Center *for* Health Workforce Studies

Trends in New York Registered Nurse Graduations, 2014-2023

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December 2024

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This report summarizes New York State's registered nurse (RN) education pipeline and identifies barriers and facilitators to the production of RNs. Findings are based on responses from an annual survey of deans and directors of New York's RN education programs.

🎓 GRADUATIONS

RN graduations declined slightly between 2021 and 2023.

📋 APPLICATIONS & ACCEPTANCES

RN education program deans reported modest increases in applications and acceptances between 2021 and 2023.

📖 FACULTY VACANCIES

Faculty vacancies were a key reason that both ADN and BSN programs turned away qualified applicants.

- One in 9 full-time nursing faculty positions were vacant in 2023
- Strategies for addressing vacant faculty positions included:
  - Adding more adjunct faculty
  - Hiring baccalaureate-prepared RNs who were completing master's degrees to fill full-time faculty positions

🩺 JOB MARKET

Deans indicated many jobs for newly trained RNs.

PREFACE

For over 20 years, the Center for Health Workforce Studies (CHWS) has conducted annual surveys of the deans and directors of New York's registered nurse (RN) education programs. The survey asks about nursing program applications, admissions, faculty issues, barriers to expanding nursing program capacity, and respondents' assessment of the local job market for newly trained RNs. In addition to presenting results from the 2023 survey, this report documents trends in RN production at regional and state levels using graduation data provided by the New York State Education Department, with missing data supplemented by other sources.

This report was prepared by CHWS staff, Robert Martiniano and Sage Shirey. This report was funded by the Evidence Based Clinical Research Collaboration Program of the State University of New York.

Established in 1996, CHWS is an academic research center, based at the College of Integrated Health Sciences, University at Albany, State University of New York. The mission of CHWS is to provide timely, accurate data and conduct policy-relevant research about the health workforce. The research conducted by CHWS supports and promotes health workforce planning and policymaking at local, regional, state, and national levels. Today, CHWS operates 2 of 9 federally funded health workforce research centers in the US and is a national leader in the field of health workforce studies.

The views expressed in this report are those of CHWS and do not necessarily represent positions or policies of the College of Integrated Health Sciences at the University at Albany.

December 2024

ACKNOWLEDGEMENTS

Suggested Citation

Martiniano R and Shirey P. *Trends in New York Registered Nurse Graduations, 2014-2023*. Center for Health Workforce Studies, University at Albany, College of Integrated Health Sciences; 2024.

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INTRODUCTION

Registered nursing is the largest licensed health care occupation in the United States and in New York State (NYS), and registered nurses (RNs) provide care across a variety of health care settings.[1,2] The current challenges providers face recruiting and retaining RNs is a significant issue in the health care industry, especially in hospitals, and may continue in the future.[2-5] The RN workforce is also not well distributed nor as diverse as the population it serves. Most active RNs work in urban areas of the state; much fewer are found in rural areas despite the need for them. Thirteen percent of active RNs in NYS work in rural areas compared to 16.4% of NYS' population.[*] Additionally, while there have been improvements in nursing workforce diversity, Hispanics/Latinx are underrepresented in the nursing workforce compared to the state's population.[6,7] Better distribution and improved diversity in the nursing workforce can improve access to culturally competent care and result in better patient outcomes.[8]

RN production in NYS has remained relatively stable over the last 4 years, with a small decline in the number of new RN graduates in the past 2 years. However, the state's RN education programs faced many challenges in their effort to maintain production. The COVID-19 pandemic had major impacts on education, and nursing education was no exception. Classes moved to remote learning and required clinical training was either delayed or cancelled. Many nursing education programs used simulation to help their students obtain the required clinical skills and that approach helped to ensure more on-time graduations.[9] Nursing deans and directors (deans) have also reported other challenges in their efforts to maintain capacity, including difficulty filling vacant faculty positions, lack of clinical preceptors, and continued difficulty securing clinical placement sites.

The purpose of this study is to assess the state's RN education pipeline and to identify barriers and facilitators to the production of RNs. This annual survey of deans of New York's RN education programs provides critical information that can help stakeholders better understand barriers and facilitators in the production of new RNs.

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[*] Using Ebert's Typology, active RNs from the NYS re-registration survey were distributed to rural and urban counties and compared to the county populations taken from the US Census Bureau on 12/3/2024 at https://www.census.gov/data/tables/time-series/demo/popest/2020s-counties-total.html.

