	85 (4%)
61+	3 (0%)	9 (0%)	4 (0%)	2 (0%)
DND	33 (2%)	28 (1%)	14 (1%)	8 (0%)

*N is the number of students.

Table 1.31: New Jersey's LPN Education Programs

School Name	County
Atlantic County Institute of Technology	Atlantic
AVTECH Institute of Technology	Middlesex
Berkeley College	Passaic
Best Care Training Institute	Essex
Burlington County Institute of Technology	Burlington
Camden County College	Camden
Cape May County Technical School	Cape May
Cumberland County College	Cumberland
Eastwick College, Hackensack	Bergen
Essex County College	Essex
Holy Name Medical Center	Bergen
Hudson County Community College	Hudson
Jersey College, Ewing	Mercer
Jersey College, Teterboro	Bergen
Lincoln Technical Institute, Iselin	Middlesex
Lincoln Technical Institute, Morristown	Burlington
Lincoln Technical Institute, Paramus	Bergen
Mercer County Technical School*	Mercer
Merit Technical Institute	Hudson
Metropolitan Learning Institute*	Hudson
Middlesex County Vocational and Technical School*	Middlesex
Monmouth County Vocational Technical School*	Monmouth
Morris County School of Technology	Morris
New Community Corporation*	Essex
New Jersey Center for Advanced Training and Studies*	Essex
Ocean County Vocational Technical School	Ocean
Passaic County Technical Institute	Passaic
Pinelands School of Practical Nursing	Ocean
Prism Career Institute, Cherry Hill*	Camden
Prism Career Institute, Egg Harbor*	Atlantic
Salem Community College	Salem
Sierra Allied Health Academy*	Union
Union County College	Union
Universal Training Institute*	Middlesex
Warren County Technical School	Warren

*Schools did not provide data.

Nursing Faculty Report

Faculty for Pre- and Post-licensure RN Programs

Employment

This section describes the employment of full-time (FT) and part-time (PT) faculty across pre- and post-licensure nursing programs. In **Table 1.32** and **Table 1.34**, full-time and part-time vacancies only include those that are being actively recruited. "BSN & Higher" includes Baccalaureate, Master's, DNP, and PhD programs.

Table 1.32: RN Faculty Positions and Vacancies

	DIP	**ADN**	**BSN & Higher**	**Total**
Full-time positions available	74	167	395	636
Full-time faculty employed	71	159	349	579
Full-time position vacancies	3 (4%)	8 (5%)	46 (12%)	57 (9%)
Part-time positions available	89	297	284	670
Part-time faculty employed	89	293	283	665
Part-time position vacancies	0 (0%)	4 (1%)	1 (0%)	5 (1%)

Table 1.33: RN Program Faculty Employment Trend 2015-2018

	2015 N=44		**2016** N=41		**2017** N=43		**2018** N=45	
	FT	**PT**	**FT**	**PT**	**FT**	**PT**	**FT**	**PT**
DIP	75	112	72	115	69	91	71	89
ADN	175	294	163	303	155	208	159	293
BSN & Higher	350	640	354	552	354	327	349	283
Total	**601**	**1040**	**589**	**970**	**578**	**626**	**579**	**665**

*N is the number of respondent schools.

Table 1.34: RN Program Faculty Vacancy Trend 2015-2018

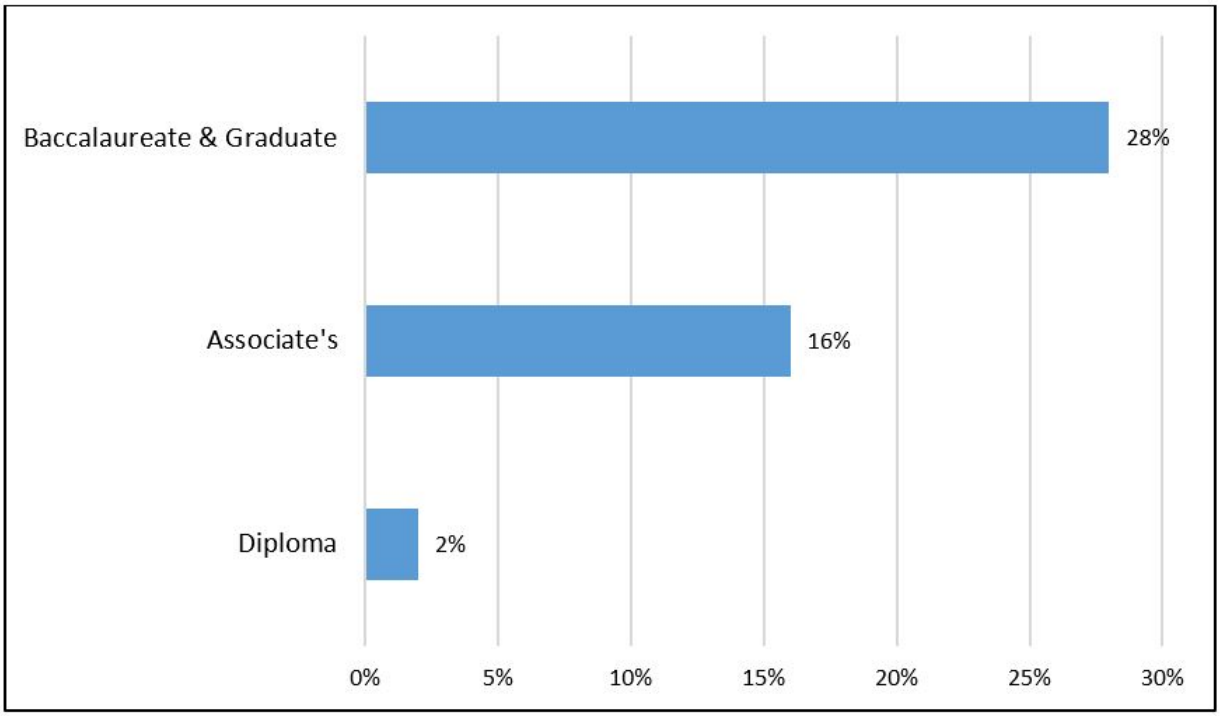
	2015 N=44		**2016** N=41		**2017** N=43		**2018** N=45	
	FT	**PT**	**FT**	**PT**	**FT**	**PT**	**FT**	**PT**
DIP	1	1	2	0	5	1	3	0
ADN	5	6	1	16	10	13	8	4
BSN & Higher	30	25	36	19	36	3	46	1
Total	**36**	**32**	**39**	**35**	**51**	**17**	**57**	**5**

*N is the number of respondent schools.

Table 1.33 shows that there has been a steady decrease in the number of full-time faculty employed since 2015, which is not fully accounted for in the rising vacancy rates reported in **Table**

1.34. This may indicate that there is increased use of adjunct faculty in lieu of recruiting additional full-time or part-time faculty (See **Figure 1.4**).

Figure 1.4: Percentage of RN Classes Taught by Adjuncts



Demographics

Tables in this section show demographic data for full-time and part-time faculty members at pre-licensure and post-licensure educational facilities. **Table 1.35** shows that Diploma and ADN faculty are primarily prepared at the Master's level, and faculty for Baccalaureate and Higher programs are primarily prepared at the DNP or PhD level.

Table 1.35: Highest level of education of RN program faculty

	DIP		**ADN**		**BSN & Higher**	
	FT N=71	**PT** N=89	**FT** N=159	**PT** N=293	**FT** N=349	**PT** N=283
BSN	0 (0%)	0 (0%)	0 (0%)	14 (5%)	0 (0%)	0 (0%)
MSN	56 (79%)	85 (96%)	129 (81%)	251 (86%)	73 (21%)	220 (78%)
Non-Nursing Masters	0 (0%)	0 (0%)	2 (1%)	11 (4%)	1 (0%)	15 (5%)
DNP	10 (14%)	3 (3%)	17 (11%)	11 (4%)	103 (30%)	27 (10%)
PhD in Nursing	3 (4%)	1 (0%)	6 (4%)	2 (1%)	125 (36%)	9 (3%)
Other Doc. in Nursing	2 (3%)	0 (0%)	5 (0%)	0 (0%)	47 (13%)	0 (0%)
Non-Nursing Doctorate	0 (0%)	0 (0%)	0 (0%)	4 (1%)	0 (0%)	10 (4%)
Missing/Unknown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (1%)

*N is the number of faculty.

Table 1.36 shows demographics for faculty teaching in pre- and post-licensure RN education programs. **Table 1.37** on the following page shows that faculty continue to be primarily white, female, and in the higher age brackets.

Table 1.36: RN program faculty demographics

	DIP		**ADN**		**BSN & Higher**	
	N=71	N=89	N=159	N=293	N=349	N=283
Gender	**FT**	**PT**	**FT**	**PT**	**FT**	**PT**
Female	69 (97%)	85 (96%)	153 (96%)	274 (94%)	326 (93%)	253 (89%)
Male	2 (3%)	4 (4%)	6 (4%)	19 (6%)	23 (7%)	30 (11%)
Transgender	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
DND	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Race/Ethnicity						
American Indian	0 (0%	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Asian	3 (4%)	21 (24%)	9 (6%)	21 (7%)	25 (7%)	17 (6%)
Black/African Am.	10 (14%)	22 (25%)	16 (10%)	47 (16%)	35 (10%)	16 (6%)
Hawaiian/Pacific Isl.	1 (1%)	0 (0%)	0 (0%)	47 (16%)	35 (10%)	16 (6%)
White/Caucasian	56 (79%)	34 (38%)	123 (77%)	114 (39%)	253 (72%)	81 (29%)
Hispanic/Latino	1 (1%)	0 (0%)	0 (0%)	7 (16%)	2 (1%)	3 (1%)
Other	0 (0%)	0 (0%)	2 (1%)	0 (0%)	0 (0%)	0 (0%)
2+ Races	0 (0%)	1 (1%)	1 (1%)	2 (1%)	3 (1%)	0 (0%)
DND	0 (0%)	0 (0%)	2 (1%)	55 (19%)	19 (5%)	155 (55%)
Age						
30 or younger	1 (1%)	1 (1%)	2 (1%)	6 (2%)	0 (0%)	5 (2%)
31-40	8 (11%)	12 (13%)	8 (5%)	46 (16%)	19 (5%)	26 (9%)
41-50	13 (18%)	31 (35%)	34 (21%)	66 (23%)	70 (20%)	34 (12%)
51-55	10 (14%)	14 (16%)	24 (15%)	40 (14%)	62 (18%)	27 (10%)
56-60	18 (25%)	14 (16%)	30 (19%)	35 (12%)	66 (19%)	25 (9%)
61-65	19 (27%)	11 (12%)	30 (19%)	20 (7%)	66 (19%)	15 (5%)
66-70	2 (3%)	4 (4%)	16 (10%)	17 (6%)	43 (12%)	9 (3%)
71+	0 (0%)	2 (2%)	8 (5%)	7 (2%)	14 (4%)	8 (3%)
DND	0 (0%)	0 (0%)	7 (4%)	56 (19%)	9 (3%)	134 (47%)
Mean Age	**54**	**51**	**55**	**50**	**56**	**51**

*N is the number of faculty.

Table 1.37: RN program faculty demographics trend 2015-2018

	2015 N=18		**2016** N=17		**2017** N=19		**2018** N=22	
	(%) **FT**	(%) **PT**	(%) **FT**	(%) **PT**	(%) **FT**	(%) **PT**	(%) **FT**	(%) **PT**
Gender								
Female	564 (94)	958 (88)	537 (91)	855 (88)	547 (94)	668 (92)	548 (95)	612 (92)
Male	37 (6)	82 (8)	32 (5)	71 (7)	31 (5)	61 (8)	31 (5)	53 (8)
Transgender	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
DND	0 (0)	49 (4)	20 (3)	44 (5)	7 (1)	0 (0)	0 (0)	0 (0)
Race/ Ethnicity								
AIAN*	0 (0)	0 (0)	0 (0)	4 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Asian	28 (5)	79 (7)	23 (4)	73 (8)	33 (6)	80 (11)	37 (6)	59 (9)
Black	63 (10)	165 (15)	58 (10)	126 (13)	57 (10)	125 (17)	61 (1)	85 (13)
HOPI*	3 (0)	12 (1)	5 (1)	7 (1)	2 (0)	4 (1)	3 (1)	50 (8)
White	479 (80)	623 (57)	445 (76)	560 (58)	443 (76)	395 (54)	432 (75)	229 (34)
Hispanic	20 (3)	37 (3)	19 (32)	44 (5)	27 (5)	34 (5)	19 (3)	29 (4)
Other	0 (0)	3 (0)	2 (0)	1 (0)	4 (1)	2 (0)	2 (0)	0 (0)
2+ Races	0 (0)	0 (0)	1 (0)	0 (0)	1 (0)	2 (0)	4 (1)	3 (0)
DND	8 (1)	170 (16)	36 (6)	155 (16)	18 (3)	89 (12)	21 (4)	210 (32)
Age								
30 or younger	6 (1)	22 (2)	1 (0)	22 (2)	1 (0)	14 (2)	3 (1)	12 (2)
31-40	39 (6)	158 (14)	44 (7)	137 (14)	42 (7)	109 (15)	35 (6)	84 (13)
41-50	113 (19)	261 (24)	102 (17)	267 (28)	92 (16)	196 (27)	117 (20)	131 (20)
51-55	112 (19)	191 (18)	93 (16)	156 (16)	105 (18)	126 (17)	96 (17)	81 (12)
56-60	134 (22)	180 (17)	112 (19)	139 (14)	123 (21)	104 (14)	114 (20)	74 (11)
61-65	114 (19)	112 (10)	116 (20)	97 (10)	110 (19)	87 (12)	115 (20)	46 (7)
66-70	52 (9)	40 (4)	61 (10)	30 (3)	62 (11)	33 (5)	61 (11)	30 (5)
71+	19 (3)	12 (1)	23 (4)	21 (2)	23 (4)	14 (2)	22 (4)	17 (3)
DND	12 (2)	113 (10)	37 (6)	101 (10)	27 (5)	46 (6)	16 (3)	190 (29)
Total Faculty	**601**	**1089**	**589**	**970**	**585**	**729**	**579**	**665**

*N is the number of respondent schools.

AIAN is the US Census Bureau abbreviation for American Indian Alaska Native. HOPI stands for Native Hawaiian/Other Pacific Islander.

Faculty for LPN Schools

Employment

This section describes the employment of full-time (FT) and part-time (PT) faculty for LPN programs. In **Table 1.38** and **Table 1.40**, full-time and part-time vacancies only include those that are being actively recruited.

Table 1.38: Positions and Vacancies for Faculty in LPN schools

	LPN	**(%)**
Full-time positions available	97	
Full-time faculty employed	86	
Full-time position vacancies	11	11
Part-time positions available	186	
Part-time faculty employed	166	
Part-time position vacancies	20	11

Table 1.39: Employment Trend for Faculty in LPN schools 2015-2018

2015 N=29		**2016** N=31		**2017** N=31		**2018** N=27	
FT	**PT**	**FT**	**PT**	**FT**	**PT**	**FT**	**PT**
152	270	150	263	135	201	86	166

*N is the number of respondent schools.

Table 1.40: Vacancy Trend for Faculty in LPN schools 2015-2018

2015 N=29		**2016** N=31		**2017** N=31		**2018** N=27	
FT	**PT**	**FT**	**PT**	**FT**	**PT**	**FT**	**PT**
9	28	8	25	15	15	11	20

*N is the number of respondent schools.

Table 1.39 shows that there has been a decrease in the number of full-time and part-time faculty, which has not been fully accounted for in the rising vacancy rates reported in **Table 1.40**. This may indicate that there is increased use of adjunct faculty in lieu of recruiting additional full-time or part-time faculty. According to self-reported data from LPN schools, an average of 16% of classes are taught by adjuncts.

Demographics

This section shows demographic data for full-time and part-time faculty members at LPN educational facilities. **Table 1.41** shows that faculty are primarily prepared at the Baccalaureate or Master's level in nursing.

Table 1.41: Highest level of education for Faculty in LPN schools

	FT N=97	**PT** N=186
ADN	0 (0%)	2 (1%)
BSN	39 (40%)	87 (47%)
Non-Nursing Baccalaureate	2 (2%)	0 (0%)
MSN	47 (48%)	78 (42%)
Non-Nursing Masters	1 (1%)	7 (4%)
DNP	4 (4%)	5 (3%)
PhD	2 (2%)	1 (1%)
Other Doctorate in Nursing	2 (2%)	0 (0%)
Non-Nursing Doctorate	0 (0%)	1 (1%)
DND	0 (0%)	5 (3%)

*N is the total number of faculty.

Table 1.42 shows four years of demographic data for faculty teaching in LPN programs. Data for 2018 shows that faculty are primarily female and diverse in race/ethnicity and age.

