

Chapter 4

Nurse Retirement Projections

Overview

This chapter reflects the projection of nurse retirements for New Jersey through 2025. In order to maintain an adequate supply of nurses in the workforce, the number of new graduates must be equal to or greater than the number of retirees each year. If current graduation rates are sustained over the years, the gap in the RN/APN workforce due to expected retirement will be reduced. For LPNs, sustaining current graduation rates will lead to an excess supply of LPNs. The following tables in each section outline how workforce projections of LPNs, RNs, and APNs are calculated.

Note: We cannot account for all of the possibilities in projecting retirement due to the volatility of the work environment.

Nurse Retirement Projections Through 2025 - Summary

Table 4.1 shows the projected trend of the nursing workforce through 2025. Our projection suggests a 9% increase in the LPN workforce, a 5% decrease in the RN workforce, and a 2% decrease in the APN workforce between 2022 and 2025. A detailed explanation is provided in Section 4.

Table 4.1: Projected Trends Through 2025

	LPN	RN	APN
Number of respondents in the survey period	21,329	113,719	13,119
Expected number of retirements by 2025*	1,935	16,899	759
Active workforce after retirements by 2025*	19,394	96,820	12,360
% change w/o including new graduates from 2022*	-9%	-15%	-6%
Expected new graduates entering workforce*	3,885	11,505	480
Active workforce after considering new graduates*	23,279	108,325	12,840
% change in the workforce from 2022*	+9%	-5%	-2%
95% CI for percent change in the workforce	(7.1%, 11.4%)	(-6.9%, -2.7%)	(-3.6%, -0.6%)

Asterisk indicates the data is projected.

(Source: NJBON Survey 2021-2022)

Section 1: Retirement Risk Based on Age

Table 4.2 describes the age distribution of LPN, RN, and APN respondents in the 2021-2022 survey period. We assumed ages 56 and higher are at risk of retirement. The last row in this table is the sum of the percentages in the age group 56-65, 66-75, and 76-85. This table corresponds to **Table 2.19**, **Table 2.3**, and **Table 2.10**.

Table 4.2: Age Distribution of RNs, LPNs, and APNs in 2021-2022 Survey Period

Age	LPN N=21,329 (%)	RN N=113,719 (%)	APN N=13,119 (%)
18-25	1.5	2.3	0.0
26-35	16.2	19.4	18.3
36-45	23.2	18.2	27.3
46-55	23.7	20.7	23.3
56-65	23.1	24.2	20.2
66-75	10.9	13.2	9.4
76-85	1.3	1.9	1.3
86+	0.1	0.1	0.0
Total at risk of retirement (56-85)	35.3	39.3	30.9

(Source: NJBON Survey 2021-2022)

Note 1: In this section, we used 56 and above as the projected retirement age.

Note 2: Based on the assumptions, these data are the basis for establishing how many nurses will be at risk of retirement in 2025.

Section 2: Nurse Retirement Rates 2020-2022

Table 4.3 shows the percentages of LPN, RN, and APN respondents who answered ‘Retired’ to the survey question “What is your employment status?” in NJBON 2020 - 2022 survey period by age brackets.

Table 4.3: Rate of Nurse Retirement by Age Bracket

Age	LPN			RN			APN		
	2020 N=305 (%)	2021 N=253 (%)	2022 N=323 (%)	2020 N=2,208 (%)	2021 N=2,998 (%)	2022 N=2,588 (%)	2020 N=88 (%)	2021 N=117 (%)	2022 N=95 (%)
46-50	0.2	0.1	-	0.1	0.1	0.1	-	-	-
51-55	0.5	0.6	0.5	0.2	0.2	0.2	-	-	0.1
56-60	1	0.9	0.9	1	1	1	0.4	0.2	0.2
61-65	4	4	4	6	6	6	3	3	2
66-70	15	15	14	21	21	22	9	10	9
71-75	17	19	20	29	32	33	18	20	19
76-80	16	20	28	29	33	33	21	22	19
81-85	23	24	18	33	35	36	14	8	12
86+	21	31	38	38	42	42	67	40	25

(Source: NJBON Survey 2020-2022)

Note: This table help calculates the projections for potential nurse retirement through 2025.

Section 3: Graduation Rates 2017-2021

Table 4.4 shows the number of new graduates from all schools in New Jersey from 2017 to 2021. Based on the NJCCN Educational Capacity Survey, the average number of graduates in 2017-2021 was LPN 1,295, RN 3,835, and APN 160. We assume this is the number of nurses entering the workforce every year until 2025. Therefore, from 2022 to 2025, there may be a total of 3,885 LPN graduates, 11,505 RN graduates, and 480 APN graduates entering the workforce.

Table 4.4: Number of Graduates 2017-2021

	2017	2018	2019	2020	2021	Average
LPN	1,220	1,323	1,340	1,412	1,180	1,295
RN	3,122	3,374	3,889	4,496	4,294	3,835
APN	116	137	190	155	204	160

(Source: NJCCN Survey 2017-2021)

Note 1: The number of APNs only includes DNP graduates.

Note 2: The maximum and minimum number of graduates across years helped calculate the confidence interval in **Table 4.5**.

Section 4: Projected Percent Change in Nursing Workforce - Results

Table 4.5 shows the projected trend of the nursing workforce through 2025.

