New Jersey Collaborating Center for Nursing

Nursing Data and Analysis



Educational Capacity 2018-2019 Workforce Supply Data 2019-2020 Workforce Demand Data 2019



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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.

The correct reference is as follows:

New Jersey Collaborating Center for Nursing. (2021). Nursing data and analysis. Newark, NJ; NJCCN.

https://www.njccn.org/nursing-workforce-supply-and-demand/

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.

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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 renewal 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
- Chapter 4: Home Health Aide Profile

Executive Summary

The World Health Assembly designated 2020 as the year of the nurse and midwife. This represents the 200th anniversary of Florence Nightingale's birth. She is recognized in history for her data-driven interventions that improved health outcomes. The 2021 edition of the *Nursing Data and Analysis* Report provides important insights on the workforce supply and demand data across settings. This past year has brought unprecedented factors that influence the data presented and will even be more telling in the 2021 report. In addition to the aging baby boomers, the impact of COVID-19 is contributing to some of the challenges seen in the data. The nursing pipeline may become impacted by the shortage of faculty across programs.

Areas That Need Focus

- Faculty recruitment, retention, diversity, equity, and inclusion needs to be addressed at a state level.
- Student diversity in the educational programs that are at a higher degree level need to be addressed with a clear and actionable plan.
- National Council Licensure Exam (NCLEX) pass rates for LPNs in NJ are lower than the national average and need to be addressed.
- Retirement shifting to lower age brackets will impact workforce shortages in certain specialties.
- Home Health Aide workforce data is needed as there is a growing demand for these workers.

Supply and Demand Projections for New Jersey

Registered Nurses

- Educational levels impact how quickly new graduates find positions. The higher the educational level the faster the job attainment.
- Enrollment in nursing programs is relative flat, there has been increase in BSN generic and accelerated enrollment.
- Pre-licensure student's racial and ethnic diversity continues to mirror the diversity of NJ's population
- Post-licensure MSN and DNP enrollment and graduates continue to grow but are less diverse.

Licensed Practical Nurses

- Most racially and ethnically diverse nursing workforce
- Majority find jobs within 7 months.
- NCLEX pass rates in NJ are below the U.S. pass rates by 11%.

Faculty

- Vacancy rates for faculty both full-time and part-time continue to grow which will impact the pipeline of new enrollees to nursing programs.
- Faculty are primarily white and do not mirror the enrollment population across all programs except for LPN programs where there is greater diversity.

Current Workforce

- More than half of RNs are working in hospital settings; NPs are working in primary care; LPNs are working in nursing home/extending care, assisted living.
- Plans for retirement: RNs (5%); APNs (3%); LPNs (4%) over next licensure renewal period.
- Retirement age bracket has shifted downward into lower age bracket for the first time. With the pandemic effects, we need to monitor trends over the next year.

Demand

• Varies by county as to demand needs. Lower than average rate of demand for RNs; average rate of demand for APNs and LPNs.

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 2018-2019 surveys. This survey is distributed annually by NJCCN and compliance is reported to the NJBON. To reduce duplication and survey fatigue, data were obtained from the American Association of Colleges of Nursing (AACN) and a shorter survey was provided to BSN and higher deans and directors.

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 RN Nursing Program Types



There are 48 schools in New Jersey that provide RN education (pre-licensure and post-licensure). 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.

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

 Table 1.1: New Jersey RN Programs

Pre-licensure Nursing Programs

5 Diploma
18 Associate (14 Generic, 10 Bridge)
22 Baccalaureate (22 Generic, 11 Accelerated)
1 Pre-licensure Master's **Post-licensure Nursing Programs**17 RN-BSN
12 Post-licensure Master's, Clinical Tracks
13 Post-licensure Master's, Non-Clinical Tracks
10 Doctorate of Nursing Practice
3 Doctor of Philosophy (PhD) in Nursing

$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		DIP	\mathbf{ADN}	BSN and
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$				Higher Degree
Public1 (20%)15 (83%)10 (45.5%)Private/For-profit0 (0%)3 (17%)2 (9%)		N=5	N = 18	N=22
Private/For-profit 0 (0%) 3 (17%) 2 (9%)	Public	1 (20%)	15 (83%)	10~(45.5%)
	Private/For-profit	0 (0%)	3(17%)	2(9%)
Private/Non-profit $4 (80\%)$ $0 (0\%)$ $10 (45.5\%)$	Private/Non-profit	4 (80%)	$0 \ (0\%)$	10~(45.5%)

Table 1.2	2: F	Federal	tax	classif	ication	status
Table 1.	2: Г	rederar	tax	classii	Ication	status

*N is the number of respondent schools.

In the Educational Capacity Survey, NJCCN presented possible reasons for why respondents rejected qualified applicants. As shown in **Table 1.3**, the reasons for rejection include lack of classroom space, lack of clinical sites, and lack of qualified faculty, based on the program. The highest reasons for rejection are identified at the associate degree level.

 Table 1.3: Reason for rejection of qualified applicants

	DIP	ADN	BSN and
			Higher Degree
	N=5	N = 18	N=22
No applications rejected	2 (40%)	4 (24%)	21 (95%)
Lack of qualified faculty	0~(0%)	6 (35%)	0 (0%)
Lack of clinical space	0 (0%)	5(29%)	0 (0%)
Limited classroom space	2(40%)	9(53%)	1(5%)
Lack of clinical sites	1 (20%)	9(53%)	0 (0%)
Other	0~(0%)	4(24%)	2(9%)

*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.

	DIP	ADN	ADN	BSN	BSN	MSN
		Generic	Bridge	Generic	Accel.	
Face-to-Face	4	10	8	15	9	1
Hybrid	1	6	5	7	6	1

 Table 1.4:
 Delivery format of pre-licensure programs

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.

	DIP	ADN	ADN	BSN	BSN	MSN
		Generic	Bridge	Generic	Accel.	
	N=5	N = 14	N=10	N=22	N=11	N=1
Skill Lab	14%	19%	16%	13%	15%	15%
Simulation Lab	9%	10%	11%	13%	11%	15%
Hands-On	77%	71%	73%	74%	74%	70%

Table 1.5: Format of Clinical Practice Time (%)

*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, 63% 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 94% of Diploma graduates, 54% of Generic ADN graduates, and 44% of ADN Bridge graduates took 8 or more months to find employment. This is consistent with national trends. (NCSBN, 2020).

Table 1.6: Time to employment after graduation (%)

	DIP	ADN	ADN	BSN	BSN	MSN
		Generic	Bridge	Generic	Acc.	
	N = 473	N=977	N = 490	N=1,426	N = 498	N=25
0-3 Months	0%	13%	15%	10%	36%	10%
4-7 Months	6%	9%	3%	53%	8%	80%
8-11 Months	48%	42%	14%	6%	12%	5%
12+ Months	46%	12%	30%	22%	14%	0%
Unknown/Do not Track	0%	24%	38%	9%	30%	5%

*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 2019 academic year and four-year trended data for 2016-2019.

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.

	DIP	ADN	ADN	\mathbf{BSN}	\mathbf{BSN}	MSN
		Generic	Bridge	Generic	Acc.	
	N=5	N=14	N=10	N=22	N=11	N=1
Available	630	1,471	848	2,395	392	30
Qualified	1,031	2,362	1,344	6,770	549	86
Admitted	850 (82%)	1,470~(62%)	837~(62%)	4,442 (66%)	498 (91%)	30 (35%)
Enrollees	730~(86%)	1,354 (92%)	757~(90%)	1,565~(35%)	352~(71%)	25~(83%)

Table 1.7: Pre-licensure student application, admission, and enrollment 2019

*N is the number of respondent programs.

Table 1.8: Pre-licensure student application, admission, and enrollment trend 2016-2019

	2016	2017	2018	2019		
	N=39	N = 41	N=42	N=45		
Available	4,989	5,289	5,908	5,766		
Qualified	10,529	$9,\!113$	11,528	12,142		
Admitted	6,872	7,140	8,329	8,131		
Enrollees	4,396 (64%)	4,549~(64%)	4,884 (59%)	4,787 (59%)		
*N is the number of respondent schools						

*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 and Associate degree programs dropped in 2019. However, enrollment in BSN Generic and Accelerated programs increased, keeping total enrollment numbers relatively stable.

 Table 1.9:
 Pre-licensure total student enrollment trend 2016-2019

	2016	2017	2018	2019
	N=39	N=41	N=42	N=45
DIP	2,867(26%)	3,055(25%)	1,584(14%)	1,449(13%)
ADN	3,493(31%)	3,931(32%)	4,100(35%)	3,465(31%)
BSN (Generic)	3,984(35%)	4,575(37%)	5,055(44%)	5,283(48%)
BSN (Accelerated)	793(7%)	671(1%)	806(7%)	896(8%)
MSN	87(1%)	43(0%)	42(0%)	27(0%)
Total	$11,\!224$	$12,\!275$	$11,\!587$	$11,\!120$

*N is the number of respondent schools.

There were a total of 3,889 graduates from pre-licensure nursing programs in 2019. This includes 473 Diploma graduates, 977 from generic ADN programs, 490 from ADN Bridge programs, 1,426 from generic BSN programs, 498 from Accelerated BSN programs, and 25 from the pre-licensure MSN program. The data in **Table 1.10** show a 29.3% increase in the number of pre-licensure graduates from 2016-2019. This increase is primarily from the BSN Generic and BSN Accelerated programs.

2016	2017	2018	2019
N=39	N=41	N=42	N=45
484	457	384	473
883	1,008	1,074	977
355	337	628	490
869	966	975	1,426
384	330	291	498
32	24	22	25
$3,\!007$	$3,\!122$	$3,\!374$	$3,\!889$
	2016 N=39 484 883 355 869 384 32 3,007	20162017N=39N=414844578831,00835533786996638433032243,0073,122	201620172018N=39N=41N=424844573848831,0081,0743553376288699669753843302913224223,0073,1223,374

Table 1.10: Pre-licensure student graduation trend 2016-2019

*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 and Table 1.12 show the pass rates for first-time, U.S. and NJ educated candidates who took the NCLEX-RN in 2019 (NCSBN, 2020). These data represent all NJ schools.

