Chapter 3

Workforce Demand Data

Lightcast™ job postings data is gathered by scraping over 65,000 websites worldwide, including company career sites, national and local job boards, and job posting aggregators.
Lightcast™ applies a unique two-step approach to deduplication that results in up to 80% of all jobs we collect being deduplicated.
The first step: On a source-level basis, we use intelligence contained within the scraping spiders to identify a new advertisement for that source. The spiders refrain from collecting advertisements that have previously been aggregated.
The second step: As the same new advertisement can be found across multiple sources. We use normalized fields including job title, company, and location to check if these fields have been used in new advertisements found in another source. This is checked across 60 days of data to identify duplicates.
To illustrate 'step two', here is an example: if there is a job for a Marketing Specialist at Google posted for the first time on March 1st, Lightcast™ considers this as the 'original posting' then for the next 60 days Lightcast™ considers any advertisements found as duplicates. In theory, if Google posts the same ad every day for the entire year on different sources Lightcast™ will count it 6 times.
Each job posting is further enriched with value-add processes including:

- Job title and company standardization
- Skill extraction and tagging
- SOC and NAICS code determination and assignment
- Education and experience determination

NJCCN used data mined from Lightcast ™ to determine demand for nurses in the state of New Jersey. All tables and figures in this chapter are attributed to Lightcast™. The O*Net-SOC taxonomy was used to standardize the occupation-specific indicators. The postings were reviewed and data cleaned to eliminate job titles and companies not within the parameters of a specific SOC Code or postings outside of New Jersey.

Table 3.1 shows the demand summary for Registered Nurses, Nurse Practitioners, and Licensed Practical Nurse.
The following table illustrates the anticipated number of FTEs that will be in demand over the next 10 years (2022-2032). Turnover rates are calculated by comparing total separations to total jobs (separations divided by jobs). There is a high turnover in all 3 occupations which then translates to high demand. There was an increase in the median annual earnings in all three occupations for 2022 as compared to 2021.

Table 3.1: Demand by Occupation Summary - 2022

Category		**Demand and Employment**				**Salary**
SOC Code (ONET-6)	**Occupation Title**	**Number of jobs 2022**	**Number of jobs 2032**	**% Change in Employment 2022-2032**	**Turnover Rate 2022**	**Median Annual Salary**
29-1141	Registered Nurses	78,820	87,614	11%	26%	98,092
29-1171	Nurse Practitioners	6,678	9,989	50%	24%	136,468
29-2061	Licensed Practical & Licensed Vocational Nurses	16,294	18,020	11%	46%	61,464

Registered Nurse (RN) Demand Profile

Job Postings

According to **Figure 3.1**, there were 41,414 total job postings and 9,921 unique job postings for Registered Nurse (RN) in 2022. The median posting duration was 25 days, which is shorter than the regional average of 28 days. Posting intensity is the ratio of total job postings to unique (de-duplicated) job postings. The job posting intensity of 4:1 means that there were 4 job postings for every 1 unique RN position.

Figure 3.1: RN Job Posting Overview

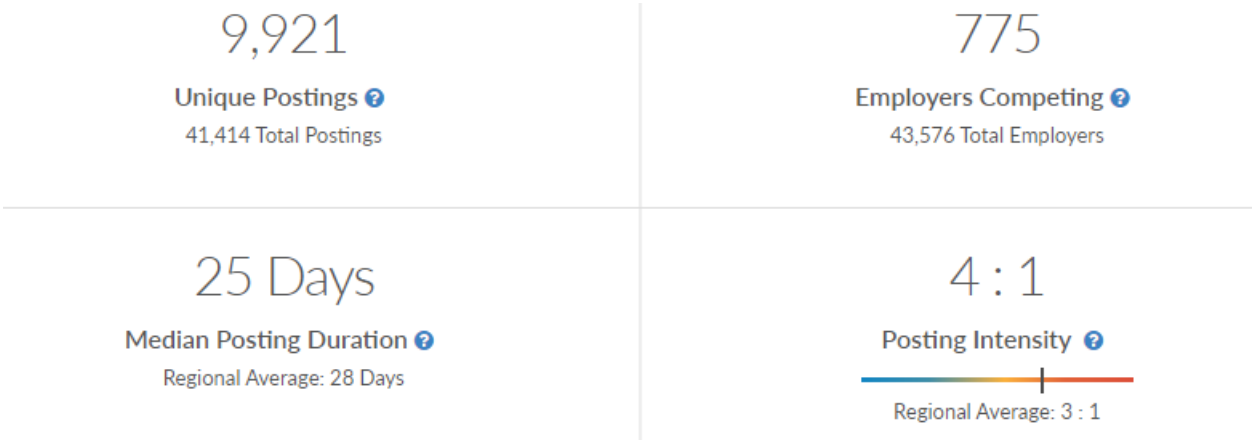


Figure 3.2 shows the time series of unique RN job postings for 5 years from October 2018 through October 2023. The section in yellow highlights the time frame from January 2022 through December 2022.

Figure 3.2: RN Job Posting Time Series 2018-2023

Table 3.2 shows the monthly number of unique RN job postings from January 2022 to September 2023. The number of unique postings was highest in March and April of 2022 which is consistent with last year's report. Posting intensity is the ratio of total job postings to unique (de-duplicated) job postings.

Table 3.2: Monthly Unique RN Job Posting Trend

Month	**Unique Job Postings**	**Posting Intensity**
Jan 2022	927	4:1
Feb 2022	731	5:1
Mar 2022	1,173	4:1
Apr 2022	1,028	4;1
May 2022	800	4:1
Jun 2022	767	5:1
Jul 2022	771	4:1
Aug 2022	681	4:1
Sep 2022	799	4:1
Oct 2022	776	3:1
Nov 2022	724	3:1
Dec 2022	744	5:1
Jan 2023	808	3:1
Feb 2023	673	3:1
Mar 2023	677	3:1
Apr 2023	560	4;1
May 2023	889	3:1
Jun 2023	570	4:1
Jul 2023	731	3:1
Aug 2023	518	4:1
Sep 2023	602	3:1

Positions in Demand

Figure 3.3 and **Figure 3.4** compare the top RN positions for 2022 and 2021 in most demand. **Figure 3.3** shows the top 25 positions in demand in 2022. In addition to the 2,017 positions that were categorized as RN unique postings, the nursing leadership positions (nurse managers and nurse supervisors) had 1,114 unique postings, which is greater than in 2021.