Our projection suggests a 9% decrease in the LPN workforce, a 15% decrease in the RN workforce, and a 6% decrease in the APN workforce between now and 2025, after taking into account the retirements (before considering the number of new graduates).

Our projection suggests a 9% increase in the LPN workforce, a 5% decrease in the RN workforce, and a 2% decrease in the APN workforce between 2022 and 2025, after considering the number of new graduates entering the workforce.

Table 4.5: Projected Trends Through 2025

	LPN	RN	APN
① Number of respondents in the survey period	21,329	113,719	13,119
② Expected number of retirements by 2025*	1,935	16,899	759
③ Active workforce after retirements by 2025*	19,394	96,820	12,360
④ % change w/o including new graduates from 2022*	-9%	-15%	-6%
⑤ Expected new graduates entering workforce*	3,885	11,505	480
⑥ Active workforce after considering new graduates*	23,279	108,325	12,840
⑦ % change in the workforce from 2022*	+9%	-5%	-2%
⑧ 95% CI for percent change in the workforce	(7.1%, 11.4%)	(-6.9%, -2.7%)	(-3.6%, -0.6%)

Asterisk indicates the data is projected.

(Source: NJBON Survey 2021-2022)

①: The number of respondents from the 2021-2022 survey period. It was used to estimate the total number of nurses in the workforce for purposes of projection. The actual number of nurses in the state is higher than this estimate since not all nurses have completed the surveys.

②: The expected number of retirements by 2025. We estimate the risk of retirement for nurses in each age bracket by calculating their age in subsequent years based on the data in the 2021 - 2022 survey period.

③: The workforce after taking into account the retirements. $③ = ① - ②$

④: The percent change in the workforce, before taking into account the number of new graduates entering the workforce (only considering the retirements). $④ = ③ / ① - 1$

⑤: The expected number of new graduates entering the workforce from 2022 - 2025. The numbers were calculated by multiplying the average number of graduates from 2017 to 2021 by 3.

⑥: The workforce after considering new graduates getting into the workforce. $⑥ = ③ + ⑤$

⑦: The percent change in the workforce, after considering the number of new graduates entering the workforce. The percent change in the nursing workforce represents the compounded increase/decrease over a three-year period. $⑦ = (⑥ / ③) - 1$

⑧: The approximated 95% confidence intervals demonstrate the best and worst-case scenarios and inform the level of confidence in estimates.

Note: The annual percent change can be approximated by dividing by 3 because we projected from 2022 through 2025. For example, the annual percent change for LPNs in the workforce is 9% divided by 3, which is 3%.

Additional Resources

Risk of Retirement in Nurse Employment Setting 2021-2022

Table 4.6 shows the percentage distribution of employment settings of 16,180 LPNs, 95,959 RNs, and 12,039 APNs who responded to the question "What is your employment setting" in the NJBON 2021 - 2022 survey period. This table corresponds to **Figure 2.10**, **Figure 2.2**, and **Figure 2.6**.

Table 4.6: Percentage Distribution of Employment Setting

Employment Setting	LPN	RN	APN
	N=16,180 (%)	N=95,959 (%)	N=12,039 (%)
Hospital	5	54	44
Ambulatory Care Setting	6	8	23
Home Health	19	5	2
Nursing Home/Extended Care/Assisted Living Facility	42	5	4
Correctional Facility	3	5	2
Insurance Claims/Benefits	2	3	0.2
Public Health	4	3	4
Academic Setting/School of Nursing	0.4	1	3
Dialysis Center	0.1	1	0.3
Community Health	2	1	3
Hospice	1	1	0.3
Occupational Health	0.7	0.6	1
Policy/Planning/Regulatory/Licensing Agency	0.1	0.2	0.0
Other	14	10	13

(Source: NJBON Survey 2021-2022)

Table 4.7 shows the percentage distribution of LPNs, RNs, and APNs in each of the employment settings by three age brackets. Since we assume age 56 and above is at risk of retirement, the age is divided into three groups: 18-55, 56-65, and 66+.

Cells shaded in blue indicate a higher risk of workforce shortage because the number of nurses in the two age groups (56-65 & 66+) are high in combination. For example, there is a foreseeable workforce shortage of RNs in the Hospital and APNs in the correctional facility.

Table 4.7: Distribution of Nurses by Age Across Employment Settings in 2021-2022

Employment Setting	LPN			RN			APN		
	18-55 (%)	56-65 (%)	66+ (%)	18-55 (%)	56-65 (%)	66+ (%)	18-55 (%)	56-65 (%)	66+ (%)
Hospital	57	24	19	44	23	33	59	20	20
Ambulatory Care Setting	55	30	15	73	20	7	75	19	6
Public Health	61	27	11	60	28	13	70	21	9
Occupational Health	72	20	8	55	27	18	72	17	10
Insurance Claims/Benefits	67	25	8	43	32	25	59	21	20
Nursing Home/Extended Care	62	27	11	62	29	10	73	17	10
Home Health	72	21	7	58	29	13	72	21	7
Academic Setting	66	23	12	51	30	20	56	30	14
Correctional Facility	64	17	19	37	33	31	39	30	31
Community Health	65	24	11	46	33	21	54	31	15
Policy/Planning/Regulatory	72	20	8	54	26	20	72	14	14
Dialysis Center	73	20	7	51	31	18	17	17	67
Hospice	63	25	13	75	20	6	67	25	8
Other	60	27	13	56	30	14	52	19	29

(Source: NJBON Survey 2021-2022)