Table 1.42: LPN Faculty Demographic Trend 2015-2018

	2015 N=29		**2016** N=31		**2017** N=31		**2018** N=27	
	(%) **FT**	(%) **PT**	(%) **FT**	(%) **PT**	(%) **FT**	(%) **PT**	(%) **FT**	(%) **PT**
Gender								
Female	130 (86)	30 (11)	133 (89)	239 (91)	103 (86)	164 (78)	86 (89)	166 (89)
Male	22 (14)	251 (88)	17 (11)	24 (9)	17 (14)	40 (19)	11 (11)	20 (11)
Transgender	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
DND	0 (0)	2 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Race/ Ethnicity								
AIAN*	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Asian	18 (12)	38 (13)	13 (9)	31 (12)	8 (7)	32 (15)	9 (9)	20 (11)
Black	43 (29)	101 (36)	45 (30)	71 (27)	34 (28)	60 (29)	23 (24)	55 (30)
HOPI*	0 (0)	9 (3)	2 (1)	12 (5)	3 (3)	6 (3)	3 (3)	10 (5)
White	83 (55)	119 (42)	83 (55)	134 (51)	70 (58)	91 (43)	55 (57)	89 (48)
Hispanic	6 (4)	12 (4)	7 (8)	14 (5)	4 (3)	10 (5)	7 (7)	9 (5)
Other	1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
2+ Races	1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)
DND	0 (0)	4 (1)	0 (0)	0 (0)	1 (0)	0 (0)	0 (0)	1 (1)
Age								
30 or younger	3 (2)	4 (1)	1 (1)	7 (3)	1 (1)	0 (0)	3 (3)	3 (2)
31-40	16 (11)	33 (12)	20 (13)	40 (15)	13 (11)	32 (15)	9 (9)	28 (15)
41-50	32 (21)	79 (28)	27 (18)	77 (29)	23 (19)	60 (29)	23 (24)	53 (28)
51-55	36 (24)	52 (18)	34 (23)	53 (29)	26 (22)	6 (3)	22 (23)	36 (19)
56-60	27 (18)	49 (17)	28 (19)	41 (16)	20 (17)	91 (43)	9 (9)	28 (15)
61-65	21 (14)	27 (10)	24 (16)	25 (10)	25 (21)	10 (5)	21 (22)	21 (11)
66-70	0 (0)	4 (1)	5 (3)	12 (5)	8 (7)	0 (0)	7 (7)	13 (7)
71+	4 (3)	3 (1)	5 (3)	2 (1)	4 (3)	0 (0)	3 (3)	3 (2)
DND	13 (9)	32 (11)	6 (4)	6 (2)	0 (0)	11 (5)	0 (0)	1 (1)
Total Faculty	**152**	**270**	**150**	**263**	**135**	**201**	**86**	**166**

*N is the number of respondent schools.

AIAN is the US Census Bureau abbreviation for American Indian Alaska Native. HOPI stands for Native Hawaiian/Other Pacific Islander.

Note: Due to reporting inconsistencies, totals may not add up to the total number of faculty reported.

Chapter 2

Workforce Supply Data

The data for this chapter were acquired from the 2018 and 2019 New Jersey Board of Nursing (NJBON) Nursys® license renewal surveys. Nurses renew their licenses every two years, so this two-year reporting period is representative of New Jersey's entire nursing workforce. Data are only reported if there were sufficient responses to be representative of the response pool. Percentage calculations are based on the total number of respondents, not the total number of RNs in the workforce. The data in this chapter are inclusive of **active** and **inactive** licenses (see **Table 2.1**).

Registered Nurse (RN) Profile

In the 2018-2019 survey period, 110,856 of New Jersey's 133,154 RNs responded to the survey, which accounts for 83% of the RN workforce. Respondents may have skipped questions, causing data in some tables and figures to add up to less than 110,856.

License Status

According to **Table 2.1**, 95% of respondents have an active RN license, which renders them eligible to practice as an RN in New Jersey.

Table 2.1: RN License Status

	N=110,856	**%**
Active	105,622	95
Not Active	5,234	5

Table 2.2 describes the method by which RNs attained their licensure. Those who attained their licensure via exam have graduated from an approved school of nursing and taken the NCLEX-RN examination in New Jersey. Those who attained their license via endorsement have first been licensed in another state.

Table 2.2: Basis for RN Licensure

	N=110,856	(%)
Exam	73,975	67
Endorsement	36,881	33

Demographics

Table 2.3 shows the demographic characteristics of RN respondents. New Jersey's RN's are primarily white (57%), female (91%), and between 46-65 years of age (51%). The mean age of RNs in New Jersey is 51.

Table 2.3: RN Demographic Characteristics

Gender		**N=110,856**	**%**
	Female	101,389	91
	Male	9,466	9
	Missing/No Data	1	0
Race/Ethnicity			
	Asian	14,522	13
	Black/African American	8,809	8
	White/Caucasian	63,738	57
	Hispanic/Latino	4,733	4
	American Indian	112	0
	Pacific Islander	778	1
	Other	2,640	2
	Missing/No Data	15,524	14
Age			
	19-25	2,005	2
	26-35	19,391	17
	36-45	19,440	18
	46-55	25,444	23
	56-65	30,508	28
	66-75	12,066	11
	76-85	1,855	2
	86+	133	0
	Missing/No Data	3	0

Education

The National Academy of Medicine (formerly the Institute of Medicine) recommended that 80% of nurses be prepared at the baccalaureate or higher level by 2020. NJCCN has monitored New Jersey's progress towards that goal via the Nurse License Renewal Survey.

Table 2.4 describes the highest degree of nursing education currently held by respondents who were renewing their RN license. Of the 80,134 respondents, excluding those who did not provide data (Missing), 66% have a Baccalaureate or higher degree in nursing, and 35% have an Associate's Degree or Diploma in nursing.

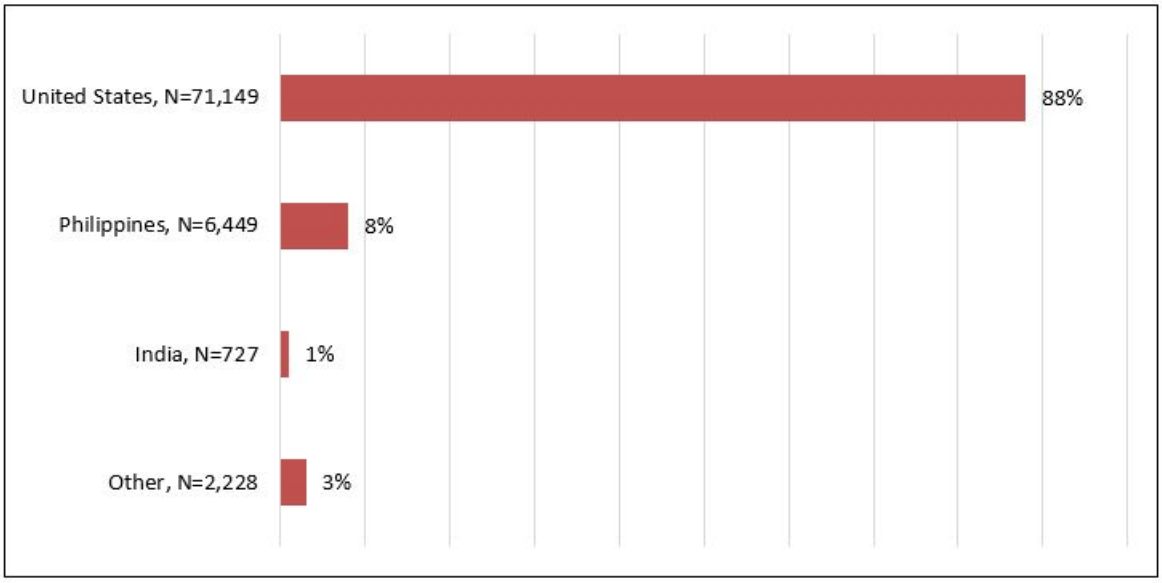
Table 2.4: RN Highest Level of Education*

	N=80,134	**%**
Diploma in Nursing	4,435	6
Associate's Degree in Nursing	22,867	29
Baccalaureate Degree in Nursing	44,894	56
Master's Degree in Nursing	7,192	9
DNP, PhD, or Other Doctoral Degree in Nursing	746	1

*The 30,722 missing data are excluded.

Figure 2.1 describes the 80,553 respondents who provided data on the country in which they received their entry-level nursing education. The Philippines were the most common source of entry-level nursing education outside of the United States. Other countries include (in order of most to least common) Nigeria, Korea, UK & Northern Ireland, Canada, Poland, and Jamaica.

Figure 2.1: Country of Entry-level RN Education



*The 30,303 missing data are excluded.

Employment Characteristics

Table 2.5 describes the employment status of the 81,838 RNs who reported their employment status. "Employed in nursing" is defined as being employed in a position that requires an RN license.

Table 2.5: RN Employment Status*

	N=81,838	**%**
Employed in nursing full-time	59,975	73
Employed in nursing part-time	8,070	10
Employed in nursing per diem	4,705	6
Volunteering (only) in nursing	480	1
Retired	4,204	5
Unemployed, seeking work in nursing	2,199	3
Employed in a field other than nursing	2,205	3

*The 29,018 missing data are excluded.

Respondents were asked to report the number of positions that they are currently holding as a nurse. The following table shows their answers, indicating that a portion of New Jersey's RN workforce is holding multiple RN positions.

Table 2.6: Number of RN Positions*

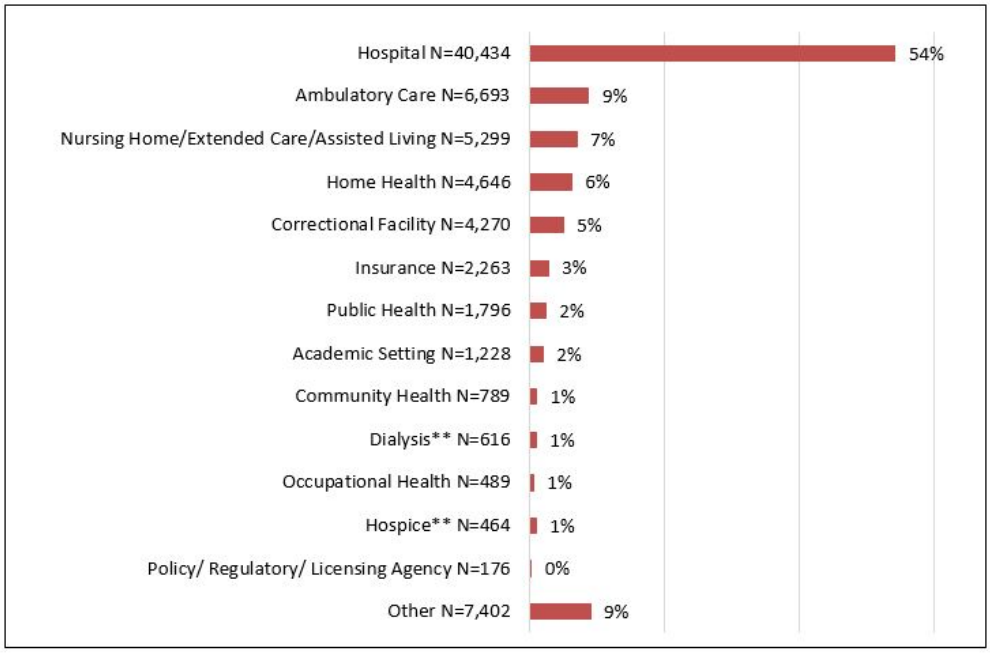
	N=73,762	**%**
1 position	60,581	82
2 positions	11,899	16
3 positions	1,282	2

*The 37,094 missing data are excluded.

According to **Figure 2.2**, more than 54% of 78,565 respondents reported that the hospital was their primary employment setting.

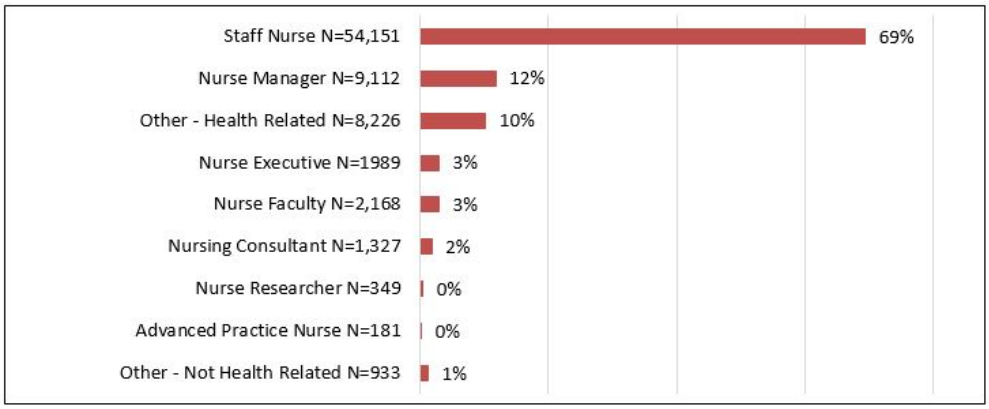
Figure 2.3 shows that 69% of 78,436 respondents reported that their primary employment position was as a staff nurse. The combined data indicate that the majority of RNs are staff nurses in hospitals.

Figure 2.2: RN Primary Employment Setting*



*The 32,291 missing data are excluded.
**Categories are new in 2019

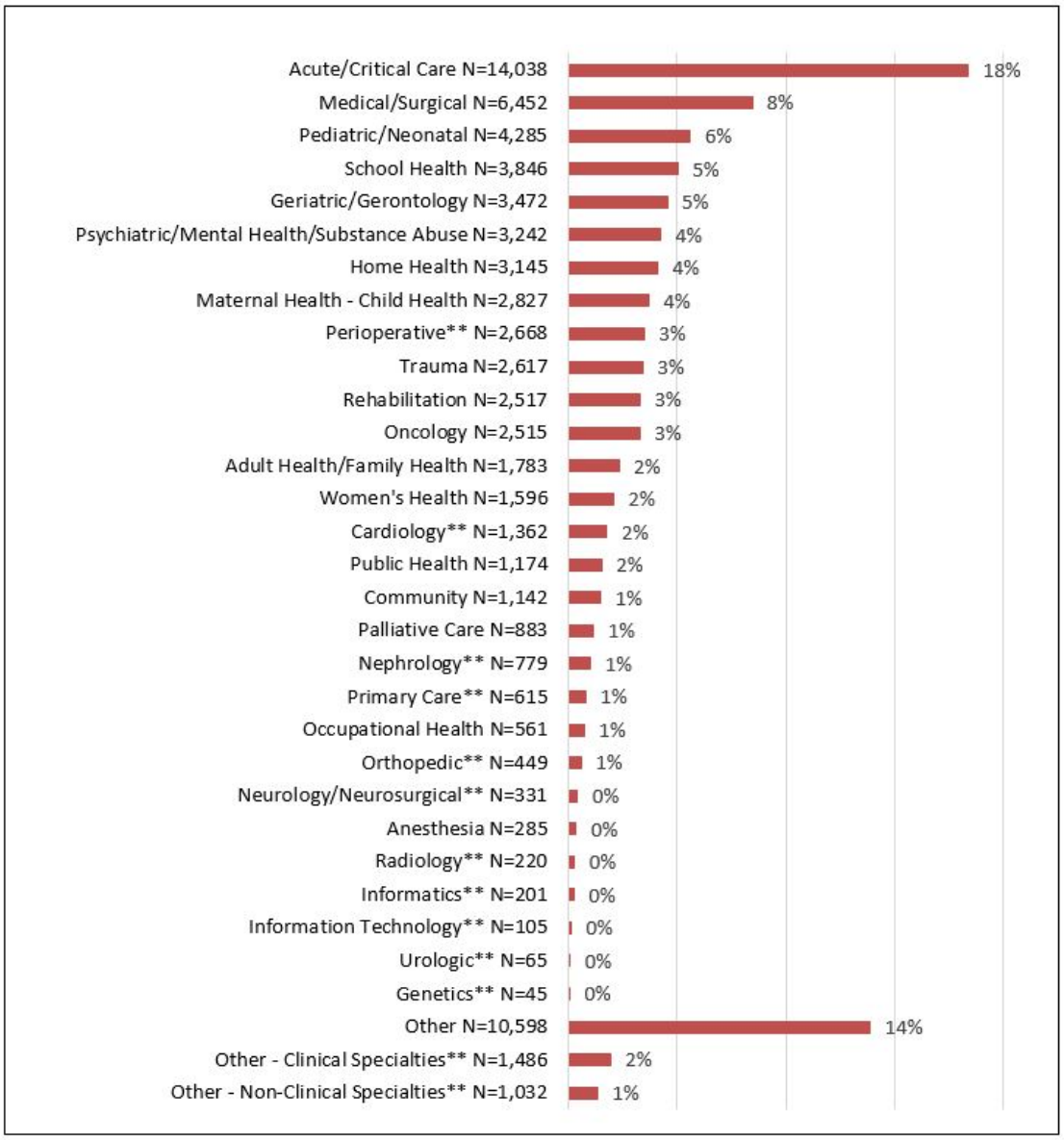
Figure 2.3: RN Primary Employment Position Description*



*The 32,420 missing data are excluded.

The Nursys® survey broke down employment specialties into additional categories in 2019. Nurses classified their employment specialties as outlined in **Figure 2.4**.

