

Nurse Apprenticeship: A Model From the Past, A Solution for the Future

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In state legislatures across the country, it has become commonplace to hear conversations concerning the nursing workforce crisis. Data from the 2022 National Nursing Workforce Survey from the National Council of State Boards of Nursing (NCSBN) put the scale of the current crisis into perspective. As a result of the pandemic, approximately 100,000 registered nurses (RNs) and 34,000 licensed practical nurses/licensed vocational nurses (LPNs/LVNs) left the healthcare workforce (Smiley et al., 2023). Furthermore, an estimated 800,000 RNs and 184,000 LPNs/LVNs are likely to leave the workforce by 2027. Also, a reported 24% of the RN population is comprised of younger, early career nurses, who are more likely than their more experienced colleagues to leave because of burnout and stress (Smiley et al., 2023). These data exemplify the need for industry professionals and policymakers to come together to combat the startling crisis. Most critically, focus must be placed on prioritizing the implementation of policies to retain and grow early-career nurses within their profession and to combat the mass exodus due to stress and burnout. This crisis is not insurmountable, but it requires a diverse array of solutions to support the recruitment, retention, and upscaling of nursing professionals to meet our country's growing healthcare needs.

One policy advocated for by many is the creation of nurse apprenticeship programs. A nursing apprenticeship offers a pathway for nursing students to work while completing their LPN/LVN or RN education program, enabling them to start their career and earn an income while completing their education (Indeed Editorial Team, 2023). The apprenticeship model, which has a deep history within the nursing profession, would supplement the growing interest in a practice-academic partnership model and has seen successful applications at the state level that were brought about by increased federal funding in healthcare apprenticeship development.

Apprenticeship and Nursing

A registered apprenticeship is a career pathway through which employers can invest in their future workforce by creating an opportunity for individuals to receive paid work experience, classroom instruction, and, in time, a recognized credential in the industry (Apprenticeship USA, n.d.-b). Apprenticeships have his-

torically been associated with trade professions; however, with increased workforce demands on a variety of sectors, the apprenticeship model has been revisited as an equitable and common-sense approach to recruiting, retaining, and upscaling industry professionals (Wurtz & Beauregard, 2023).

Although apprenticeships are less commonly associated with nursing today, the apprenticeship model is intertwined with the foundation of the nursing profession. About 150 years ago, nursing education became organized (University of Pennsylvania School of Nursing, n.d.). At that time, Florence Nightingale established the model for nursing schools throughout the English-speaking world, creating nursing education programs within hospitals for women to live and train as apprentices (Tesseyman et al., 2023). For the first 100 years of nursing education, most programs followed this apprentice-based system wherein students would exchange their labor for instruction in nursing in the hospital setting (University of Pennsylvania School of Nursing, n.d.). Student nurses would provide all bedside care under the supervision of a few fully qualified nurses (Tesseyman et al., 2023). However, most of these programs were found to be deficient in teaching and providing supervision to students, which caused the model of nursing education to shift to the academic realm (Tesseyman et al., 2023). The nursing education that most are familiar with today occurs at the associate or bachelor's degree level, where a nurse must complete a certain level of education to be eligible to sit for a licensure examination and can begin practice once they have passed the examination. As nursing education has evolved over time, the nursing profession has long been calibrating to determine the best balance of clinical experience and academic instruction to prepare students most effectively for a robust career in nursing.

Apprenticeships Today

In October 2015, the American Apprenticeship Initiative (AAI) was launched, providing 5-year grants to 46 grantees across the country. The goal of the AAI was to expand registered apprenticeship into new sectors, such as healthcare and information technology, with a specific focus on providing apprenticeship access to historically underrepresented populations, such as women and racial and ethnic minorities (Apprenticeship USA, n.d.-a). A final report on the initiative's operations from 2015 through 2020 found

that 61% of AAI apprentices were from an underrepresented population, and 14% of apprentices in the program enrolled in health-care occupations (Walton et al., 2022). Women comprised a larger share of participation in healthcare apprenticeships at 52% (Walton et al., 2022). Extrapolating race and gender in healthcare apprenticeships, white women comprised the majority of those in RN apprenticeships, which had among the highest earnings growth of any observed occupation; in contrast, black women comprised the largest proportion of apprenticeships for pharmacy technicians, a lower-paying occupation (Walton et al., 2022).

