

# Insights from Nursing and other Healthcare Disciplines

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# Agenda

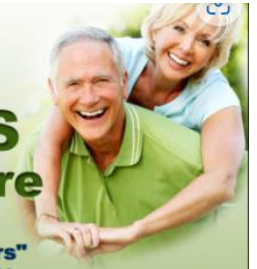
- Overview of Critical Workforce Labor Gaps
- Deep-dive of Nursing and Radiology Workforces
- Emerging Trends in Healthcare Workforce
- Recruitment Best Practices
- Apprenticeships: Bridging Skills Gap in Healthcare
- Innovative Opportunities for Workforce Development



# Critical Workforce Labor Gaps in US Healthcare

- The U.S. healthcare industry faces critical workforce shortages across all levels. Radiography and imaging specialties are severely understaffed, leading to delays in care.
- Allied and behavioral health roles are also in short supply, especially in underserved rural and urban areas.
- The American Hospital Association estimates a shortage of up to 124,000 physicians by 2033 and the need for 200,000 new nurses annually to meet demand and replace retirees.
- These gaps threaten the quality of care and exacerbate health disparities.

## The Impact of **BABY BOOMERS** on Healthcare



**78 million "Baby Boomers"** were born in the U.S. from 1946 to 1964.

Over **3 million Baby Boomers** will be reaching age 65 every year until 2029.

By 2030, **70 million people** in the U.S. will be over 65... over 20% of the total population.

**Chronic disease** is increasing as Baby Boomers age.

By 2030:

**25%** of Baby Boomers will be living with **diabetes**.

**33%** of Baby Boomers will be **obese**.

**50%** of Baby Boomers will suffer with **arthritis**.

**60%** of Baby Boomers will require treatment for **multiple chronic disorders**.

The bulk of nurses, physicians, medical technicians, and caregivers are Baby Boomers. As they retire, a shortfall of medical personal is inevitable.

At current rates, U.S. healthcare demand will be short over **1,000,000 nurses** by 2020.

A shortage of **1,600,000 direct care aids** is expected by 2020.

U.S. healthcare currently has only **8,000 geriatric practitioners**... **33,000** will be needed by 2030.

In 1901, life expectancy in the U.S. was 47.  
By 2001, life expectancy had increased to 77.  
Today, Americans live on average to 82.

*Published in 2016 →*



# Nursing and Radiology Workforces

## External Drivers

- Aging population and prevalence of chronic diseases
- Increased demand for healthcare services; high patient volumes
- Geographical disparities: pronounced in rural and underserved regions
- Educational bottlenecks- Faculty shortages, low clinical sites & preceptor availability

## Radiology

- Low visibility, less public awareness, low professional interest
- Inadequate legislative support: funding, education program, expansion, certification process
- Shortages in high demand specialties
- Stringent certification and licensing barriers in MD

## Similarities and Common Drivers

### Internal Drivers

- Aging workforce and retirements
- Loss of experience and tactical knowledge
- High stress, burnout, and turnover

**Interconnected**

## Differences

### Nursing

- High public visibility
- Immediate visible impact on patient care
- Strong public support
- Significant advocacy from professional organizations
- Legislative Action



# Ripple Effects of the Workforce Instabilities

## PATIENT CARE AND ACCESS



- Delay in diagnosis and treatment; missed diagnosis
- Denial of necessary care
- Increased incidence of hospital acquired infections, medication errors
- Worsened disparities due to limited access
- Reduced nursing time per patient
- Higher rated of readmission

## WORKFORCE



- Cyclical effects: High workloads leading to burnout, absenteeism, and increased turnover
- Mental and physical impacts on staff
- Greater reliance on costly temporary staffing

## RECRUITMENT/EDUCATION



- Bottleneck in academia: Faculty shortage and limited availability of clinical sites
- Reduced availability of advanced modalities programs
- Decline in the number of qualified applicants increased waitlists
- Extended time to certification for radiology specialties



# Emerging Trends in Healthcare Workforce

- **Expansion of Ambulatory Services:** Growth in telehealth, urgent care, and home health services is increasing competition for a limited workforce.
- **Virtual Care:** Rising adoption of virtual nursing, remote scanning, and mobile imaging services.
- **Diversity, Equity, Inclusion & Belonging (DEIB):** A growing focus on creating a healthcare workforce that mirrors the diverse patient population to enhance culturally competent care.
- **Safe and Healthy Workplaces:** Increased implementation of comprehensive wellness programs, including physical, mental health support, and workplace violence prevention.
- **Simulation and Virtual Education:** Widespread adoption across healthcare pathways.



# Recruitment Best Practices & Opportunities





# Apprenticeships

Addressing Shortages, Bridging Skills Gap

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# Apprenticeships: Bridging Skills Gap in Healthcare

- Apprenticeships are structured training programs that blend paid, on-the-job training, with formal education, creating a direct pathway into healthcare professions.
- Increasingly being recognized as a valuable pathway for the healthcare sector.
- **Key Benefits:**
  - **Practical Experience:** Hands on training that complements theoretical learning.
  - **Earn While You Learn:** Apprentices earn a wage during their training, making it financially accessible.
  - **High Retention Rates:** Apprenticeships lead to long term employments, with many participants continuing careers within the same organization.