Table 1.11: First-Time, NJ Educated Candidates Taking the NCLEX-RN® in 2019

	Candidates	Total Passed	Pass Rate (%)
Diploma	472	432	92%
ADN	1,667	1,488	89%
BSN	1,646	1,512	92%
Total	3,785	$3,\!432$	91%

Table 1.12: First-Time, U.S. Educated Candidates Taking the NCLEX-RN® in 2019

	Candidates	Total Passed	Pass Rate (%)
Diploma	2,247	1,974	88%
ADN	84,798	72,217	85%
BSN	84,282	76,902	91%
Total	$171,\!374$	$151,\!120$	88%

Pre-Licensure Student Demographics

Table 1.13 describes pre-licensure student student demographics. This is inclusive of all students matriculating in the 2019 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."

	DIP	ADN Generic	ADN Bridge	BSN Generic	BSN Accel.	MSN
	N = 1,449	N = 2,458	N=1,007	N = 5,283	N=896	N=27
Gender						
Female	1,231 (85%)	2,023~(82%)	900 (89%)	4,736 (90%)	729 (81%)	26 (96%)
Male	218~(15%)	429~(17%)	107 (11%)	536~(10%)	157~(18%)	1 (4%)
Transgender	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
DND	0 (0%)	7~(0%)	0 (0%)	11~(0%)	10 (1%)	0 (0%)
Race/Ethnicity						
American Indian	9(1%)	8 (0%)	9(1%)	3~(0%)	0 (0%)	0 (0%)
Asian	140 (10%)	266~(11%)	54 (5%)	803~(15%)	98 (11%)	1 (4%)
Black/African Am.	412 (28%)	199~(8%)	586~(58%)	754~(14%)	106~(12%)	5(19%)
Hawaiian/Pacific Isl.	17 (1%)	5(0%)	9(1%)	27~(1%)	2(0%)	0 (0%)
White/Caucasian	407 (28%)	1,326~(54%)	142 (14%)	2,535~(48%)	395~(44%)	8(30%)
Hispanic/Latino	333~(23%)	458 (19%)	124 (12%)	874 (17%)	112 (13%)	3 (11%)
Other	30~(2%)	20 (1%)	2(0%)	43(1%)	0 (0%)	0 (0%)
2+ Races	29~(2%)	45 (2%)	17 (2%)	124~(2%)	96~(11%)	5(19%)
DND	72~(5%)	131~(5%)	64~(6%)	109~(2%)	87~(10%)	5(19%)
Age						
17-20	54~(4%)	261~(11%)	7~(1%)	2,488~(47%)	0 (0%)	0 (0%)
21-25	428~(30%)	867~(35%)	79~(8%)	1,774~(34%)	404~(45%)	18~(67%)
26-30	385~(27%)	562~(23%)	196~(19%)	413~(8%)	278~(31%)	7~(26%)
31-40	395~(27%)	508~(21%)	380~(38%)	342~(6%)	155~(17%)	2~(7%)
41-50	153~(11%)	201~(8%)	235~(23%)	130~(2%)	42~(5%)	0 (0%)
51-60	33~(2%)	39(2%)	59~(6%)	$39 \ (1\%)$	10(1%)	0 (0%)
61+	1 (0%)	9(0%)	6(1%)	3~(0%)	3(0%)	0 (0%)
DND	0 (0%)	11(0%)	45 (4%)	94 (2%)	5(1%)	0 (0%)
Mean Age	30.71	28.65	35.01	22.49	28.13	25.22

 Table 1.13:
 Pre-licensure student demographics

*N is the number of students.

Pre-licensure nursing students are primarily female 87%. Male students account for 13% of the nursing workforce. Most students across all levels of pre-licensure education are White (43%), followed by Black/African American (19%). Most students in the BSN Generic and BSN Accelerated are in the lower age brackets compared to the other programs.

 Table 1.14 describes four-year trends in pre-licensure nursing student demographics.

	2016 N=39	2017 N=41	2018 N=42	2019 N=45
Gender				
Female	9,482~(85%)	10,440 (85%)	9,883 (85%)	9,645 (87%)
Male	1,599 (14%)	1,748 (14%)	1,578 (14%)	1,448 (13%)
Transgender	0 (0%)	3~(0%)	0 (0%)	0 (0%)
DND	16 (1%)	84 (1%)	126 (1%)	28~(0%)
Race/Ethnicity				
American Indian	26~(0%)	32~(0%)	40 (0%)	29~(0%)
Asian	$1,238\ (11\%)$	1,305~(11%)	1,365~(12%)	1,362~(12%)
Black/African Am.	2,263~(20%)	2,574~(21%)	2,205 (19%)	2,062 (19%)
Hawaiian/Pacific Isl.	72 (1%)	39~(0%)	71 (1%)	60~(1%)
White/Caucasian	4,617 (41%)	4,870 (40%)	4,989~(43%)	4,813 (43%)
Hispanic/Latino	1,872 (17%)	2,163~(18%)	1,909~(16%)	1,904 (17%)
Other	105~(1%)	72 (1%)	59~(1%)	95~(1%)
2+ Races	263~(2%)	368~(3%)	385~(3%)	316~(3%)
DND	768~(7%)	815 (7%)	564~(5%)	479 (4%)
Age				
17-20	2,549~(23%)	2,737~(22%)	2,800(24%)	2,810~(25%)
21-25	3,417~(30%)	$3,\!608~(29\%)$	3,797~(33%)	3,570~(32%)
26-30	1,749~(16%)	2,049~(17%)	1,984 (17%)	1,841 (17%)
31-40	2,019~(18%)	1,965~(16%)	1,878~(16%)	1,782~(16%)
41-50	866~(8%)	848 (7%)	845 (7%)	761~(7%)
51-60	273~(2%)	178 (1%)	164~(1%)	181 (2%)
61+	21~(0%)	10 (0%)	11 (0%)	21~(0%)
DND	330~(3%)	880~(7%)	108 (1%)	154 (1%)
Total Students	11,096	$12,\!275$	$11,\!587$	$11,\!120$

 Table 1.14:
 Pre-licensure student demographic trend 2016-2019

*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 1.15** 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.

	RN-BSN	MSN	\mathbf{MSN}	\mathbf{DNP}	PhD
		Clinical	Non-Clinical		
	N = 17	N=12	N=13	N=10	N=2
Exclusively Online	5	2	4	3	0
Face-to-Face	2	1	1	1	2
Hybrid	14	9	8	6	0

Table 1.15: Delivery format of post-licensure programs

*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 2019 academic year and four-year trended data for 2016-2019.

	RN-BSN	\mathbf{MSN}	\mathbf{MSN}	\mathbf{DNP}	\mathbf{PhD}
		Clinical	Non-Clinical		
	N=17	N=12	N=13	N=10	N=2
Available	4,486	1,569	1,199	442	17
Qualified	1,220	454	421	328	13
Admitted	1,209~(99%)	411 (91%)	311 (74%)	304 (93%)	13 (100%)
Enrollees	788~(65%)	337~(82%)	219~(70%)	250 (82%)	12 (92%)

Table 1.16: Post-licensure student application, admission, and enrollment 2019

*N is the number of respondent programs.

In **Table 1.16**, 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.

	2016	2017	2018	2019
	N=16	N = 18	N=20	N=21
Available	4,945	4,548	6,310	7,875
Qualified	2,953	2,311	2,299	2,245
Admitted (%)	2,833~(96%)	2,207~(95%)	2,211 (96%)	2,137~(95%)
Enrollees (%)	1,613~(57%)	1,398~(63%)	1,447~(65%)	1,427~(67%)

Table 1.17: Post-licensure student application, admission, and enrollment trend 2016-2019

*N is the number of respondent schools.

Table 1.18: Post-licensure total student enrollment trend 2016-2019

	2016	2017	2018	2019
	N = 16	N = 18	N=20	N=21
RN-BSN	2,604 (52%)	2,140 (47%)	1,947 (49%)	1,600 (38%)
MSN Clinical	1,064 (21%)	1,185 (26%)	825 (21%)	1,135~(27%)
MSN Non-Clinical	541 (11%)	489 (11%)	410 (10%)	574 (14%)
DNP	677 (14%)	704 (15%)	738 (18%)	811 (19%)
PhD	84 (2%)	82 (2%)	85 (2%)	70 (2%)
Total	4,970	4,600	4,005	4,190

*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.

The trend in **Table 1.19** shows an increase in MSN and DNP graduates, while the RN-BSN and PhD programs remain relatively flat. Nationally, a similar trend shows an increase in DNP graduates. (AACN, 2019).

	2016	2017	2018	2019
	N = 16	N=18	N=20	N=21
RN-BSN	1,063	662	745	732
MSN	616	469	377	435
DNP	88	116	137	190
PhD	7	3	10	8
Total	1,774	$1,\!250$	1,269	1,365

Table 1.19: Post-licensure graduation trend 2016-2019

*N is the number of respondent schools.

Post-Licensure Student Demographics

Table 1.20 describes post-licensure student student demographics. This is inclusive of all students matriculating in the 2019 academic year, from new enrollees to those who are about to graduate.

