

Measuring Demand and Supply for Nurse Practitioners and Physician Assistants

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The Center for Health Workforce Studies at the University at Albany, SUNY

- Established in 1996
- A research center at the University at Albany, School of Public Health
- Committed to collecting and analyzing data to understand workforce dynamics and trends
- Goal to inform public policies, the health and education sectors and the public
- Broad array of funders in support health workforce research

Introduction

- Demand for nurse practitioners (NPs) and physician assistants (PAs) is growing in New York State (NYS)
- Between 2010 and 2014, both the numbers of NP jobs and PA jobs increased by about 30%.
- This study was to measure how the demand for NPs and PAs compares to the current supply of NPs and PAs actively working in NYS, and to better understand their practice characteristics and distribution.

Methods

- The findings are based on comparative analyses of the demand and supply data for NPs and PAs in NYS between 2014 and 2016.
- **Demand data** for NYS **NPs** and **PAs** were obtained from Burning Glass Technologies (BGT), a job market analytics firm in 2014.
 - BGT encompassed job postings in texts from job posting websites, company websites, etc. and collected over 6,000 postings for NYS NPs and PAs together.
 - About 50% (2,000 for NPs and 1,317 for PAs) of job postings were randomly selected and coded for the following variables: job type, specialty of NP/PA, specialty of practice, city, zip code, setting, certification, and experience requirements etc.
 - Inter-coder reliability was established through pre-coding 50 sample records by each researcher to ensure consistency of coding.
 - Data acquisition was funded by a grant award from the Physician Assistant Education Association (PAEA), Washington, D.C.

Methods (cont'd)

- **Supply data for NPs** were obtained from the mandatory NYS NP certification re-registration survey in 2016.
 - The NP re-registration survey collected 5,746 responses from NYS NPs over a 13 month time frame.
 - The sample represents about one third of the total number of NPs (approximate 16,000) in NYS.
 - Data drawn from the re-registration survey looked at NP specialty, working status, certification, practice status, location, demographics and education.
- **Supply data for PAs** were obtained from the National Commission on Certification of Physician Assistants (NCCPA) on NYS in 2015.
 - NCCPA identified 10,831 PAs actively working in NYS.
 - Data from NCCPA looked at demographics, degree, working status, practice setting, specialty, etc.

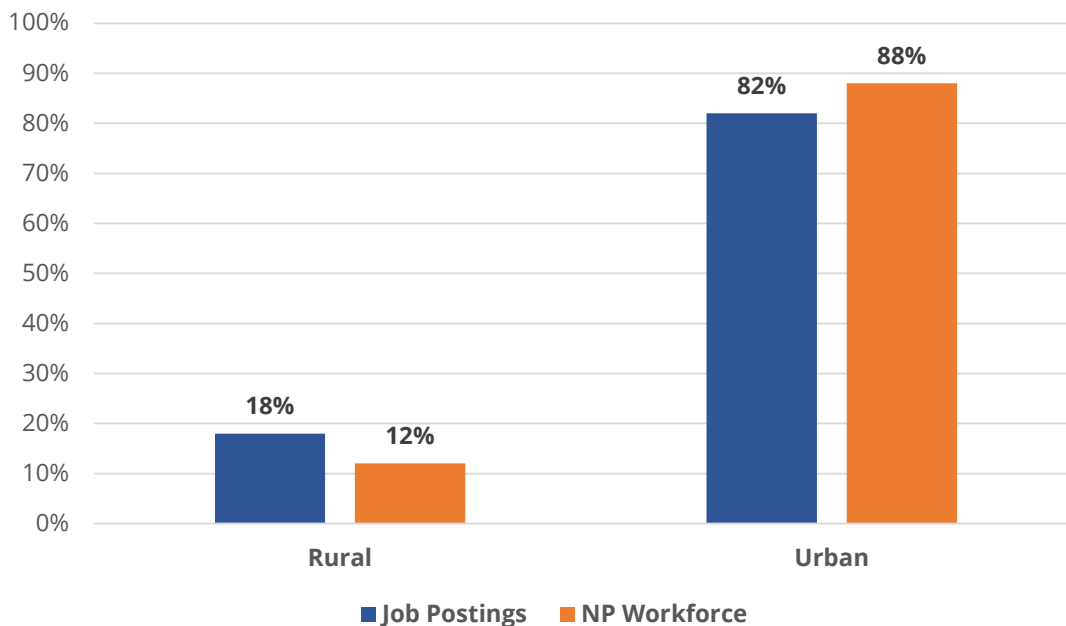
Methods (cont'd)