Figure 2.4: RN Primary Employment Position Specialty*

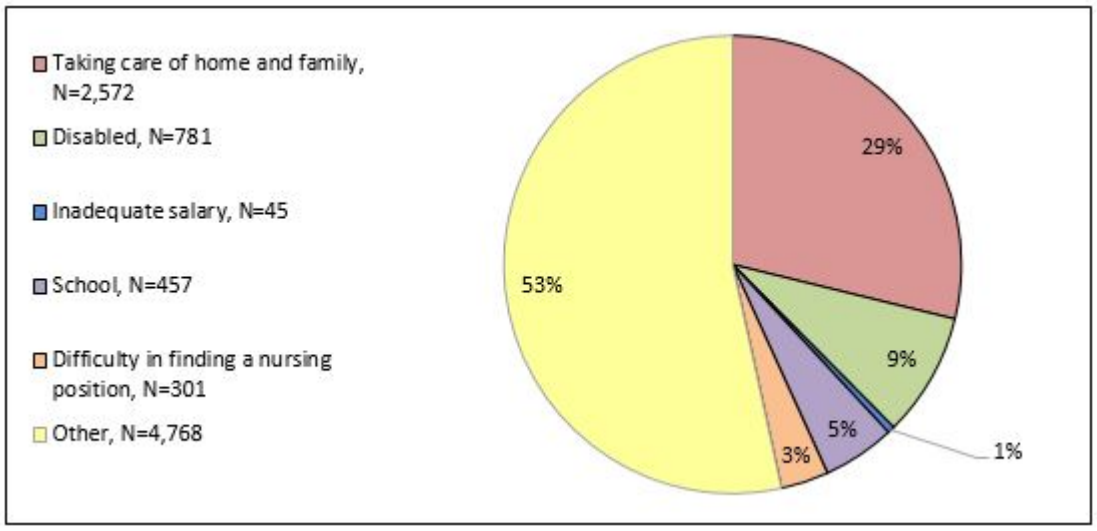


*The 34,520 missing data are excluded.
**Categories are new in 2019

Unemployment

Figure 2.5 shows that there were 8,924 RNs who reported a reason for not being employed as a nurse. Of those, 29% cited "taking care of home and family" as their primary reason.

Figure 2.5: RN Reason for Not Being Employed as a Nurse



Retirement

NJCCN asked participants of their intention to retire within two years, prior to the next license renewal. In response, 4% of RNs indicated a plan to retire within this timeframe (not inclusive of missing data).

Table 2.7 identifies RNs who declared an intent to retire by age bracket. Of nurses who are 66-75 years old, 31% intend to retire; of nurses who are 76-85 year old, 36% intend to retire. The number of RN respondents in each age category is different from the numbers reported in **Table 2.3** because **Table 2.7** only includes RNs who reported their age **and** their intent to retire. According to **Table 2.7**, a majority of nurses intend to retire when they are in the 66-75 age bracket.

Table 2.7: RN Intent to Retire according to Age

Age	**RN Respondents** N=81,855	**Intend to Retire** N=4,271	**%**
18-25	1,715	6	0
26-35	15,264	67	0
36-45	15,029	64	0
46-55	19,510	116	1
56-65	22,423	1,545	7
66-75	7,039	2,153	31
76-85	839	299	36
86-95	36	21	58

Advanced Practice Nurse (APN) Profile

Advanced Practice Nurses are RNs with advanced degrees and specialty certification approved by a national certifying agency. Nursys® does not currently include any direct questions for APNs. However, NJCCN added a question to the survey that inquired about respondent specialities (CRNA/ CNS/ CNM/ NP). RNs who indicated one of these specialities were identified as APNs. In the 2018-2019 survey period, 8,966 of New Jersey's 10,384 APNs responded to the survey, which accounts for 86% of the APN workforce. Respondents may have skipped questions, causing data in some tables and figures to add up to less than 8,966.

License Status

According to table 2.8, 97% of respondents are active APNs.

Table 2.8: APN Credential Status

	N=8,966	%
Active	8,722	97
Not Active	244	3

APN survey respondents were identified by their indication of one or more certifications. An APN may have multiple certifications; for example, a Nurse Practitioner may also be a Certified Nurse Midwife. **Table 2.9** shows that most APNs (79%) are Nurse Practitioners.

Table 2.9: APN Category

	N=8,966	%
Nurse Practitioner (NP)	7,075	79
Clinical Nurse Specialist (CNS)	721	8
Certified Nurse Midwife (CNM)	306	3
Certified Nurse Anesthetist (CRNA)	1,042	12

Demographics

Table 2.10 shows that New Jersey's APN's are primarily white (61%), female (90%), and between 46-65 years of age (47%). The mean age of APNs is 49.

Table 2.10: APN Demographic Characteristics

Gender		**N=8,966**	**%**
	Female	8,107	90
	Male	859	10
	Missing/No Data	0	0
Race/Ethnicity			
	Asian	981	11
	Black/African American	843	9
	White/Caucasian	5,467	61
	Hispanic/Latino	383	4
	American Indian	12	0
	Pacific Islander	61	1
	Other	238	3
	Missing/No Data	981	11
Age			
	19-25	6	0
	26-35	1,703	19
	36-45	2,206	25
	46-55	2,123	24
	56-65	2,089	23
	66-75	762	8
	76-85	74	1
	86+	2	0
	Missing/No Data	1	0

Education

Table 2.11 describes the highest degree of nursing education currently held by APN respondents. Of the 7,999 respondents, 88% have a Master's Degree and 12% have a Doctoral Degree.

Table 2.11: APN Highest Level of Education*

	N=7,999	**%**
MSN	7,057	88%
DNP	740	9%
PhD	128	2%
Other Doctoral Degree in Nursing	74	1%

*The 1,430 missing data are excluded. This number includes missing data and invalid responses.

Employment Characteristics

Table 2.12 describes the employment status of the 7,925 APNs who reported their employment status. "Employed in nursing" is defined as being employed as a nurse or in a position that requires an APN credential.

Table 2.12: APN Employment Status*

	N=7,825	%
Employed in nursing full-time	6,463	82
Employed in nursing part-time	776	10
Employed in nursing per diem	273	3
Volunteering (only) in nursing	27	0
Retired	144	2
Unemployed, seeking work in nursing	143	2
Employed in a field other than Nursing	99	1

*The 1,041 missing data are excluded.

Respondents were asked to report the number of positions that they are currently holding as a nurse. **Table 2.13** shows their answers, indicating that 18% of New Jersey's APN workforce is holding multiple APN positions.

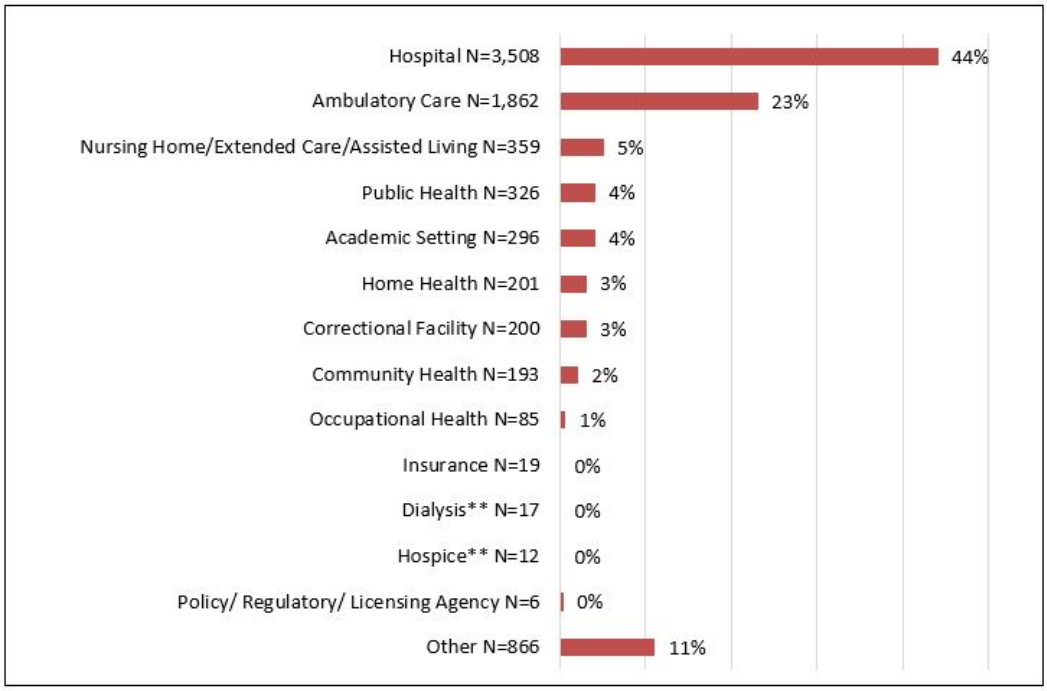
Table 2.13: Number of APN Positions*

	N=7,402	%
1 position	5,387	73
2 positions	1,666	23
3 positions	349	5

*The 405 missing data are excluded.

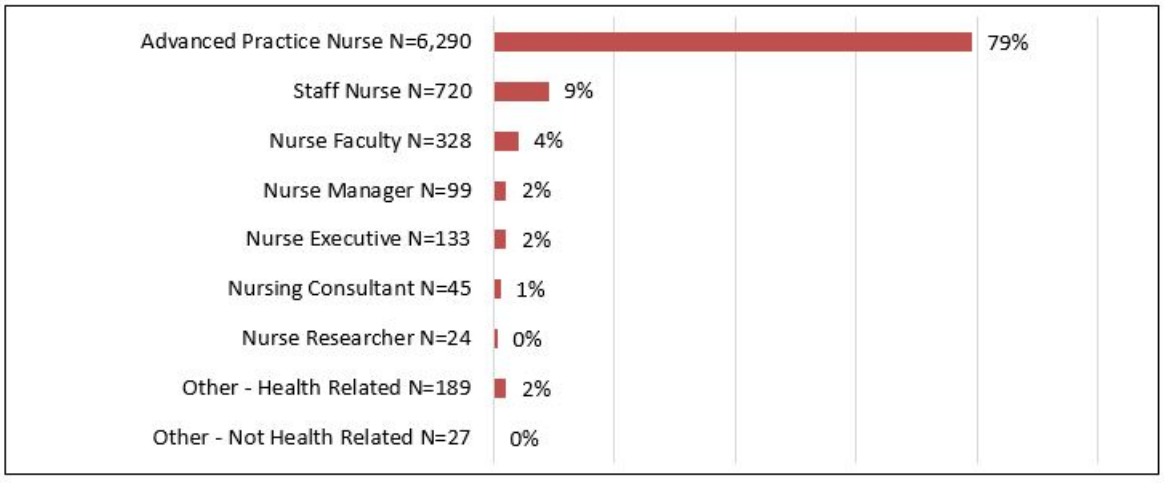
The figures on the following page describe the setting and position description of respondents' primary employment. According to **Figure 2.6**, more than 44% of 7,950 respondents reported that their primary employment setting was in a hospital. **Figure 2.7** shows that 79% of 7,950 respondents reported that their primary employment position was as an Advanced Practice Nurse.

Figure 2.6: APN Primary Employment Setting*



*The 1,016 missing data are excluded.
**Categories are new in 2019

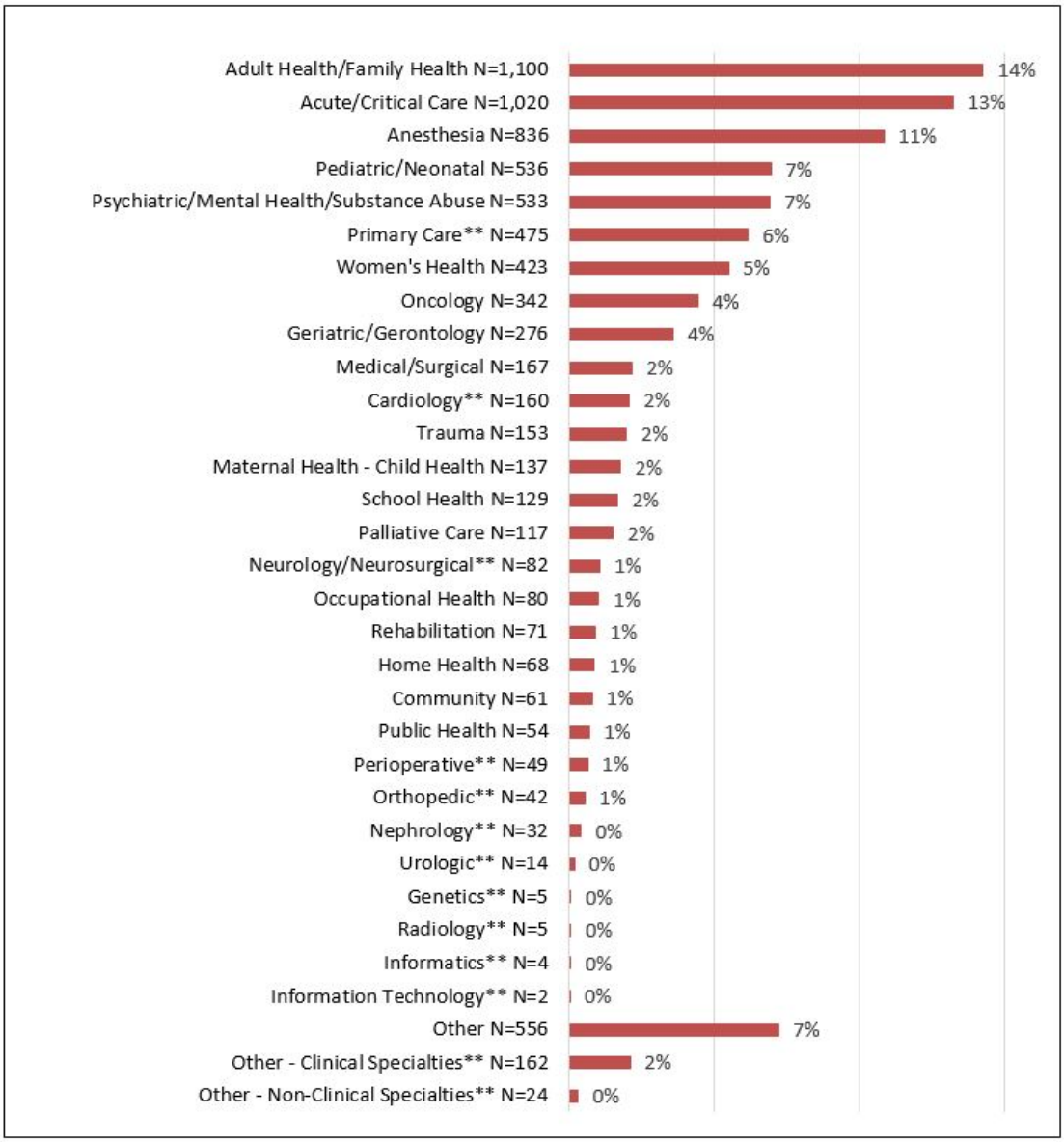
Figure 2.7: APN Primary Employment Position Description*



*The 1,016 missing data are excluded.

The Nursys® survey broke down employment specialties into additional categories in 2019. Nurses classified their employment specialties as outlined in **Figure 2.8**.

Figure 2.8: APN Primary Employment Position Specialty*



*The 1,251 missing data are excluded.
**Categories are new in 2019

Nurse Practitioners

Nurse Practitioners (NPs) are a subset of APNs. When asked to identify their specialty, 3,748 NPs responded. As this is a new question in 2019, respondents only account for half of the NP workforce.

Table 2.14: Nurse Practitioner specialty*

	N=3,748	**%**
Adult/Gero Primary	1,050	28
Adult/Gero Acute	458	12
Family	1,059	28
Pediatrics	315	8
Women's Health	268	7
Psych	252	7
Other	346	9

*The 149 missing data are excluded. This only accounts for half of the NP workforce.

A total of 871 NPs indicated that they are active in states other than New Jersey. A single respondent may have indicated multiple states, so the percents do not add up to 100.

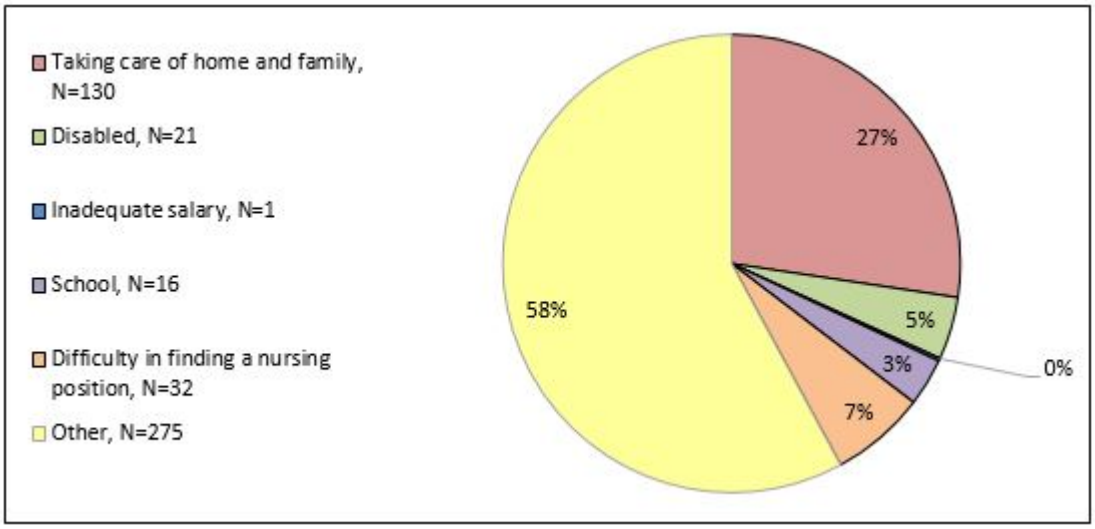
Table 2.15: NPs active in other states

	N=871	**%**
New York	345	37
Pennsylvania	382	41
Connecticut	7	1
Delaware	19	2
Other	177	19

Unemployment

Figure 2.9 shows that there were 475 APNs who reported a reason for not being employed as an APN. Of those, 27% cited "taking care of home and family" as their primary reason.