METHODS

The Center for Health Workforce Studies (CHWS)—with assistance from RN program deans and Deborah Elliott from the Center for Nursing—developed and conducted the annual survey of RN education programs across NYS in the fall of 2023 and spring of 2024. The survey asked questions on:

- Changes in applications and acceptances between academic years 2022-2023 (2023) and 2023-2024 (2024)

- Whether qualified students were turned away and the reasons why

- Strategies for meeting clinical training requirements, including use of simulation

- Current faculty vacancies and reasons for those vacancies

- Strategies for recruiting and retaining faculty

- Perceptions of the regional job market for new graduates

RN graduation data was provided by the New York State Education Department (NYSED), with missing data supplemented by the National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), and the City University of New York (CUNY) 2023 Nursing Degree Programs Report. Additionally, Excelsior University provided information on the individuals living in New York State who graduated from their program. Findings from the surveys and on graduations are reported by degree and by sponsor. Graduations are also reported statewide and by NYS Department of Labor (DOL) region (region). There was a 62% total response rate to the survey including 53% from Associate Degree in Nursing (ADN) programs and 70% from Bachelor of Science in Nursing (BSN) programs. The response rate by sponsor included 56% from CUNY programs, 60% from SUNY programs, and 64% from privately sponsored programs.

The DOL regions used in this report are broken out by county as described below:

- Capital District: The counties of Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington

- Central New York: The counties of Cayuga, Cortland, Madison, Onondaga, and Oswego

- Finger Lakes: The counties of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates

- Hudson Valley: The counties of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester

- Long Island: The counties of Nassau and Suffolk

- Mohawk Valley: The counties of Fulton, Herkimer, Montgomery, Oneida, Otsego, and Schoharie

- New York City: The counties of Bronx, Kings (Brooklyn), New York (Manhattan), Queens, and Richmond (Staten Island)

- North Country: The counties of Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, and St. Lawrence

- Southern Tier: The counties of Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga, and Tompkins

- Western New York: The counties of Allegany, Cattaraugus, Chautauqua, Erie, and Niagara

FINDINGS

Registered Nurse Graduations

RN graduations declined slightly between 2021 and 2023.

RN Graduations by Region

Between 2021 and 2023, new RN graduations[†] (RN graduations) in New York State decreased by almost 4%, with the largest decreases coming from the Long Island, Central New York, and New York City regions **(Table 1)**. Both the Finger Lakes and Hudson Valley regions showed modest increases during the same time period. Rural regions including the North Country, Mohawk Valley, and the Southern Tier have proportionately fewer graduations than urban regions.

TABLE 1. RN Graduations in New York State, Total and by Region, 2019-2023

| Region	School Year					% of NYS	2021-2023	
	2019	2020	2021	2022	2023	RN Graduations	Number	Percent
Capital District	517	515	505	520	508	4.9%	3	0.6%
Central NY	416	505	530	449	402	3.9%	-128	-28.5%
Finger Lakes	879	901	783	884	878	8.5%	95	10.7%
Hudson Valley	1,011	919	1,144	1,305	1,222	11.9%	78	6.0%
Long Island	1,372	1,514	1,512	1,585	1,346	13.1%	-166	-10.5%
Mohawk Valley	331	374	339	318	343	3.3%	4	1.3%
New York City	3,273	3,863	3,907	3,833	3,792	36.8%	-115	-3.0%
North Country	407	355	345	297	320	3.1%	-25	-8.4%
Southern Tier	384	414	420	346	376	3.6%	-44	-12.7%
Western NY	858	756	983	950	932	9.0%	-51	-5.4%
Online Only	124	138	235	145	189	1.8%	-46	-31.7%
Grand Total	**9,572**	**10,254**	**10,703**	**10,632**	**10,308**	**100.0%**	**-395**	**-3.7%**

Sources: New York State Education Department; National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS); the City University of New York 2023 Nursing Degree Programs Report; Excelsior University.

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† RN graduations that qualify the individuals for licensure, including RN diplomas, ADNs, BSNs, and master's degrees.

RN Graduations by Degree

ADN[‡] graduations declined by nearly 10% between 2021 and 2023, **(Figure 1)**. BSN[§] graduations experienced a slight decline between 2022 and 2023.