	RN-BSN	MSN	MSN Clinical	DNP Non Clinical	PhD
	N=1,600	N=1135	N=574	N=811	N=70
Gender					
Female	1385 (87%)	971 (86%)	525 (91%)	684 (84%)	64 (91%)
Male	215 (13%)	153 (13%)	49 (9%)	127 (16%)	6 (9%)
Transgender	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
DND	0 (0%)	11 (1%)	0 (0%)	0 (0%)	0 (0%)
Race/Ethnicity					
American Indian	4 (0%)	1 (0%)	2(0%)	0 (0%)	0 (0%)
Asian	153 (10%)	173 (15%)	77 (13%)	138 (17%)	8 (11%)
Black/African Am.	177 (11%)	186 (16%)	75 (13%)	162 (20%)	9 (13%)
Hawaiian/Pacific Isl.	15 (1%)	13 (1%)	11 (2%)	0 (0%)	0 (0%)
White/Caucasian	754 (47%)	568 (50%)	287 (50%)	361 (45%)	42 (60%)
Hispanic/Latino	239~(15%)	101 (9%)	63 (11%)	105 (13%)	6(9%)
Other	8 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
2+ Races	29 (2%)	22 (2%)	6(1%)	0 (0%)	1 (1%)
DND	221 (14%)	71~(6%)	53~(9%)	45 (6%)	4~(6%)
Age					
17-20	2~(0%)	0~(0%)	0~(0%)	1 (0%)	0~(0%)
21-25	160~(10%)	61~(5%)	20~(3%)	62~(8%)	0 (0%)
26-30	272~(17%)	147~(13%)	76~(13%)	215~(27%)	4~(6%)
31-40	463~(29%)	169~(15%)	150~(26%)	237~(29%)	16(23%)
41-50	416~(26%)	86~(8%)	168~(29%)	104~(13%)	30~(43%)
51-60	240~(15%)	21 (2%)	112 (20%)	47~(6%)	19~(27%)
61+	32 (2%)	1 (0%)	17(3%)	7(1%)	1(1%)
DND	14(1%)	650~(57%)	31 (5%)	138~(17%)	0 (0%)
Mean Age	39.1	34.3	41.1	35.1	45.2

 Table 1.20:
 Post-licensure student demographics

*N is the number of students.

Post-licensure nursing students are primarily female and White/Caucasian. The mean age of postlicensure students is 37.4. The mean age was calculated by weighting the median values of each age range. In 2019, 48% of post-licensure students were White/Caucasian, 15% Black/African American, 13% Asian, and 12% Hispanic/Latino.

	2016	2017	2018	2019
	IN=16	N=18	N=20	N=21
Gender				
Female	4,407 (89%)	3,709~(81%)	3,434~(86%)	3,629~(87%)
Male	556~(11%)	482~(10%)	533~(13%)	550 (13%)
Transgender	0~(0%)	0 (0%)	1 (0%)	0~(0%)
DND	7~(0%)	409 (9%)	37~(1%)	11 (0%)
Race/Ethnicity				
American Indian	7 (0%)	4 (0%)	5 (0%)	7(0%)
Asian	515 (10%)	500 (11%)	500 (12%)	549 (13%)
Black/African Am.	565~(13%)	600~(13%)	593~(15%)	609~(15%)
Hawaiian/Pacific Isl.	35~(1%)	55~(1%)	37~(0%)	39 (1%)
White/Caucasian	2,481 (50%)	1,946 (42%)	1,969~(50%)	2,012 (48%)
Hispanic/Latino	502~(10%)	435~(9%)	456~(11%)	514 (12%)
Other	12 (0%)	15 (0%)	24 (0%)	8 (0%)
2+ Races	69~(1%)	59(1%)	73 (2%)	58 (1%)
DND	693~(14%)	986~(21%)	640 (9%)	394 (9%)
Age				
17-20	52 (1%)	30 (1%)	2(0%)	3(0%)
21-25	576~(12%)	301 (7%)	434 (11%)	303~(7%)
26-30	1,080 (22%)	790 (17%)	790 (20%)	714 (17%)
31-40	1,350 (27%)	1,177 (26%)	1,213 (30%)	1,035~(25%)
41-50	1,068 (21%)	959~(21%)	978 (24%)	804 (19%)
51-60	553~(11%)	570 (12%)	484 (12%)	439 (10%)
61+	69~(1%)	57 (1%)	61 (2%)	58 (1%)
DND	222~(4%)	716~(16%)	43 (1%)	834 (20%)
Total Students	4,970	4,600	$4,\!005$	4,190

 Table 1.21: Post-licensure student demographic trend 2016-2019

*N is the number of respondent schools.

School Name	County	$Diplom_a$	ADN Bridge	$^{ADN}_{Generic}$	$BSN G_{eneric}$	BSN Accel.	$P_{ m Ye}~MSN$	R_{N-BSN}	$P_{ost} MSN$	DNP	P_{hD}
Atlantic Cape Community College	Atlantic		х	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	x		
Chamberlain University	Middlesex				x						
College of Saint Elizabeth	Morris				x			x	x		
County College of Morris	Morris		x	x							
Eastern International College*	Essex			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	v			~			~			
Hudson County College	Hudson	~		v							
Jersey College at Ewing	Mercer		v	~							
Jersey College at Evening	Bergen		N V								
JEK Muhlenberg Snyder	Middlesev	v	~								
Koon University	Union							v	v		**
Moreor County Community Collogo	Moreor			v				~			^
Middlesey County College	Middlesor			X							
Maddesex County Conege	Monmouth			X							
Montolair State University	Feeov				X V	л		X	X V		
Non Jorgen City University	Hudson				X			л 			
New Jersey City University	Hudson					X		x	x		
Our Lody Loundes	Camadam		X	X							
Dur Lady Lourdes	Damden	x									
Passaic County Community College	Passaic		x	x							
Ramapo College	Dergen				x			x	x		
Rafitan Valley Community College	Somerset		X	X							
Richard Stockton University	Atlantic				x	x		x	x	x	
Rider University	Mercer							x			
Rowan College Burlington	Burlington			x				x			
Rowan College of South Jersey	Cumbertand		X	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	x	
Saint Peter's University	Hudson				x	x		x	x	x	
Salem Community College	Salem	-	x	x							
Seton Hall University	Essex				x	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	
Irinitas School of Nursing	Union	x									
Warren County Community College	Warren			x							
William Patterson University	Passaic				x	х		x	x	x	

Table 1.22: New Jersey's RN Education Programs

*Schools did not provide data. **School closed PhD program in 2018.

Educational Capacity Report-LPN

Overview

This report includes data for 25 of the 32 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 25 respondent schools, only 80% are currently accredited.

	LPN
	N=25
Public	14 (56%)
Private/For-Profit	10 (40%)
Private/Non-Profit	1 (4%)

 Table 1.23:
 Federal Tax Classification

*N is the number of respondent schools.

Table 1.24:	Accreditation	Status
-------------	---------------	--------

	LPN
	N=25
Accredited	20 (80%)
Not Accredited/In Progress	5 (20%)
*N is the number of respondent	t schools.

In **Table 1.25** reasons for rejection of qualified applicants are presented. Schools can select more than one reason for rejection of qualified applicants.

Table 1.25:	Reason	for	rejection	of	qualified	applicants
-------------	--------	-----	-----------	----	-----------	------------

	LPN
	N=25
No applications rejected	17 (68%)
Lack of qualified faculty	1 (4%)
Lack of clinical space	2(8%)
Limited classroom space	5(20%)
Lack of clinical sites	2(8%)
Other	2(8%)
*NT · 1 1 C 1	. 1 1

*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 1.26** indicate that programs are primarily face-to-face. Some schools offer hybrid programs.

 Table 1.26:
 Delivery format of LPN programs

		\mathbf{LPN}
		N=25
	Face-to-Face	22 (88%)
	Hybrid	3(12%)
*N is	s the number of re	espondent 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 1.27**, 60% of clinical practice time is hands-on.

Table 1.27:	Format	of	clinical	practice	time	(%))
-------------	--------	----	----------	----------	------	-----	---

N=25
23%
18%
60%
1%

*N is the number of respondent schools.

As shown in Table 1.28, graduates (69%) secured their first job within 0-7 months of graduation.

	LPN
	N=25
0-3 Months Post Graduation	32%
4-7 Months Post Graduation	37%
8-11 Months Post Graduation	11%
12+ Months Post Graduation	10%
Unknown/ Do not Track	10%

Table 1.28: Time to employment after graduation (%)

*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 1.29** provides four-year trended data for LPN student application, enrollment, and graduation rates.

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.

	2016	2017	2018	2019
	N=31	N=31	N=31	N=25
Available	2862	3007	2612	2629
Qualified	2882	3116	3170	3017
Admitted	2265 (79%)	2232 (72%)	2352 (74%)	2219 (74%)
Enrollees	1882 (83%)	1982 (89%)	1897~(81%)	1996 (90%)
Graduates	1247	1220	1323	1340

Table 1.29: LPN student application, admission, and enrollment 2019 (%)

*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 1.30** and **Table 1.31** shows the pass rates for first-time, U.S. and NJ educated candidates who took the NCLEX-PN in 2019 (NCSBN, 2020). NJ pass rate percentages for first-time candidates are 11% lower than the national average.

Table 1.30: First-Time, NJ Educated Candidates Taking the NCLEX-PN in 2019

Candidates	Total Passed	Pass Rate (%)
1,946	1,467	75%

Table 1.31: First-Time, U.S. Educated Candidates Taking the NCLEX-PN in 2019

Candidates	Total Passed	Pass Rate (%)
48,228	41,299	86%

LPN Student Demographics

Table 1.32 shows four years of LPN student demographic data from 2016-2019. This is inclusive of all students matriculating in the 2019 academic year, from new enrollees to those who are about to graduate. Students are primarily female and Black/African American. The mean age for LPN students in 2019 was 28.4. The mean age was calculated by weighting the median values of each age range.