Figure 2.9: APN Reason for Not Being Employed as a Nurse



Retirement

NJCCN asked participants of their intention to retire within two years, prior to the next license renewal. In response, 3% of APNs indicated a plan to retire within this timeframe (not inclusive of missing data).

Table 2.16 identifies APNs who declared an intent to retire by age bracket. Of nurses who are 66-75 years old, 23% intend to retire; of nurses who are 76-85 year old, 35% intend to retire. The number of APN respondents in each age category is different from the numbers reported in **Table 2.10** because **Table 2.16** only includes APNs who reported their age **and** their intent to retire. Nurses over the age of 65 display a greater intent to retire, but there are fewer nurses in consecutively higher age groups. A majority of nurses intend to retire when they are in the 66-75 age bracket.

Table 2.16: APN Intent to Retire according to Age

Age	**APN Respondents** N=8,441	**Intend to Retire** N=294	**%**
18-25	6	0	0
26-35	1,625	6	0
36-45	2,069	6	0
46-55	2,020	9	0
56-65	1,971	93	5
66-75	686	158	23
76-85	62	22	35
86-95	2	0	0

Licensed Practical Nurse (LPN) Profile

In the 2018-2019 survey period, 21,373 of New Jerseys 23,929 LPNs responded to the survey, which accounts for 89% of the LPN workforce. Respondents may have skipped questions, causing data in some tables and figures to add up to less than 21,373.

License Status

According to **Table 2.17**, 96% of respondents have an active LPN license, which renders them eligible to practice as a LPN in New Jersey.

Table 2.17: LPN License Status

	N=21,373	**%**
Active	20,567	96
Not Active	806	4

Table 2.18 decribes the method by which LPNs attained their licensure. Those who attained their licensure via exam have graduated from an approved school of practical nursing and taken the NCLEX-PN examination in New Jersey. Those who attained their license via endorsement have first been licensed in another state.

Table 2.18: Basis for LPN Licensure

	N=21,372	**%**
Exam	18,779	88
Endorsement	2,593	12

*There is one invalid response, which was not included.

Demographics

Table 2.19 shows the demographic characteristics of LPN respondents. New Jersey's LPNs are primarily female (90%), diverse in race/ethnicity, and between 46-65 year of age (49%). The mean age of LPNs is 49.

Table 2.19: LPN Demographic Characteristics

Gender		**N=21,373**	**%**
	Female	19,212	90
	Male	1083	10
	Missing/No Data	0	0
Race/Ethnicity			
	Asian	1,323	6
	Black/African American	5,664	26
	White/Caucasian	8,369	39
	Hispanic/Latino	1,497	7
	American Indian	44	0
	Pacific Islander	109	1
	Other	982	5
	Missing/No Data	3,355	16
Age			
	0-18	0	0
	19-25	260	1
	26-35	3,757	18
	36-45	4,701	22
	46-55	5,249	25
	56-65	5,153	24
	66-75	2,025	9
	76-85	215	1
	86+	13	0

Employment Status

Table 2.20 describes the employment status of the 12,884 LPNs who reported their employment status. "Employed in nursing" is defined as being employed as a nurse or in a position that requires an LPN license.

Table 2.20: LPN Employment Status*

	N=12,884	%
Employed in nursing full-time	9,323	72
Employed in nursing part-time	1,285	10
Employed in nursing per diem	657	5
Volunteering (only) in nursing	58	0
Retired	399	3
Unemployed, seeking work in nursing	580	5
Employed in a field other than Nursing	582	5

*The 8,489 missing data are excluded.

Respondents were asked to report the number of positions that they are currently holding as a nurse. **Table 2.21** indicates that 19% of New Jersey's LPN workforce is holding multiple LPN positions.

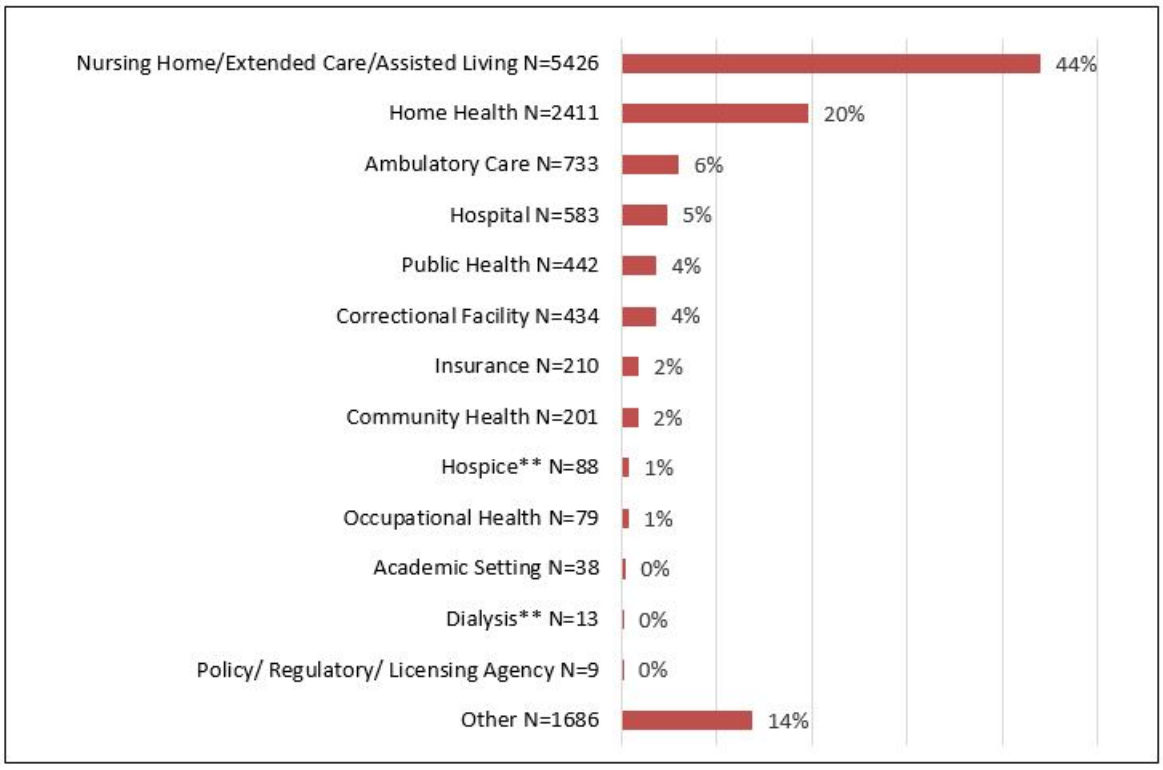
Table 2.21: Number of LPN Positions*

	N=11,354	%
1 position	9,272	82
2 positions	1,902	17
3 positions	180	2

*The 10,019 missing data are excluded.

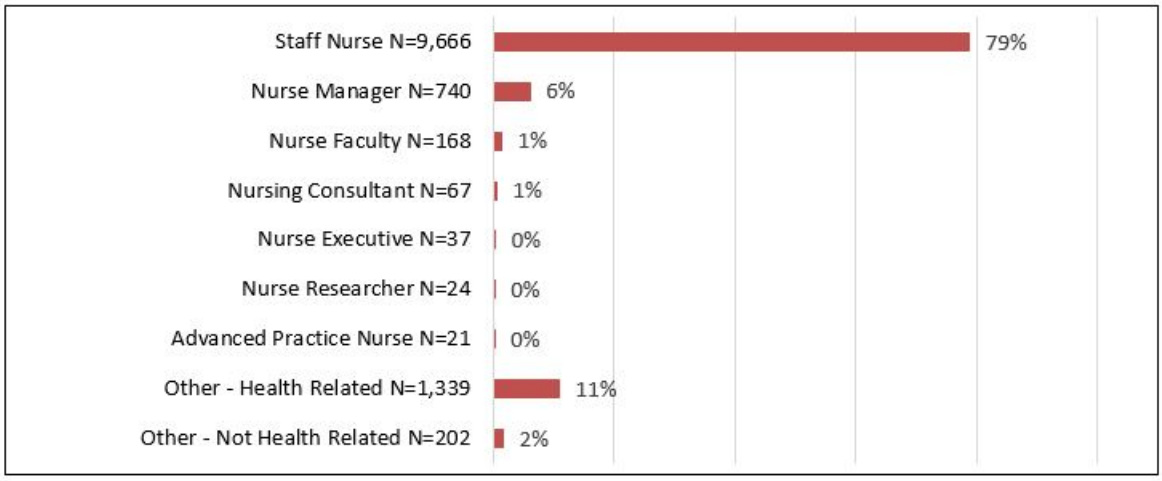
The figures on the following page describe the setting and position description of respondents' primary employment. According to **Figure 2.10**, more than 44% (N=5,426) of 12,353 respondents reported that the nursing home/assisted living facility was their primary employment setting. **Figure 2.11** shows that 79% of LPNs identify as Staff Nurses.

Figure 2.10: LPN Primary Employment Setting*



*The 9,020 missing data are excluded.
**Categories are new in 2019

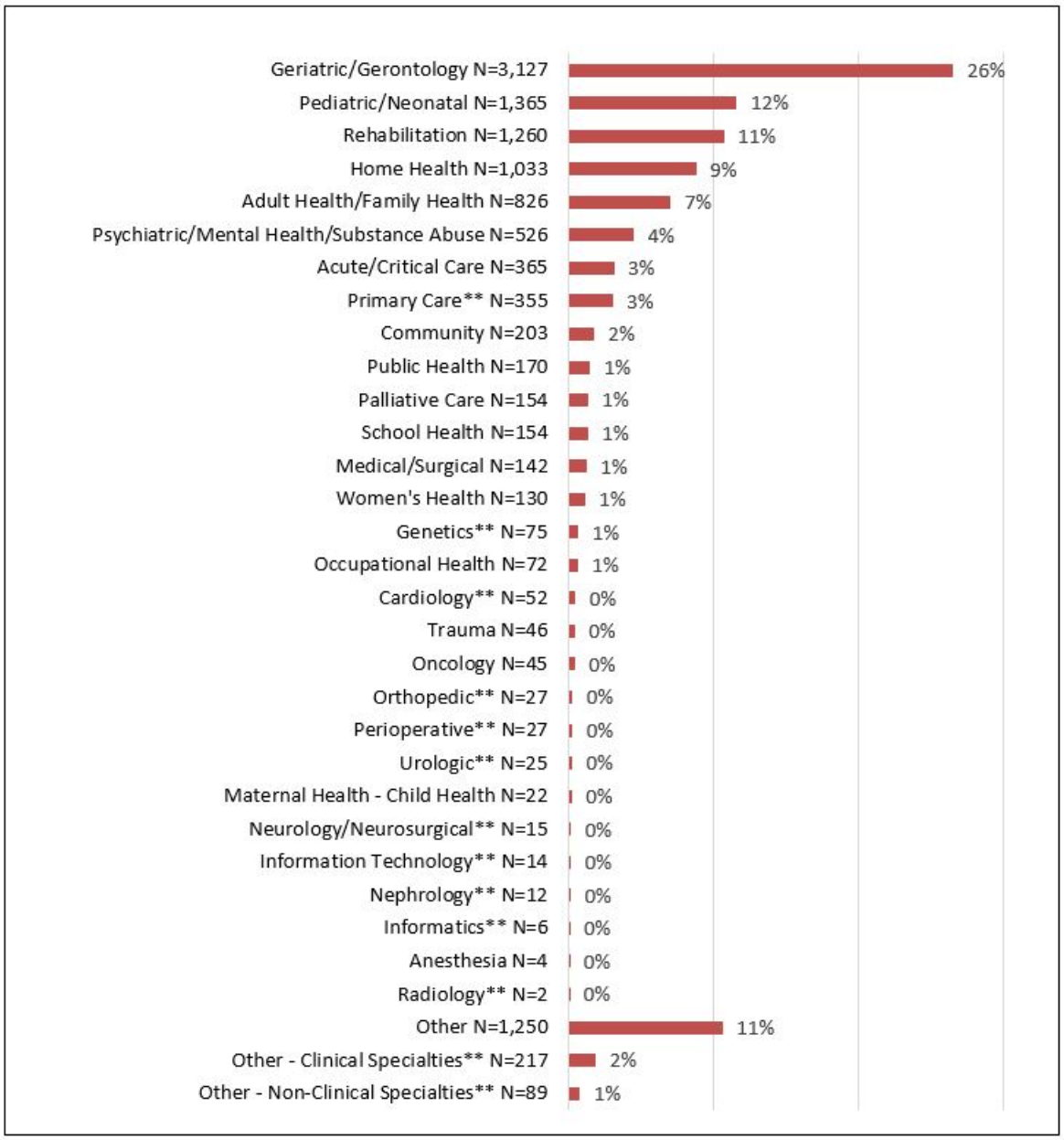
Figure 2.11: LPN Primary Employment Position Description*



*The 9,109 missing data are excluded.

The Nursys® survey broke down employment specialties into additional categories in 2019. Nurses classified their employment specialties as outlined in **Figure 2.12**.

Figure 2.12: LPN Primary Employment Position Specialty*

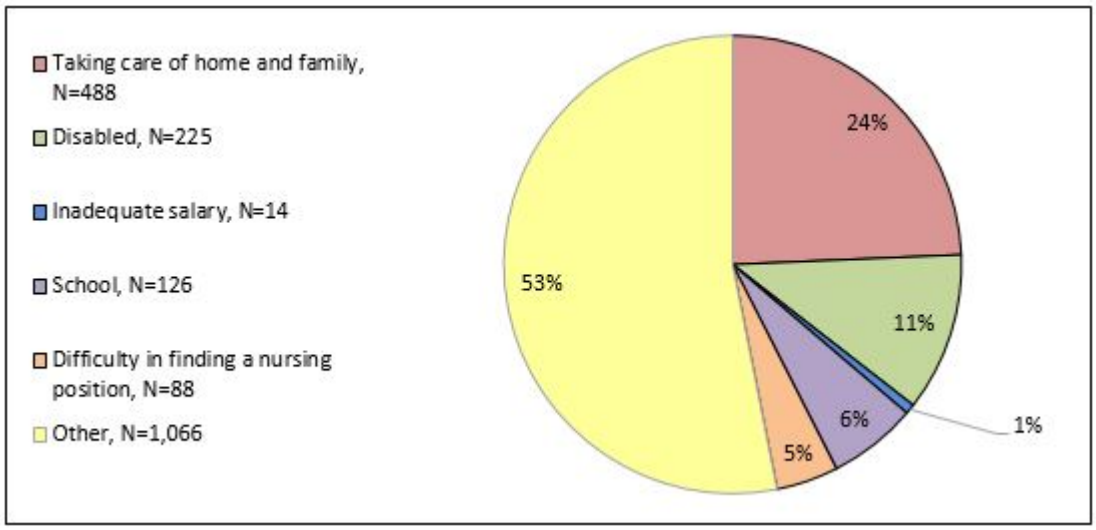


*The 9,563 missing data are excluded. **Categories are new in 2019

Unemployment

Figure 2.13 shows that there were 2,007 LPNs who reported a reason for not being employed as a nurse. Of those, 24% cited "taking care of home and family" as their primary reason.

Figure 2.13: LPN Reason for Not Being Employed as a Nurse



Retirement

NJCCN asked participants of their intention to retire within two years, prior to the next license renewal. In response, 2% of LPNs indicated a plan to retire within this timeframe (not inclusive of missing data).

Table 2.22 identifies LPNs who declared an intent to retire by age bracket. Of nurses who are 66-75 years old, 23% intend to retire; of nurses who are 76-85 year old, 19% intend to retire. The number of RN respondents in each age category is different from the numbers reported in **Table 2.19** because **Table 2.22** only includes LPNs who reported their age **and** their intent to retire. A majority of nurses intend to retire when they are in the 66-75 age bracket.

Table 2.22: LPN Intent to Retire according to Age*

Age	**LPN Respondents** N=13,359	**Intend to Retire** N=448	**%**
18-25	205	0	0
26-35	2,690	17	1
36-45	3,201	23	1
46-55	3,337	24	1
56-65	2,930	158	5
66-75	898	206	23
76-85	93	18	19
86-95	5	2	40

Update to Nurse Retirement Projection

In 2018, NJCCN published a projection of nurse retirement for 2020 and 2025 in *New Jersey Annual Nursing Data Report 2017* (http://www.njccn.org/nursing-workforce-supply-and-demand/). The report provided an analysis of historical retirement rates across age groups and employment settings. Future retirement rates for RNs, APNs, and LPNs were projected with confidence intervals based on historical data.