Figure 3.3: Top 25 RN Positions in Demand (2022)

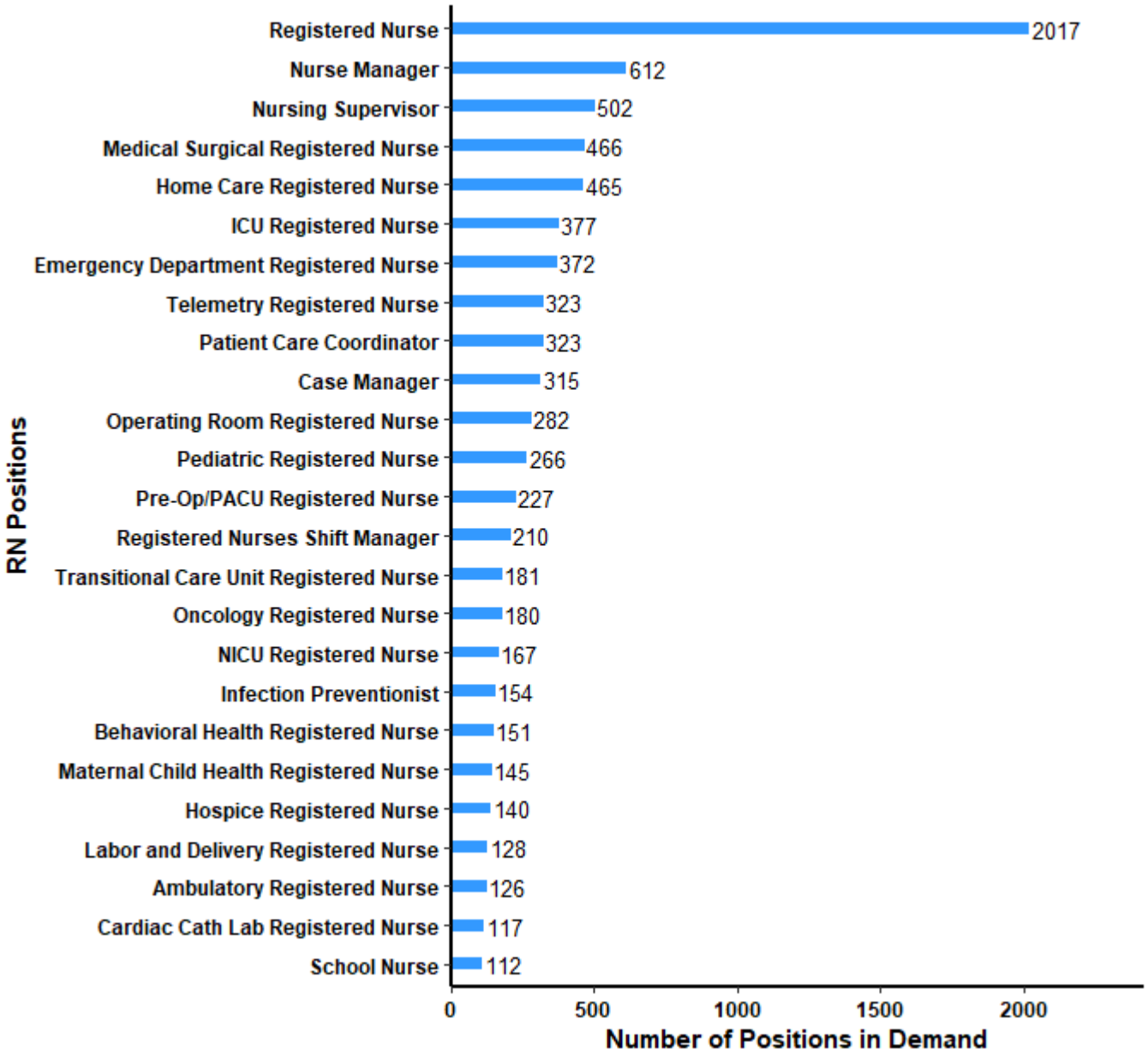
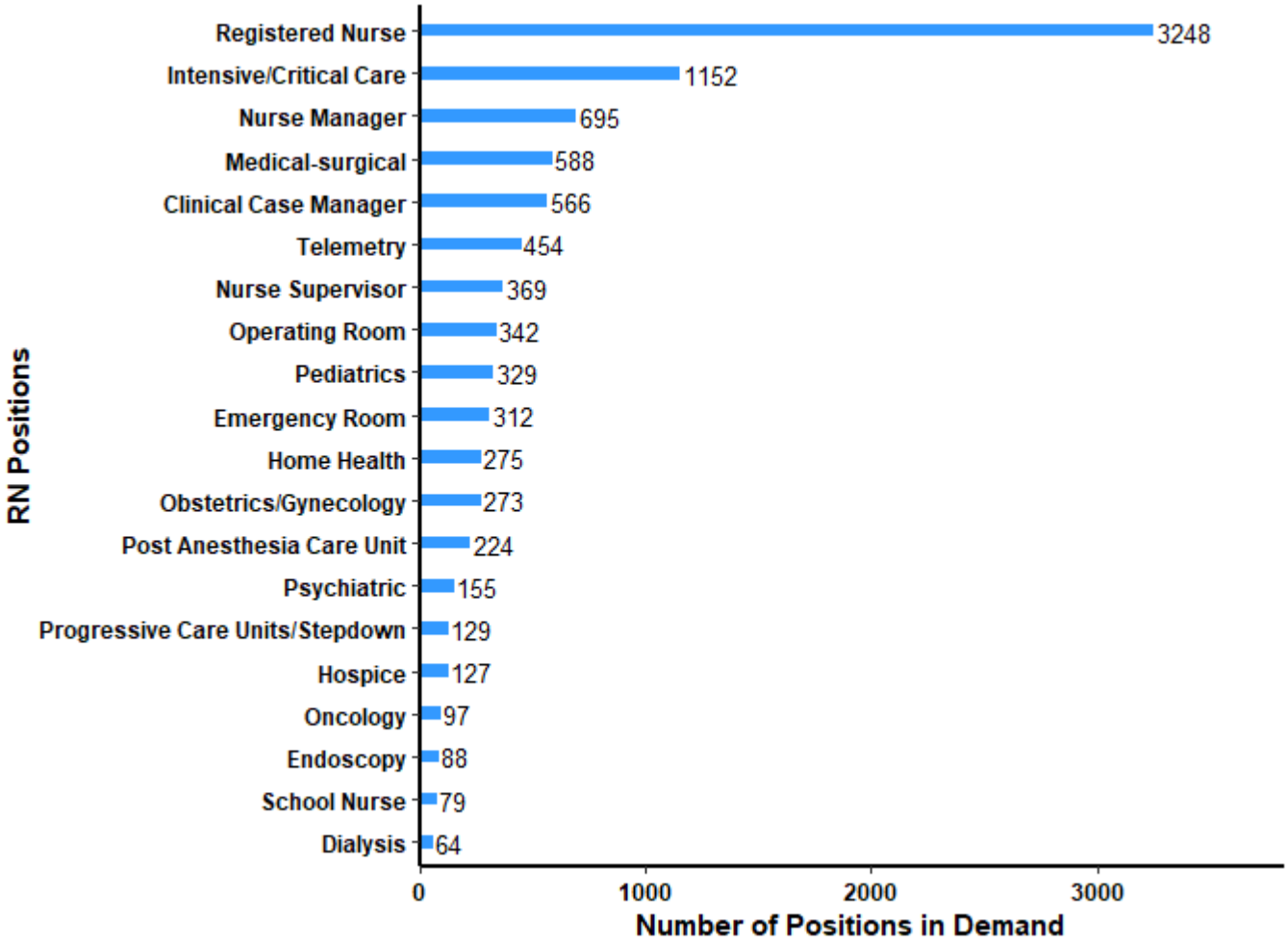


Figure 3.4 shows the top 20 positions in demand in 2021.