	2016	$\boldsymbol{2017}$	2018	2019
	N = 2,146	N = 2,363	N = 2,438	N = 2,672
Gender				
Female	1,862 (87%)	2,081 (88%)	2,178 (89%)	2,371 (89%)
Male	282~(13%)	281 (12%)	257~(11%)	300 (11%)
Transgender	0 (0%)	1 (0%)	0 (0%)	0 (0%)
DND	2(0%)	0 (0%)	3~(0%)	1 (0%)
Race/Ethnicity				
American Indian	3(0%)	7~(0%)	14(1%)	6~(0%)
Asian	107~(5%)	119~(5%)	123~(5%)	130~(5%)
Black/African American	1,070~(50%)	1,199~(51%)	1,214~(50%)	1,322~(49%)
Hawaiian/Pacific Islander	31~(1%)	15~(1%)	6~(0%)	4(0%)
White/Caucasian	420 (20%)	420~(18%)	427~(18%)	404 (15%)
Hispanic/Latino	330~(15%)	396~(17%)	449 (18%)	530 (20%)
Other	32~(1%)	19 (1%)	15 (1%)	28 (1%)
2+ Races	18 (1%)	21~(1%)	41 (2%)	43 (2%)
DND	130 (6%)	167~(7%)	149~(6%)	205~(8%)
Age				
17-20	98~(5%)	127~(1%)	142~(6%)	105~(4%)
21-25	516~(24%)	562~(24%)	536~(22%)	554~(21%)
26-30	534~(25%)	608~(26%)	620~(25%)	635~(24%)
31-40	595~(28%)	641~(27%)	729~(30%)	831~(31%)
41-50	255~(12%)	314 (13%)	316 (13%)	305 (11%)
51-60	111 (5%)	93 (4%)	85 (4%)	151 (6%)
61+	9~(0%)	4 (0%)	2(0%)	16~(1%)
DND	$\overline{28} (1\%)$	14 (1%)	8 (0%)	75(3%)

 Table 1.32:
 LPN student demographics trend 2016-2019

*N is the number of students.

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
Eastwick College, Hackensack	Bergen
Eastwick College, Ramsey	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, Moorestown	Burlington
Lincoln Technical Institute, Paramus	Bergen
Mercer County Technical School*	Mercer
Merit Technical Institute	Hudson
Middlesex County Vocational and Technical School	Middlesex
Monmouth County Vocational Technical School	Monmouth
Morris County School of Technology	Morris
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
Rowan College of South Jersey Cumberland	Cumberland
Salem Community College	Salem
Union County College	Union
Universal Training Institute	Middlesex
Warren County Technical School*	Warren

 Table 1.33:
 New Jersey's LPN Education Programs

*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 1.34** and **Table 1.35**, full-time and part-time vacancies only include those that are being actively recruited. "BSN & Higher" includes Baccalaureate, Master's, DNP, and PhD programs.

	DIP	ADN	BSN &	Total
			Higher	
Full-time positions available	74	155	434	663
Full-time faculty employed	73	140	380	593
Full-time position vacancies	1 (1%)	15 (10%)	54 (12%)	70 (11%)
Part-time positions available	97	210	282	589
Part-time faculty employed	96	208	268	572
Part-time position vacancies	1 (0%)	2(1%)	14~(5%)	17(3%)

Table 1.34: RN Faculty Positions and Vacancies

Table 1.35: RN Program Faculty Vacancy Trend 2016-2019

	2016		20	2017		2018		2019	
	N=41		N=43		N=45		N=45		
	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	
DIP	2	0	5	1	3	0	1	1	
ADN	1	16	10	13	8	4	15	2	
BSN & Higher	36	19	36	3	46	1	54	14	
Total	39	35	51	17	57	5	70	17	
*N	*N is the number of respondent schools								

N is the number of respondent schools.

 Table 1.36: RN Program Faculty Employment Trend 2016-2019

	2016 N=41		2017 N=43		2018 N=45		2019 N=45	
	\mathbf{FT}	PT	\mathbf{FT}	PT	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}
DIP	72	115	69	91	71	89	73	96
ADN	163	303	155	208	159	293	140	208
BSN & Higher	354	552	354	327	349	283	380	268
Total	589	970	578	626	579	665	593	572

*N is the number of respondent schools.

Table 1.36 shows that there has been an increase in the number of full-time faculty employed since 2016, which is not fully accounted for in the rising vacancy rates reported in Table 1.35. Figure 1.2 shows the percentage of RN classes taught by adjuncts by program level.



Figure 1.2: Percentage of RN Classes Taught by Adjuncts in 2019

Demographics

Tables in this section show demographic data for full-time and part-time faculty members at prelicensure and post-licensure educational facilities. **Table 1.37** 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.

	DIP		\mathbf{AI}	DN	BSN & Higher	
	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}
	N=73	N=96	N=140	N=208	N=380	N=268
BSN	0 (0%)	0 (0%)	0 (0%)	9(5%)	0 (0%)	0 (0%)
MSN	55 (79%)	85~(96%)	114 (83%)	172 (85%)	80 (21%)	208 (78%)
Non-Nursing Masters	0 (0%)	0 (0%)	3~(1%)	8 (4%)	0 (0%)	13 (5%)
DNP	10 (14%)	3~(3%)	17~(12%)	12~(4%)	114 (30%)	26 (10%)
PhD in Nursing	3(4%)	1 (1%)	4 (4%)	3(1%)	137 (36%)	8 (3%)
Other Doc. in Nursing	2(3%)	0 (0%)	0 (0%)	2~(0%)	49~(13%)	0 (0%)
Non-Nursing Doctorate	2(0%)	0 (0%)	2(0%)	2(1%)	0 (0%)	10 (4%)
Missing/Unknown	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (1%)

 Table 1.37: Highest level of education of RN program faculty

*N is the number of faculty.

Table 1.38 shows demographics for faculty teaching in pre- and post-licensure RN education programs. Table 1.39 on the following page shows that faculty continue to be primarily white, female, and in the higher age brackets.

		IP	ADN		BSN &	Higher
	N=73	N = 96	N=140	N = 208	N=380	N = 268
Gender	FT	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}
Female	71 (97%)	93 (97%)	133 (95%)	178 (94%)	356 (94%)	247 (92%)
Male	2(3%)	3(3%)	5 (4%)	12 (6%)	23~(6%)	21 (8%)
Transgender	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
DND	0 (0%)	0 (0%)	2 (1%)	18 (9%)	1 (0%)	0 (0%)
Race/Ethnicity						
American Indian	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	0 (0%)
Asian	3(4%)	25~(26%)	12 (9%)	15(7%)	24~(6%)	10 (4%)
Black/African Am.	10 (14%)	29 (30%)	11 (8%)	26~(13%)	46 (12%)	22 (8%)
Hawaiian/Pacific Isl.	1 (1%)	0 (0%)	1 (1%)	1 (0%)	4 (1%)	0 (0%)
White/Caucasian	58 (79%)	41 (43%)	110 (79%)	104 (50%)	264 (69%)	75~(28%)
Hispanic/Latino	1 (1%)	0 (0%)	4 (3%)	10 (5%)	16 (4%)	6 (2%)
Other	0 (0%)	0 (0%)	0 (0%)	3(1%)	1 (0%)	0 (0%)
2+ Races	0 (0%)	1 (0%)	0 (0%)	0 (0%)	9 (2%)	2(1%)
DND	0 (0%)	0 (0%)	2 (1%)	48 (23%)	16 (4%)	153 (57%)
Age						
30 or younger	0(1%)	$\overline{2}(2\%)$	0 (0%)	9(4%)	1 (0%)	5(2%)
31-40	12 (16%)	13 (14%)	12 (9%)	33~(16%)	33~(9%)	24(9%)
41-50	11 (15%)	26 (27%)	33 (24%)	55(26%)	76 (20%)	32 (12%)
51-55	17 (23%)	20 (21%)	25~(18%)	25~(12%)	61~(16%)	27 (10%)
56-60	11 (15%)	14 (15%)	27 (19%)	32~(15%)	63 (17%)	25 (9%)
61-65	18 (25%)	10 (10%)	29 (21%)	17 (8%)	82 (22%)	13 (5%)
66-70	3 (4%)	7 (7%)	12 (9%)	15 (7%)	47 (12%)	8(3%)
71+	1 (1%)	1 (1%)	2 (1%)	5 (2%)	17 (4%)	8 (3%)
DND	0 (0%)	3(3%)	0 (0%)	17 (8%)	0 (0%)	126~(47%)
Mean Age	53	49	54	44	55	56

Table 1.38: RN program faculty demographics

*N is the number of faculty.

	2016		2017		20	18	2019	
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}
Gender								
Female	537(91)	855(88)	547(94)	668 (92)	548 (95)	612 (92)	560(94)	518 (91)
Male	32(5)	71(7)	31(5)	61(8)	31(5)	53(8)	30(5)	36(6)
Transgender)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
DND	20(3)	44(5)	7(1)	0 (0)	0 (0)	0 (0)	3(1)	18(3)
Race/								
Ethnicity								
AIAN*	0 (0)	4(0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1(0)
Asian	23(4)	73(8)	33(6)	80 (11)	37(6)	59(9)	39(7)	50(9)
Black	58(10)	126(13)	57(10)	125(17)	61(1)	85(13)	67(11)	77 (13)
HOPI*	5(1)	7(1)	2(0)	4 (1)	3(1)	50(8)	6(1)	1(0)
White	445 (76)	560(58)	443 (76)	395(54)	432(75)	229(34)	432(73)	220 (38)
Hispanic	19(32)	44(5)	27(5)	34(5)	19(3)	29(4)	21(4)	16(3)
Other	2(0)	1(0)	4 (1)	2(0)	2(0)	0 (0)	1(0)	3(1)
2+ Races	1(0)	0 (0)	1(0)	2(0)	4 (1)	3(0)	9(2)	3(1)
DND	36(6)	155(16)	18 (3)	89 (12)	21(4)	210 (32)	18(3)	201 (35)
Age								
30 or younger	1 (0)	22(2)	1 (0)	14(2)	3(1)	12(2)	1(0)	16(3)
31-40	44(7)	137(14)	42(7)	109(15)	35~(6)	84(13)	57(10)	70(12)
41-50	102(17)	267(28)	92(16)	196(27)	117(20)	131(20)	120(20)	113(20)
51-55	93(16)	156(16)	105(18)	126(17)	96(17)	81(12)	103(17)	72(13)
56-60	112 (19)	139(14)	123(21)	104(14)	114 (20)	74(11)	101(17)	48 (8)
61-65	116 (20)	97(10)	110 (19)	87 (12)	115(20)	46(7)	129(22)	40 (7)
66-70	61(10)	30(3)	62(11)	33(5)	61(11)	30(5)	62(10)	30(5)
71+	23(4)	21 (2)	23(4)	14(2)	22(4)	17(3)	20(3)	14(2)
DND	37(6)	101 (10)	27(5)	46 (6)	16(3)	190(29)	0 (0)	146 (26)
Total Faculty	589	970	585	729	579	665	593	572

Table 1.39: RN program faculty demographics trend 2016-2019

*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 1.40 and Table 1.41, full-time and part-time vacancies only include those that are being actively recruited.