- Geographic information on both demand and supply data was cleaned at the zip code level.
- Each zip code was linked into individual New York county, and then grouped into NYS Department of Labor (DOL) defined regions.
- Both demand and supply data were categorized as urban or rural based on corresponding DOL regions.
- Findings on NPs and PAs are presented by Rural/Urban.

Findings on NPs

- Eighteen percent of NP postings were in rural areas and 82% were in urban areas, compared to 12% of active NPs in rural areas and 88% in urban areas.

Figure 1. Percentages of NYS Nurse Practitioners, by Rural/Urban, by Demand/Supply, 2014-2016

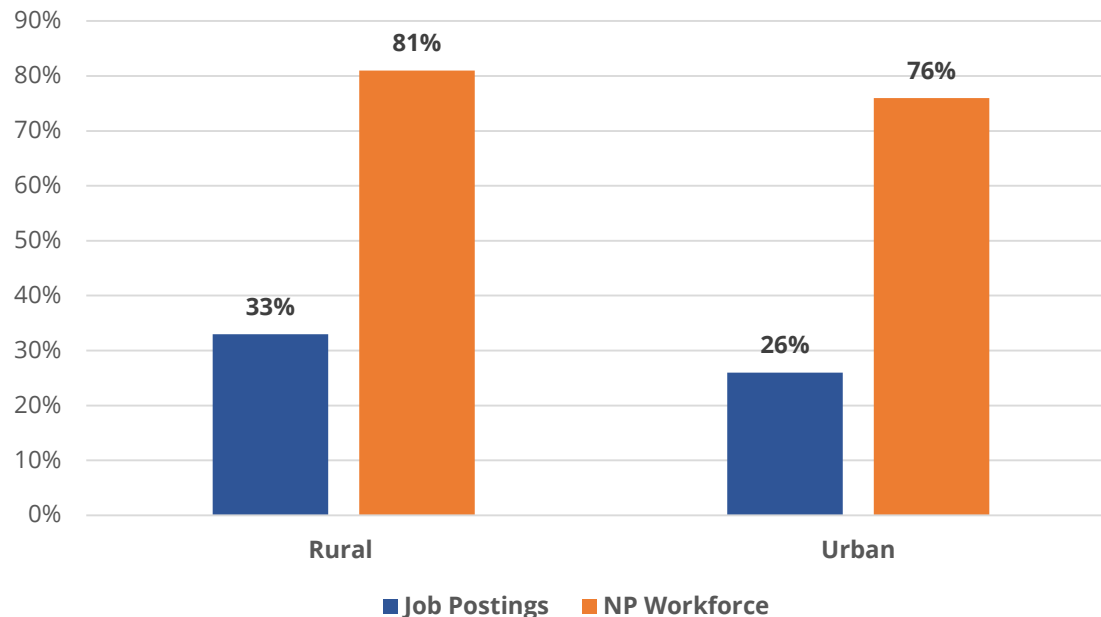


Source: National job postings data from Burning Glass Technologies (2015), coded by the authors.

Findings on NPs (con't)

- Eighty-one percent of working NPs in rural areas are practicing in ambulatory care settings, compared to 76% in urban areas.
- Of those job listings that specified practice setting, 33% of the job listings for NPs in rural areas and 26% in urban areas were for ambulatory care settings.

