

Data Sources for Factors Impacting Nurse Retention

February 2024

Executive Summary

Massachusetts is experiencing a severe nursing workforce shortage exacerbated by the COVID-19 pandemic. *The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity* outlined challenges for nursing that continue to arise from nursing-related public policies and other factors that affect the scope of practice, size, distribution, diversity, and educational preparation of the nursing workforce.

A report from the NCSBN in 2021 found that “Approximately 100,000 nurses left the workforce during the pandemic due to stress, burnout, and retirements and by 2027, almost 900,000, or almost one-fifth of 4.5 million total registered nurses, intend to leave the workforce. This mass exodus threatens the stability of the national healthcare system if solutions are not enacted.”¹

To ensure the commonwealth will be able to meet the healthcare needs of the population, healthcare organizations must retain the maximum number of nurses while making a significant effort to graduate more nurses to close the workforce gap.

The Nursing Council on Workforce Sustainability (NCWS) Data & Research committee met to identify data sources that can help measure key factors that impact nurse retention. A summary of their findings is detailed below.

Nurse Compensation

Massachusetts consistently ranks among the top ten states for nursing compensation, but these numbers fluctuate slightly depending on the data source and whether the figures have been adjusted to account for cost of living. Competitive compensation, which encompasses not only base salaries but also benefits like health insurance and retirement, plays a pivotal role in attracting and retaining qualified nurses. Inadequate compensation can lead to dissatisfaction, financial strain, and ultimately, higher turnover rates within the nursing workforce.

It is important to note that there are many different roles within the nursing profession that have varied starting and average salaries. The NCWS Faculty & Research committee submitted several recommendations to close the gap between nursing faculty and clinical nurses. The table below details several data sources for understanding nurse salaries by role, how salaries in Massachusetts compare to other states, and includes an article emphasizing the need to pay nursing assistants a livable wage.

¹ Source: [NCSBN Research Projects Significant Nursing Workforce Shortages and Crisis | NCSBN](#)

Nurse Compensation Data Source	Description	Link
Bureau of Labor Statistics (BLS) Occupational Outlook Handout (OOH)	BLS publishes projections for more than 800 detailed occupations that are included in the Standard Occupational Classification System. The OOH includes detailed information on 592 occupations in 333 OOH profiles, which covers about 4 out of 5 jobs in the economy.	https://www.bls.gov/ooh/
Bureau of Labor Statistics (BLS)	The BLS provides occupational employment and wage statistics for a variety of healthcare professions. The following links detail the occupational profile by nursing role. Additionally, each page contains a section on geographic profiles so you can compare how the wages in Massachusetts compare to other states.	Nursing Assistants: https://www.bls.gov/oes/current/oes311131.htm#st Licensed Practical Nurses: https://www.bls.gov/oes/2019/may/oes292061.htm Registered Nurses: https://www.bls.gov/oes/current/oes291141.htm#st Nurse Practitioners: https://www.bls.gov/oes/current/oes291171.htm
Nurse.org Aggregated Tables on Nurse Salaries	This article pulls from the BLS Occupational Employment and Wage Estimates data but presents the information in data tables that may be more easily understood by varied audiences. The article acts as a guide detailing nurse salaries by state, career type, experience level, female vs male nurse salary, and more.	https://nurse.org/education/how-much-do-nurses-make/
Lightcast Cost of Living Adjusted wages across states/regions	Lightcast's reports exist behind a paywall but contain some of the most accurate data on industry or occupation earnings, adjusted by the C2ER Cost of Living Index. Lightcast's Cost of Living index is 100-based, with an index above 100 indicating that the cost of living is higher than average in the region of study. Likewise, an index below 100 indicates that the cost of living is lower than average in the region of study.	https://kb.lightcast.io/en/articles/7932738-cost-of-living-adjusted-earnings
National Center for Health Workforce Analysis (NCHWA) Nursing Workforce Dashboard	Pulled from data captured in the 2018 National Sample Survey of Registered Nurses, which includes detailed information on the nursing workforce in the United States. The dashboard visualizes data on the nursing workforce landscape, including demographics, employment, and education for RNs, NPs, and APRNs.	https://data.hrsa.gov/topics/health-workforce/nursing-workforce-dashboards
Bureau of Labor Statistics (BLS) Occupational Employment and Wage Statistics (OEWS)	The OEWS program produces employment and wage estimates annually for approximately 830 occupations. These estimates are available for the nation as a whole, for individual states, and for metropolitan and nonmetropolitan areas; national occupational estimates for specific industries are also available.	https://www.bls.gov/oes/current/oes_stru.htm
Opinion Piece from STAT Media Company	In considering the other more concrete data sources, this opinion piece by STAT Media Company sheds light on the reality that many nursing aides and nursing assistants are not paid a living wage despite filling a critically important role in our healthcare system, especially in settings like long-term care.	https://www.statnews.com/2022/10/07/value-the-work-of-certified-nursing-assistants/