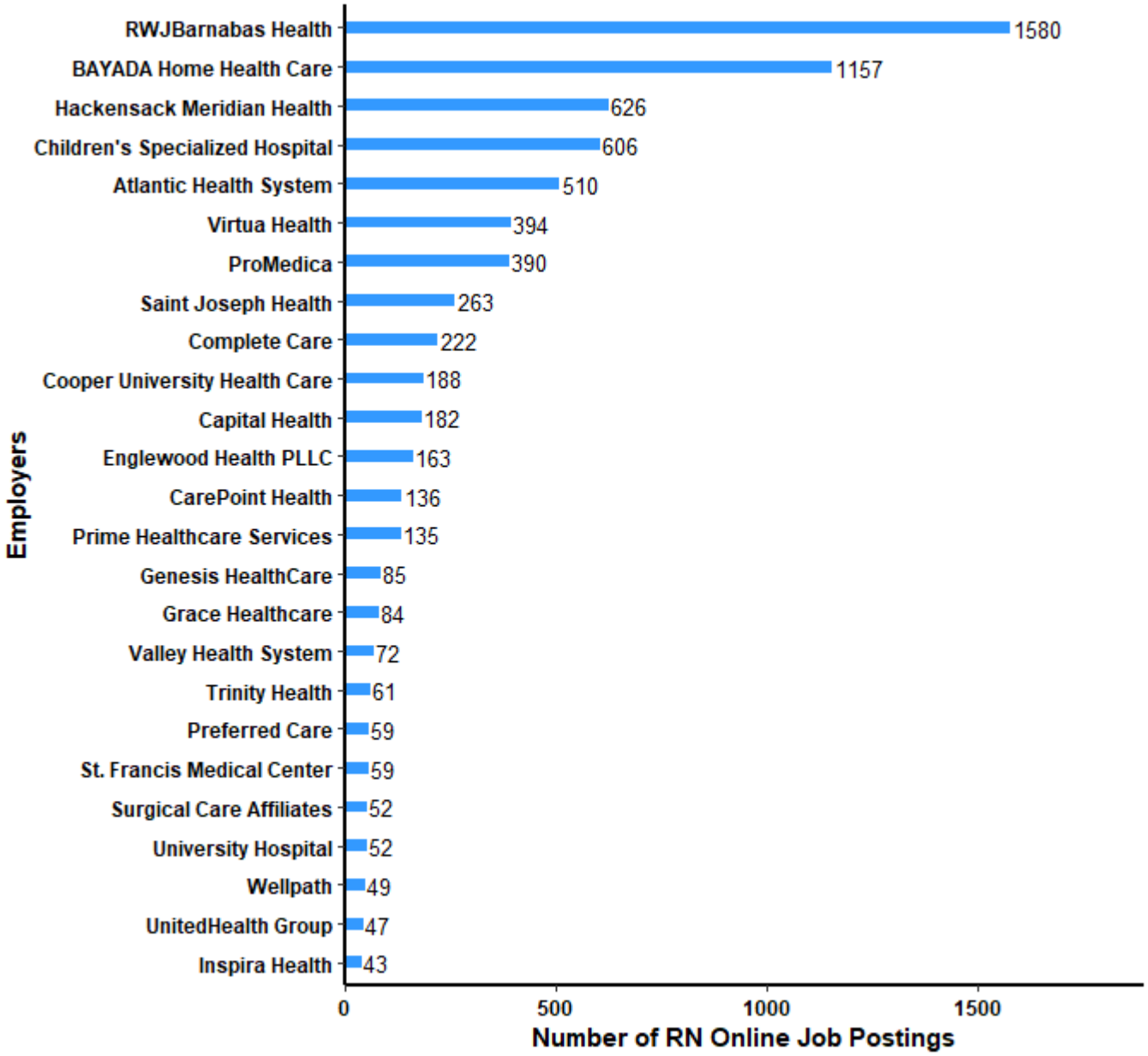
Figure 3.4: Top 20 RN Positions in Demand (2021)



Employer

Figure 3.5 shows the top 25 employers with the greatest number of unique job postings (n=7,215) for RNs in 2022. Hospital employers were combined under their healthcare system where applicable. Greater number of unique postings may reflect a high rate of turnover or a high demand for employees.

Figure 3.5: Top 25 Employers of RNs

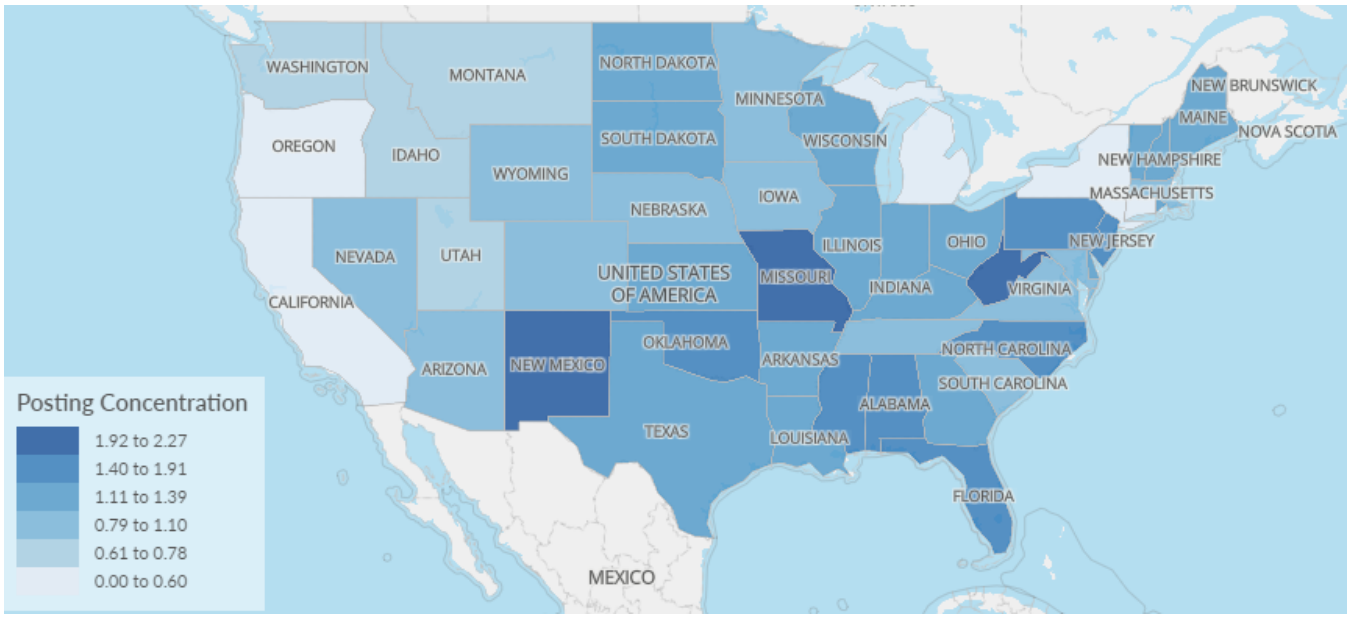


National Demand Comparison

January 1, 2022 - December 31, 2022

Figure 3.6 shows the level of demand for RNs across the United States from January 1, 2022 through December 31, 2022. Posting concentrations shows the concentration of job postings in a region relative to the national average. This can be used to determine if the job posting concentration is high or low in a region compared to the nation. A concentration score greater than one indicates that posting in the region has a high concentration. Scores lower than one indicate posting concentration is lower than the national average.

Figure 3.6: National Demand Map for RNs



New Jersey has a high posting concentration of 1.61 which placed it as the 5th highest in the U.S. The states with the highest posting concentration were West Virginia (2.27), Missouri (1.89), New Mexico (1.84), Alabama (1.65), and New Jersey (1.61). The states with the lowest posting concentration were Michigan (0.33), California (0.34), New York (0.34), the District of Columbia (0.39), and Connecticut (0.44).