Figure 2. Percentages of NYS Nurse Practitioners in Ambulatory Care Settings, by Rural/Urban, by Demand/Supply, 2014-2016

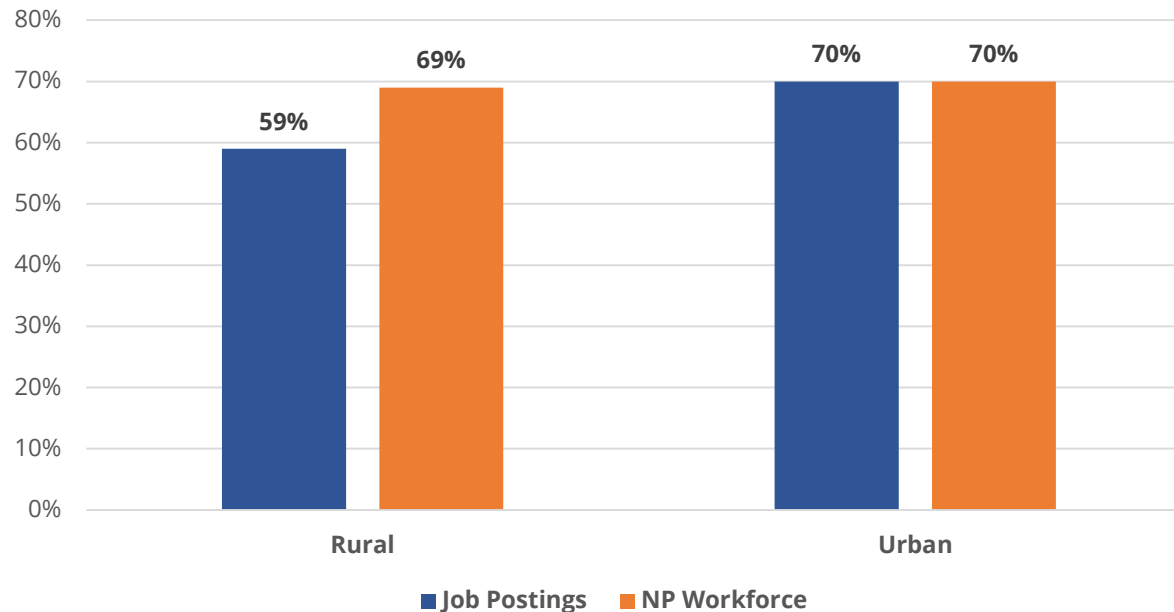


Source: National job postings data from Burning Glass Technologies (2015), coded by the authors.

Findings on NPs (con't)

- A greater percentage of NPs (69%) are currently working full-time, compared to the percentage of job postings (59%) for full-time positions for rural areas, while percentages for urban areas are 70% for both job postings and current NP workforce.

Figure 3. Percentages of NYS Nurse Practitioners of full-time employment status, by Rural/Urban, by Demand/Supply, 2014-2016