This section will compare actual 2019 retirements to anticipated numbers based on the 2020 projection. This section will only include a status report on the retirement projection in *New Jersey Annual Nursing Data Report 2017*, and will not include new or revised estimates.

Nurse Retirement Projections for 2020 and 2025: A Review

The following table is Table 78 from *New Jersey Annual Nursing Data Report 2017*, which can be found on page 79 of the original publication. The table reported a total of 7,169 RN retirements, 179 APN retirements, and 826 LPN retirements by 2020.

Table 2.23: Projected Trend of the Active NJ Nursing Workforce Through 2025

	RN		**APN**		**LPN**	
	2020	2025	2020	2025	2020	2025
Expected # of retirements	7,169	23,831	179	786	826	3,161
Active workforce after retirements (projected)	98,855	82,193	7,201	6,594	20,004	17,670
% reduction in the workforce from 2018	7	22	2	11	4	15

(Source: NJCCN Educational Survey 2017, NJBON Nursys® Survey 2018)

As the 2020 projection was made in 2018, it may be expected that approximately half of the anticipated retirements will occur in 2019. If exactly 50% of the projected retirements occurred in 2019, then there would be 3,585 RN retirements, 90 APN retirements, and 413 LPN retirements. The actual number of nurse retirements in 2019 is determined based on the 2019 Nursys® survey from the New Jersey Board of Nursing, which asks participants to report employment status. If retirements reported in the 2019 Nursys® survey are consistently above or below those numbers, then future projections would need to be adjusted accordingly.

According to the the 2019 Nursys® survey, there were 2,590 RN retirements, 84 APN retirements, and 2016 LPN retirements (see **Table 2.24**). When compared to expected retirements, **actual retirement are consistently lower**, which suggests that the projections were overly conservative. APNs are the closest, with only a 7% deviation from the projection. RN retirements were 28% lower than expected. The 2018 projection suggested that there would be a surplus of LPNs in 2020 and 2025. However, LPN retirements are 48% lower than expected. If this low retirement rate is consistent in future years, we might expect a higher surplus than anticipated.

Table 2.24: Comparison of actual retirements in 2019 to 2020 projections

	RN		APN		LPN	
	2019 Actual	2020 Expected	2019 Actual	2020 Expected	2019 Actual	2020 Expected
Number of retirements	2,590	3,585	84	90	216	413
Difference (%) (Actual/Expected)		-28		-7		-48

(Source: NJBON Nursys® Survey 2018-19, NJCCN 2018 report)

Although estimated retirements for 2019 were established by dividing the projection for 2020 in half, it should **not** be assumed that precisely 50% of the projected retirements for 2020 would occur in 2019. This is primarily due to the fact that the Nursys® survey is administered with nurse license renewal. As nurses renew their license every two years, the survey reaches approximately half the workforce each year. Therefore, a complete picture of the workforce is only captured by combining two years of data, if all nurses respond to the survey.

Note: Retirement data for 2019 is missing answers from approximately 25% of survey respondents. The actual number of retirements for 2019 may be higher than the numbers reported in **Table 2.24**. Therefore, the actual % difference may be lower than the numbers reported in **Table 2.24**.

Assessment of nurse retirement 2017-2019

Table 2.25 trends nurse retirement data according to age group from 2017-2019. Since 2018, retirements have increased significantly for RNs, APNs, and LPNs for nurses over the age of 60, but these numbers are still lower than 2017 levels. These historical retirement trends suggest that future retirement rates may increase. This in turn may support NJCCN's retirement projections through 2020 and 2025 even though the projections are higher than current retirement rates.

Table 2.25: Actual retirement according to age group 2017-2019

	RN			APN			LPN		
	2017 (%)	2018 (%)	2019 (%)	2017 (%)	2018 (%)	2019 (%)	2017 (%)	2018 (%)	2019 (%)
46-50	0.04	0.02	0.1	-	-	-	0.08	0.1	0.1
51-55	0.09	0.1	0.3	-	0.2	-	0.4	0.4	0.3
56-60	0.3	0.2	2	0.3	1	1	1	1	1.1
61-65	1	1	8	3	2	2	5	4	5
66-70	5	5	24	4	11	13	17	9	17
71-75	23	18	27	15	17	20	25	10	17
76-80	39	24	27	5	19	32	25	13	17
81-85	45	22	33	-	-	-	46	5	13
86+	49	23	68	-	50	-	50	38	-

(Source: NJCCN 2016-17, NJBON Nursys® Survey 2018-2019)

Table 2.25 presents data from Table 75 of *New Jersey Annual Nursing Data Report 2017* and

data from the 2018-2019 NJBON Nursys® Survey. These data come from different questions in the 2017, 2018, and 2019 Nurse License Renewal Surveys. In 2017, the survey asked "If you are **not** employed as an RN, how important are each of the following factors in why you are not employed as an RN?" In 2018 and 2019, the Nurse License Renewal Surveys asked "What is your employment status?"

Age distribution in New Jersey's nursing workforce

Table 2.26 shows the age of the nursing workforce according to age bracket for 2016-2017 and 2018-2019. As nurses renew their licenses every two years, each two-year period encompasses the license renewal survey data for the whole nursing workforce. According to **Table 2.26**, the percentage of RNs, APNs, and LPNs over the age of 65 is approximately equal in 2016-2017 and 2018-2019. If this age distribution remains stable in future years, then the percentage of nurses at risk for retirement will remain the same, even if the number of nurses who actually retire is lower than expected. Retirement-age nurses who did not retire in 2019 are at even greater risk of retirement in 2020 or the near future.

Table 2.26 also shows an increase in the percentage of RNs, APNs, and LPNs age 18-30, which indicates that there are more new graduates entering the workforce. However, the age distribution of the workforce as a whole is still weighted in the higher age brackets, with close to half of the nursing workforce being over the age of 50. Increasing the number of new graduates and retention strategies are important considerations for the future.

Table 2.26: Age distribution of RNs, APNs, and LPNs

	RN		**LPN**		**APN**	
	2016-2017 N=96,256	2018-2019 N=110,832	2016-2017 N=5,462	2018-2019 N=8,965	2016-2017 N=19,913	2018-2019 N=21,372
Age (years)	(%)	(%)	(%)	(%)	(%)	(%)
18-30	8	10	3	5	6	8
31-40	17	18	25	26	21	22
41-50	21	20	26	24	24	23
51-65	41	39	37	35	37	36
66+	12	13	10	9	11	11

(Source: NJCCN Survey 2016-17, NJBON Nursys® Survey 2018-19)

Retirement Intentions (Self-Reported)

The nurse license renewal survey asks whether nurses intend to retire prior to the next license renewal (i.e. within two years). Previous tables (**Table 2.7, Table 2.16, and Table 2.22**) show that 31% of RNs, 24% of APNs, and 23% of LPNs over the age of 65 self-reported an intention to retire within the next two years.

According to self-reported survey data from 2018-2019 in **Table 2.27**, APN retirements by 2020-2021 will be **greater** than projected, while RN and LPN retirements will continue to be lower than projected. If RNs and LPNs do not retire when they are eligible, the workforce will continue to age, and the risk of retirement will be greater each subsequent year.

Table 2.27: Nurse Retirement Intentions 2020-2021

	2020-21	% of current workforce
RN	4,271	3.9
APN	448	2.1
LPN	294	3.3

(Source: NJBON Nursys® Survey 2018-19)

Nurse Graduation 2013-2018

The risk of retirement may be mitigated by increasing the number of graduates entering the workforce each year. The workforce should remain stable if the number of new nurse graduates entering the workforce is equal to the number of nurse retirements each year. If future graduation rates follow the trends established in **Table 2.28**, the supply of new nurse graduates may be sufficient to replace projected retirements through 2020 and 2025. However, graduation rates for APNs need to be further studied to capture APNs who are graduating from MSN programs. These data do not take into account new demands based on changes in the healthcare delivery system.

Table 2.28: Nurse Graduation Data 2013-2018

	2013	2014	2015	2016	2017	2018
RN	3131	3077	3161	3007	3122	3374
APN (DNP)	65	59	93	88	116	137
LPN	1777	1575	1543	1247	1220	1323

(Source: NJCCN Educational Capacity Survey 2013-2018)

Conclusion

While reported retirements for 2019 suggest that NJCCN's projections may be conservative, the data continue indicate that the projections are still accurate. There is insufficient evidence to suggest that retirement rates will continue to be as low as reported in 2019, especially considering the high percentage of RNs, APNs, and LPNs over the age of 65. Therefore, NJCCN will maintain current retirement projections through 2020 and 2025, and will provide annual status updates.

However, NJCCN will closely monitor APN retirements, as their self-reported intention to retire by 2020-2021 was more than 50% higher than expected. Unexpectedly high numbers of APN retirements could adversely affect healthcare in New Jersey across all sectors, specialties, and employment settings. Current graduation rates for APNs are not sufficient to meet this deficit on such short notice. The national forecast indicates that the number of APNs practicing in the United States will increase by 6.8% each year from 2016-2030. This would mitigate the concern regarding an APN shortage (Auerbach, Staiger & Buerhaus 2018; Auerbach Buerhaus, & Staiger 2020).

Chapter 3

Workforce Demand Data

NJCCN used data mined from Burning Glass Technologies™ to determine demand for nurses in the State of New Jersey. The O*Net-SOC taxonomy was used to standardize the occupation-specific indicators. The job ads were reviewed to eliminate any per diem positions, out-of-state commuters, temporary positions, staffing agencies, and postings that had job openings outside of New Jersey.

Table 3.1: Summary Demand and Requirements Table by Occupation - 2018

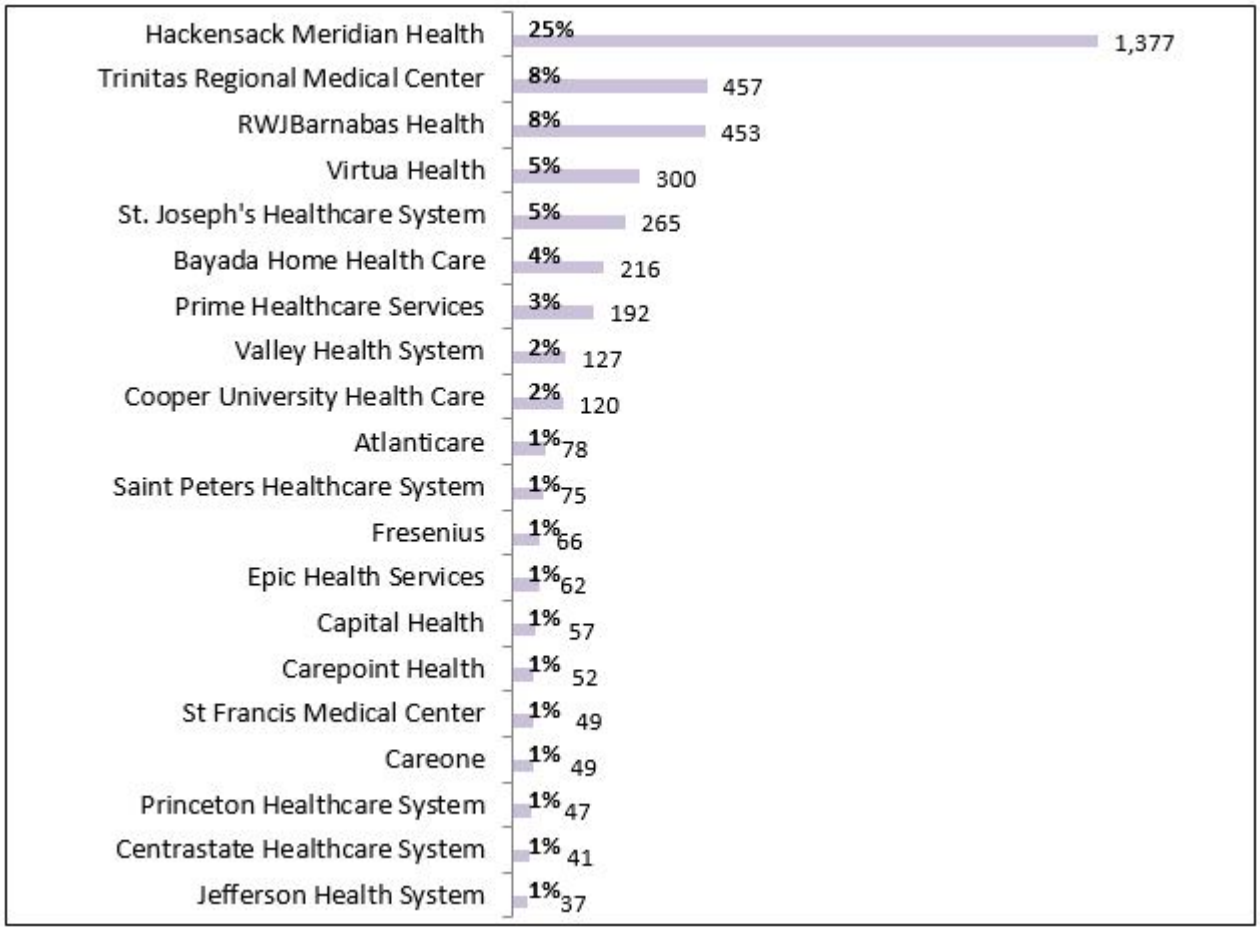
Category		**Demand and Employment**				**Salary**
Source		**Burning Glass**	**BLS*/ OES2018**	**BGT** Projections**		
SOC Code (ONET-6)	**Occupation Title**	**Number of job Postings**	**Number Employed 2018**	**% Change in Employment 2017-2018**	**Projected Statewide Change in Employment 2018-2028**	**Mean Salary**
29-1141	Registered Nurses	5,929	79,530	-1%	15.9%	$82,750
29-2061	Licensed Practical & Licensed Vocational Nurses	2,646	17,490	1%	10.4%	$56,290
29-1171	Nurse Practitioners	947	5,900	21%	33.0%	$122,100

*BLS/OES2018 is Bureau of Labor Statistics Occupational Employment Statistics 2018
**BGT is Burning Glass Technologies™

Registered Nurse (RN) Demand Profile

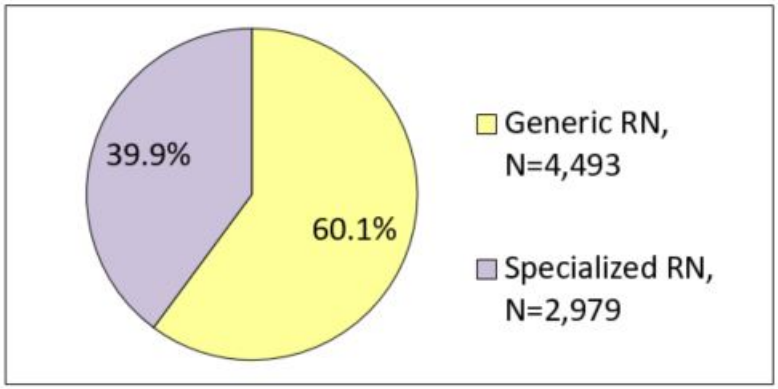
Figure 3.1 shows the 20 employers who produced the greatest number of online job postings for RNs in 2018. Hospital employers were combined under their healthcare system where applicable. Greater numbers of postings may reflect a high rate of turnover or a high demand for employees. The top 20 employers accounted for 4,120 of the 5,539 total postings.

Figure 3.1: Top 20 Employers of RNs



(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

Figure 3.2: RN Online Job Postings

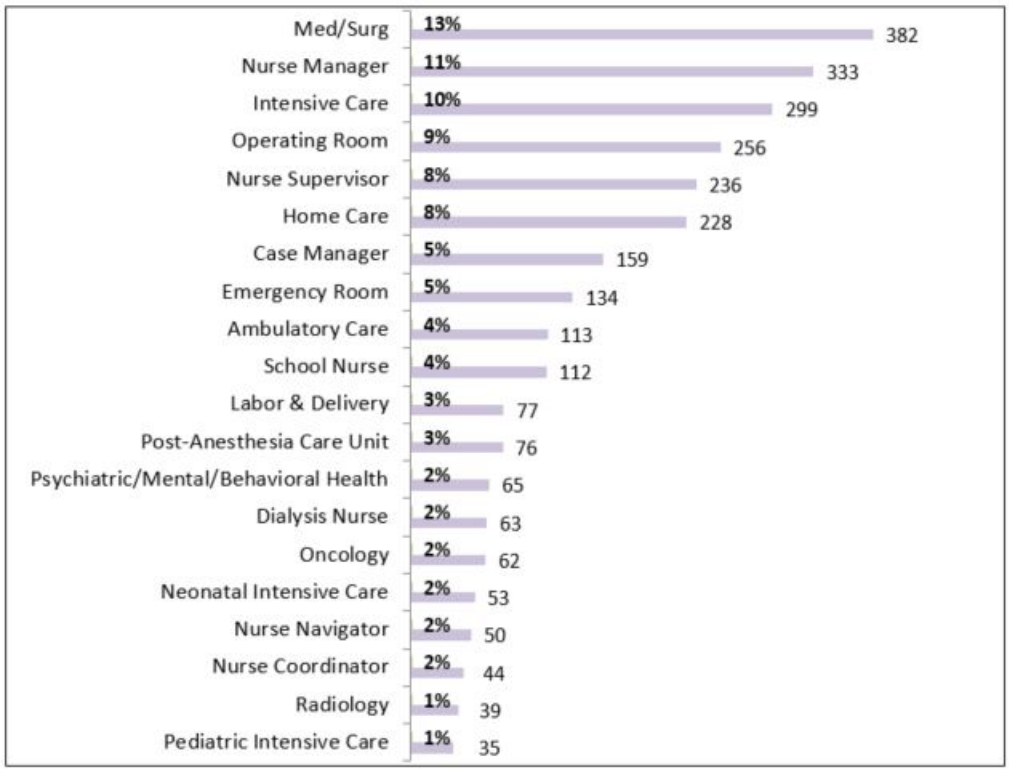


(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

As shown in **Figure 3.2**, 4,493 postings were for generic RN or staff nurse positions, which account for over 60% of the total. The remaining 2,979 were identified as "specialized positions" and classified based on job settings.