Job Postings by NJ County

January 1, 2022 - December 31, 2022

Table 3.3 and **Figure 3.7** show the county-level data for the raw number of unique job postings and demand concentration for RNs in 2022. There were a total of 9,921 unique RN job postings in 2022. The counties with the highest demand concentration were Ocean (4.08), Camden (2.43), Essex (2.29), Salem (2.29), and Cape May (2.27). All counties in NJ were above a 1.0 posting concentration. The counties with the greatest number of unique RN job postings were Essex (1,381), Camden (852), and Bergen (773).

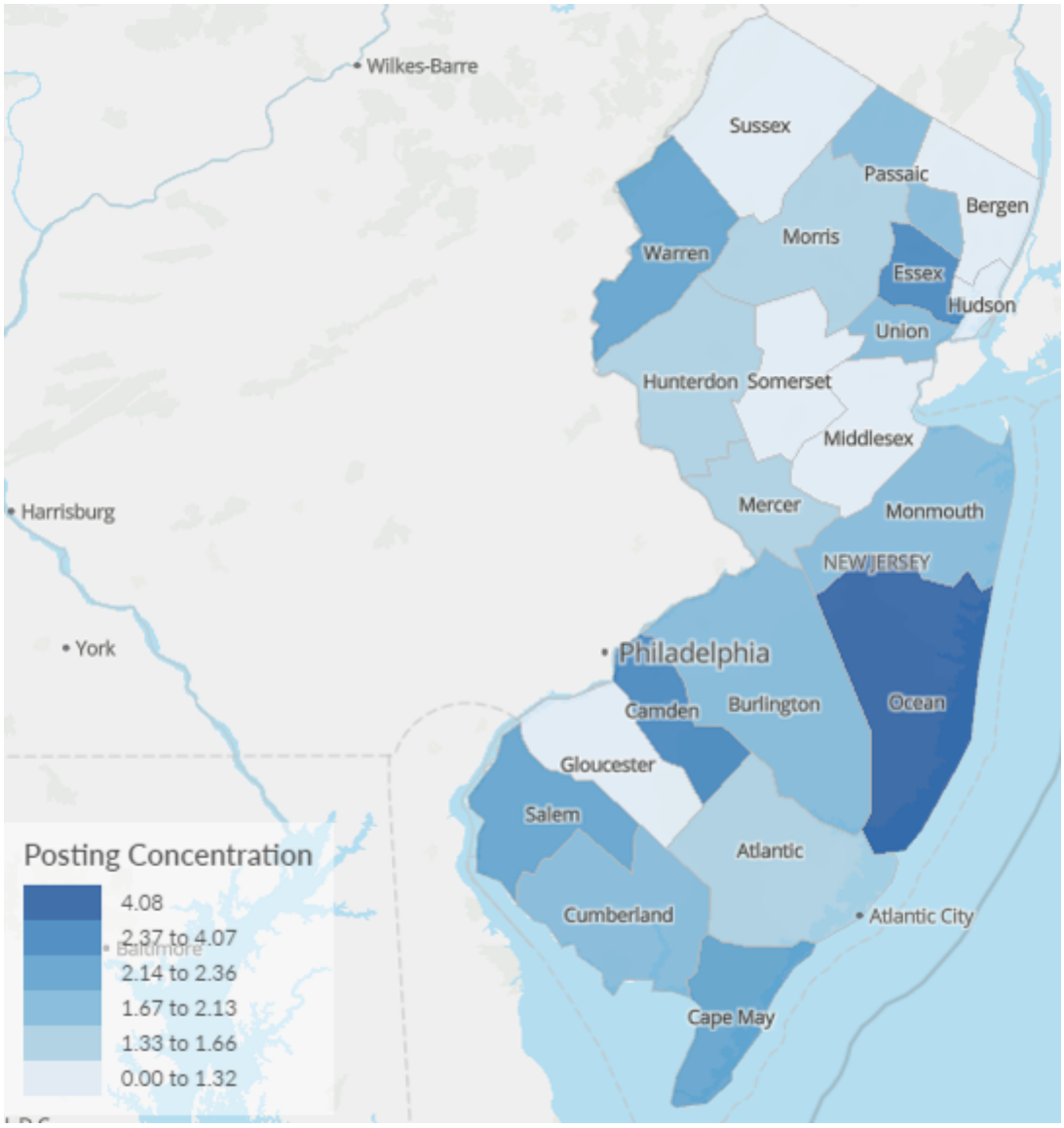
Table 3.3: Demand for RNs by NJ County

County	Unique Job Postings	Demand Concentration
Atlantic	149	1.37
Bergen	773	1.11
Burlington	529	1.82
Camden	852	2.43
Cape May	50	2.27
Cumberland	99	1.94
Essex	1,381	2.29
Gloucester	147	1.03
Hudson	673	1.06
Hunterdon	94	1.40
Mercer	642	1.51
Middlesex	770	1.11
Monmouth	575	1.95
Morris	693	1.45
Ocean	615	4.08
Passaic	567	2.11
Salem	52	2.29
Somerset	293	1.04
Sussex	109	1.19
Union	691	1.71
Warren	81	2.03

*86 unclassified postings

Figure 3.7 shows the level of demand for RNs across New Jersey from January 1, 2022 through December 31, 2022.

Figure 3.7: Demand Map for RNs by NJ County



Nurse Practitioner (NP) Demand Profile

Job Postings

According to **Figure 3.8**, there were 7,245 total job postings and 2,955 unique job postings for Nurse Practitioner (NP). The median posting duration was 28 days. Posting intensity is the ratio of total job postings to unique (de-duplicated) job postings. The job posting intensity of 2:1 means that there were 2 job postings for every 1 unique NP position.

Figure 3.8: NP Posting Overview

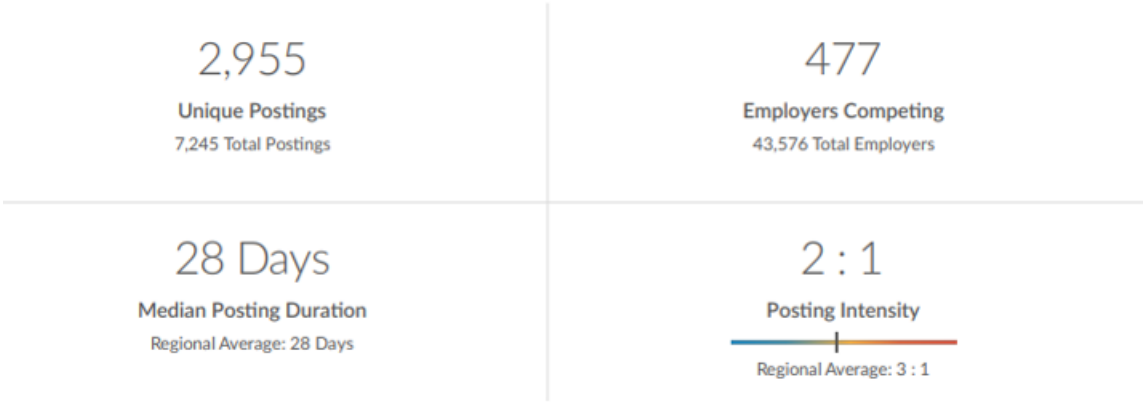


Figure 3.9 shows the time series of unique NP job postings for 5 years from October 2018 through October 2023. The section in yellow highlights the time frame from January 2022 through December 2022.