When looking at the employer impact of apprenticeships broadly, the typical AAI employer had a positive return on investment: for every \$100 an employer invested in the registered apprenticeship program, \$144.30 was generated in total benefits (Apprenticeship USA, 2022b). In addition to the monetary benefit of apprenticeship, employers cited indirect benefits of the program, including improved company culture, employee loyalty, co-worker productivity, the creation of a pipeline of skilled workers, and reduced staff turnover (Apprenticeship USA, 2022b).

Considering the impact of apprenticeship on the apprentices themselves, the report also found that between the year prior to starting their apprenticeship programs and a year after completion, AAI apprentice earnings, on average, increased by 49% (Apprenticeship USA, 2022a). A majority of AAI apprentices completed or were still enrolled in their programs at the time of being surveyed (Walton et al., 2022). Since the success of the AAI, several additional federal funding initiatives have occurred, further advancing the prevalence of apprenticeships in new employment sectors such as healthcare.

Supporters argue that the apprenticeship model is an equitable approach to upscaling talent within the nursing profession. Apprenticeship enables individuals to earn an income while they increase their education. This reduces the financial burden of education on the individual, making advanced nursing degrees more attainable for a larger number of nurses (Love & McCarthy, 2019). Additionally, patient outcomes are improved by increased nursing education (American Association of Colleges of Nursing, 2023). Therefore, to improve the delivery of healthcare services broadly, it is imperative that nurses have equitable pathways to further their education.

COVID-19: A Driver for Implementation

While an increased interest in revisiting the apprenticeship model was steadily gaining traction before the COVID-19 pandemic, the onset of the pandemic brought a sense of urgency to putting the apprenticeship model in action to supplement the healthcare workforce. During the pandemic, the nursing workforce experienced levels of stress, burnout, and turnover never before seen. As regulators, policymakers, and industry professionals began to consider how they could supplement the nursing workforce in an expedient, safe, and effective manner, leveraging nursing students to fill

critical gaps was one of the pathways under consideration. Nursing students, particularly senior nursing students, who were close to graduating and pursuing full-time employment in nursing, were a natural and qualified population to fill immediate gaps in care.

Nursing leaders quickly recognized the potential impact of nursing student employment and issued a policy brief supporting practice-academic partnerships to address urgent workforce concerns during the COVID-19 crisis (NCSBN, 2020). The practice-academic partnership model encourages healthcare facilities and nursing programs to partner and provide educational opportunities for students to supplement the nursing workforce in clinical settings (Spector et al., 2021). In an NCSBN policy brief, it was proposed that prelicensure RN students could further augment the delivery of nursing services and be employed by facilities in the role of a student nurse for compensation, which, in conjunction with the student's nursing education program, would enable them to receive academic credit toward clinical requirements (NCSBN, 2020). As nurse educators reported difficulty in securing clinical placements even prior to the onset of the pandemic, adopting the practice-academic partnership model offered a pathway forward for nursing education to continue to offer crucial clinical training to students while also meeting critical workforce needs, particularly during a time of crisis (Spector et al., 2021).

