Tracking Supply and Demand in NC

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North Carolina Center for Nursing

- Established in 1991 by the NC General Assembly
- First state-supported agency in the nation designed to address nurse supply and demand issues
NCCN’s mission:

To assure that the state of North Carolina has the nursing resources necessary to meet the health care needs of its citizens.
To learn more:

Visit our web site:

http://www.NurseNC.org
General Program Areas at NCCN:

- Workforce Research
- Recruitment and Retention programs
- Workforce Policy Planning and Evaluation
Focus on Research

- Annual updates of trends derived from RN and LPN license renewal data
- Long range forecasting
- Alternating annual cycle of research:
  - Supply side – survey of nurses
  - Demand side – survey of nurse employers

- RN and LPN Supply Trends
- RN and LPN Workforce Demographics
- Employment Characteristics
- Advanced Practice Nurses
- Nursing Workforce Planning Regions

All available at www.nurseNC.org/research
Profiling the supply of nurses in North Carolina
Age pyramids in the USA

Source: U.S. Census Bureau

Licensed RNs

RNs in the Workforce

Estimated RN FTEs
Trends: Average ages in the NC nursing workforce

The graph shows the average ages of RNs and LPNs in the North Carolina nursing workforce from 1982 to 2000. The ages have generally increased over time, with RNs (red triangles) showing a steady increase and LPNs (blue line) following a similar trend. In the late 1990s, there was a notable peak in RN age, which then decreased in the early 2000s.
RN Workforce by Age Groups in the Future

Forecast generated via the Nurse Supply Model with NC data: 1995 as baseline.
Trends: Racial diversity in the NC nursing workforce

- RN Workforce
- LPN Workforce
Trends: Gender diversity in the NC nursing workforce

![Graph showing trends in gender diversity in the NC nursing workforce](image-url)

- **Percent Male RNs**
- **Percent Male LPNs**

The graph illustrates the increase in the percentage of male RNs and LPNs in the NC nursing workforce from 1982 to 2000.
Trends: Highest degree levels within the RN workforce
Employment Profile of the Nursing Workforce in NC
Employment Status Among Licensed RNs

- Employed in nursing - Full Time
- Employed in nursing - Part Time
- Employed outside nursing - Full time
- Employed outside nursing - Part time
- Not Employed
- Status Unknown
- Retired or Disabled
### Employment Status by Age Group among RNs in 2001

#### Number of RNs by Age and Employment Status - 2001

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Employment Status Unknown</th>
<th>Not Employed</th>
<th>Employed Outside Nursing</th>
<th>Employed In Nursing</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-24</td>
<td>5</td>
<td>9</td>
<td>2</td>
<td>2,625</td>
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<tr>
<td>25-34</td>
<td>71</td>
<td>710</td>
<td>285</td>
<td>18,782</td>
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<tr>
<td>35-44</td>
<td>56</td>
<td>1,945</td>
<td>1,283</td>
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<tr>
<td>45-54</td>
<td>36</td>
<td>1,804</td>
<td>1,712</td>
<td>22,379</td>
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<tr>
<td>55-64</td>
<td>7</td>
<td>1,878</td>
<td>903</td>
<td>8,728</td>
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<tr>
<td>65-74</td>
<td>4</td>
<td>1,667</td>
<td>210</td>
<td>1,435</td>
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<tr>
<td>75+</td>
<td>5</td>
<td>250</td>
<td>14</td>
<td>133</td>
</tr>
</tbody>
</table>

- Employment Status Unknown: teal
- Not Employed: yellow
- Employed Outside Nursing: purple
- Employed In Nursing: blue
Trends: Percent of RNs by employment setting over time

- Hospital
- Nursing Home
- Medical Practice / HMO
- Community Agency
- All Others
- Unknown
Trends: Percent of LPNs by employment setting over time

- **Hospital**: Blue
- **Nursing Home**: Yellow
- **Medical Office**: Green
- **Community**: Pink
- **All Others**: Cyan
- **Unknown**: Grey

- **1982**
- **1986**
- **1990**
- **1994**
- **1998**
- **2001**
Trends: RN workforce by type of nursing position

- Unknown
- Other
- Advanced Practice RNs
- Supervisor / Head Nurse
- Administrator / Asst Admin
- Staff / General Duty
Trends: Growth in Advanced Practice RNs in NC

Certified Nurse Midwives: 25, 32, 37, 29, 27, 33, 31, 33, 47, 59, 71, 91, 98, 107, 113, 139, 155, 175
Nurse Practitioners: 398, 405, 437, 438, 466, 497, 528, 545, 578, 690, 694, 803, 910, 1108, 1321, 1425, 1656
Certified Nurse Anesthetists: 683, 715, 747, 790, 833, 839, 846, 895, 944, 990, 1037, 1080, 1067, 1033, 1089, 1137, 1184, 1239
Factors affecting nurse supply in the future

- ‘aging out’ – retirement of the baby boomers
- labor productivity - more part-timers
- Lack of young nurses - fewer years in the profession / physical ability
- Poor image of health care as a career choice
- Demographic bottleneck - fewer young workers to recruit into anything
- Capacity limits in our nursing education system
- Bottle-neck created by faculty shortage
Understanding Demand and Future Forecasting
Distinguishing between **Need** and **Demand**

- **Need**: A level of care or service (or nursing care) that ought to be consumed during a period of time in order to attain a desired health status.

- **Demand**: The quantity of goods, services or personnel which consumers or employers are willing to buy at various prices.
Factors affecting the demand for nurses in the future

- Population aging - more health care demand
- Sicker patients
- Older patients
- Inability to substitute less knowledgeable labor
- Labor productivity
- New technologies or medical discoveries
- Expanding roles for nurses outside the hospital
- The economy
- Government health care payment policies
When is it a shortage?

When the total number of nurses available and willing to work at a specific wage is smaller than the total number of nurses that employers want to hire at that wage.
Forecasting the Future: RN Supply and Demand in NC

This estimate of future supply is a linear trend based on the actual number of RNs in the nursing workforce in North Carolina during the years 1996 - 2000, calculated from the RN licensure files.
Coming Soon!

Nurse Employer Survey – data collection just completed
Hospitals, nursing homes, home care, hospice, public health, mental health, and ‘new role’ businesses

Schools of Nursing Survey – Spring, 2003