Nursing Education

Supply & Demand Analysis
Curriculum Redesign &
System-wide Offerings
Topics

- MUS Nursing Graduate Production
- State-level Analysis – Supply & Demand
- National Perspective
- Nursing Curriculum Redesign
- BSN & Graduate Programs
# MUS Nursing Graduates - History

Nursing Degrees & Certificates Awarded, 2005 to 2015

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<tbody>
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<td>298</td>
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<td>Grand Total</td>
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# MUS Nursing Graduates by Campus

Nursing Degrees & Certificates Awarded, 2014-15

<table>
<thead>
<tr>
<th>CAMPUS</th>
<th>LPNs</th>
<th>Registered Nurses</th>
<th>Master of Nursing</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>Associate of Applied Science</td>
<td>Associate of Science (ASN)</td>
<td>Bachelor of Science (BSN)</td>
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<td>Miles CC</td>
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<td>City College at MSUB</td>
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<td>MSU Northern</td>
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<td>76</td>
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<td>MSU Bozeman</td>
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<td>Helena College UM</td>
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<td>16</td>
<td></td>
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<td>MT Tech</td>
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<td>16</td>
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<td>Missoula College UM</td>
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<td></td>
<td>70</td>
</tr>
<tr>
<td>Flathead Valley CC</td>
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<td>15</td>
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<td>Great Falls College MSU</td>
<td>29</td>
<td></td>
<td></td>
<td>29</td>
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<tr>
<td><strong>Total</strong></td>
<td>147</td>
<td>208</td>
<td>264</td>
<td>9</td>
</tr>
</tbody>
</table>
Over 1,000 APRNs, 2,800 LPNs and 15,000 RNs actively licensed

Most live in western and more populated counties

9 counties where all LPNs working

12 counties where all APRNs working

Source: MT DLI Licensure Data as of 03/11/16
Age of Current Nursing Workforce

<table>
<thead>
<tr>
<th></th>
<th>LPN</th>
<th>RN</th>
<th>APRN</th>
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<tbody>
<tr>
<td>Mean</td>
<td>49.8</td>
<td>48.4</td>
<td>50.2</td>
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<tr>
<td>Median</td>
<td>52</td>
<td>49</td>
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<td>Mode</td>
<td>61</td>
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<tr>
<td>25th Percentile</td>
<td>39</td>
<td>37</td>
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<tr>
<td>75th Percentile</td>
<td>60</td>
<td>60</td>
<td>61</td>
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</table>

Source: MT DLI Licensure Data as of 03/11/16
Notes: Includes all actively licensed RNs, APRNs, and LPNs. 97.7% of APRNs reported their birthdate, and 99.98% of LPNs and RNs reported their birthdate.
## Nursing Employment Projections

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Minimum Requirements Before Entering Profession</th>
<th>Employment Levels</th>
<th>Annual Openings</th>
<th>2014 MT Average Annual Wage</th>
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<tbody>
<tr>
<td></td>
<td>Education</td>
<td>Work Experience</td>
<td>Base Employment 2014</td>
<td>Projected Employment 2024</td>
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<tr>
<td>Nurse Practitioners</td>
<td>Master's</td>
<td>None</td>
<td>385</td>
<td>484</td>
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<tr>
<td>Registered Nurses*</td>
<td>Associate's</td>
<td>None</td>
<td>9,126</td>
<td>11,118</td>
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<tr>
<td>Licensed Practical and Vocational Nurses</td>
<td>PS Award</td>
<td>None</td>
<td>2,825</td>
<td>3,325</td>
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<tr>
<td>Nursing Assistants</td>
<td>PS Award</td>
<td>None</td>
<td>5,821</td>
<td>6,888</td>
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</tbody>
</table>

Abbreviations: PS Award=Postsecondary Award; Master’s= Masters Degree; Associate's=Associates Degree  
Source: Montana Department of Labor and Industry Employment Projections, 2014 wages from Occupational Employment Statistics  

*includes BSN and ASN prepared registered nurses
National Perspective on the Supply and Demand for Registered Nurses

➢ Supply
  – Retirement of over 1 million RNs over the next 10 years
  – Will the nation be able to replace these RNs?

➢ Demand
  – Driven by the large number of aging baby boomers (78 million), increasing number of people with co-morbid diseases, an expanding size of the population, physician shortages, and implementation of health reforms
    • Delivery systems --- Increasing emphasis on prevention and education --- Insurance expansions --- Shifting payment from fee-for-service to value-based
  – What will happen to the demand for RNs?
  – What will happen to the educational composition of the RN workforce?
    • Advanced practice nurses to associate degree nurses
Projections

NATIONAL

- In 2014 the federal Health Resources & Services Administration projected Supply will grow 33% and Demand 21% by 2025, resulting in a surplus of 340,000 RNs nationally*

- Most analysts do not agree ... project shortages

- Auerbach, Buerhaus, Staiger (2015)
  - We will be able to replace the retiring baby boom RNs!
  - Total supply will increase by 15% (half as much as HRSA’s projection), consequently ...
  - Supply will not match demand in 2025 and shortages of up to 130,000 nationwide still a possibility


Auerbach, Buerhaus & Staiger. Will the RN workforce weather the retirement of the baby boomers? 2015. Medical Care. 53(10), 850-856.
Projections

MONTANA

According to the Health Resources & Services Administration, in 2025:

- RN Demand estimated at 12,100
- RN Supply estimated at 11,300
- Deficit = -800 RNs

What is being done?