Figure 3.9: NP Job Posting Time Series 2018-2023

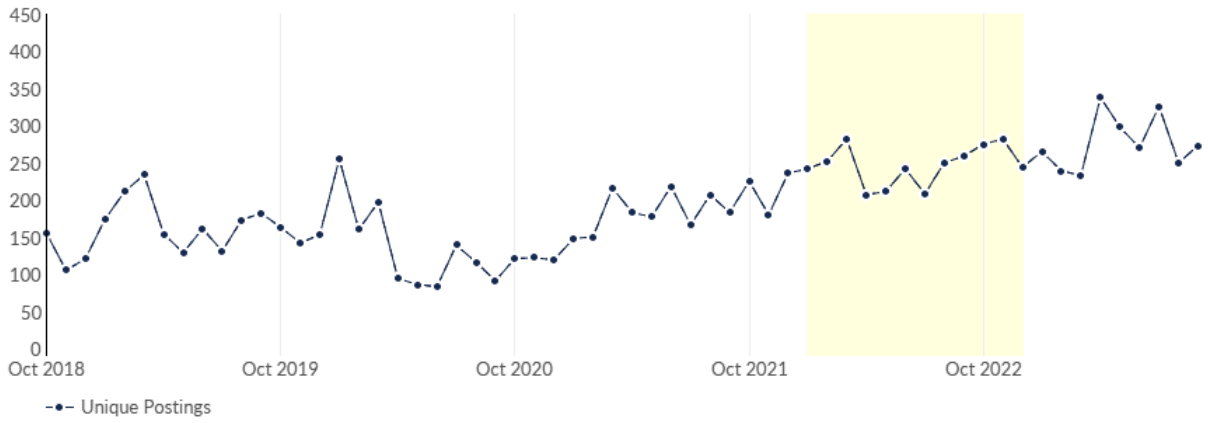


Table 3.4 shows the monthly number of unique NP job postings from January 2022 to present. The number of monthly unique NP postings was stable in 2022. The posting trend goes beyond 2022 into 2023 with some increased posting numbers noted. Posting intensity is the ratio of total job postings to unique (de-duplicated) job postings.

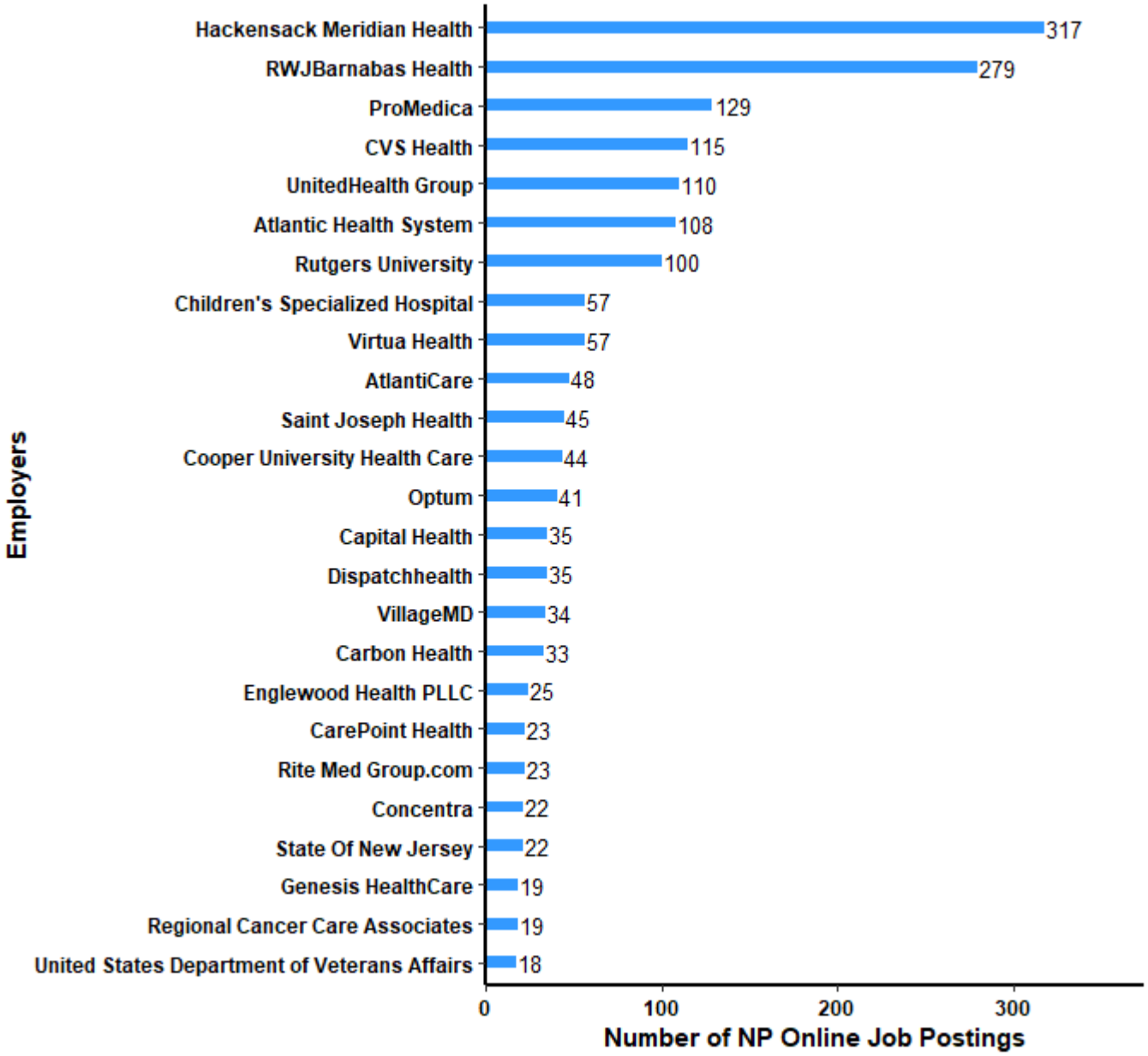
Table 3.4: Monthly Unique NP Job Posting Trend

Month	Unique Job Postings	Posting Intensity
Jan 2022	242	2:1
Feb 2022	252	2:1
Mar 2022	282	2:1
Apr 2022	207	3;1
May 2022	211	2:1
Jun 2022	242	3:1
Jul 2022	208	3:1
Aug 2022	250	2:1
Sep 2022	259	2:1
Oct 2022	275	2:1
Nov 2022	282	3:1
Dec 2022	244	2:1
Jan 2023	265	3:1
Feb 2023	239	2:1
Mar 2023	233	4:1
Apr 2023	338	3;1
May 2023	298	3:1
Jun 2023	270	4:1
Jul 2023	326	3:1
Aug 2023	250	3:1
Sep 2023	273	2:1

Employer

Figure 3.10 shows the top 25 employers with the greatest number of unique job postings (n=1,758) for NPs in 2022. Hospital employers were combined under their healthcare system where applicable. Greater number of unique postings may reflect a high rate of turnover or a high demand for employees.