Work Environments

Nurses work in an extremely wide variety of settings and nurse retention is deeply intertwined with the work environment they inhabit. Work environments directly impact nurse satisfaction and are created and maintained through various elements including workplace culture, staffing models, and the implementation of shared governance. Flexible staffing models, including

nurse-to-patient ratios and scheduling practices, directly impact workload and job stress. Moreover, the concept of shared governance empowers nurses by involving them in decision-making processes related to patient care, fostering a sense of ownership and professional fulfillment. Several sources that explore the link between work environments and nurse retention are detailed below.

Work Environment Data Source	Description	Link
Flexible scheduling/hours	There is not one comprehensive data source detailing the relationship between flexible scheduling and nurse retention, but several studies have shown positive correlations between flexibility and job and life satisfaction.	<p>American Nurse Association: Nurse Retention Strategies: How to Combat Nurse Turnover ANA (nursingworld.org)</p> <p>National Library of Medicine: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8510763/</p> <p>American Organization for Nurse Leadership: https://www.aonl.org/news/Flexible-schedules-help-retain-nurses-over-age-55</p> <p>PubMed: https://pubmed.ncbi.nlm.nih.gov/25921909/</p>
Press Ganey 2015 Nursing report: The influence of nurse work environment on patient outcomes	The report is behind a paywall and based on an integrated analysis of data across multiple performance domains. The report provides actionable insights to help: Understand the relationship between nurse work environment, staffing, and key performance measures; Identify the impact of nurse work environment on patient safety, quality, experience, and value measures; and Prioritize improvement opportunities to optimize efficiency and reduce patient suffering.	https://info.pressganey.com/e-books-research/2015-nursing-special-report-the-influence-of-nurse-work-environment-on-patient-payment-and-nurse-outcomes-in-acute-care-settings
Patient Care Link Staffing Plans & Reports	PatientCareLink is a joint venture of the Massachusetts Health & Hospital Association, the Organization of Nurse Leaders, and the Hospital Association of Rhode Island that provides data about the quality and safety of hospital care. Data is grouped into peer groups to compare unit types in similar type hospitals based on the number of licensed beds. Hospitals use the data to improve care and to demonstrate to their communities that they stand accountable for their performance.	https://www.patientcarelink.org/healthcare-provider-data/hospital-data/staffing-plans-reports/
Diversity, Equity, and Inclusion (DEI) initiatives	Creating a diverse, equitable, and inclusive workplace culture is not only a moral obligation—it's imperative for business sustainability and delivering optimal health outcomes. The pandemic has caused a major staffing crisis across all roles in healthcare. While many factors have contributed to the emergency, new Press Ganey data on DEI in healthcare shows that employees' intent to stay at an organization is associated with how they perceive the value their employer, managers, and peers place on the presence and treatment of people from different backgrounds. Notably, a diverse and equitable culture is correlated with a strong safety culture, which also impacts patient care outcomes.	<p>DEI in healthcare is central to employee retention (pressganey.com)</p> <p>Driving Nurse Retention Through Diversity, Equity, and Inclusion (pressganey.com)</p>
New graduate support services	<p>High turnover rates for new nurses are extremely concerning, especially given the need to produce and retain nurses to combat those leaving the profession due to retirement or sustained burnout.</p> <p>There is not one comprehensive data source detailing the need for support and mentorship programs for the retention of new</p>	<p>American Association of Critical Care Nurses https://www.aacn.org/nursing-excellence/nurse-stories/support-for-new-grad-nurses</p> <p>National Library of Medicine https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9223151/</p>