	LPN	(%)
Full-time positions available	107	
Full-time faculty employed	95	
Full-time position vacancies	12	11
Part-time positions available	202	
Part-time faculty employed	187	
Part-time position vacancies	15	7

Table 1.40: Positions and Vacancies for Faculty in LPN sche

Table 1.41: Vacancy Trend for Faculty in LPN schools 2016-2019

20	2016		2017		2018		19
N=	=31	N=31		N=27		N=	=25
\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}
8	25	15	15	11	20	12	15
*N is the number of respondent schools.							

 Table 1.42:
 Employment Trend for Faculty in LPN schools 2016-2019

20 N=	2016 N=31		2017 N=31		2018 N=27		19 =25
\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}
150	263	135	201	86	166	95	187

*N is the number of respondent schools.

Table 1.42 shows that there has been an increase in the number of full-time and part-time faculty employed. The vacancy rate is **Table 1.41** has not changed and is relatively flat.

Demographics

This section shows demographic data for full-time and part-time faculty members at LPN educational facilities. **Table 1.43** shows that faculty are primarily prepared at the Baccalaureate or Master's level in nursing.

	\mathbf{FT}	\mathbf{PT}
	N = 98	N=188
ADN	0 (0%)	2(1%)
BSN	39~(40%)	85 (45%)
Non-Nursing Baccalaureate	2(2%)	1 (1%)
MSN	46 (47%)	92 (49%)
Non-Nursing Masters	2(2%)	2(1%)
DNP	4 (4%)	1 (1%)
PhD	2(2%)	2(1%)
Other Doctorate in Nursing	2(2%)	0 (0%)
Non-Nursing Doctorate	1 (1%)	2(1%)
Missing/Unknown	0 (0%)	1 (1%)

 Table 1.43: Highest level of education for Faculty in LPN schools

*N is the total number of faculty.

Table 1.44 shows four years of demographic data for faculty teaching in LPN programs. Data for 2019 shows that faculty are primarily female and white. The mean age for full-time faculty is 53 and the mean age for part-time faculty is 51.

	2016		2017		2018		2019	
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}	\mathbf{FT}	\mathbf{PT}
Gender								
Female	133(89)	239(91)	103(86)	164(78)	86 (89)	166 (89)	89 (91)	162(86)
Male	17 (11)	24(9)	17 (14)	40 (19)	11 (11)	20(11)	9 (9)	26(14)
Transgender	0 (0)	0 (0)	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)	0 (0)	0 (0)
Race/								
Ethnicity								
AIAN*	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2(1)
Asian	13(9)	31(12)	8 (7)	32(15)	9 (9)	20(11)	9(9)	24(13)
Black	45 (30)	71(27)	34(28)	60(29)	23(24)	55(30)	30 (31)	62(33)
HOPI*	2(1)	12(5)	3(3)	6(3)	3(3)	10(5)	3(3)	5(3)
White	83 (55)	134(51)	70(58)	91(43)	55 (57)	89(48)	49 (50)	76(40)
Hispanic	7 (8)	14(5)	4 (3)	10(5)	7 (7)	9(5)	7 (7)	13(7)
Missing/Unknown	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1(1)
Other	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
2+ Races	0 (0)	0 (0)	0 (1)	1(0)	0 (0)	1 (1)	0 (0)	4(2)
DND	0 (0)	0 (0)	1(0)	0 (0)	0 (0)	1(1)	0 (0)	0 (0)
Age								
30 or younger	1 (1)	7(3)	1 (1)	0 (0)	3(3)	3(2)	0 (0)	2(2)
31-40	20 (13)	40(15)	13 (11)	32(15)	9 (9)	28(15)	12(9)	28(15)
41-50	27(18)	77(29)	23(19)	60(29)	23(24)	53(28)	26(24)	51(29)
51-55	34(23)	53(29)	26(22)	6(3)	22 (23)	36(19)	18 (23)	37(19)
56-60	28 (19)	41 (16)	20 (17)	91(43)	9 (9)	28(15)	15(9)	35(15)
61-65	24(16)	25(10)	25(21)	10(5)	21 (22)	21(11)	20 (22)	17(11)
66-70	5(3)	12(5)	8 (7)	0 (0)	7 (7)	13(7)	5 (7)	12(7)
71+	5(3)	2(1)	4(3)	0 (0)	3(3)	3(2)	2(3)	6(2)
DND	6 (4)	6(2)	0 (0)	11(5)	0 (0)	1(1)	0 (0)	0(1)
Total Faculty	152	270	150	263	135	201	98	188

Table 1.44: LPN Faculty Demographic Trend 2016-2019

*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 2019 and 2020 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 2019-2020 survey period, 112,262 responded out of New Jersey's 166,301 active (135,253) and inactive (31,048) RNs account for 67.5% of the RN workforce. Respondents may have skipped questions, causing data in some tables and figures to add up to less than 112,262.

License Status

According to **Table 2.1**, 96% 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 = 112,262	%
Active	107,291	96
Inactive	4,971	4

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 = 112,261	(%)
Exam	74,818	67
Endorsement	37,443	33

Demographics

Table 2.3 shows the demographic characteristics of RN respondents. New Jersey's RN's are primarily white (58%), female (91%), and between 46-65 years of age (49%). The mean age of RNs in New Jersey is 50.

Gender		N = 112,262	%
	Female	102,407	91
	Male	9,855	9
	Missing/No Data	0	0
Race/Ethnicity			
	Asian	14,692	13
	Black/African American	9,284	8
	White/Caucasian	64,768	58
	Hispanic/Latino	5,267	5
	American Indian	115	0
	Pacific Islander	770	1
	Other	2,841	3
	Missing/No Data	$14,\!525$	13
Age			
	19-25	2,208	2
	26-35	20,332	18
	36-45	$19,\!597$	17
	46-55	25,076	22
	56-65	29,827	27
	66-75	13,118	12
	76-85	1,985	2
	86+	117	0
	Missing/No Data	2	0

Table 2.3: RN Demographic Characteristic	\mathbf{s}
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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 89,618 respondents, excluding those who did not provide data (Missing/invalid), 67% have a Baccalaureate or higher degree in nursing, and 33% have an Associate's Degree or Diploma in nursing.

	N = 89,618	%
Diploma in Nursing	4,667	5
Associate's Degree in Nursing	24,729	28
Baccalaureate Degree in Nursing	51,138	57
Master's Degree in Nursing	8,215	9
DNP, PhD, or Other Doctoral Degree in Nursing	869	1
*The 22,644 missing/invalid data are ex	cluded.	

Table 2.4: RN Highest Level of Education*

Figure 2.1 describes the 90,541 respondents who provided data on the country in which they received their entry-level nursing education. Of the total respondents, 80,222 were from the United States. 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) Others, India, Nigeria, Korea, UK & Northern Ireland, Poland, Canada, and Jamaica.

Figure 2.1: Country of RN Entry-level Education Outside of the United States



*The 21,721 missing data are excluded.

Employment Characteristics

Table 2.5 describes the employment status of the 91,100 RNs who reported their employment status. "Employed in nursing" is defined as being employed in a position that requires an RN license.

	N=91,100	%
Employed in nursing full-time	67,016	74
Employed in nursing part-time	8,733	10
Employed in nursing per diem	$5,\!159$	6
Volunteering (only) in nursing	527	1
Retired	4,799	5
Unemployed, seeking work in nursing	2,491	3
Employed in a field other than nursing	2,375	2
*The 91 169 missing data and a	reladed	

 Table 2.5: RN Employment Status*

*The 21,162 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: Num	ber of RN Positions	s*
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	N = 82,806	%
1 position	68,430	83
2 positions	12,990	16
3 positions	1,384	2
4 positions	2	0

*The 29,455 missing data are excluded.

According to **Figure 2.2**, more than 54% of 86,650 respondents reported that the hospital was their primary employment setting.



Figure 2.2: RN Primary Employment Setting*

*The 25,612 missing data are excluded.

Figure 2.3 shows that 69% of 87,929 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 2.3: RN Primary Employment Position Description*

*The 24,333 missing data are excluded.

Nurses classified their employment specialties as outlined in Figure 2.4.



Figure 2.4: RN Primary Employment Position Specialty*

*The 27,883 missing data are excluded.

Unemployment

Figure 2.5 shows that there were 10,218 RNs who reported a reason for not being employed as a nurse. Of those, 28% cited "taking care of home and family" as their primary reason.





Retirement

NJCCN asked participants of their intention to retire within two years, prior to the next license renewal. In response, 5% 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, 30% 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 (18 or greater) and their intent to retire.

Age	RN Respondents	Intent to Retire	%
	N=91,315	N = 4,934	
18-25	1,952	10	1
26-35	$17,\!208$	64	0
36-45	16,415	54	0
46-55	21,098	112	1
56-65	24,575	1,623	7
66-75	8,973	$2,\!675$	30
76-85	1,048	373	36
86-95	46	23	50

Table 2.7: RN Intent to Retire according to Age

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 2019-2020 survey period, 10,718 respondents of New Jersey's 13,450 active (10,926) and inactive (2,524) APNs responded to the survey, which accounts for 79.7% of the APN workforce. Respondents may have skipped questions, causing data in some tables and figures to add up to less than 10,718.

License Status

According to Table 2.8, 98% of respondents are active APNs.

 Table 2.8:
 APN Credential Status

	N = 10,718	%
Active	10,452	98
Not Active	266	2

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 = 10,718	%
Nurse Practitioner (NP)	8,614	79
Clinical Nurse Specialist (CNS)	760	7
Certified Nurse Midwife (CNM)	324	3
Certified Nurse Anesthetist (CRNA)	1,216	11

Demographics

Table 2.10 shows that New Jersey's APN's are primarily white (60%), female (90%), and between 36-55 years of age (49%). The mean age of APNs is 48.