Figure 3.3 lists the 20 most common specialized positions of the 2,979 identified in 2018. There were only 163 postings that were in categories too small to make it into the top 20.

Figure 3.3: Top 20 RN Positions

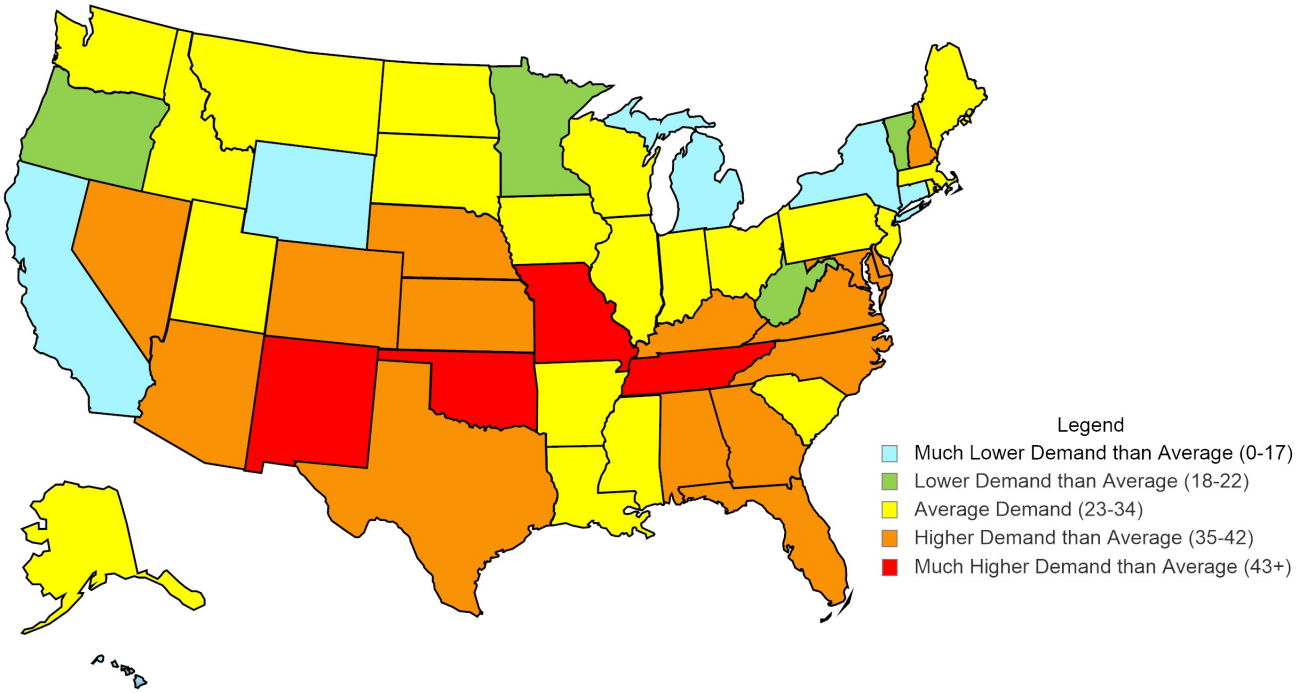


(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

National Demand Comparison

Figure 3.4 shows the level of demand for RNs across the United States from January 1, 2018 through December 31, 2018. The demand for RNs is identified here as the ratio of RN job postings per 10,000 employed persons.

Figure 3.4: National Demand for RNs



(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

The average rate of demand for RNs nationally is 23-33 job postings per 10,000 employed persons. When compared to this rate, **New Jersey has an average rate of demand for RN positions, with a rate of 30 postings per 10,000 employed persons.** The three states with the highest demand are Missouri (56), Tennessee (49), and New Mexico (45). The three states with the lowest demand are Connecticut (3), Michigan (5), and California (7).

In New Jersey, there was a 1% change in employment for RNs between 2017 and 2018.

Job Postings by County

January 1, 2018 - December 31, 2018

There were 24,699 postings available with the current filters applied.

Table 3.2: Demand for RNs by NJ County

County	Job Postings	%	Location Quotient
Atlantic	626	3%	0.7
Bergen	3,069	12%	0.9
Burlington	1,720	7%	1.2
Camden	1,980	8%	1.4
Cape May	195	1%	0.6
Cumberland	301	13%	1.3
Essex	3,180	13%	1.3
Gloucester	443	2%	0.6
Hudson	1,450	6%	0.8
Hunterdon	361	1%	1.1
Mercer	982	4%	0.6
Middlesex	1,955	8%	0.7
Monmouth	2,179	9%	1.2
Morris	1,092	4%	0.5
Passaic	1,406	6%	1.2
Salem	198	1%	1.3
Somerset	591	2%	0.4
Sussex	187	1%	0.7
Union	1,141	5%	0.7
Warren	241	1%	1.0

(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

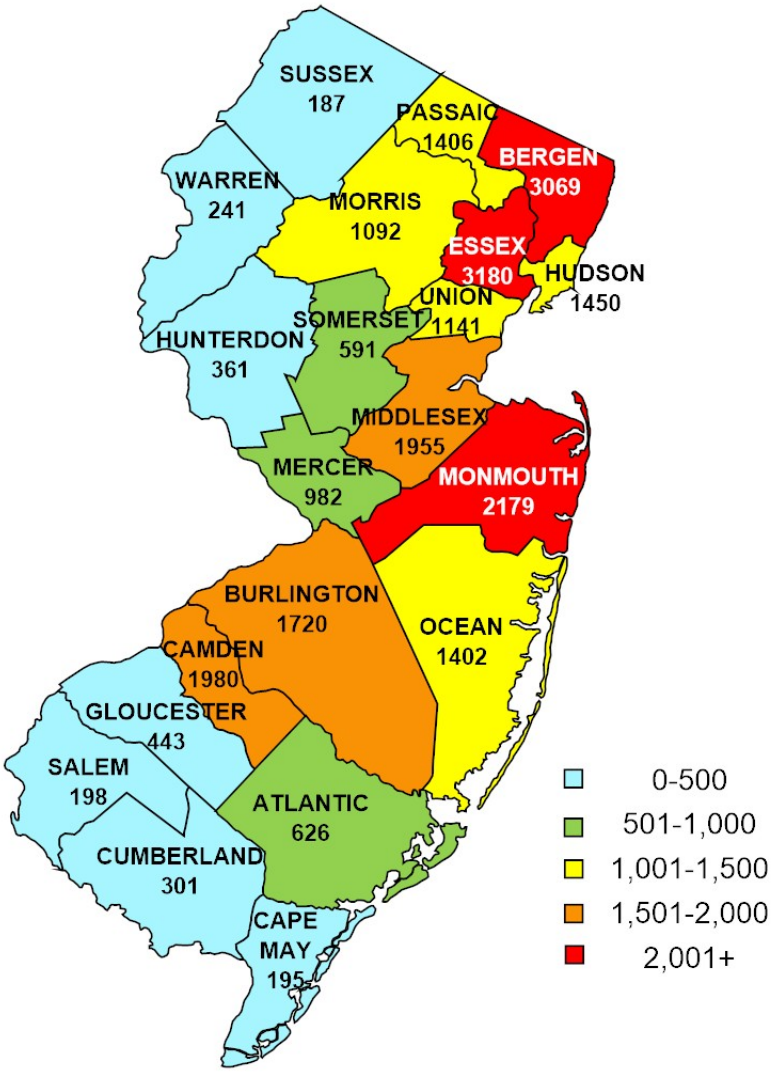
Table 3.2 shows county-level data for the raw number of job postings, the percent of NJ job postings located in each county, and the county Location Quotient. The Location Quotient (LQ) is a per capita measure that aims to show the concentration of a job in a given area compared to concentration of the same job nationwide.

- A LQ that is exactly equal to the national average would be 1.0.
- A LQ greater than 1.0 would indicate that demand is greater than the national average. For example, 1.2 would indicate that demand is 20% higher than the national average.
- A LQ less than 1.0 would indicate that demand is lower than the national average. For example, 0.8 would indicate that demand is 20% lower than the national average.

Further information on the geographic concentration of job postings and Location Quotient are found in **Figure 3.5** and **Figure 3.6** on the following pages.

Figure 3.5 shows the **raw** number of online job postings for RN positions according the county. Counties in New Jersey with the greatest number of online job postings are Essex (N=3,180) and Bergen (N=3,069).

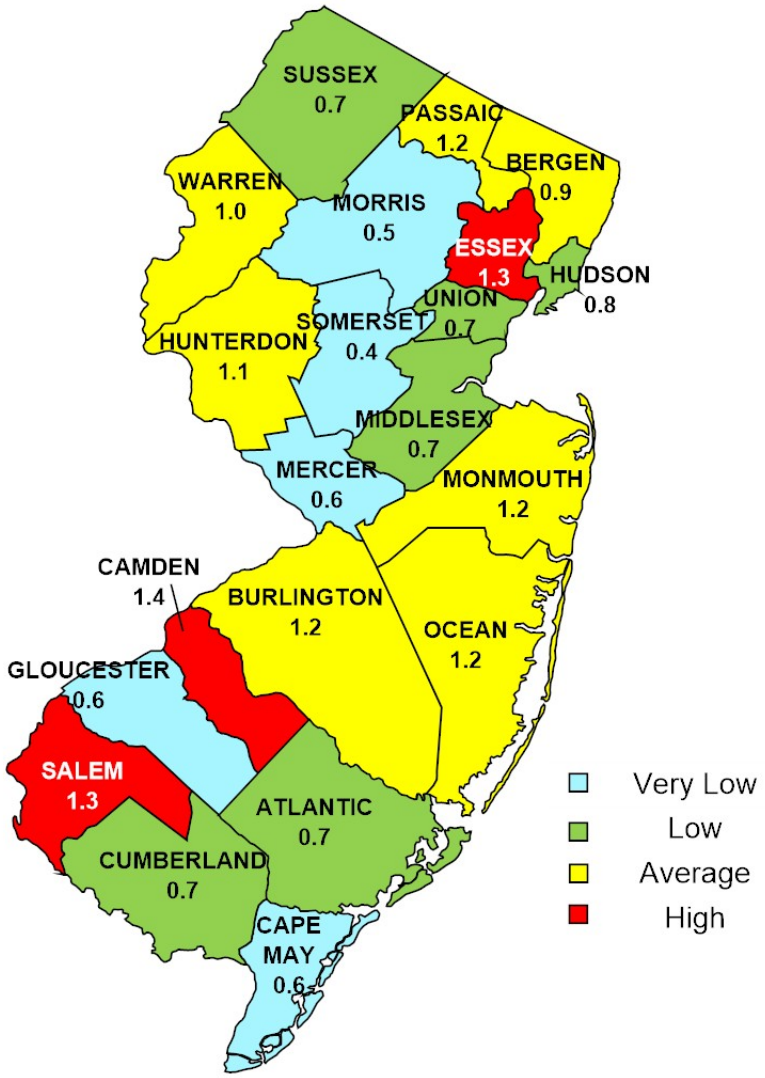
Figure 3.5: RN Postings per County



(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

Figure 3.6 shows the LQ of RN job postings by county in 2018. Categories "Very Low," "Low," "Average," and "High" are relative to the national average. **Approximately two-thirds of the counties in New Jersey have a LQ that is lower than the national average.** The counties with the lowest LQ are Somerset (0.4) and Morris (0.5). The counties with the highest LQ are Camden (1.4), Essex (1.3) and Salem (1.3).

Figure 3.6: RN Location Quotient per County

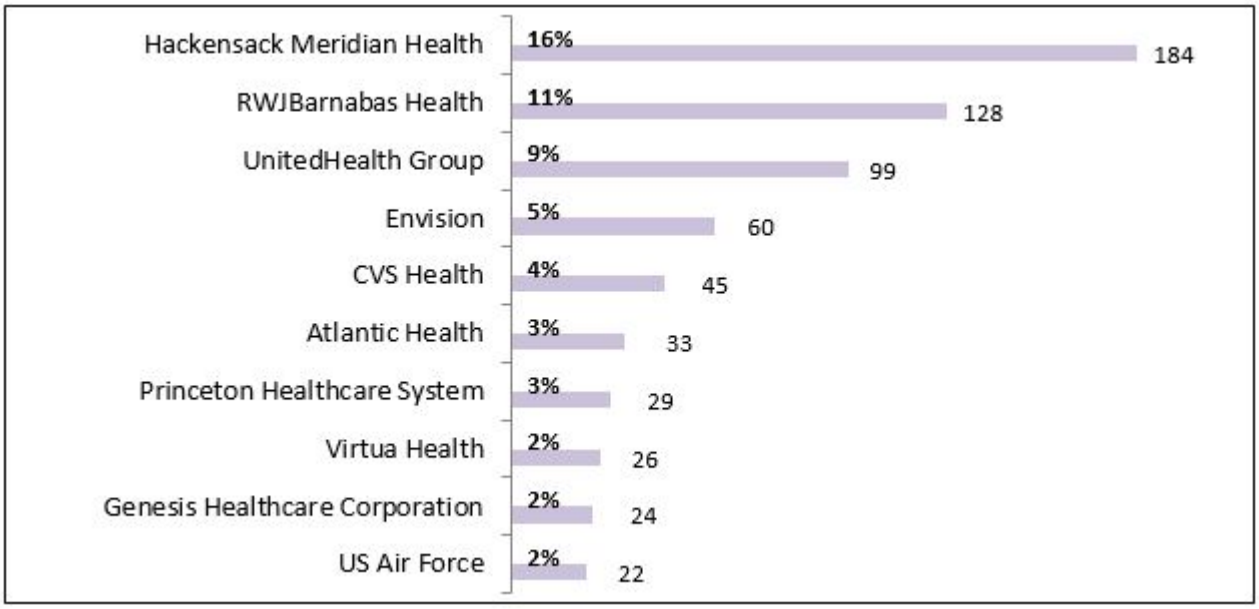


(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

Nurse Practitioner (NP) Demand Profile

Figure 3.7 shows the 10 employers who produced the greatest number of online job postings for Nurse Practitioners (NP) in 2018. Note: 46% of records have been excluded because they do not include an employer. As a result, the figure may not be representative of the full sample. Hospital employers were combined under their healthcare system where applicable. Greater numbers of postings may reflect a high rate of turnover or a high demand for employees. The top 10 employers accounted for 650 of the 1,130 total postings.

Figure 3.7: Top 20 Employers of NPs



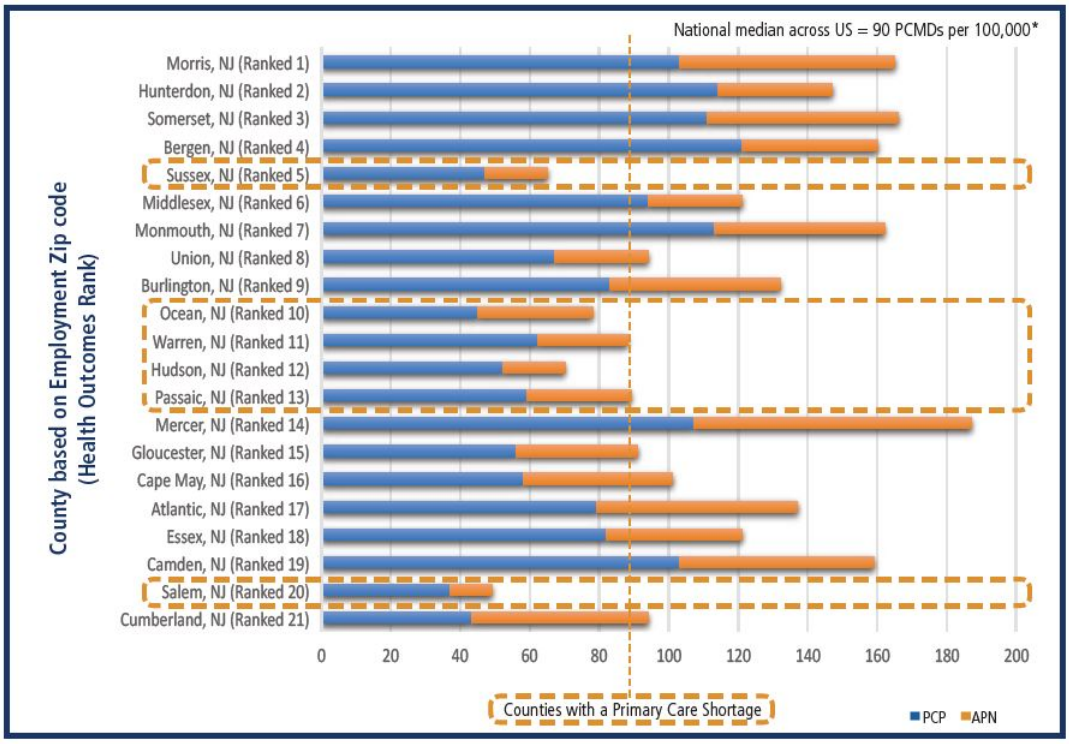
(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

Further analysis of the 2,659 job posting for Nurse Practitioners indicated indicated that 1,952 were for generic NP positions. Job postings for specialized positions were primarily for Family (N=297) and Psychiatric/Behavioral Health (N=288).