- May 10, the Robert Wood Johnson Foundation and Association of American Retired People held 1.5 day meeting to organize a national data collection effort

- Roughly 35 states have created a state “nursing workforce commission”

- In mid July, the nation’s S/D modeling experts are coming to Montana to address forecasting issues and arrive at consensus

- 2017 national meeting on the nursing workforce
ASN and BSN Graduates, 1984-2014

National Perspective
Masters and PhD Graduates, 1984-2014

National Perspective
Curriculum Review Committee

- PN, ASN and BSN Completion faculty from 11 colleges
- 90 employers representing healthcare across Montana

Purpose of Redesign

- Address workforce needs and shortages in nursing
- Prepare nurses to respond adequately to the health needs of their clients and the community
- Meet rapidly changing healthcare needs
- Ensure pathway of academic progression from PN to ASN
- Seamless academic progression from ASN to BSN
Three Revised Nursing Programs

1) 3 semester, 42 credit Certificate of Applied Science (CAS) Practical Nursing Program
   - Decrease of one semester and 10 credits
   - Increase in geriatric and community nursing
   - Distance delivery to rural and frontier Montana

2) 5 semester, 72-74 credit Associate of Science (ASN) Registered Nursing Program
   - Decrease of one semester and 7 credits
   - Increase in nursing content aligning with the RN scope of practice

3) 3 semester, 48-49 credit Bachelor of Science (BSN) Completion Program
   - Decrease of one semester and 3-4 credits
   - Online with 3 credits (90 hours) clinical that can be completed in community
   - Part-time program completion available
Curriculum Revision Outcomes

- 20-25% reduction in time and up to $16,599 reduction in cost for PN, ASN and BSN Completion education

- Entry into workforce six months earlier resulting in potential to increase earnings ~$15,500 for LPN and $22,500 for Registered Nurse (RN)

- 20% increase in number of ASN graduates over time

- Increase in nursing curriculum content preparing graduates with knowledge, skills and abilities current to the scope of practice and National standards

- Improve the quality and safety of Montana healthcare needs

- Increased access to nursing education for rural residents, veterans, Native Americans, and unemployed Montanans expands the population base that can become nurses
BSN Programs Statewide

- **MSU BSN Program**
  - Statewide (5 campus) program, 215 graduates in 2014-15
    - Students may take pre-requisites where they live or in Bozeman
    - Montana students may attend the Upper Division programs in Billings, Missoula, Kalispell, Great Falls, Bozeman

- **MSU Northern**
  - Bachelors of Science Nursing -- Completion Program, 33 graduates in 2014-15

- **MT Tech**
  - Bachelors of Science in Nursing -- Completion Program, 16 graduates in 2014-15
  - NEW, Bachelors of Science in Nursing (4-year Degree Program) approved March 2015
MSU College of Nursing – Bozeman
Programs of Study

• Traditional BSN:
  – May be adding additional 16 seats to Bozeman site

• Accelerated BSN (ABSN):
  – Great Falls & Bozeman
  – Hoping to add 16 seats split between Missoula and Kalispell

224 annual admissions/graduations

• ADRN-MN (CNL)
• CNL MN
• DNP
  – Psyche/Mental Health DNP
  – Family Nurse Practitioner DNP

• Certificate in Nursing Education

DNP = Doctorate of Nursing Practice
ADRN-MN = Associate Degree RN to Master in Nursing Degree
CNL = Clinical Nurse Leader
Annual Upper Division Undergraduate Admissions

- Kalispell: 16 BSN
- Great Falls: 32 BSN/16 ABSN
- Missoula: 48 BSN
- Bozeman: 16 BSN
- Billings: 80 BSN
- 16 BSN/16 ABSN
Graduate Programs of Study

- **ADRN-MN**
  - New program of study
  - 5 students in current cohort
  - Will matriculate in F16 to CNL/MN

- **CNL-MN: 5-10/year**
  - Clinical Nurse Leaders for MT

- **DNP**
  - Family Nurse Practitioner (FNP)
    - 20-25/year
  - Psyche Mental Health
    - 10-15/year

- **Distance Delivery**
  - Clinical in home community
  - Didactic by distance
  - Develop and Implement Evidence Based Practice Projects

- **Montana vs Out of State Applicants**
  - Varies: out of state < 25%

- **Certification Exam**
  - Consistently 100% pass rate
Summary

- MUS Nursing graduate production has increased by 46% (198 grads) over the past ten years.
- Montana’s nursing workforce is aging and concentrated in more urban areas.
- Employment projections in MT indicate the need for 376 RN’s and 119 LPN’s annually for the next ten years.
- Nationally, over 1 million registered nurses are expected to retire in the next ten years.
- While experts struggle to agree on the number, both national and state-level shortages are projected.
- The MUS is undertaking nursing curriculum revisions designed to increase efficiency and overall nursing graduate production.
- Access to associate and bachelor’s level nursing opportunities is available at multiple sites throughout the statewide.