In response to broad nursing leadership support for pursuing practice-academic partnerships, several states took swift action to implement programs following this model. The Idaho Board of Nursing established their nurse apprenticeship program during the COVID-19 pandemic, which enabled nursing students to practice under direct supervision of an experienced nurse (Chan et al., 2021). Furthermore, the Utah Division of Occupational and Professional Licensing created a temporary nursing apprentice license (The Salt Lake Tribune, 2020). To obtain a nursing apprentice license, an individual needed to be in their final semester of an associate degree in nursing or bachelor's degree in nursing program and be in good academic standing. A presentation in February 2021 reported that more than 600 temporary RN apprentices were actively practicing, supplementing the nursing workforce in Utah during a time of great need (Marx & Busjahn, 2021). Due to the success of this emergency program, it was codified into law during the 2022 legislative session, thus enabling Utah to implement a nursing apprenticeship program that would allow senior nursing students to work under the direct supervision of a RN, advanced practice registered nurse, or physician (S.B. 101, 2022). To operate as an RN apprentice, a student must obtain an RN apprentice license issued by the Utah Board of Nursing (S.B. 101, 2022). While a time of crisis spurred the increase in popularity of this model, its effective response demonstrated the long-term impacts that nurse apprenticeship programs could have, providing an alternative pathway into the workforce and creating additional opportunities for student nurses to gain clinical experience.

Additional State Progress in the Nurse Apprenticeship Space

In recent years, several states have begun to explore expanding their nurse workforce through the implementation of nurse apprenticeships. Much of this exploration is supported at the federal level as President Biden has made expanding registered apprenticeships a priority, investing hundreds of millions of dollars to further this workforce development model (The White House, 2022). The following sections explore the nurse apprenticeship programs in Alabama, Nevada, and Wisconsin, detailing how their nurse apprenticeship programs function and the process for implementing and funding these new nurse career pathways in each state.

Alabama

During the 2021 legislative session, the Alabama legislature approved amendments to the Nurse Practice Act to allow the Alabama Board of Nursing (ABN) to begin issuing student nurse apprentice permits (ABN, 2023). This statutory amendment and the accompanying rules paved the way for the state's first nurse apprentice program to become operational. This program is a combined effort of the Alabama Office of Apprenticeship, the Alabama Community College System, the ABN, and employers within the state (Alabama Works!, n.d.). Alabama's business-driven model of nurse apprenticeship functions by hospitals partnering with the Alabama Office of Apprenticeship, completing an agreement with a nursing education program in the area, and filing the agreement with the ABN for approval (Alabama Hospital Association, n.d.). This program enables community college students enrolled in an LPN/LVN or RN program to receive classroom instruction and on-the-job training while also filling an urgent workforce need within the state, providing necessary patient care in Alabama hospitals (Alabama Works!, n.d.; Alabama Community College System, 2022). As of September 2023, the Alabama Community College System reported that approximately 400 nurse apprentices practice alongside nurses at more than 60 healthcare facilities in the state (Harksen, 2023). Alabama is an additional example of a nursing apprentice program born out of the pandemic that has made a great impact on the delivery of nursing care within the state.

Nevada

In February 2022, the state of Nevada received federal funding through the American Rescue Plan Act to support statewide nurse apprentice programs to aid staffing at healthcare facilities and provide further enrichment for nursing students through February 2025 (Nevada State Board of Nursing [NSBN], 2023). This apprentice program was established with the intention of enabling Nevada to grow their own workforce by increasing the number of nurses hired and retained in the state (NSBN, 2023). The authority to promote, manage, and expand the program was contracted to the Nevada Rural Hospital Partners (NSBN, 2023). The funding from the grant has four components: (1) reimburse participating

facilities for nurse apprentice wages at \$25 per hour, (2) reimburse the facility for an hourly rate of \$3 per hour per supervising RN, (3) reimburse the facility a retention bonus of up to \$4,000 once the nurse apprentice has graduated and signed employment with the facility, and (4) provide travel reimbursements for nurse apprentices traveling more than 50 miles from the employing facility (Sherych, 2022). Under this program, a nurse apprentice is considered an employee of the healthcare facility and works flexible hours to accommodate their class schedule (NSBN, 2023). While working, nurse apprentices must follow a skills list approved by the NSBN, which stipulates the tasks apprentice RNs and apprentice LPNs/LVNs are able to perform (NSBN, n.d.). As of November 2022, the grant has funded salaries for 221 nurse apprentices working at 20 different healthcare facilities across Nevada (NSBN, 2023). Within the first 9 months of the grant, 11 of the 221 nurse apprentices were retained by the facility and were offered a retention bonus upon graduation and licensure (NSBN, 2023). Nevada serves as an example of the ways in which federal funding can be leveraged to increase nurse apprentice employment opportunities within a state, enhancing clinical education opportunities and providing increased workforce relief.