Figure 3.10: Top 25 Employers of NPs

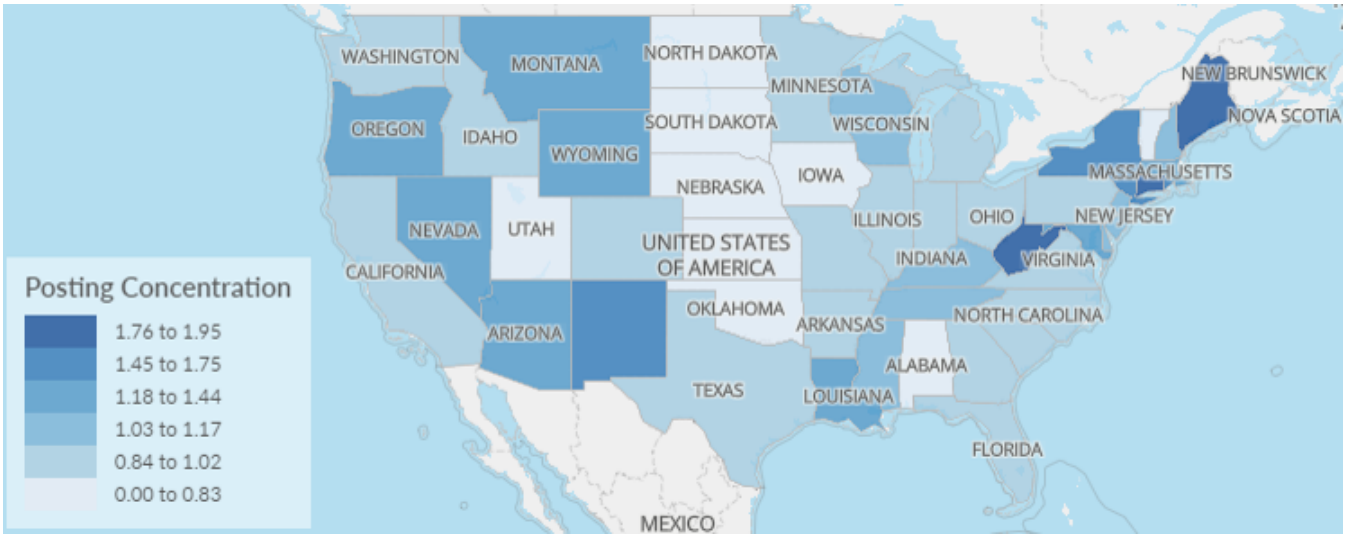


National Demand Comparison

January 1, 2022 - December 31, 2022

Figure 3.11 shows the level of demand for NPs across the United States from January 1, 2022 through December 31, 2022. Posting concentrations shows the concentration of job postings in a region relative to the national average. This can be used to determine if the job posting concentration is high or low in a region compared to the nation. A concentration score greater than one indicates that posting in the region has a high concentration. Scores lower than one indicate posting concentration is lower than the national average.

Figure 3.11: National Demand Map for NPs



New Jersey has a posting concentration of 1.09 and ranked 20th in the nation. The states with the highest positing concentration were West Virginia (1.96), Connecticut (1.89), Maine (1.75), New Mexico (1.58) and New York (1.49). The states with the lowest posting concentration were Kansas (0.56), Vermont (0.59). South Dakota (0.61) Utah (0.62) and Iowa (0.63).

Job Postings by NJ County

January 1, 2022 - December 31, 2022

Table 3.5 and **Figure 3.12** show county-level data for the raw number of unique job postings and demand concentration for NPs in 2022. There were a total of 2,955 unique NP job postings in 2022. The counties with the highest demand concentration were Atlantic (2.51), Monmouth (2.07), Essex (1.43), Camden (1.38), and Passaic (1.35). The counties with the greatest number of unique NP job postings were Essex (378), Bergen (318), and Middlesex (298).

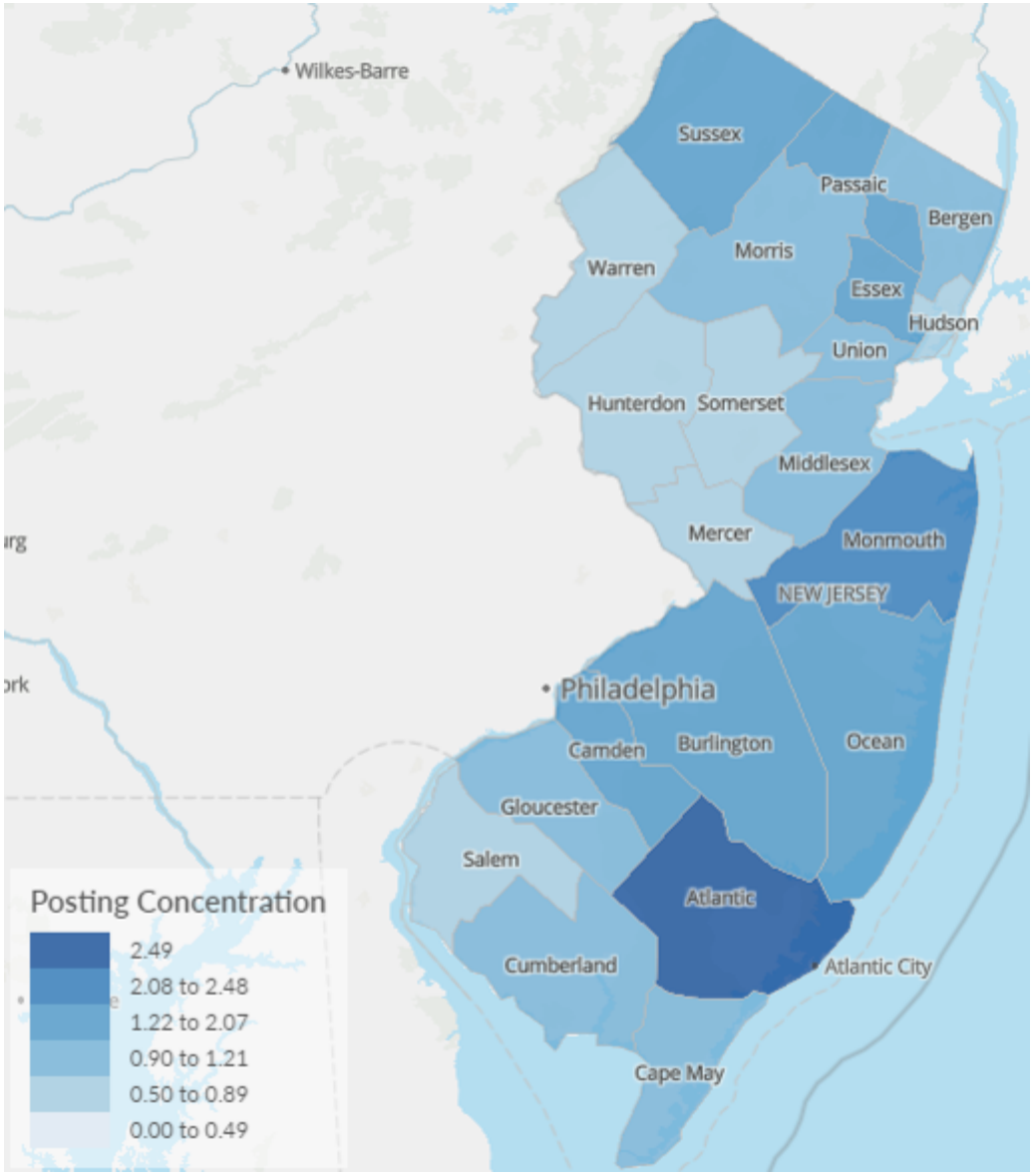
Table 3.5: Demand for NPs by NJ County

County	Unique Job Postings	Demand Concentration
Atlantic	120	2.51
Bergen	318	1.04
Burlington	156	1.22
Camden	213	1.38
Cape May	11	1.14
Cumberland	25	1.12
Essex	378	1.43
Gloucester	61	0.97
Hudson	193	0.69
Hunterdon	20	0.63
Mercer	103	0.55
Middlesex	298	0.98
Monmouth	269	2.07
Morris	189	0.90
Ocean	87	1.31
Passaic	160	1.35
Salem	8	0.80
Somerset	92	0.75
Sussex	50	1.25
Union	188	1.06
Warren	11	0.63

*5 unclassified postings

Figure 3.12 shows the level of demand for NPs across New Jersey from January 1, 2022 through December 31, 2022.