FIGURE 1. RN Graduations in New York State, Total and by Degree Type, 2014-2023
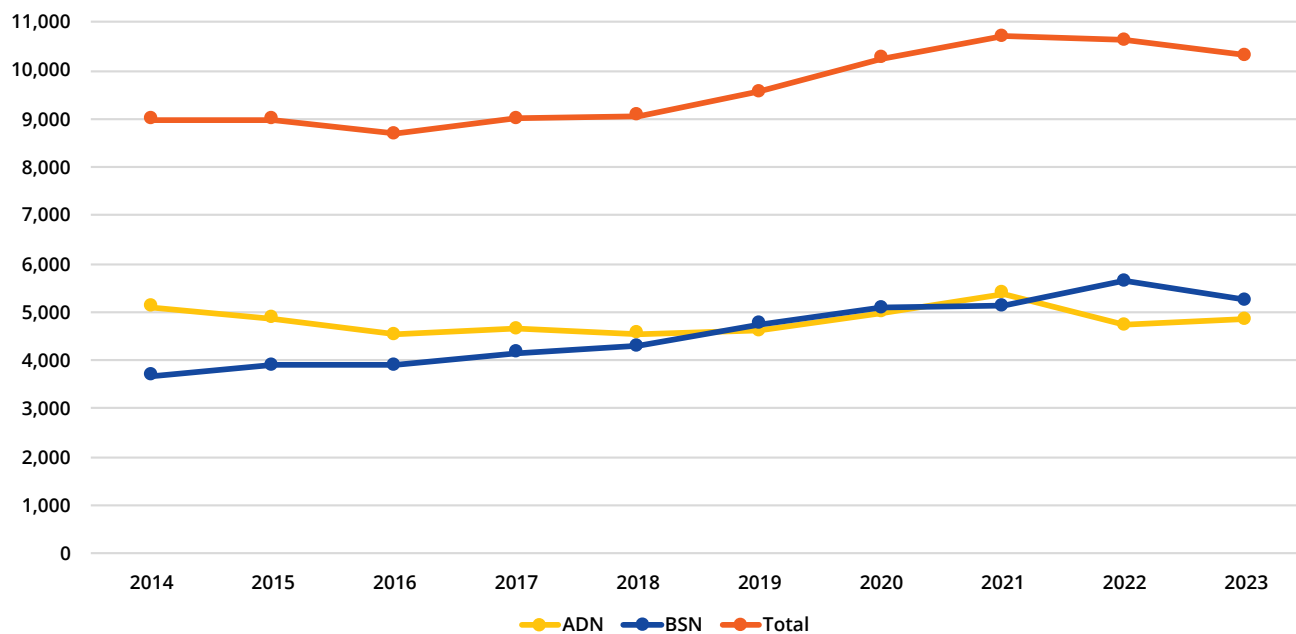
Sources: New York State Education Department; National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS); the City University of New York 2023 Nursing Degree Programs Report; Excelsior University.

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‡ Includes RN Diploma graduations.

§ Includes MSN graduations that led to initial licensure.

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RN Graduations by Sponsor

RN graduations from both CUNY and State University of New York (SUNY) nursing programs declined between 2021 and 2023 **(Figure 2)**. RN graduations from privately sponsored programs increased overall between 2021 and 2023.