Gender		N = 10.718	%
	East a la	0.657	
	Female	9,057	90
	Male	1,061	10
	Missing/No Data	0	0
Race/Ethnicity			
	Asian	1,199	11
	Black/African American	1,044	10
	White/Caucasian	$6,\!459$	60
	Hispanic/Latino	467	4
	American Indian	12	0
	Pacific Islander	67	1
	Other	306	3
	Missing/No Data	1,164	10
Age			
	19-25	6	0
	26-35	2,065	19
	36-45	2,649	25
	46-55	2,561	24
	56-65	2,373	22
	66-75	964	9
	76-85	97	1
	86+	3	0
	Missing/No Data	0	0

Table 2.10:	APN	Demographic	Characteristics
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Education

Table 2.11 describes the highest degree of nursing education currently held by APN respondents. Of the 9,739 respondents, 87% have a Master's Degree and 11% have a DNP.

Table 2.11: APN	Highest Level	of Nursing	Education*
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	N = 9,739	%
MSN	8,489	87
DNP	1,028	11
PhD	144	1
Other Doctoral Degree in Nursing	78	1

*The 979 missing data are excluded. This number includes missing data and invalid responses.

Employment Characteristics

Table 2.12 describes the employment status of the 9,546 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.

	N = 9,546	%
Employed in nursing full-time	7,822	82
Employed in nursing part-time	889	9
Employed in nursing per diem	357	4
Volunteering (only) in nursing	35	0
Retired	172	2
Unemployed, seeking work in nursing	161	2
Employed in a field other than Nursing	110	1
	1 1 1	

*The 1,172 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 26% of New Jersey's APN workforce is holding multiple APN positions.

Table 2.13: Number of APN Positions*

	N = 9,040	%
1 position	6,688	74
2 positions	1,955	22
3 positions	397	4

*The 1,678 missing data are excluded.

The figures on the following pages describe the setting and position description of respondents' primary employment. According to **Figure 2.6**, more than 45% of the 9,542 respondents reported their primary employment setting was in a hospital. **Figure 2.7** shows that 79% of the 9,658 respondents reported their primary employment position was as an Advanced Practice Nurse.



Figure 2.6: APN Primary Employment Setting*

*The 1,176 missing data are excluded.



Figure 2.7: APN Primary Employment Position Description*

*The 1,060 missing data are excluded.

The 8,881 Advanced Practice Nurses classified their employment specialties as outlined on the following page in **Figure 2.8**.



Figure 2.8: APN Primary Employment Position Specialty*

*The 1,837 missing data are excluded.

Nurse Practitioners

Nurse Practitioners (NPs) are a subset of APNs. When asked to identify their specialty, 7,261 NPs responded.

	N=7,261	%
Adult/Gero Primary	1,951	27
Adult/Gero Acute	929	13
Family	2,084	29
Pediatrics	652	9
Women's Health	459	6
Psych	510	7
Other	676	9
		1 1

 Table 2.14: Nurse Practitioner specialty*

*The 3,457 missing data are excluded.

A total of 1,766 NPs indicated that they are active in states other than New Jersey.

	N = 1,766	%
New York	668	38
Pennsylvania	758	43
Connecticut	11	0.6
Delaware	44	2.5
Other	258	15
No Data	27	1.5

 Table 2.15:
 NPs active in other states

Unemployment

Figure 2.9 shows that there were 611 APNs who reported a reason for not being employed as an APN. Of those, 24% cited "taking care of home and family" as their primary reason.





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, 22% intend to retire; of nurses who are 76-85 year old, 32% 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.

Age	APN Respondents	Intent to Retire	%
	N=10,231	N=342	
18-25	5	0	0
26 - 35	1,985	7	0
36-45	2,519	4	0
46-55	2,468	6	0
56 - 65	2,281	105	5
66 - 75	882	191	22
76-85	88	28	$\overline{32}$
86-95	3	1	33

 Table 2.16:
 APN Intent to Retire according to Age

Licensed Practical Nurse (LPN) Profile

In the 2019-2020 survey period, 21,523 respondents of New Jerseys 29,348 active (23,638) and inactive (5,710) LPNs responded to the survey, which accounts for 73.3% of the LPN workforce. Respondents may have skipped questions, causing data in some tables and figures to add up to less than 21,532.

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
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	N = 21,523	%
Active	20,749	96
Inactive	774	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 = 21,522	%
Exam	18,898	88
Endorsement	2,624	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 (48%). The mean age of LPNs is 50.

Gender		N=21,523	%
	Female	19,331	90
	Male	2,191	10
	Missing/No Data	1	0
Race/Ethnicity			
	Asian	1,336	6
	Black/African American	5,976	28
	White/Caucasian	8,301	39
	Hispanic/Latino	1,629	8
	American Indian	46	0
	Pacific Islander	110	1
	Other	1,027	5
	Missing/No Data	3,098	14
Age			
	0-18	0	0
	19-25	295	1
	26-35	3,764	17
	36-45	4,793	22
	46-55	5,191	24

5,124

2,105

237

14

24

10

1

0

56-65

66-75

76-85

86 +

Table 2.19:	LPN	Demographic	Characteristics
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Employment Status

Table 2.20 describes the employment status of the 15,767 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.

	N = 15,767	%
Employed in nursing full-time	$11,\!465$	73
Employed in nursing part-time	1,518	10
Employed in nursing per diem	803	5
Volunteering (only) in nursing	81	1
Retired	521	3
Unemployed, seeking work in nursing	728	5
Employed in a field other than Nursing	651	4
	1 1 1	

*The 5,756 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 17% of New Jersey's LPN workforce is holding multiple LPN positions.

 Table 2.21:
 Number of LPN Positions*

	N = 14,038	%
1 position	$11,\!553$	82
2 positions	2,281	16
3 positions	204	1

*The 7,485 missing data are excluded.

The figures on the following pages describe the setting and position description of respondents' primary employment. According to **Figure 2.10**, more than 39% (N=5,470) of 13,908 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 7,615 missing data are excluded.



Figure 2.11: LPN Primary Employment Position Description*

*The 6,413 missing data are excluded.

Nurses classified their employment specialties as outlined in Figure 2.12.



Figure 2.12: LPN Primary Employment Position Specialty*

*The 7,450 missing data are excluded.

Unemployment

Figure 2.13 shows that there were 2,615 LPNs who reported a reason for not being employed as a nurse. Of those, 25% cited "taking care of home and family" as their primary reason.



Figure 2.13: LPN Reason for Not Being Employed

Retirement

NJCCN asked participants of their intention to retire within two years, prior to the next license renewal. In response, 4% 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, 21% intend to retire. The number of LPN 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.

Age	LPN Respondents N=13,226	Intent to Retire N=563	%
18-25	134	1	1
26-35	2,424	17	1
36-45	3,114	22	1
46-55	3,118	28	1
56-65	3,047	181	6
66-75	1,254	285	23
76-85	128	27	21
86-95	7	2	29

 Table 2.22:
 LPN Intent to Retire according to Age

Update to Nurse Retirement Projections

In our previous report titled *New Jersey Annual Nursing Data report 2017*, we published an added section titled *Chapter 4: Projection of Nurse Retirement*. (NJCCN, 2017). This section projected the expected retirement amongst RNs, APNs and LPNs after a thorough analysis of historical retirement rates across age categories and employment settings. The projection of future workforce levels along with confidence intervals were established from average historical retirement rates for 2020 and 2025.

In this report, we are verifying the extent to which the projections align with actual numbers from our most recent data this year. This will not include re-estimating the historical retirement rates or altering our expectations of the future demand for 2025. In the event sufficient evidence of deviation from any of our assumptions or expectations occur from the previous report, re-estimation and corrected projections will be conducted for the next report.

Nurse Retirement Projections for 2020 and 2025: A Review

The data from our previous report, *Table 78. Projected Trend of the Active NJ Nursing Workforce Through 2025* (NJCCN, 2017, p. 49), is summarized here for reference. The table reported a total of 7,169 retirements were expected in the RN workforce by 2020, and similarly 179 APNs and 826 LPN retirements by 2020.

	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

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

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

Based on our survey this year, we can compare the total number of nurses who reported 'retired' for their employment status to half the number expected to be retired by 2020. This allows us to understand if our projections were corrected or over/under estimated.

A total of 4,799 RNs, 172 APNs, and 521 LPNs were reported retired in 2019-20 based on the NJBON survey 2019-20 (See **Table 2.24**). Comparing that to the expected retirement, **the projections are consistently higher than the actual number of retirements**, suggesting a somewhat overly conservative estimate for retirement rates. APNs are closest in projections with only 4% difference between the numbers, while RNs have 33% lower retirements than expected. While LPNs were predicted to have a surplus overall in the previous report, data suggests that we might be underestimating the surplus given how few retirements have taken place this year (nearly only half of our expected retirements).

Further, 19% of the RNs, 27% of LPNs and 11% of APNs did not respond to the survey question "What is your employment status?" (See **Table 2.5; 2.12; & 2.20**). Thus, the number of actual retirements is likely to be higher than reported. For instance, for RNs while 4,799 have reported they were retired, we expect some of the RNs that did not respond to the question to also have retired but did not report. Essentially, the gap between the expected and actual numbers in **Table 2.24** will be lower, confirming the need for a slightly more conservative estimate.

	RN		A	\mathbf{PN}	LPN	
	2019-20	2019-20	2019-20	2019-20	2019-20	2019-20
	Actual	$Expected^*$	Actual	$Expected^*$	Actual	Expected*
Number of retirements	4,799	7,169	172	179	521	826
Difference (%)						
(Actual/Expected)		-33		-4		-37

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

(Source: NJBON Nursys® Survey 2019-20)

*Note: 2019-20 Expected is from Table 78 of NJCCN 2017 report

Assessment of Nurse Retirement 2018-2020

Breaking down retirement rates by age group, **retirements have increased across all 3 categories** for ages 61-75 years while also increasing marginally in lower age categories. In 2020, 80-90% of retirements represent nurses in the 61-75 age group. This is much higher than historically seen in the 61-75 age groups and is an indication that retirements have started happening more actively in this transition age sector as compared to historically lower percentages. Note, the overall retirement numbers are still lower than expected (previous section). Thus, this mainly signifies a significant shift (short term or possibly medium term) in the profile of the nurses who are retiring from the workforce. Another point to note, nurses historically retired much later in age. Such a profile shift, if amplified in the coming years, could affect nurse workforce disproportionately. This is of particular concern due to the COVID-19 pandemic.