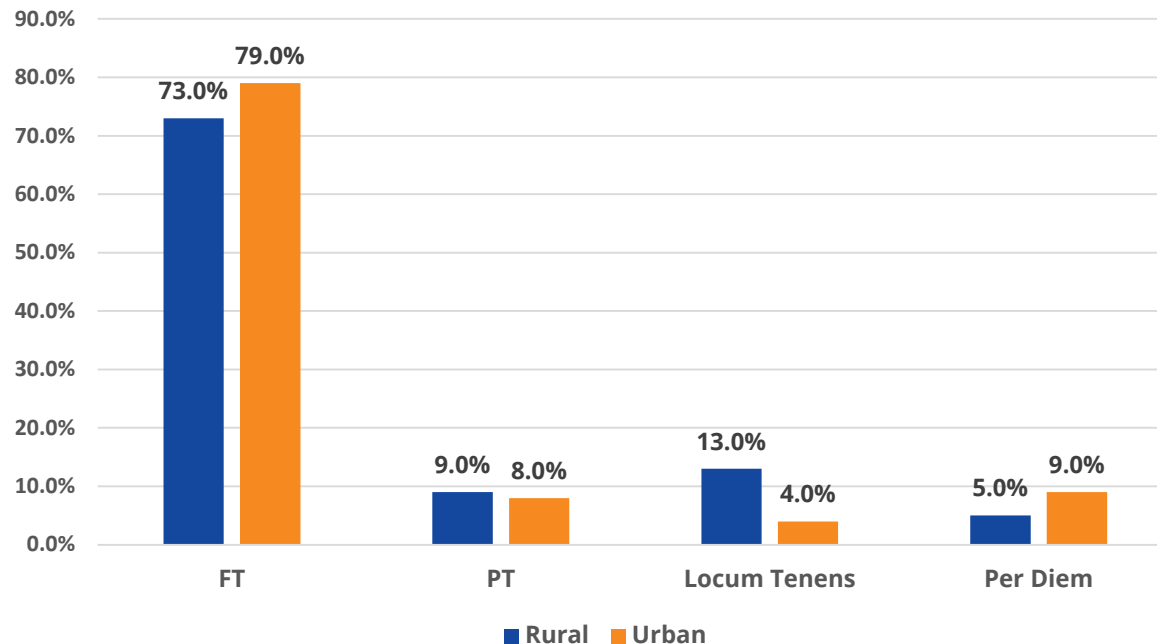


Source: National job postings data from Burning Glass Technologies (2015), coded by the authors.

Findings on PAs

- BGT data indicated that PA job postings in urban areas offered more full-time PA positions (79%) than rural areas (73%), while rural areas hire three times more locum tenens than urban areas.

Figure 4. Percentage of Working Status for NYS Physician Assistants Job Postings, by Rural/Urban, 2014, N=1317

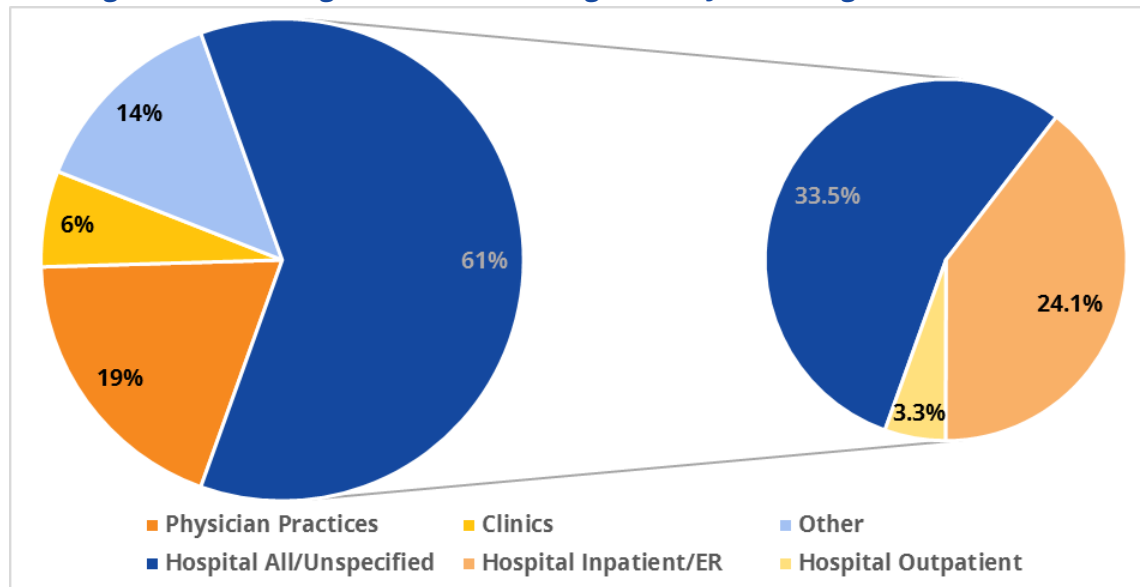


Source: National job postings data from Burning Glass Technologies (2015), coded by the authors.

Findings on PAs (con't)

- Of those job postings that specified practice setting, 19% of the PA demand was in physician practices, lower than the 33% of PA workforce in this setting.
- This may be attributed to a large number of postings in unspecified hospital settings that may include physician offices or other ambulatory care sites.