FIGURE 2. RN Graduations in New York State, Total and by Sponsor, 2014-2023
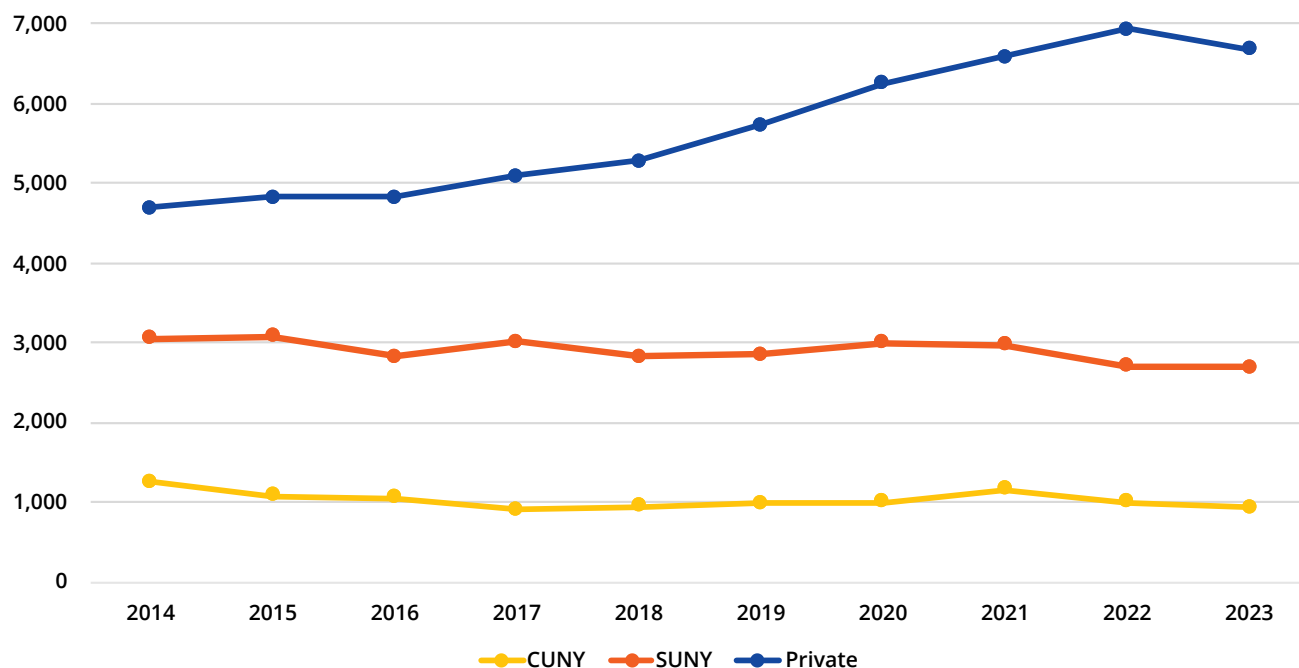
Sources: New York State Education Department; National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS); the City University of New York 2023 Nursing Degree Programs Report; Excelsior University.

Applications and Acceptances

RN education program deans reported modest increases in applications and acceptances between 2021 and 2023.

A higher percentage of deans reported increases in both applications and acceptances in 2023, compared to 2022 **(Figures 3 and 4)**. More than half of both ADN and BSN deans reported that acceptances were about the same between 2022 and 2023 **(Figure 4)**.