		\mathbf{RN}			APN			LPN	
	2018	2019	2020	2018	2019	2020	2018	2019	2020
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
46-50	0.02	0.1	0.4	-	-	-	0.1	0.1	1
51 - 55	0.1	0.3	1	0.2	-	-	0.4	0.3	3
56-60	0.2	2	4	1	1	2	1	1.1	4
61-65	1	8	22	2	2	27	4	5	15
66-70	5	24	38	11	13	34	9	17	41
71-75	18	27	23	17	20	26	10	17	26
76-80	24	27	9	19	32	8	13	117	7
81-85	22	33	3	-	-	-	5	13	3
86+	23	38	1	50	-	2	38	-	1

Table 2.25: Rate of Retirement of Nurses by Age Bracket

(Source: NJBON Nursys® Survey 2018-20)

Age Distribution in New Jersey's Nursing Workforce

In reviewing the trend of nurses by age brackets, the percentage of nurses 66 years and above is higher in 2019-20 for RNs, APNs and LPNs when compared to 2018-19. This suggests that the risk of retirement still looms large and while current year retirements may have been lower than expected, it may not be the case in the coming years. This reasserts the need for a slightly more conservative estimate to account for the variations in yearly retirements.

	RN		LF	PN	\mathbf{APN}	
	2018-2019	2019-2020	2018-2019	2019-2020	2018-2019	2019-2020
	N=110,832	N = 112,245	N = 8,965	N = 10,718	N=21,372	N=21,523
Age (years)	(%)	(%)	(%)	(%)	(%)	(%)
18-30	10	10	5	5	8	8
31-40	18	19	26	28	22	22
41-50	20	20	24	24	23	23
51-65	39	38	35	34	36	36
66+	13	14	9	10	11	11

Table	2.26:	Nurse	Age	Distribution
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(Source: NJBON Nursys® Survey 2018-20)

Retirement Intentions (Self-Reported)

Additionally, based on self-reported levels of retirement plan in the next couple of years, APN retirements in the next couple years would outstrip the projections by a large margin while RN and LPN levels continue to be lower than projected. This suggests that, with the aging workforce, more and more of the older nurses in RN and LPN categories are continuing to opt to stay in the workforce every year. However, the COVID-19 pandemic may impact these results in the future.

	N	2020-21	% of current workforce
RN	91,327	4,953	5.4
APN	10,231	342	3.3
LPN	13,226	563	3.5

Table 2.27: Nurse Retirement Intention
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(Source: NJBON Nursys® Survey 2019-20)

Graduation Trend Rates

One way to diffuse this retirement risk is to increase the workforce with higher numbers of new graduates to be readily trained to fill in for future retirements. Lower retirement levels across the categories serves as an opportunity that can help us bridge the gap from otherwise higher levels of expected retirements.

	2014	2015	2016	2017	2018	2019
RN	$3,\!077$	3,161	3,007	3,122	3,374	3,889
APN	59	93	88	116	137	190
LPN	$1,\!575$	1,543	$1,\!247$	1,220	1,323	1,340

Table 2.28: Nurse Graduation Data 2014-2019*

(Source: NJCCN Educational Survey 2014-2019)

Based on graduation trends, there is a consistent supply of new graduates into the workforce yearly, which are in line with our projections assumptions used for 2020 and 2025. Increasing the graduation rates of APNs and RNs may meet the workforce demand. Current or lower levels of LPN graduation rates appear to be sufficient to meet the workforce demand.

Conclusion

Data suggests that our estimates are conservative, based on the methodology used. While we have seen a shift in retirements in lower age brackets, the retirement numbers are still lower than expected. If this continues, it could impact the nursing workforce disproportionately, especially because of the COVID-19 pandemic. This projection is too early to predict, and therefore, we move forward with the current data.

Chapter 3

Workforce Demand Data

NJCCN used data mined from Burning Glass TechnologiesTM 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 advertisements were reviewed to eliminate any per diem positions, temporary positions, staffing agencies, and postings that had job openings outside of New Jersey.

	Category	Demand and Employment			Salary	
		Burning	BLS*/	BG	T^{**}	
	Source	Glass	OES2019	Proje	ctions	
SOC	Occupation	Number	Number	% Change	Projected	Mean
Code	\mathbf{Title}	of job	Employed	in	Statewide	Salary
(ONET-6)		Postings	2019	Employment	Change in	
				2018-2019	Employment	
					2016-2026	
29-1141	Registered Nurses	11,198	80,140	1%	12.3%	84,280
29-2061	Licensed Practical & Licensed Vocational Nurses	2,545	17,770	2%	12.4%	57,510
29-1171	Nurse Practitioners	2,929	6,460	9%	30.7%	123,810

 Table 3.1: Summary Demand and Requirements Table by Occupation - 2019

*BLS/OES2019 is Bureau of Labor Statistics Occupational Employment Statistics 2019 **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 2019. 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 8,251 of the 10,473 total postings.





(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)

According to **Figure 3.2**, 6,490 postings were for generic RN or staff nurse positions, which account for over 59% of the total. The remaining 4,529 were identified as "specialized positions" and classified based on job settings. **Figure 3.3** lists the 20 most common specialized positions of the 4,529 identified in 2019.



Figure 3.2: RN Online Job Postings

(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)



Figure 3.3: Top 20 RN Positions

(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)

National Demand Comparison

Figure 3.4 shows the level of demand for RNs across the United States from January 1, 2019 through December 31, 2019. 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. 2020)

The average rate of demand for RNs nationally is 110 job postings per 10,000 employed persons. When compared to this rate, **New Jersey has a lower average rate of demand for RN positions, with a rate of 83 postings per 10,000 employed persons.** The three states with the highest demand are Alaska (182), Colorado (176), and Arizona (175). The states with the lowest demand are New York (57), Mississippi (61), Utah and Minnesota (65).

Job Postings by County

January 1, 2019 - December 31, 2019

There were 10,528 postings available with the current filters applied.

County	Job Postings	%	Location Quotient
Atlantic	174	2	0.5
Bergen	733	7	0.6
Burlington	474	5	0.9
Camden	815	8	1.6
Cape May	104	1	0.9
Cumberland	133	1	0.9
Essex	1,113	11	1.3
Gloucester	207	2	0.8
Hudson	528	5	0.8
Hunterdon	42	0	0.3*
Mercer	337	3	0.5
Middlesex	1,276	12	1.2
Monmouth	$1,\!629$	15	2.5
Morris	728	7	1.0
Ocean	786	7	2.0
Passaic	666	6	1.6
Salem	35	0	0.7^{*}
Somerset	189	2	0.4
Sussex	81	1	0.8^{*}
Union	394	4	0.7
Warren	84	1	1.0*

 Table 3.2: Demand for RNs by NJ County

*Values should be used with caution due to small sample size.

(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)

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 (LQ). 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 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.

The counties with the highest LQ, which indicate demand is greater than the national average, include Monmouth (2.5), Camden (1.6), and Passaic (1.6). The counties with the lowest LQ, which

indication demand is lower than the national average, include Hunterdon (0.3), and Somerset (0.4), Atlantic (0.5).

The counties with the most job postings include Monmouth (1,629), Middlesex (1,276), and Essex (1,113).

Nurse Practitioner (NP) Demand Profile

Figure 3.5 shows the top 20 employers with the greatest number of online job postings for Nurse Practitioners (NP) in 2019. 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 1,097 of the 1,290 total postings.



Figure 3.5: Top 20 Employers of NPs

(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)

Further analysis of the 2,498 job posting for Nurse Practitioners indicated that 1,981 were for generic NP positions. Job postings for specialized positions were primarily for Psychiatric Nurse Practitioner (N=254) and Family Nurse Practitioner (N=94).

National Demand Comparison

Figure 3.6 shows the level of demand for NPs across the United States from January 1, 2019 through December 31, 2019. The demand for NPs is identified here as the ratio of NP job postings per 10,000 employed persons.





(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)

The average rate of demand for NPs nationally is 6 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 5 postings per 10,000 employed persons.** The states with the highest demand are Arizona (12), Connecticut (11), Oregon (11), New Mexico (11), and Alaska (11). The three states with the lowest demand are Utah (2), Mississippi (2), and South Dakota (2).
Job Postings by County

January 1, 2019 - December 31, 2019

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

County	Job Postings	%	Location Quotient
Atlantic	65	3	0.8
Bergen	233	9	0.8
Burlington	102	4	0.8
Camden	204	8	1.6
Cape May	27	1	1.0
Cumberland	45	2	1.2
Essex	279	11	1.3
Gloucester	57	2	0.9
Hudson	202	8	1.3
Hunterdon	13	1	0.4^{*}
Mercer	166	7	1.1
Middlesex	211	8	0.8
Monmouth	300	12	1.8
Morris	126	5	0.7
Ocean	151	6	1.4
Passaic	89	4	0.8
Salem	12	0	0.9*
Somerset	74	3	0.6
Sussex	44	2	1.7*
Union	94	4	0.7
Warren	19	1	0.9*

Table 3.3: Demand for NPs by NJ County

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 (LQ). The 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 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.

The counties with the highest LQ, which indicate demand is greater than the national average, include Monmouth (1.8), Sussex (1.7), and Camden (1.6). The counties with the lowest LQ, which

^{*}Values should be used with caution due to small sample size. (Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)

indication demand is lower than the national average, include Hunterdon (0.4), and Somerset (0.6), Morris (0.7), and Union (0.7).

The counties with the most job postings include Monmouth (300), Essex (279), and Bergen (233).