Wisconsin

By 2040, Wisconsin is expected to have a deficit of 20,000 nurses (Wisconsin Department of Workforce Development & Job Center of Wisconsin, 2022). Between 2020–2030, the healthcare industry in the state is expected to see nearly 32,000 annual openings across all occupations (Wisconsin Department of Workforce Development, 2023). In a direct response to these startling data, the Wisconsin Department of Workforce Development launched a pilot RN apprenticeship pathway program in spring 2023 (UW Health, 2023). This program is operating in partnership with the University of Wisconsin (UW) Health and Madison College and was made possible through a donation from Epic Systems to Wisconsin Medicine and a philanthropic partnership between the UW School of Medicine and Public Health and UW Health (UW Health, 2023). The 4-year apprenticeship program is designed to encourage racially, ethnically, and socioeconomically diverse individuals in healthcare to pursue an associate degree in nursing and become RNs (UW Health, 2023). Madison College will provide all classroom instruction for this program, which will include 2 years of prerequisite coursework and 2 years of core nursing-specific courses (UW Health, 2023). During the prerequisite coursework period, apprentices will work as nursing assistants; for the final 2 years of the program, they will work as student nurses (UW Health, 2023). UW Health will hire two nurse educators to supervise on-the-job training and clinical competency requirements for nurse apprentices (UW Health, 2023). Once apprentices complete the program, they will transition into nursing positions at UW Health (UW Health, 2023). The approach to expanding nurse apprentice opportunities in Wisconsin shows an alternative path to funding outside of the federal purview, wherein state orga-

nizations can work harmoniously to solve a problem of mutual concern: to enhance nurse education and fill critical gaps in care at the facility level.

Other States

In addition to the aforementioned states, several states have ongoing apprenticeship programs. Additional federal funding was provided through the U.S. Department of Labor to the Council for Adult and Experiential Learning to enable the further development and implementation of nurse apprenticeship programs in Illinois, Maryland, South Dakota, Texas, and Washington (Indeed Editorial Team, 2023). In Washington State, the LPN Registered Apprenticeship Program is in its third year of development under the guidance of the Workforce Training & Education Coordinating Board, the Washington State Board of Nursing, and the Department of Labor and Industries and is slated to be launched in fall 2024 (Workforce Training & Education Coordinating Board, n.d.). During the 2022 legislative session of the Maryland General Assembly, the Senate Budget and Taxation Committee and House Appropriations Committee directed the Maryland Department of Labor to convene workgroups to study and report on the potential workforce impact of apprenticeships in targeted occupations, including healthcare (Healthcare Apprenticeship Workgroup, 2023). In June 2023, the working group submitted their final report on apprenticeships in healthcare. The report explored current LPN apprenticeship programs operating within the state, detailed the current landscape for apprenticeship across the country, and concluded with recommendations as to how the state could support the expansion of apprenticeship programs (Healthcare Apprenticeship Workgroup, 2023). As the activities in all of these states demonstrate, apprenticeships are steadily gaining momentum across the country as a common-sense solution to upscaling nurse talent.

Conclusion

Nurse apprenticeships have been integral to the foundation of nursing education in the English-speaking world and are again becoming a popular model to enhance clinical education opportunities while simultaneously supplementing the nursing workforce. At the federal level, fostering registered apprenticeship development has received increased attention in a variety of sectors previously unexposed to the apprentice model, including healthcare. As preliminary programs and temporary provisions during the COVID-19 pandemic have allowed nursing students to demonstrate their added value in combating startling workforce concerns, nursing apprenticeship programs have become more commonplace across the country. As the 2022 National Nursing Workforce data demonstrated the critical need for dynamic and equitable solutions to enhance the nursing workforce, particularly among early-career nurses, nursing apprenticeship is one pathway advocates are offering that will show tremendous progress in the years to come.

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