FIGURE 3. Changes in Number of Applications to New York State RN Education Programs, by Degree Type, 2017-2023
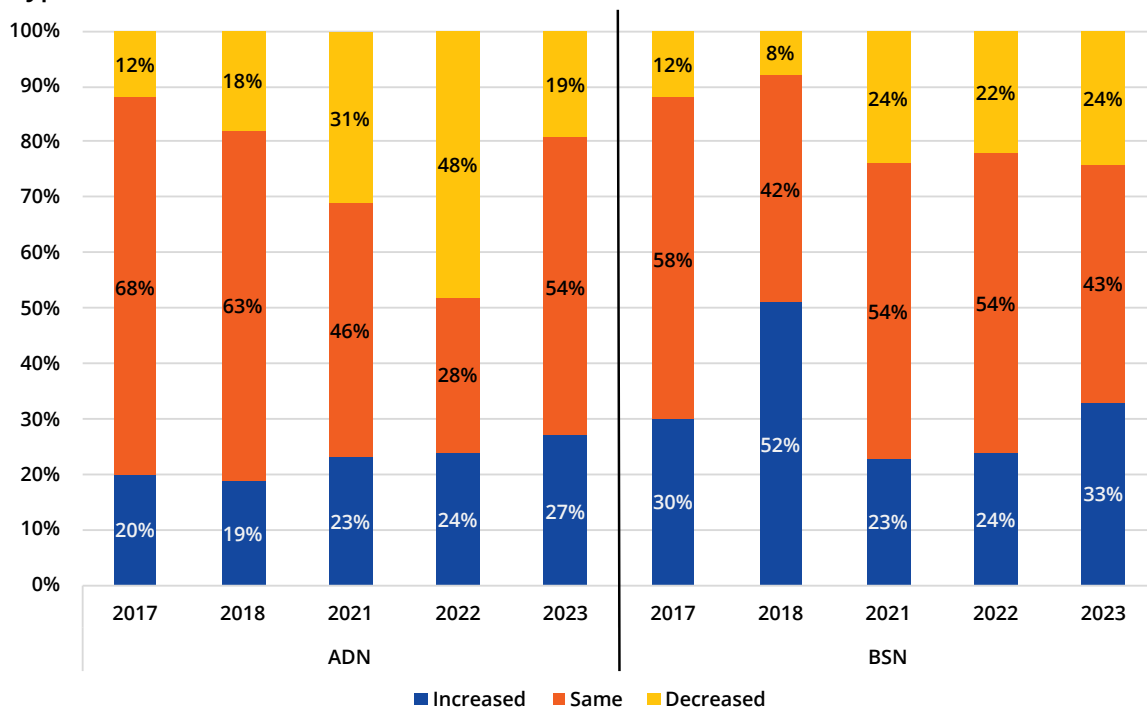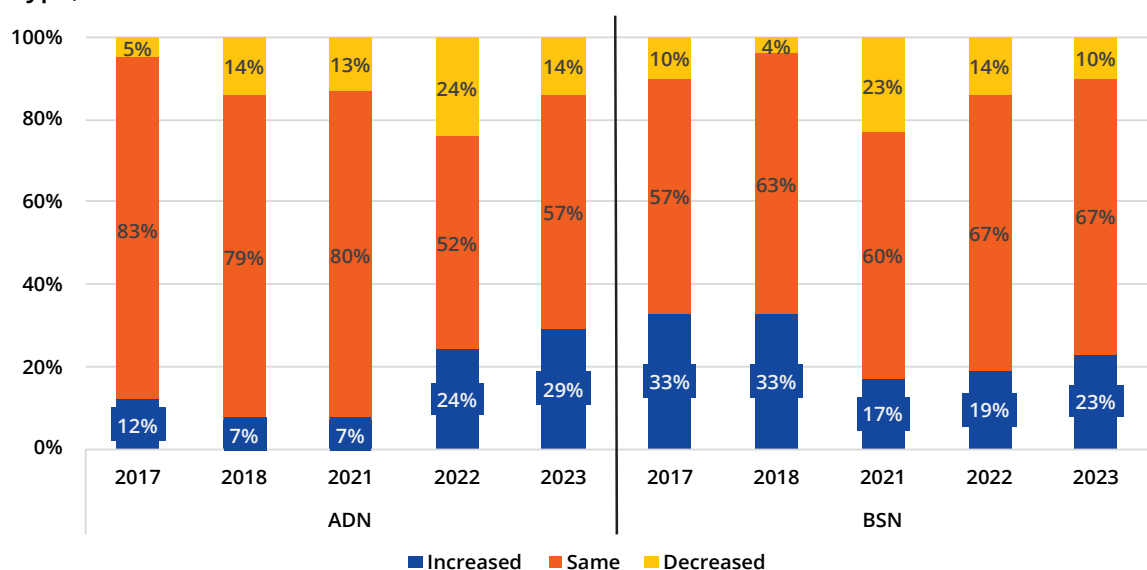

FIGURE 4. Changes in Number of Acceptances to New York State RN Education Programs, by Degree Type, 2017–2023

Turning Away Qualified Applicants

Forty-two percent of all respondents indicated that they turned away qualified applicants in 2023, including 48% of BSN deans and 35% of ADN deans. The majority of deans from CUNY and SUNY programs reported turning away qualified applicants, 63% and 55% respectively, compared to 28% of deans from privately sponsored RN education programs.

Turning Away Qualified Applicants by Degree Type

Faculty vacancies were a key reason that both ADN and BSN programs turned away qualified applicants.

Three-fourths of BSN deans and about 70% of ADN deans who reported turning away qualified applicants indicated that faculty vacancies were the primary reason for doing so **(Figure 5)**. Seventy-five percent of BSN deans who turned away qualified applicants indicated that it was due to a shortage of clinical training sites. In contrast, less than one-third of ADN deans indicated qualified applicants were turned away due to a shortage of clinical training sites. Almost 90% of SUNY deans that turned away qualified applicants indicated it was due to faculty vacancies.