Figure 3.12: Demand Map for NPs by NJ County



Licensed Practical Nurse (LPN) Demand Profile

Job Postings

According to **Figure 3.13**, there were 9,081 total job postings and 2,816 unique job postings for Licensed Practical Nurse (LPN). The median posting duration was 25 days. Posting intensity is the ratio of total job postings to unique (de-duplicated) job postings. The job posting intensity of 3:1 means that there were 3 job postings for every 1 unique LPN position.

Figure 3.13: LPN Posting Overview

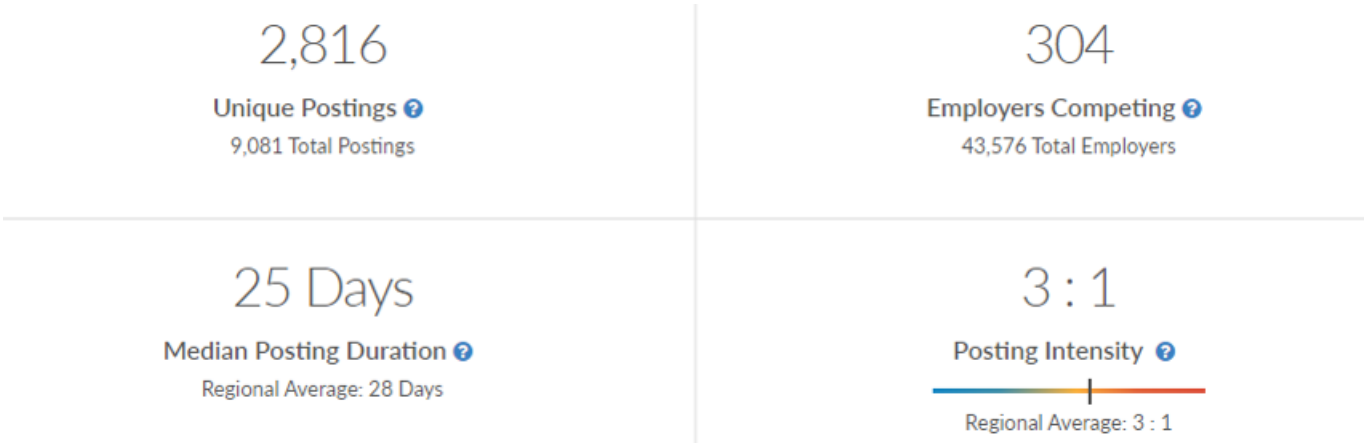


Figure 3.14 shows the time series of unique LPN job postings for 5 years from October 2018 through October 2023. The section in yellow highlights the time frame from January 2022 throuth December 2022.

Figure 3.14: LPN Job Posting Time Series 2018-2023

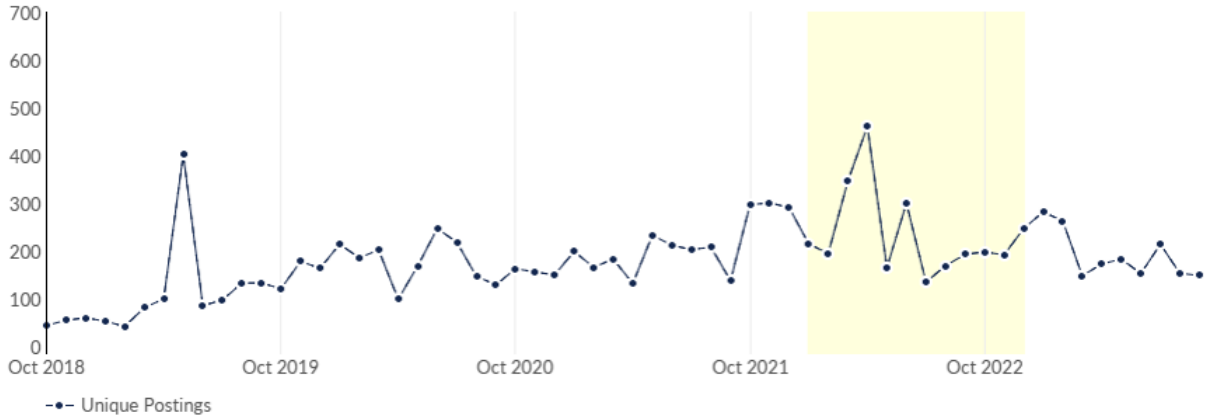


Table 3.6 shows the monthly number of unique LPN job postings from January 2022 to present. The number of monthly unique LPN postings was highest in March and April of 2022. The unique postings in these months reflect the top employer postings which may account for the high unique posting number. Posting intensity is the ratio of total job postings to unique (de-duplicated) job postings.

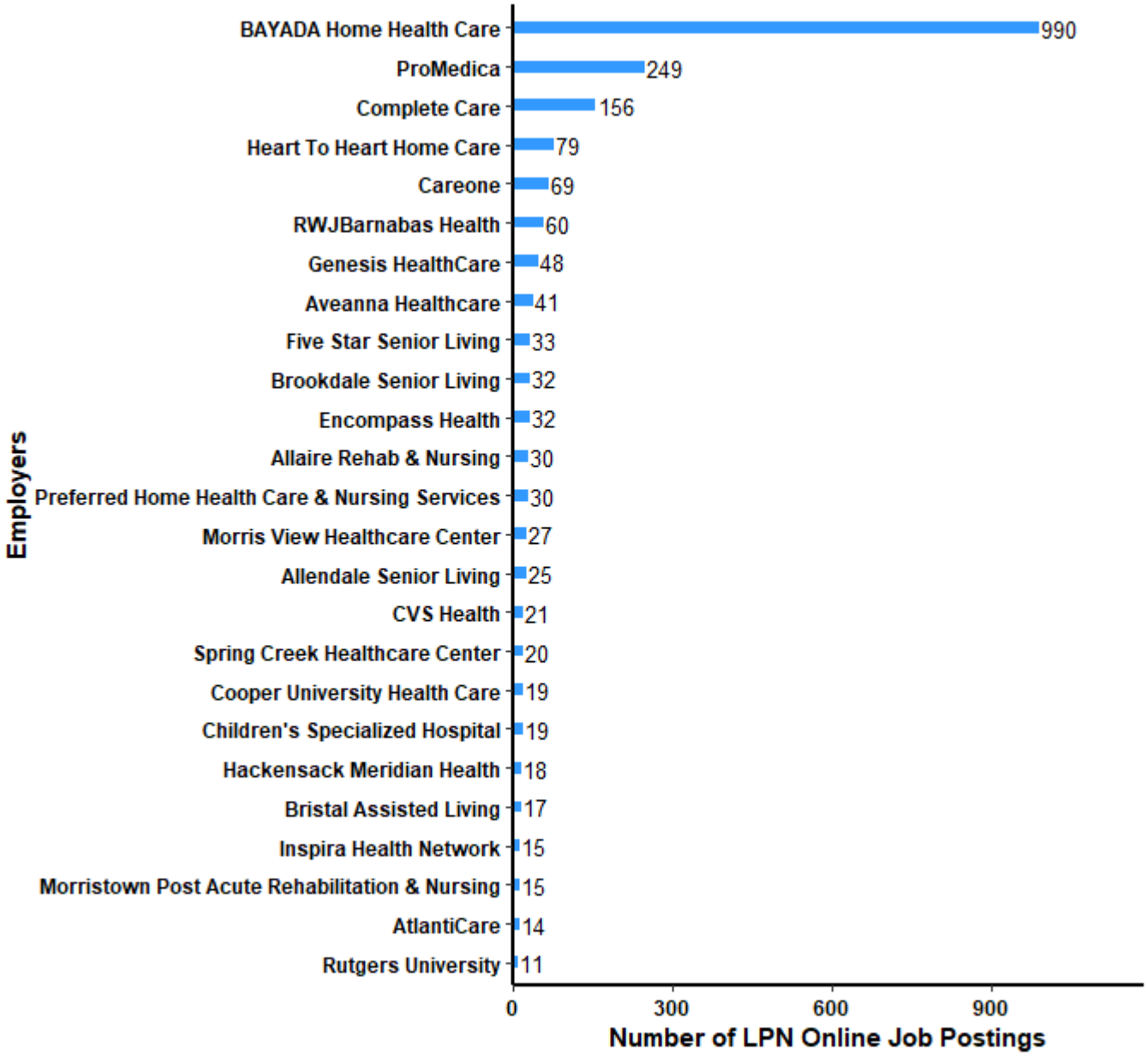
Table 3.6: Monthly Unique LPN Job Posting Trend