	nurses, but several studies and initiatives have demonstrated the positive impact of these support services.	PubMed https://pubmed.ncbi.nlm.nih.gov/31436741/
American Nurses Credentialing Center (ANCC) Practice Transition Accreditation Program	The ANCC Practice Transition Accreditation Program sets the global standard for residency or fellowship programs that transition registered nurses and advanced practice registered nurses into new practice settings. Programs that adhere to the ANCC evidence-based criteria demonstrate excellence in transitioning nurses to new practice settings.	https://www.nursingworld.org/organizational-programs/accreditation/ptap/

Nurse Well-Being

Recognizing and addressing the importance of nurse well-being is essential in fostering supportive work environments and promoting long-term retention within the nursing workforce. The links below provide a few examples for how organizations can improve nurse well-being through meaningful recognition programs and monitoring the overall health of the nursing workforce through national datasets like the Healthy Nurse Health Nation™ survey.

Nurse Well-Being Data Source	Description	Link
Meaningful recognition	Implementing meaningful nurse recognition ideas in the workplace fosters a culture that emphasizes appreciation, boosts team morale, and strengthens job satisfaction—leading to better patient care and outcomes.	https://www.nursingworld.org/resources/individual/nurse-managers/nurse-recognition/
Healthy Nurse Health Nation™ survey	The Healthy Nurse, Healthy Nation™ survey is an institutional review board (IRB)-reviewed comprehensive health assessment that asks questions about work environment, physical activity, nutrition, quality of life, and safety. After completing the survey, participants are provided with a customized heat map of their results, showing health risks in green, yellow, and red. A HealthyNurse™ Index score also displays, providing an overall summary of health between 1 and 10. Participants will be prompted to retake the survey periodically to assess health improvements over time.	https://www.healthynursehealthyNation.org/about/survey/
American Nurses Association (ANA) Article on How to Prevent Nurse Burnout	Nurse burnout is a serious job-related condition that can have major consequences for nurses and their patients. Unfortunately, burnout in nursing is on the rise, making it more important than ever to understand how to manage and prevent this condition. The article emphasizes that nurse burnout is not a failure or lack of compassion or work ethic from the nurse, rather it is the result of unsustainable working conditions.	https://www.nursingworld.org/practice-policy/work-environment/health-safety/nurse-burnout-and-how-to-prevent-it/
National Commission to Address Racism in Nursing	Launched in 2021, the National Commission to Address Racism in Nursing examines the issue of racism within nursing nationwide focusing on the impact on nurses, patients, communities, and health care systems to motivate all nurses to confront individual and systemic racism.	https://www.nursingworld.org/practice-policy/workforce/racism-in-nursing/national-commission-to-address-racism-in-nursing/

Nurse Safety & Workplace Violence

Intrinsically related to nurse well-being, nurse safety and workplace violence are critical factors influencing nurse retention. The risk of physical and verbal assaults, from patients, visitors, or even colleagues, creates an environment of fear and stress for nurses. Nurses who do not feel safe at work are more likely to seek alternative employment opportunities where they feel protected and valued. Therefore, implementing comprehensive safety measures, such as training programs, security protocols, and supportive management practices, is crucial in fostering a workplace culture that prioritizes nurse safety and retention.