FIGURE 5. Reasons for Turning Away Qualified Applicants, by Degree Type, 2023
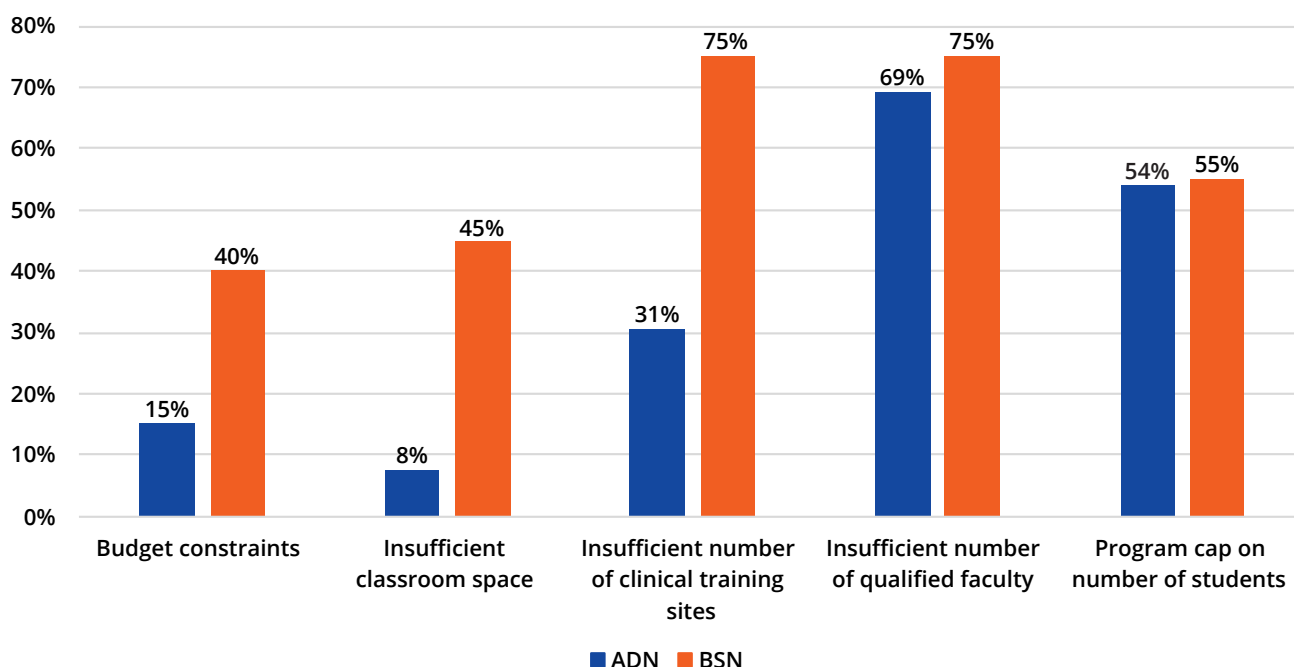
Clinical Training and Simulation

Sixty percent of deans reported using simulation to meet clinical training requirements, including 70% of deans from privately sponsored RN education programs. In contrast, only half of SUNY deans and 44% of CUNY deans indicated they used simulation to meet clinical training requirements.

Nursing Faculty

Faculty Vacancy Rate

One in 9 full-time nursing faculty positions were vacant in 2023.

Deans reported that 11% of full-time nursing faculty positions were vacant in 2023 **(Table 2)**, down from 15% in 2022.[10] They also indicated that less than 5% of part-time nursing faculty positions were vacant compared to 9% in 2022.[10] BSN programs reported a higher faculty vacancy rate than ADN programs, and CUNY and SUNY programs had higher vacancy rates for full-time faculty compared to privately sponsored programs.

TABLE 2. Nursing Faculty Vacancy Rates, by Degree Type and Sponsor, 2023

	% of Full-Time Vacancies	% of Part-Time Vacancies
ADN	9.4%	0.0%
BSN	11.4%	6.3%
CUNY	12.7%	0.0%
SUNY	12.7%	3.4%
Private	9.6%	6.1%
Total	**10.9%**	**4.6%**

Strategies Addressing Vacant Faculty Positions

RN education programs addressed faculty vacancies by adding more adjunct faculty.

Eighty-four percent of RN education program deans reported hiring more adjunct faculty to address full-time faculty vacancies **(Figure 6)**. About two-thirds of deans also indicated that they assigned adjunct faculty to courses normally taught by full-time and part-time faculty to address vacancies. Finally, about half of deans indicated they increased teaching loads to address faculty vacancies, including 80% of ADN programs.