Month	**Unique Job Postings**	**Posting Intensity**
Jan 2022	215	3:1
Feb 2022	195	4:1
Mar 2022	346	2:1
Apr 2022	461	3;1
May 2022	165	4:1
Jun 2022	300	2:1
Jul 2022	135	3:1
Aug 2022	169	3:1
Sep 2022	193	4:1
Oct 2022	198	4:1
Nov 2022	192	4:1
Dec 2022	247	4:1
Jan 2023	282	3:1
Feb 2023	263	2:1
Mar 2023	148	5:1
Apr 2023	173	4;1
May 2023	183	3:1
Jun 2023	153	3:1
Jul 2023	214	3:1
Aug 2023	153	3:1
Sep 2023	149	2:1

Employer

Figure 3.15 shows the top 25 employers with the greatest number of unique job postings (n=2,070) for LPNs in 2022. Hospital employers were combined under their healthcare system where applicable. Greater number of unique postings may reflect a high rate of turnover or a high demand for employees.

Figure 3.15: Top 25 Employers of LPNs

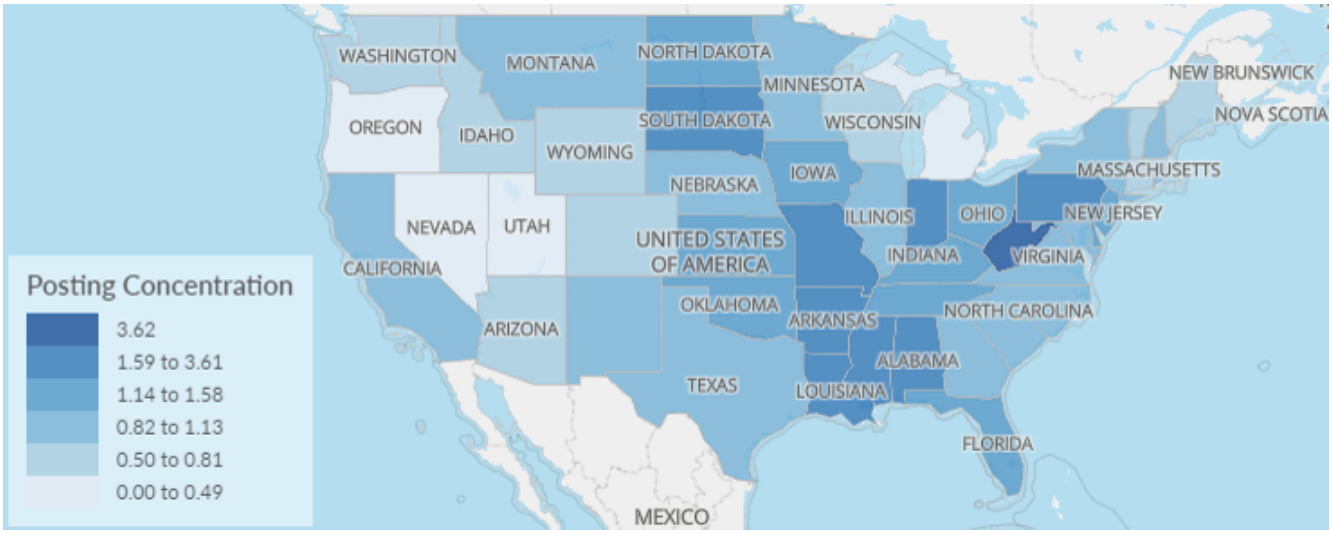


National Demand Comparison

January 1, 2022 - December 31, 2022

Figure 3.16 shows the level of demand for LPNs across the United States from January 1, 2022 through December 31, 2022. Posting concentrations shows the concentration of job postings in a region relative to the national average. This can be used to determine if the job posting concentration is high or low in a region compared to the nation. A concentration score greater than one indicates that posting in the region has a high concentration. Scores lower than one indicate posting concentration is lower than the national average.

Figure 3.16: National Demand Map for LPNs



New Jersey has a posting concentration of 1.14 and ranked 19th in the nation. The states that have the highest posting concentration were West Virginia (3.34), Mississippi (2.11), Pennsylvania (1.83), Alabama (1.73), and South Dakota (1.71). The states with the lowest posting concentration were the District of Columbia (0.16), Alaska (0.23), Utah (0.24), Michigan (0.28), and Hawaii (0.34).

Job Postings by NJ County

January 1, 2022 - December 31, 2022

Table 3.7 and **Figure 3.17** show county-level data for the raw number of unique job postings and demand concentration for LPNs in 2022. There were a total of 2,816 unique LPN job postings in 2022. The counties with the highest demand concentration were Cape May (3.76), Ocean (3.17), Salem (3.09), Cumberland (2.90), and Gloucester (2.01). The counties with the lowest demand concentration were Somerset (0.46), Hudson (0.47), Middlesex (0.73), Morris (0.80), and Mercer (0.84). The counties with the greatest number of unique LPN job postings were Camden (272), Bergen (256), and Essex (249).

Table 3.7: Demand for LPNs by NJ County

County	Unique Job Postings	Demand Concentration
Atlantic	68	1.56
Bergen	256	0.92
Burlington	170	1.47
Camden	272	1.94
Cape May	33	3.76
Cumberland	59	2.9
Essex	249	1.03
Gloucester	115	2.01
Hudson	118	0.47
Hunterdon	49	1.83
Mercer	143	0.84
Middlesex	203	0.73
Monmouth	224	1.90
Morris	152	0.80
Ocean	191	3.17
Passaic	196	1.82
Salem	28	3.09
Somerset	52	0.46
Sussex	52	1.42
Union	151	0.93
Warren	32	2.01

*3 unclassified postings

Figure 3.17 shows the level of demand for LPNs across New Jersey from January 1, 2022 through December 31, 2022.

Figure 3.17: Demand Map for LPNs by NJ County