Figure 5. Percentage of Practice Settings for PA Job Postings, 2014, N=1317

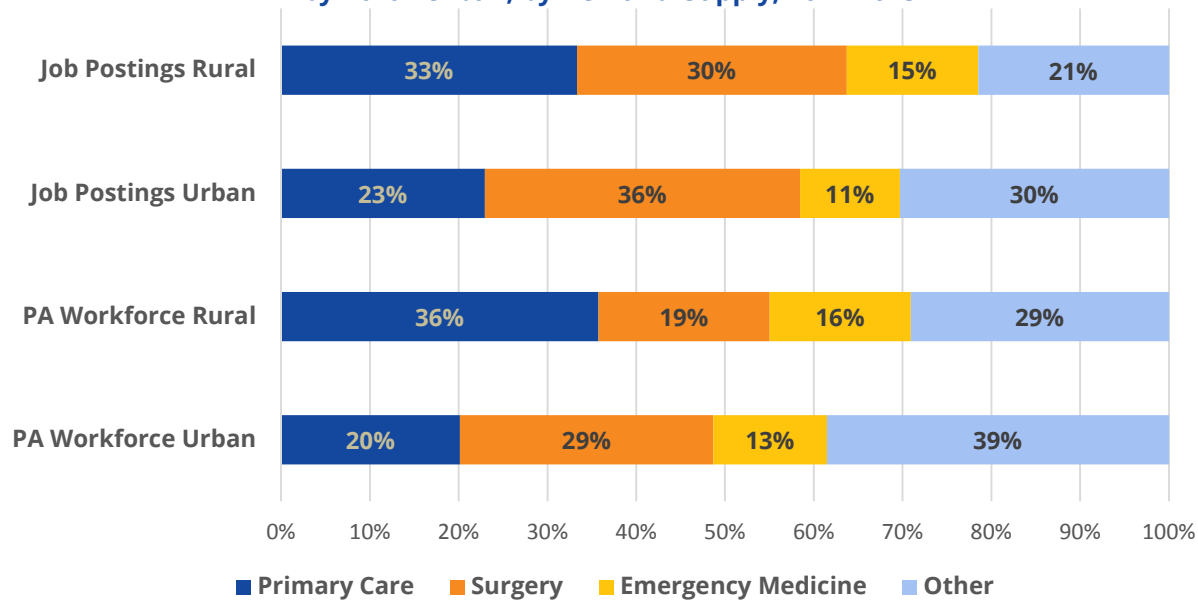


Source: National job postings data from Burning Glass Technologies (2015), coded by the authors.

Findings on PAs (con't)

- There was a higher demand for and supply of PAs working in primary care specialties (33% and 36%, respectively) in rural areas than in urban areas (23% and 20%, respectively).
- The need for general surgery PAs and for surgical subspecialty PAs was also higher than their corresponding presence in the current workforce.

Figure 6. Percentages of Practice Specialty for NYS PAs, by Rural/Urban, by Demand/Supply, 2014-2015



Source: National job postings data from Burning Glass Technologies (2015), coded by the authors.

Limitations

- For demand data, about 25% of job postings did not specify practice setting for which NPs and PAs were being recruited.
- About one-third of both NP and PA job postings for hospital setting did not specify if the position was for hospital inpatient/ER or hospital outpatient settings.
- For supply data, number of NPs actively working is estimated from NYS re-registration survey.
- Time periods for both demand and supply data were not the same.

Discussion

- Demand for mid-level practitioners in NYS appears to be growing, especially in rural areas, where there are less physicians.
- Job posting data can be utilized by health service researchers and policy makers as a valuable starting point for long term assessments of the trends in demand for NPs and PAs in NYS.
- Providers and policy makers may want to consider strategies to support the recruitment and retention of NPs and PAs in NYS.

Conclusion

- The distributions of NP and PA job postings are overall comparable to their current workforce, with some variations based on working status, practice settings, and practice specialties.
- Compared to urban areas, rural areas have more difficulty hiring primary care practitioners, and thus are more flexible in terms of their hiring practices regarding full-time status, specialty, degree, certification, and experience.
- Job postings showed a higher demand for NPs and PAs in rural areas, compared to active NPs and PAs currently practicing in rural areas.

Questions?