FIGURE 6. Top Strategies for Addressing Faculty Shortages, 2023
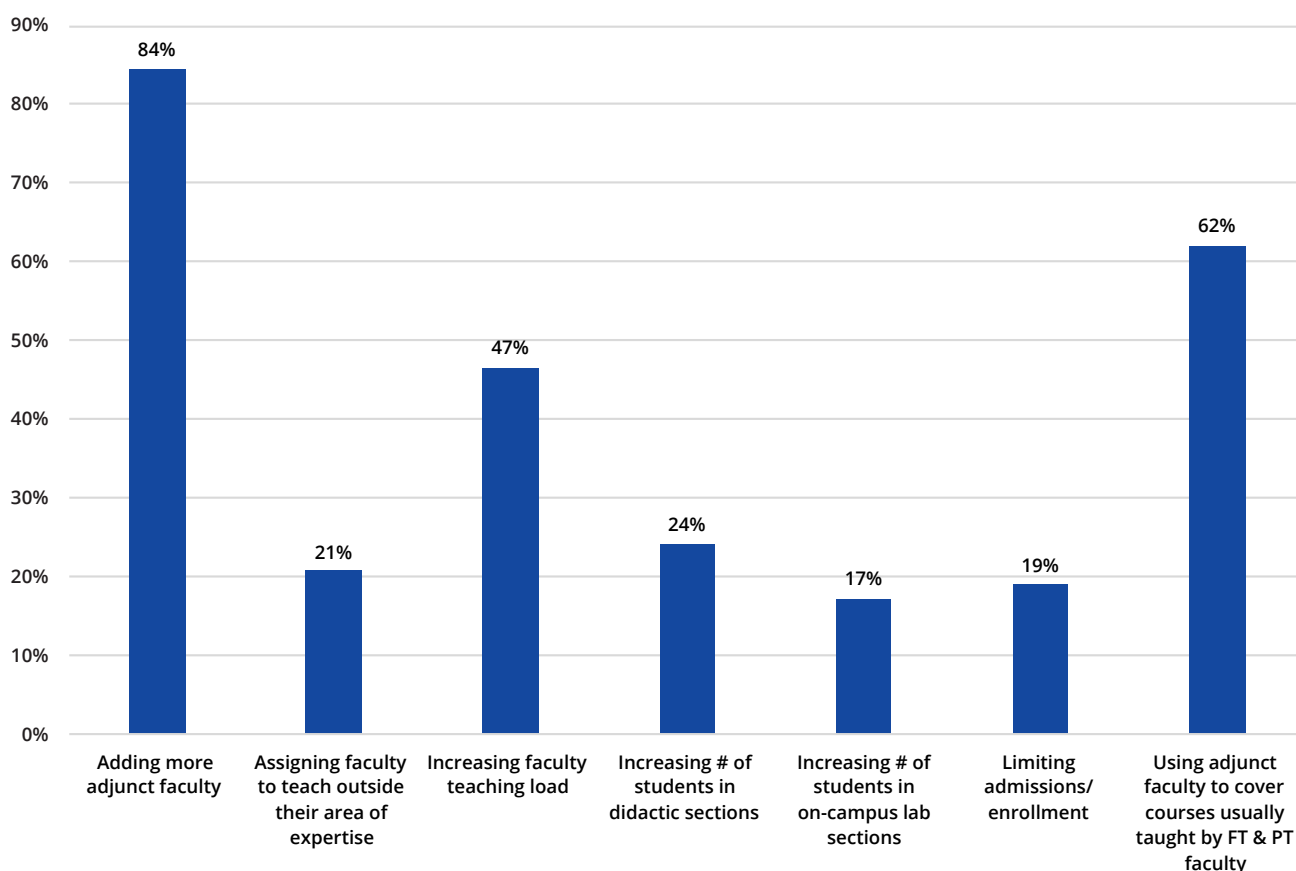
The vast majority of ADN programs reported hiring baccalaureate-prepared RNs who were completing master's degrees to fill full-time faculty positions.

Nearly 90% of ADN program deans indicated that they hired BSNs completing their master's degrees to fill full-time faculty positions **(Figure 7)**. Almost 60% of BSN program deans reported increasing salaries to attract full-time faculty. Deans from both ADN and BSN programs also used "working from home or remotely" as a strategy to recruit full-time faculty.