NJCCN published "Policy Analysis: Improving Access to Care for New Jersey" in 2019. This publication provided a comprehensive analysis of the role of APNs in improving access to primary care for New Jersey. The report analyzed primary care needs and the number of primary care providers (inclusive of APNs and MDs) in each county. **Figure 3.8** from the report shows counties with a primary care shortage. Blue represents primary care MDs, and orange represents potential primary care APNs. Even with the addition of APNs, six counties continue to project a shortage of primary care providers below the current national median of 90. The growth of APN graduates could help mitigate the gap in primary care if barriers to practice were eliminated.

"Policy Analysis: Improving Access to Care for New Jersey" can be accessed at:
http://www.njccn.org/wp-content/uploads/2019/06/APN-Policy-Analysis-from-NJCCN.pdf

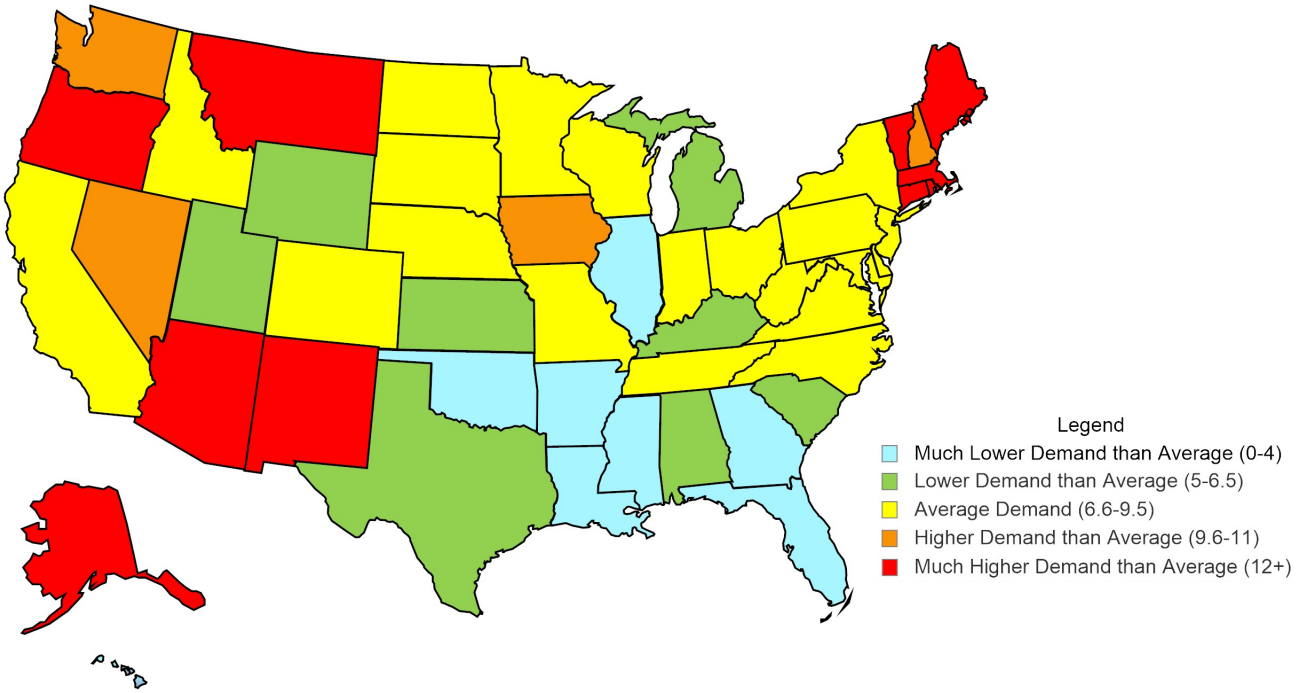
Figure 3.8: Primary Care MDs and primary Care APNs per 100,000 population by county.



National Demand Comparison

Figure 3.9 shows the level of demand for NPs across the United States from January 1, 2018 through December 31, 2018. The demand for NPs is identified here as the ratio of NP job postings per 10,000 employed persons.

Figure 3.9: National Demand for NPs



(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

The average rate of demand for NPs nationally is 6-9 job postings per 10,000 employed persons. When compared to this rate, **New Jersey has an average rate of demand for NP positions, with a rate of 6 postings per 10,000 employed persons.** The three states with the highest demand are Connecticut (28), Maine (24), and Vermont (21). The three states with the lowest demand are Hawaii (3), Mississippi (4), and Illinois (4).

In New Jersey, there was a 26% change in employment for NPs between 2017 and 2018. Nationally, there was an 11% change in employment between 2017 and 2018.

Job Postings by County

January 1, 2018 - December 31, 2018

There were 2,683 postings available with the current filters applied.

Table 3.3: Demand for NPs by NJ County

County	Job Postings	%	Location Quotient
Atlantic	90	3%	0.9*
Bergen	239	9%	0.7
Burlington	142	5%	0.9
Camden	166	6%	1.0
Cape May	48	2%	1.4*
Cumberland	47	2%	1.0*
Essex	377	14%	1.4
Gloucester	45	2%	0.5*
Hudson	300	11%	1.5
Hunterdon	12	0%	0.3*
Mercer	161	6%	0.8
Middlesex	201	7%	0.6
Monmouth	274	10%	1.3
Morris	93	3%	0.4*
Ocean	114	4%	0.9
Passaic	92	3%	0.7*
Salem	8	0%	0.5*
Somerset	78	3%	0.5*
Sussex	33	1%	1.1*
Union	134	5%	0.8
Warren	29%	1%	1.1*

*Values should be used with caution due to low posting totals.

(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

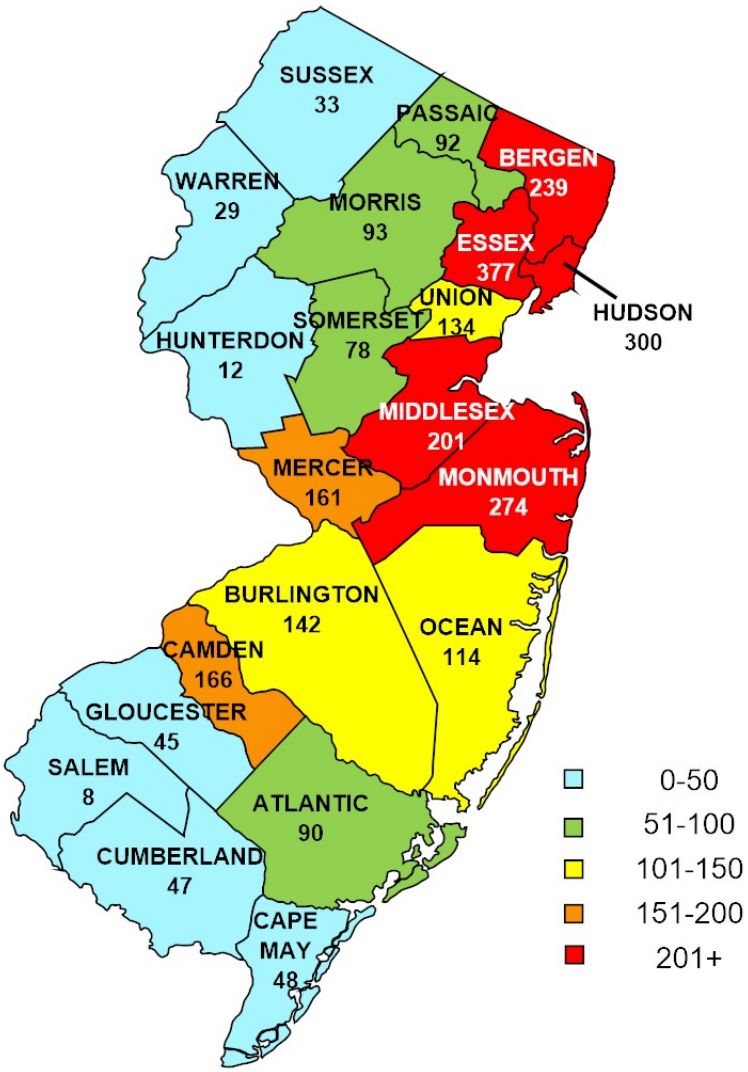
Table 3.3 shows county-level data for the raw number of job postings, the percent of NJ job postings located in each county, and the county Location Quotient. The Location Quotient (LQ) is a per capita measure that aims to show the concentration of a job in a given area compared to concentration of the same job nationwide.

- A LQ that is exactly equal to the national average would be 1.0.
- A LQ greater than 1.0 would indicate that demand is greater than the national average. For example, 1.2 would indicate that demand is 20% higher than the national average.
- A LQ less than 1.0 would indicate that demand is lower than the national average. For example, 0.8 would indicate that demand is 20% lower than the national average.

Further information on the geographic concentration of job postings and Location Quotient are found in **Figure 3.10** and **Figure 3.11** on the following pages.

Figure 3.10 shows the **raw** number of online job postings for NP positions according the county. Counties in New Jersey with the greatest **raw** number of online job postings are Essex (N=377) and Hudson (N=300). Counties with the lowest **raw** number of online job postings are Salem (N=8) and Hunterdon (N=12).

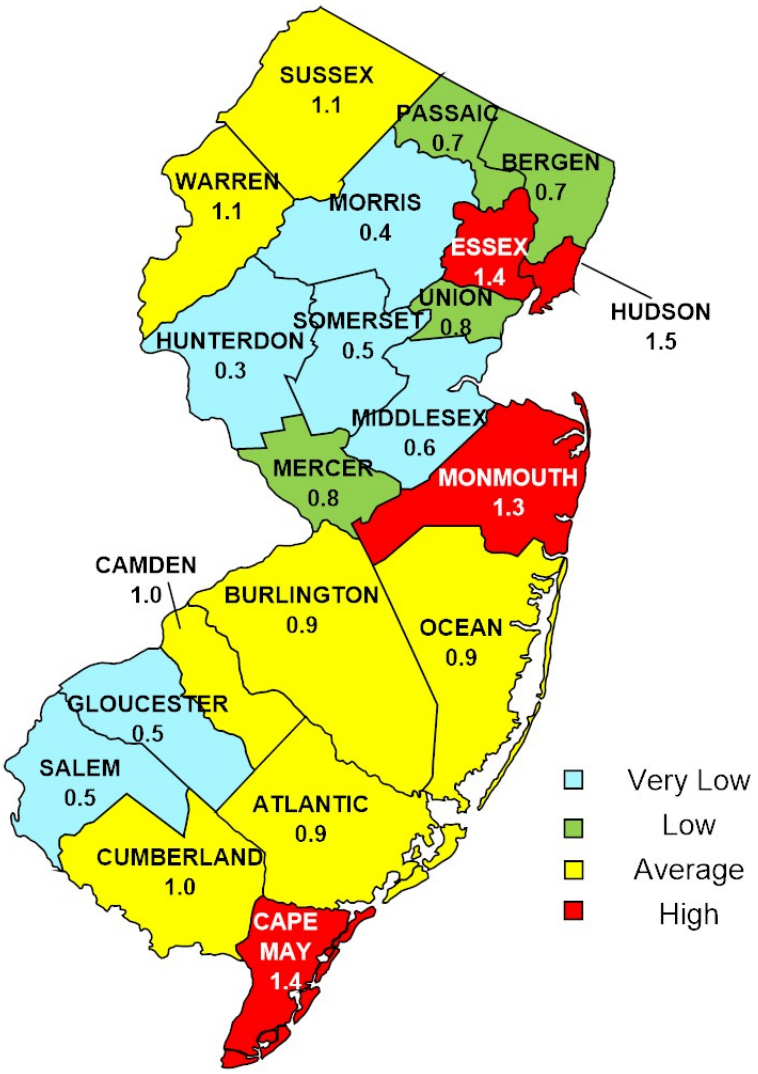
Figure 3.10: NP Postings per County



(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

Figure 3.11 shows the LQ of NP job postings by county in 2018. Categories "Very Low," "Low," "Average," and "High" are relative to the national average. **Approximately two-thirds of the counties in New Jersey have a LQ that is lower than the national average.** The counties with the lowest LQ are Somerset (0.4) and Morris (0.5). The counties with the highest LQ are Hudson (1.5), Essex (1.4) and Cape May (1.4).

Figure 3.11: NP Location Quotient per County



(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

Licensed Practical Nurse (LPN) Demand Profile

Table 3.4 shows the 10 employers who produced the greatest number of online job postings for LPNs in 2018. Hospital employers were combined under their healthcare system where applicable. Greater numbers of postings may reflect a high rate of turnover or a high demand for employees. The top 10 employers accounted for 1,617 of the 2,063 total postings.

As shown in **Table 3.4**, 59% (N=1,211) were from Bayada Home Health Care. Other top employers included nursing homes, home health care providers, and hospital systems.

Table 3.4: Top 10 Employers of LPNs

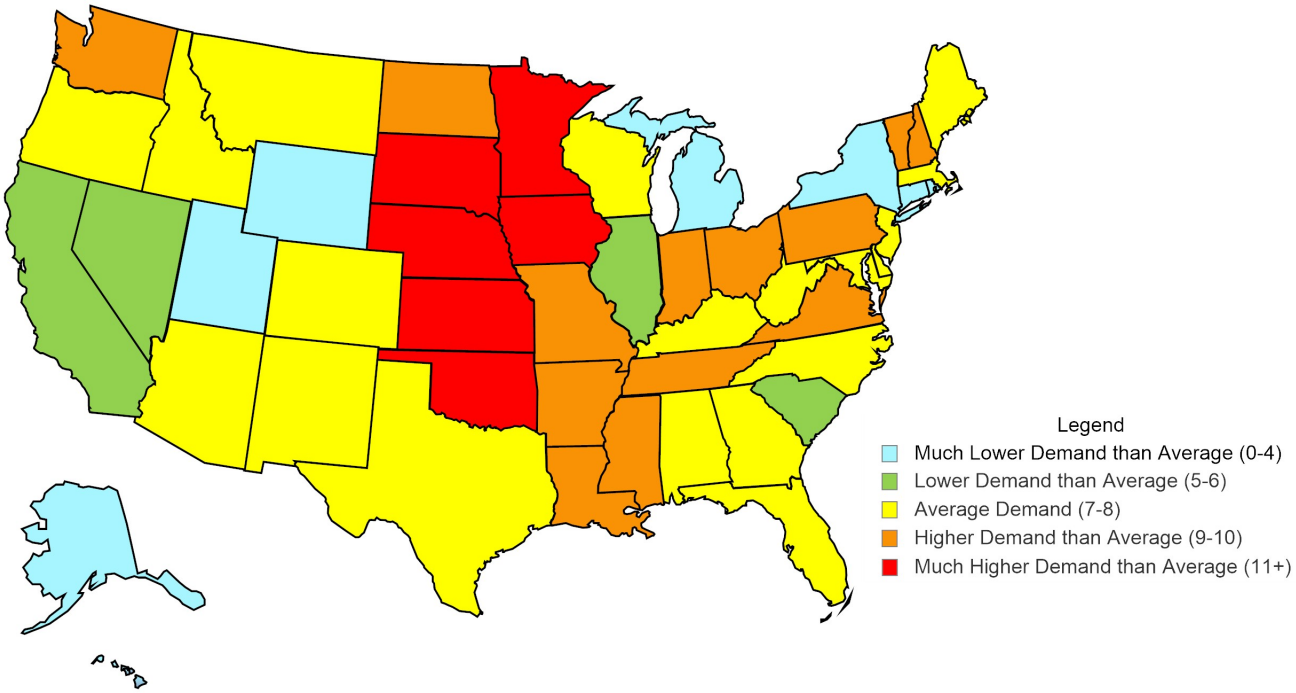
Employer	**Number of Postings**
Bayada Home Health Care	1,211
Hackensack Meridian Health	106
Preferred Home Health Care & Nursing Services	95
Rescare	39
White Glove Community Care	34
Careone	29
Vitas	28
Aveanna Healthcare	27
Bergen New Bridge Medical Center	24
Cooper University Health Care	24

(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

National Demand Comparison

Figure 3.12 shows the level of demand for LPNs across the United States from January 1, 2018 through December 31, 2018. The demand for LPNs is identified here as the ratio of LPN job postings per 10,000 employed persons.