Licensed Practical Nurse (LPN) Demand Profile

Figure 3.7 shows the top 20 employers with the greatest number of online job postings for LPNs in 2019. 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 1,794 of the 2,218 total postings. Top employers included nursing homes, home health care providers, and hospital systems.



Figure 3.7: Top 20 Employers of LPNs

(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)

National Demand Comparison

Figure 3.8 shows the level of demand for LPNs across the United States from January 1, 2019 through December 31, 2019. The demand for LPNs is identified here as the ratio of LPN job postings per 10,000 employed persons.





(Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)

The average rate of demand for LPNs nationally is 20 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 17 postings per 10,000 employed persons.** The three states with the highest demand are Nebraska (31), Indiana (30), and Pennsylvania (30). The states with the lowest demand are California (3), Texas (5), Utah (5), and the District of Columbia (5).

Job Postings by County

January 1, 2019 - December 31, 2019

There were 2,528 postings available with the current filters applied.

County	Job Postings	%	Location Quotient
Atlantic	52	2	0.6*
Bergen	211	8	0.7
Burlington	250	10	1.9
Camden	297	12	2.2
Cape May	28	1	1.0*
Cumberland	57	2	1.5*
Essex	163	6	0.7
Gloucester	176	7	2.6
Hudson	92	4	0.6^{*}
Hunterdon	38	2	1.2*
Mercer	112	4	0.7
Middlesex	200	8	0.7
Monmouth	284	11	1.7
Morris	120	5	0.6
Ocean	132	5	1.2
Passaic	93	4	0.8^{*}
Salem	34	1	2.5^{*}
Somerset	61	2	0.5^{*}
Sussex	27	1	1.0*
Union	89	4	0.6*
Warren	18	1	0.8*

 Table 3.4:
 Demand for LPNs by NJ County

Table 3.4 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 (LQ). The 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 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.

The counties with the highest LQ, which indicate demand is greater than the national average, include Gloucester (2.6), Salem (2.5), and Camden (2.2). The counties with the lowest LQ, which

^{*}Values should be used with caution due to small sample size. (Burning Glass Technologies. "Labor Insight Real-Time Labor Market Information Tool." http://burning-glass.com. 2020)

indication demand is lower than the national average, include Somerset (0.5), Atlantic (0.6), Hudson (0.6), Morris (0.6), and Union (0.6).

The counties with the most job postings include Camden (291), Monmouth (284), and Burlington (250).

Chapter 4

Home Health Aide Profile

Home Health Aide Workforce

A home health aide (HHA) is defined by the New Jersey Board of Nursing (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 Anno-tated, 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 34 percent from 2019 to 2029, much faster than the average for all occupations (Bureau of Labor Statistics, 2019). 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, 2019; Hewko et al., 2015; Weng & Landes, 2017). The New Jersey Collaborating Center for Nursing (NJCCN) is just beginning to obtain information about New Jersey's HHAs. **Table 4.1** lists the current number of home health aides who have HHA certification and the change in this workforce from 2017. Home Health Aides renew their certification every two years in November.

Table 4.1: Home Health Aides

	2017/2018	2019/2020	% Change
Home Health Aides	$60,\!343$	$56,\!862$	-5.7%

In 2020, NJCCN sent a survey to the 30,971 HHAs who had an email address listed with the NJ Board of Nursing. The data reported in this section are from the 958 HHAs who responded to the survey. Some of the HHA survey questions were created from the Iowa CareGivers' 2019 Direct Care Worker Wage and Benefit survey for which they contracted with Iowa Workforce Development to conduct. (Iowa CareGivers, 2019).

Demographics

Table 4.2 shows New Jersey's HHAs are primarily female, Black/African American, and are a high school graduate or have a GED. The average age of the HHA respondents was 47 (range 20-83).

Gender		Ν	%
	Female	585	91
	Male	49	8
	Prefer not to answer	10	2
	*The 314 Missing/No data are excluded		
Hispanic/Latino origin			
	Yes	116	18
	No	488	77
	Do not wish to disclose	27	4
	*The 327 Missing/No data are excluded		
Race			
	Asian	29	5
	Black/African American	276	44
	White/Caucasian	182	29
	American Indian/Alaska Native	7	1
	Native Hawaiian/Pacific Islander	3	0
	Two or More Races	33	5
	Do not wish to disclose	96	15
	*The 332 Missing/No data are excluded		
Highest Level of Education			
	Some High School Education	57	9
	High School graduate or GED	208	33
	Some College Education	177	28
	Associate Degree	87	14
	Baccalaureate Degree	70	11
	Advanced Degree	29	5
	*The 329 Missing/No data are excluded		

Table 4.2: HHA Demographic Characteristi	cs
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Table 4.3 shows the the majority of home health aides are from the United States.

Origin	Ν	%
Africa	110	17
Asia	23	4
Caribbean Islands	47	7
Central America	10	2
Europe	6	1
South America	38	6
United States	307	48
Other	80	12
Prefer not to disclose	21	3
*TI 91C M: : /N 1 / 1 1 1		

 Table 4.3: Home Health Aide Place of Origin

*The 316 Missing/No data are excluded.

The majority of HHAs (66%, N=487) obtained their certification as a HHA through a Certified Nursing Assistant (CNA) program to become a HHA. **Table 4.4** displays the years of experience of HHAs who responded to the survey.

Table 4.4:	Home	Health	Aide	Experience
------------	------	--------	------	------------

Years of Experience		%
Less than one year	57	8
More than 1 year, but less than 3 years	155	21
3 to 5 years	152	21
6 to 10 years	176	24
11 to 20 years	152	21
More than 21 years	47	6

*The 219 Missing/No data are excluded.

Employment Characteristics

Table 4.5 describes the employment status of the 958 HHAs who responded to the survey and reported their employment status. The majority of HHA respondents work full-time, yet 53% (N = 382) indicated they did not receive any benefits with their job.

 Table 4.5: Home Health Aide Employment Status

Employment Status	Ν	%
Full-time	374	51
Part-time	234	32
Per diem	61	8
Live-in	47	6
Other	15	2

*The 227 Missing/No data are excluded.

Respondents were asked to report the number of positions that they were currently holding as a HHA. As shown in Table 4.6 there were 263 HHAs (38%) who indicated they worked two or more jobs.

Number of Positions	Ν	%
1 position	417	61
2 positions	173	25
3 positions	90	13

Table 4.6: Number of Home Health Aide Positions

*The 278 Missing/No data are excluded.

Figure 4.1 shows that 38% of the HHA reported their primary employment setting was a home care agency. Additionally, the HHAs were asked what age group of patients they mainly cared for, and the majority of HHAs (70%) indicated they cared for older adults, over the age of 66.

Figure 4.1: Home Health Aide Primary Employment Setting



*The 225 Missing/No data are excluded.

If a registered professional nurse delegates the administration of a specific medication to the certified HHA, pursuant to N.J.A.C. 13:37-6.4(c), the HHA can administer medications. Table 4.7 indicates that the majority of HHAs do not administer medications.

Administering Medications		%
Yes	104	14
No	621	86
*The 233 Missing/No data are excluded.		

 Table 4.7: Administering Medications as Home Health Aide

Figure 4.2 displays the county where HHAs work compared with the county where HHAs reside. This data reveals important differences in three counties: Bergen and Camden counties had more respondents working in Bergen and Camden than residing there, and Essex county had more HHAs residing in Essex than working there.

Figure 4.2: Comparison Where Home Health Aides Work and Reside



*Missing/No data are excluded from county work (319) and county of residence (327).

Unemployment

Figure 4.3 shows that there were 82 HHA who reported a reason for not being employed as a HHA. Of those 30% (n = 24) cited "taking care of home and family" as their primary reason.



Figure 4.3: Reason for Not Being Employed

Retirement

NJCCN asked participants of their intention to retire within the next two years. **Table 4.8** identifies HHAs who declared an intent to retire by age bracket. The majority of HHAs intend to retire when they are in the 66 to 75 age bracket.

Age	HHA Respondents	Intent to Retire	%
	N=579	N=61	
18-25	25	2	8
26-35	107	11	10
36-45	145	8	6
46-55	139	5	4
56-65	120	20	17
66-75	40	14	35
Over 75	3	1	33

 Table 4.8: Intent to Retire According to Age

*Missing/No data (379) are excluded from percentage calculations

The HHA were asked to indicate how concerned (very concerned, somewhat concerned, or not at all concerned) they were regarding their personal health and safety, about injuries from lifting or transferring, about working when sick, their stress and mental health, and about being required to work overtime. As depicted in **Figure 4.4**, the majority of HHA indicated they were very concerned about working when sick (59%), about injuries from lifting or transferring (48%), and their personal health and safety (47%).





In the final question of the survey, HHAs were asked if there is any additional information they would like to share about their HHA job. Responses were received from 262 HHAs. The responses were aggregated into categories and **Table 4.9** displays the predominate categories with supporting quotations.

Categories	Quotes
Underpaid	It doesn't pay very well. No matter which agency or facility
	one works for, the take home after expenses, is barely ten
	dollars an hour.
Love the work	I absolutely love it! After working in rehab and nursing homes
	it's much more joy with one on one in home.
Extremely rewarding	The job is rewarding because you are able to assist those in
	need.
Hard work	It is hard work, we need more assistance. The companies need
	more information how to protect their employees in relation
	to our physical, mental health. It is crucial otherwise, we are
	not well we can not take care our clients/patients.
Need benefits	Unfortunately, we don't get the benefits especially healthcare
	and that is really unacceptable. Our job can be mentally and
	physically demanding and I feel we should be paid well and
	offered decent benefits as well.

 Table 4.9: Categories with Supporting Quotes

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 by 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.

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. In 2020, data were obtained for BSN and higher degree graduates using AACN as a source, and then merged with NJCCN data surveys. This was process was offered to baccalaureate and higher degrees as an option to reduce survey burden.

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 InsightTM designed by Burning Glass Technologies (BGT). Labor InsightTM 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 InsightTM 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 2019-20 data.

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Acknowledgements

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