FIGURE 7. Strategies for Recruiting Full-Time Faculty, by Degree Type, 2023
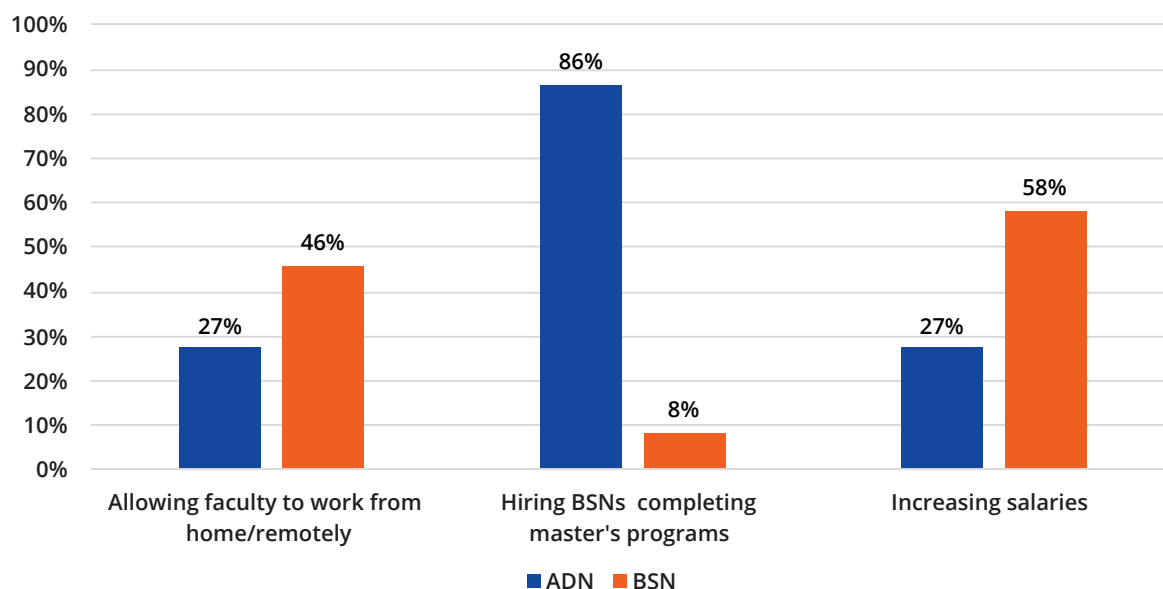
Job Market for New RN Graduates

Deans reported many jobs for newly trained RNs.

The vast majority of both ADN and BSN deans reported many jobs overall in health care for newly trained RNs, 94% and 90% respectively **(Table 3)**.

TABLE 3. Percentage of RN Education Programs Reporting Many Jobs, by Degree and Setting, 2023

Degree	All Health Settings	Hospital Inpt/Ed	Nursing Homes	Home Health Care	Ambulatory Care
ADN	94.1%	94.3%	94.1%	90.9%	82.4%
BSN	90.0%	85.4%	82.9%	70.7%	48.8%

DISCUSSION

While the RN education pipeline has remained relatively stable, there is uncertainty about whether the number of new RNs being produced will be enough to meet future demand. The loss of patient care RNs, particularly during and after the COVID-19 pandemic, contributed to staffing shortages. Although these shortages have somewhat eased, retaining patient care RNs is crucial to stabilizing the workforce. Challenges such as faculty shortages and limited clinical training sites could continue to impact RN production. However, the recent law allowing up to one-third of clinical training to be completed through simulation may help nursing students gain essential clinical experience. Yet, recent studies suggest that the use of simulation could hinder the transition to practice for newly trained RNs.[6,11]

Addressing the maldistribution of RNs and ensuring equity in the state's RN workforce is crucial. Hispanic/Latinx RNs are currently underrepresented compared to their presence in the New York State population. Service-obligated programs, such as the federal Nurse Corps Scholarship Program or New York State's "Nurses for Our Future Scholarship," can strategically target rural areas and underserved populations to help create a more balanced RN workforce. Additionally, initiatives like Nurse Corps, New York State's "Nurses Across New York," and the newly approved "1115 Medicaid Waiver" can support both recruitment and retention efforts by paying off student debt in exchange for service commitments. The "1115 Medicaid Waiver" also provides funding to support upgrading opportunities for the existing health workforce interested in careers in nursing.

CONCLUSIONS

Continued monitoring of RN supply, demand, and production is essential to determine whether the RN pipeline is sufficient to meet demand for new RNs. Attrition of patient care RNs coupled with constraints on educational capacity could easily result in more recruitment and retention difficulties for health care. More research is needed to better understand effective strategies to train—including the use of simulation—recruit, retain, and distribute RNs. Finally, best practices should be identified and shared among health care providers and educational programs to ensure that the most effective and efficient strategies are employed to address the training, recruitment, and retention of RNs.

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