Nurse Safety & Workplace Violence Data Source	Description	Link
MHA Workplace Violence at Massachusetts Hospitals report	For the past three years, MHA has conducted a monthly survey of Massachusetts hospitals to track the frequency, location, and types of violence committed on their campuses, which may include outpatient clinics and affiliated physician practices, among other care sites. This report details their findings along with data from numerous other state and local entities examining workplace violence.	A Call to Action - MHA Workplace Violence Report.pdf (informz.net)
Examining Occupational Safety & Health Administration (OSHA) Recordkeeping Data to Determine Trends in Worker Injuries & Illnesses Related to COVID-19	In 2020, a group of professionals supported by the Massachusetts Nurses Association (MNA) began to request and compile data from acute care facilities throughout Massachusetts regarding worker injuries and illnesses reported in OSHA injury logs. This IRB-approved study aimed to describe OSHA-recordable injury and illness cases in MNA-represented acute care facilities. The hospitals' OSHA 300 logs of occupational injuries and OSHA 301 incident form data were used to evaluate changes and determine trends of worker injury and illness since the onset of the pandemic.	Examining Occupational Safety & Health Administration (OSHA) Recordkeeping Data to Determine Trends in Worker Injuries & Illnesses Related to COVID-19.pdf (massnurses.org)
Occupational Injuries/Illnesses and Fatal Injuries Profiles	The Injuries, Illnesses, and Fatalities program produces a wide range of information about workplace injuries and illnesses. These data are collected and reported annually through the Survey of Occupational Injuries and Illnesses and the Census of Fatal Occupational Injuries. For information on nonfatal workplace injury and illness, see the most recently published industry data (https://www.bls.gov/iif/nonfatal-injuries-and-illnesses-tables.htm#summary)	https://data.bls.gov/gqt/ProfileData
Journal of Healthcare Management Report on Workplace Violence	Rising incidents of violence and mistreatment of healthcare workers by patients and visitors have been reported. U.S. healthcare workers are five times more likely to experience nonfatal workplace violence than workers in any other profession. However, less is known about the national trends in the incidence of violence and mistreatment in healthcare. The goals of this study were to examine national trends of violence toward healthcare workers, understand which populations are most vulnerable to stress from violence and mistreatment, and explore organizational factors that are related to these occurrences.	https://journals.lww.com/ihm/online/fulltext/2024/01000/exploring_national_trends_and_organizational.5.aspx
Massachusetts Nurses Association (MNA) Survey on Workplace Violence/Abuse	The MNA has surveyed nurses on a regular basis to gauge the frequency and intensity of workplace violence incidents. The MNA has a Task Force on Workplace Violence and Abuse Prevention to address issues of violence against nurses and other healthcare workers through education, contract language, and meeting with law enforcement and court personnel.	Results of 2016 survey: https://www.massnurses.org/files/file/MNA%20Survey%20Results%20FINAL%20on%20Workplace%20Violence%20Abuse%202016.pdf MNA position statement:

		https://www.massnurses.org/health-and-safety/articles/workplace-violence/
--	--	---

Other Factors Impacting Nurse Retention

Additional data sources that examine how various factors may impact nurse retention are detailed below.

Data Source Name	Description	Link
American Community Survey (ACS) on Migration Flows	These migration flows are derived from the household and group quarter locations sampled in the ACS and show domestic out-migration among nurses. The data are collected continuously over a five-year period to measure where people lived when surveyed (current residence) and where they lived one year prior (residence one year ago). The flow files produced include state-to-county, county-to-county, county/minor civil division (MCD)-to-county/MCD, and metropolitan statistical area (MSA)-to-MSA.	American Community Survey Migration Flows (census.gov)
BORN Re-licensure Survey	To renew your registered nursing, advanced practice registered nursing, or licensed practical nurse license, individuals must complete a re-licensure survey per Massachusetts BORN requirements. The re-licensure survey asks all nurses about future career plans including any intention to retire or leave the nursing field.	A link to 2022 RN re-licensure data should hopefully be available later in 2024.