# Current Landscape and Opportunities: Radiography Apprenticeships

The landscape for radiography apprenticeships in Maryland and nationally is evolving with a clear interest in expansion

## General Landscape

- Rising demand driven by workforce shortages
- Growing government support through grants, financial incentives and academic-practice partnerships
- Strong employer engagement and commitment
- Promising early results from current Maryland apprenticeships: Surgical tech, LPN
- Traditional apprenticeships in radiography remain relatively rare

## Opportunities

- Expand legislative support
- Strengthen academic-practice partnerships to develop targeted apprenticeship pathways
- Secure state and federal grants to fund apprenticeships
- Focus on specialized training in advanced modalities; cross training
- Simplify licensing pathways
- Flexible education structure: currently must have a primary pathway of AA degree
- Increase public awareness campaigns



## Workforce Diversity

Candidate pool different from traditional academic pathways to profession  
Opens opportunities not otherwise available for participants  
Local candidates, often representing the communities they serve



## High Retention Rates

80% average retention rates for healthcare apprentices  
Apprentices often remain in field/employer and pursue internal growth



## Workforce Development

Creates career pathways and provides opportunities for advancement: CTT, MRI tech, CT tech  
Adequately skilled workforce: training aligns with specific needs of employers  
Allows for staffing flexibility



## Collaboration and Innovation

Fosters innovative partnerships between practice and academia  
Creates innovative pathways to address workforce shortages.



## Economic Benefits

Grants and Tax incentives available to offset employer upfront costs  
Reduces income inequality  
Retain local talent and reduces unemployment



# Benefits and Successes of Healthcare Apprenticeships



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# Innovative Opportunities for Workforce Development

- High school career pathway programs
- Micro-credentialing and stackable credentials
- Leveraging social media using an influencer approach
- Healthcare discovery days: in-person or virtual reality, healthcare camps
- Formalize a certified imaging tech aide program
- Cross industry collaborations and recruitment to promote profession for potential second career interest
- Profit sharing opportunities



# Select References

1. American Association of Colleges of Nursing (AACN). (2022). *Nursing shortage fact sheet*. American Association of Colleges of Nursing. Retrieved from <https://www.aacnnursing.org/News-Information/Fact-Sheets/Nursing-Shortage>
2. Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). *Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction*. *JAMA*, 288(16), 1987-1993. doi:10.1001/jama.288.16.1987
3. National Council of State Boards of Nursing (NCSBN). (2021). *The 2020 national nursing workforce survey*. *Journal of Nursing Regulation*, 12(1), S4-S96. Retrieved from [https://www.journalofnursingregulation.com/article/S2155-8256\(21\)00027-X/fulltext](https://www.journalofnursingregulation.com/article/S2155-8256(21)00027-X/fulltext)
4. Smiley, R. A., Lauer, P., Bienemy, C., Berg, J. G., Shireman, E., Reneau, K. A., & Alexander, M. (2021). *The 2020 national nursing workforce survey*. *Journal of Nursing Regulation*, 12(1), S4-S96. doi:10.1016/S2155-8256(21)00027-X
5. Needleman, J., Buerhaus, P., Mattke, S., Stewart, M., & Zelevinsky, K. (2002). *Nurse-staffing levels and the quality of care in hospitals*. *The New England Journal of Medicine*, 346(22), 1715-1722. doi:10.1056/NEJMsa012247
6. U.S. Bureau of Labor Statistics. (2022). *Occupational outlook handbook: Radiologic technologists*. Retrieved from <https://www.bls.gov/ooh/healthcare/radiologic-technologists.htm>
7. American Society of Radiologic Technologists (ASRT). (2020). *Workforce report: Staffing and workplace trends in radiologic technology*. American Society of Radiologic Technologists. Retrieved from <https://www.asrt.org/main/standards-regulations/workforce-data/workforce-reports>
8. U.S. Department of Labor. (2022). *Apprenticeship program data: Healthcare sector*. U.S. Department of Labor. Retrieved from <https://www.dol.gov/agencies/eta/apprenticeship/about/statistics/2022>
9. Maryland Department of Labor. (2022). *Apprenticeship and training program*. Maryland Department of Labor. Retrieved from <https://www.dllr.state.md.us/employment/appr/>
10. American Medical Association (AMA). (2020). *2020 telehealth survey report*. American Medical Association. Retrieved from <https://www.ama-assn.org/system/files/2020-09/telehealth-survey-report.pdf>
11. National Council for Behavioral Health. (2020). *The behavioral health workforce: Estimates of future supply and demand*. National Council for Behavioral Health. Retrieved from <https://www.thenationalcouncil.org/wp-content/uploads/2020/03/BH-Workforce-Report.pdf>
12. Health Resources and Services Administration (HRSA). (2021). *National health service corps (NHSC) scholarship program*. Retrieved from <https://nhsc.hrsa.gov/scholarships>





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