Figure 3.12: National Demand for LPNs



(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

The average rate of demand for LPNs nationally is 7-8 job postings per 10,000 employed persons. When compared to this rate, **New Jersey has an average rate of demand for LPN positions, with a rate of 7 postings per 10,000 employed persons.** The three states with the highest demand are Nebraska (14), South Dakota (11), and Kansas (11). The three states with the lowest demand are Connecticut (1), New York (2), and Michigan (2).

In New Jersey, there was a 5% change in employment for LPNs between 2017 and 2018.

Job Postings by County

January 1, 2018 - December 31, 2018

There were 2,632 postings available with the current filters applied.

Table 3.5: Demand for LPNs by NJ County

County	Job Postings	%	Location Quotient
Atlantic	69	3%	1.1*
Bergen	531	20%	2.5
Burlington	131	5%	1.4
Camden	156	6%	1.7
Cape May	11	0%	0.5*
Cumberland	24	1%	0.9*
Essex	212	8%	1.3
Gloucester	64	2%	1.3*
Hudson	105	4%	0.9
Hunterdon	34	1%	1.5*
Mercer	75	3%	0.7*
Middlesex	189	7%	1.0
Monmouth	291	11%	2.4
Morris	192	7%	1.4
Ocean	115	4%	1.5
Passaic	140	5%	1.8
Salem	14	1%	1.4*
Somerset	71	3%	0.8*
Sussex	43	2%	2.3*
Union	152	6%	1.5
Warren	13	1%	0.8*

*Values should be used with caution due to low posting totals.

(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2019)

Table 3.5 shows county-level data for the raw number of job postings, the percent of NJ job postings located in each county, and the county Location Quotient. The Location Quotient is a per capita measure that aims to show the concentration of a job in a given area compared to concentration of the same job nationwide.

- A LQ that is exactly equal to the national average would be 1.0.
- A LQ greater than 1.0 would indicate that demand is greater than the national average. For example, 1.2 would indicate that demand is 20% higher than the national average.
- A LQ less than 1.0 would indicate that demand is lower than the national average. For example, 0.8 would indicate that demand is 20% lower than the national average.

Of the counties that had sufficient posting total to calculate the LQ accurately, the counties with the highest LQ were Bergen (2.5), Monmouth (2.4), and Passaic (1.8).

Home Health Aide (HHA) Demand Profile

A home health aide (HHA) is defined by the NJBON as "a person who is employed by a home care services agency and is performing nursing regimens or nursing tasks delegated through the authority of a duly licensed registered professional nurse" (NJ Statutes Annotated, 45:11-23(b)). For older adults and individuals with disabilities, chronic illnesses, or cognitive impairment, HHAs provide hands-on patient care related to activities of daily living.

With the aging U.S. population, the need for HHAs and personal care aides is projected to grow 41% from 2016 to 2026, much faster than the average for all occupations (Bureau of Labor Statistics, 2017). This is of special concern in New Jersey because of the reported low salary, few full-time positions, and irregular work schedule of HHAs (Bureau of Labor Statistics, 2017; Hewko et al., 2015; Weng & Landes, 2017). **Table 3.6** lists the current number of home health aides who have HHA certification and the change in the workforce from 2018. These data were provided by NJBON.

Table 3.6: Home Health Aides

	2018	**2019**	**% Change**
Home Health Aides	60,343	52,179	13.5

For HHA education and training, the NJ BON prescribes the standards and curricula along with the standards and requirements for a competency evaluation program resulting in HHA certification (NJ Statutes Annotated, 45:11-24). The New Jersey Collaborating Center for Nursing (NJCCN) is just beginning to obtain information about New Jersey's HHAs and their training. The following data was obtained from a 2019 survey sent to the 159 employers who provide the HHA Training course. Of 16 employers (10% response rate), 8 were from private, for-profit organizations and 7 were from private, non-profit organizations, and 1 did not provide data. **Table 3.7** shows the number and percentage of HHAs in each employment status with the majority of HHAs working on a per diem basis.

HHA Employment Status

Table 3.7 shows that a majority of HHAs are working on a per diem basis.

Table 3.7: Home Health Aide Employment Status

	Number	**%**
Full-Time	487	23
Part-Time	368	17
Per diem	1209	57

The HHA Training Course is an in-person education program that must be approved by the Board of Nursing. The majority (75%) of programs charge a fee for the HHA Training Course, which ranges $100 to $750. However, the majority of employers (88%) assist HHA with the provision of transportation to the course.

HHA Demographics

Table 3.8 describes the demographic characteristics of over 500 HHAs who took the HHA Training Course in the last 12 months. These demographic data are reported by employers. The majority of those who take the HHA Training Course are female and Black/African American. The mean age of HHAs is 34.8.

Table 3.8: HHA Demographic Characteristics (As Identified by Employers)

Gender	**% of Participants**
Female	86
Male	14
Race/Ethnicity	
Asian	8
Black/African American	32
White/Caucasian	9
Hispanic/Latino	27
Two or More Races	2
Missing/No Data	22
Age	
17-20	3
21-25	14
26-30	18
31-40	14
41-50	15
51-60	6
61+	2
Missing/No Data	28

According to **Table 3.9**, a majority (49%) of HHAs are originally from the United States. **Table 3.10** shows that 49% of HHAs have graduated High School or attained a GED.

Table 3.9: HHA Country of Origin (As Identified by Employers)

	%
Africa	17
Asia	18
Central America/Caribbean Islands	18
South America	7
United States	49
Other	1

Table 3.10: HHA Highest Level of Education (As Identified by Employers)

	%
Some High School Education	18
High School graduate or GED	49
Some College Education	10
College Graduate	6
Missing/No Data	17

This is NJCCN's first analysis of the HHA Workforce. Due to the low response rate for HHA employers, further exploration is needed.

Appendices

Glossary

- **Accelerated BSN Nursing Program (2nd Degree):** A program of instruction to prepare registered nurses that admits students with baccalaureate degrees in other disciplines and no previous nursing education and, at completion, awards a baccalaureate degree in nursing and eligibility to apply for licensure as an RN. The curriculum is designed to be completed in less time than the generic (entry-level) baccalaureate program usually through a combination of "bridge"/transition courses (American Association of Colleges of Nursing). (Interagency Collaborative on Nursing Statistics, 2016)
- **Accelerated BSN Nursing Program (2nd Degree):** A program of instruction to prepare registered nurses that admits students with baccalaureate degrees in other disciplines and no previous nursing education and, at completion, awards a baccalaureate degree in nursing and eligibility to apply for licensure as an RN. The curriculum is designed to be completed in less time than the generic (entry-level) baccalaureate program usually through a combination of "bridge"/transition courses (American Association of Colleges of Nursing). (Interagency Collaborative on Nursing Statistics, 2016)
- **Admitted Applicants:** A count of the individuals who received official notice from the program that they were invited to begin the nursing program during the Reporting Period.
- **ADN Program, Generic:** A program of instruction that requires at least two years of FTE college academic work generally within a junior or community college, the completion of which results in an associate degree (e.g., AS, AA, AAS, ADN, etc.) with a major in nursing and eligibility to apply for licensure as an RN. (Interagency Collaborative on Nursing Statistics, 2016)
- **ADN/ASN Program, Bridge (LPN/VN to Associate Degree in Nursing Program):** A program of instruction to prepare registered nurses that is specifically designed to admit individuals licensed as practical/vocational nurses and, at completion, awards an associate degree in nursing and eligibility to apply for licensure as an RN. (Interagency Collaborative on Nursing Statistics, 2016)
- **Available Seats:** A count of the total number of seats available for newly admitted students.
- **Diploma Nursing Program:** A program of instruction that requires two to three years of full-time coursework, usually within a hospital-based structural unit, the completion of which results in a diploma or certificate of completion and eligibility to apply for licensure as an RN. (Interagency Collaborative on Nursing Statistics, 2016)

- **DNP Program:** A program of instruction that prepares graduates for the highest level of nursing practice beyond the initial preparation in the discipline. The doctor of nursing practice degree is the terminal practice degree. (American Association of Colleges of Nursing) (Interagency Collaborative on Nursing Statistics, 2016)

- **Enrollees:** A count of the Admitted Applicants who subsequently enrolled for the first time in the nursing program during the Reporting Period. This count should include only individuals who were still enrolled in a nursing course after the first two weeks of class.

- **Enrollees (%):** The percentage of Admitted Applicants who subsequently enrolled for the first time in the nursing program during the Reporting Period, relative to the total number of Admitted Applicants. This count should include only individuals who were still enrolled in a nursing course after the first two weeks of class.

- **Faculty Vacancy:** A vacant position for a faculty member that is being actively recruited as of the fall semester census date.

- **Full-Time Faculty:** Those members of the instructional, administrative, or research staff of the nursing academic unit who are employed full-time as defined by the institution, hold academic rank, carry the full scope of faculty responsibility (e.g., teaching, advisement, committee work), and receive the rights and privileges associated with full time employment. These faculty may be tenured, tenure-track, or non-tenure track (given that there is a tenure system in the institution).

- **Graduates:** A count of the number of students who successfully completed the program requirements and were formally awarded the degree during the Reporting Period.

- **License b Exam:** An RN or LPN who has graduated from an approved school of nursing and has taken the NCLEX examination (either the NCLEX-RN or the NCLEX-PN respectively).

- **LPN Program:** A program of instruction that requires at least one year of full-time equivalent coursework generally within a high school, vocational/technical school or community/junior college setting, the completion of which results in a diploma or certificate of completion and eligibility to apply for licensure as an LPN/VN. Please combine all curriculum options or tracks for your pre-licensure LPN program. For example, if your state collects separate data on advanced placement CNA-to-LPN program tracks, please combine it with data on generic or traditional LPN program tracks.

- **MSN Program, Clinical Track:** A post-licensure master's program with emphasis on advanced clinical practice, including Nurse Practitioner, Nurse Anesthetist, Nurse Midwifery, and Clinical Nurse Specialist tracks. If your state collects separate data on different clinical tracks, please combine them.

- **MSN Program, Non-Clinical Track:** A post-licensure master's program with non-clinical emphasis, such as Nurse Educator and Management/Leadership tracks. If your state collects separate data on different non-clinical tracks, please combine them.

- **Part-Time Faculty:** Those members of the instructional, administrative, or research staff of the nursing academic unit who are employed part-time as defined by the institution. These faculty members are typically not eligible for tenure.

- **PhD Program:** Doctoral (Research-Focused) Program. A program of instruction that admits RNs with master's degrees in nursing and awards a doctoral degree. This program prepares students to pursue intellectual inquiry and conduct independent research for the purpose of extending knowledge. In the academic community, the PhD, or Doctor of Philosophy degree, is the most commonly offered research focused doctoral degree. However, some schools for a variety of reasons may award a Doctor of Nursing Science (DNS or DNSc) as the research-focused doctoral degree. (American Association of Colleges of Nursing). (American Association of Colleges of Nursing) (Interagency Collaborative on Nursing Statistics, 2019)

- **Post-licensure BSN Program (RN-BSN Program):** Admits RNs with associate degrees or diplomas in nursing and awards a baccalaureate nursing degree. (Interagency Collaborative on Nursing Statistics, 2016)

- **Pre-licensure BSN Program, Generic:** A program of instruction to prepare registered nurses that admits students with no previous nursing education, the completion of which results in a baccalaureate degree (e.g., BA, BS, BSN, etc.) with a major in nursing and eligibility to apply for licensure as an RN. The program requires at least four years but not more than five years of full time equivalent college academic work within an educational institution or university. (Interagency Collaborative on Nursing Statistics, 2016)

- **Pre-licensure MSN Program (Entry MSN):** A program of instruction that admits students with baccalaureate degrees in other disciplines and no previous nursing education. The program prepares graduates for entry into the profession, eligibility to apply for licensure as an RN, and upon completion awards a master's degree (e.g., MSN, MS, MA, etc.) in nursing. (American Association of Colleges of Nursing) (Interagency Collaborative on Nursing Statistics, 2016)

- **Qualified Applicants:** A count of the individuals who submitted complete applications on time and who met all institutional requirements for formal admission to the nursing program during the Reporting Period.

- **Total student enrollment:** A count of the number of students enrolled on the fall semester census date. Include students at all points of the program's curriculum sequence, including newly enrolled, continuing, and students in their final semester or year.

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NJCCN Board

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References

American Psychology Association Center for Workforce Studies, Monitor on Psychology (2015). Where are the job openings for licensed psychologists. September, 46 (8). https://www.apa.org/workforce/publications/14-job-ads/appendix.pdf

Auerbach, D.I., Staiger, D.O., & Buerhaus, P.I. (2018). Growing Ranks of Advanced Practice Clinicians – Implications for the Physician Workforce. PubMed 378(25), 2358-2360. DOI: 10.1056/NEJMp1801869

Auerbach, D.I., Staiger, D.O., & Buerhaus, P.I. (2020). Implications of an aging registered nurse workforce. PubMed 283(22). 2948-2954. DOI: 10.1001/jama.283.22.2948
Bienemy, C. (2015). Developing a Multi-Regional Statewide Nursing Workforce Forecast Model Requires Innovation and Collaboration. Journal of Nursing Regulation, 6(1): 14-19.

Buerhaus, P.I., Skinner, L.E., Auerbach, D.I., & Staiger, D.O. (2017) Four challenges facing the nursing workforce in the U.S. Journal of Nursing Regulation 8(2), 40-46.

Burning Glass Technologies. (2018). "Labor Insight Real-Time Labor Market Information Tool." Retrieved from http://burning-glass.com.

Hewko, S., Cooper, S., Huynh, H., Spiwek, T., Carleton, H., Reid, S., & Cummings, G. (2015). Invisible no more: a scoping review of the health care aide workforce literature. BMC Nursing, 14(38), 3-17. doi:10.1186/s12912-015-0090-x

NCSBN. (June 2019). 2018 NCLEX Examination Statistics.
https://www.ncsbn.org/2018_NCLEXExamStats.pdf

New Jersey Collaborating Center for Nursing. (2017). New Jersey Annual Nursing Programs Educational Capacity Report Academic Year 2014-2015: Data Summary and Historical Trend Analysis. http://www.njccn.org/wp-content/uploads/2015/10/ECR-RN-2014-2015.pdf

New Jersey Collaborating Center for Nursing. (2017). New Jersey Annual Practical Nursing Programs Educational Capacity Report Academic Year 2014-2015: http://www.njccn.org/wp-content/uploads/2015/10/ECR-LPN-2014-2015.pdf

New Jersey Collaborating Center for Nursing. (2018). New Jersey Nursing Supply and Demand Data 2016. http://www.njccn.org/wp-content/uploads/2019/08/Report-for-2015-2016-for-web-posting-RFS.pdf

New Jersey Collaborating Center for Nursing. (2019). New Jersey Annual Data Report 2017. http://www.njccn.org/wp-content/uploads/2019/03/NJ-Nursing-Supply-and-Demand-Data-for-Web-Posting.pdf

New Jersey Collaborating Center for Nursing. (2019). Policy Analysis: Improving Access to Care for New Jersey. http://www.njccn.org/wp-content/uploads/2019/06/APN-Policy-Analysis-from-NJCCN.pdf

NJ Statutes Annotated, Title 45, Chapter 11, New Jersey Board of Nursing Statutes, 45:11-27 Retrieved on May 3, 2018 http://caring4you.net/laws1.html

Nurses, Nursing Education, and Nursing Workforce: Definitions. (2016). http://www.iconsdata.org/definitions.html

U.S. Bureau of Labor Statistics (March 2019). Occupational Employment and Wages, May 2018, 31-1011 Home Health Aides. Occupational Employment Statistics. https://www.bls.gov/oes/current/oes311011.htm#st

U.S. Bureau of Labor Statistics (September 2019). Home Health Aides and Personal Care Aides. Occupational Outlook Handbook. https://www.bls.gov/ooh/healthcare/home-health-aides-and-personal-care-aides.htm

U.S. Department of Health and Human Services, Health Resources and Service Administration, National Center for Health Workforce Analysis. (2017). National and regional supply and demand projections of the nursing workforce 2014-2030. Rockville, MD.

U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. (2017). Long-Term Services and Supports: Nursing Workforce Demand Projections, 2015-2030. Rockville, Maryland.

U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. (2017). National and Regional Supply and Demand Projections of the Nursing Workforce: 2014-2030. Rockville, Maryland.

United States Census Bureau. (2016). Quick Facts. Retrieved from https://www.census.gov/quickfacts/fact/table/NJ#viewtop

Weng, S., & Landes, S. (2017). Culture and Language Discordance in the Workplace: Evidence from the National Home Health Aide Survey. The Gerontologist, 57(5), 900–909. doi:10.1093/geront/gnw110