Trends in the Supply, Distribution and Employment of Dentists in North Carolina

Victoria McGee, Tamar Odle, Jessica Lyons, Katie Gaul, Erin Fraher

North Carolina Health Professions Data System
North Carolina Supply Lags Behind US

Dentists per 10,000 Population US and NC, 1979-2009

*ADA number of actively practicing dentists in the U.S. in 2008 is 181,774, an increase of 73 from 2007. This increase is not consistent with that of previous years. Taking prior increases into account would result in an estimate 182,028 dentists actively practicing dentists in the U.S. in 2008 and 185,202 in 2009.*

Sources: North Carolina Health Professions Data System, 1979 to 2009 with data derived from the North Carolina State Board of Dental Examiners, HRSA, Bureau of Health Professions; US Bureau of the Census; North Carolina Office of State Planning. Figures include all licensed active dental hygienists. North Carolina population data are smoothed figures based on 1980, 1990 and 2000 Censuses. *Note: US population data for 2001-2002 are slightly different than previous years and may partially account for the slight drop in dentists per 10,000 population at the national level.
Effect of Recession?
Fewer Dentists Leave Workforce

<table>
<thead>
<tr>
<th>Year</th>
<th>Supply</th>
<th>Gain</th>
<th>Loss</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>3,858</td>
<td>220</td>
<td>157</td>
<td>3,921</td>
</tr>
<tr>
<td>2007</td>
<td>3,921</td>
<td>256</td>
<td>190</td>
<td>3,987</td>
</tr>
<tr>
<td>2008</td>
<td>3,987</td>
<td>225</td>
<td>119</td>
<td>4,093</td>
</tr>
</tbody>
</table>

Source: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2009. Figures include active, instate dentists licensed in North Carolina as of October 31, 2009.
One in Four New Dentists from UNC-CH

Gain in Dentists, 2009

New UNC grads: 27%
Previously licensed in NC: 31%
Newly licensed from credential: 17%
New out-of-state grad: 25%

Gain in Dentists = 225

Source: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2009. Figures include active, instate dentists licensed in North Carolina as of October 31, 2009.
UNC-CH New Grads Less Likely to Practice in Rural Areas

Source: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2009. Figures include active, instate dentists licensed in North Carolina as of October 31, 2009.
Retention of Dentists Trained in North Carolina on the Decline

Retention of Dentists Trained at UNC

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>84%</td>
</tr>
<tr>
<td>2004</td>
<td>80%</td>
</tr>
<tr>
<td>2005</td>
<td>78%</td>
</tr>
<tr>
<td>2006</td>
<td>76%</td>
</tr>
<tr>
<td>2007</td>
<td>74%</td>
</tr>
<tr>
<td>2008</td>
<td>70%</td>
</tr>
</tbody>
</table>

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2000-2009. Counts include active, instate dentists licensed in North Carolina as of October 31, 2000-2009. Retention was calculated # in licensure file for that year and year +1.
Percent of Active Dentists who Graduated from UNC-Chapel Hill Dental School
North Carolina, 2009

Percent Graduating from UNC-CH Dental School
(# of Counties)
- All Dentists are UNC Graduates (11)
- 75.0% to 99.9% (16)
- 50.0% to 74.9% (42)
- 14.3% to 49.9% (25)
- No UNC Graduates (2)
- No Active Dentists (4)
- Nonmetropolitan County (60)

Notes: Data include active, instate dentists licensed in North Carolina as of October 31, 2009. Core Based Statistical Areas are current as of the December 2009 update. Nonmetropolitan counties include micropolitan and counties outside of CBSAs. Source: North Carolina Health Professions Data System, with data derived from the NC State Board of Dental Examiners, 2009; US Census Bureau, 2009. Produced by: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.
Dentists per 10,000 Population
North Carolina, 2009

Dentists per 10,000 Population
(# of Dentists)

- 4.00 to 10.36  (24)
- 2.81 to 3.99   (24)
- 2.09 to 2.80   (24)
- 0.01 to 2.08   (24)
- No Active Dentists (4)

*Dentists included are active or have unknown activity status.
Source: North Carolina Health Professions Data System, with data derived from the NC State Board of Dental Examiners, 2009.
Produced by: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.
Change in Dentists per 10,000 Population
North Carolina, 2004-2009

- 50% or Greater Increase: 4 counties
- 25.0% to 49.9% Increase: 4 counties
- Less Than 25.0% Increase: 42 counties
- Decrease in Dentists: 45 counties
- Lost All Dentists: 1 county
- No Dentists in 2004, At Least One in 2009: 1 county
- No Dentists in 2004 or 2009: 3 counties

Nonmetropolitan County: 60

Notes: Data included active, in-state dentists licensed in North Carolina as of October 31 of the respective year. Core-Based Statistical Areas are current as of the December 2009 update. Nonmetropolitan counties include micropolitan and counties outside of CBSAs. Source: North Carolina Health Professions Data System, with data derived from the NC State Board of Dental Examiners, 2004-2009; US Census Bureau, 2009. Produced by: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.
North Carolina Dental Workforce is Graying

3 counties in NC have dentists whose average age is 65 years or older

NOTE: Three dentists were missing age. Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2009. Figures include active, instate dentists licensed in North Carolina as of October 31, 2009.
Dentists by Age and Gender, 2009

**NOTE:** Three dentists were missing age. Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2009. Figures include active, instate dentists licensed in North Carolina as of October 31, 2009.
Gender Differences in Work Hours

Average Hours per Week by Age and Gender,
NC Dentists, 2009

Note: Three dentists were missing age and 84 male dentists and 57 female dentists did not report total hours per week in 2009. Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2009. Figures include active, instate dentists licensed in North Carolina as of October 31, 2009.
Diversity of Dentists, 1990-2009

- 1990: 93%
- 2000: 90%
- 2009: 84%
- State Population 2009: 67%

Legend:
- Other/Unknown
- Hispanic
- Asian
- American Indian
- Black
- White
Over Three out of Four North Carolina Dentists are in General Practice

<table>
<thead>
<tr>
<th>Specialty 2009</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Practice</strong></td>
<td>78% (3,203)</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>6% (247)</td>
</tr>
<tr>
<td>Pediatric Dentistry</td>
<td>4% (153)</td>
</tr>
<tr>
<td>Oral Surgery</td>
<td>4% (152)</td>
</tr>
<tr>
<td>Endodontology</td>
<td>3% (119)</td>
</tr>
<tr>
<td>Periodontology</td>
<td>2% (100)</td>
</tr>
<tr>
<td>Public Health</td>
<td>2% (66)</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>1% (47)</td>
</tr>
<tr>
<td>Oral/Maxillofacial Radiology</td>
<td>&lt;1% (6)</td>
</tr>
</tbody>
</table>

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2009. Counts include active, instate dentists licensed in North Carolina as of October 31, 2009.
### Fastest Growing Specialty from 2003-2009 is Pediatric Dentistry

<table>
<thead>
<tr>
<th>Specialty</th>
<th>2003</th>
<th>2009</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pediatric Dentistry</strong></td>
<td>100</td>
<td>153</td>
<td>53%</td>
</tr>
<tr>
<td>Public Health</td>
<td>48</td>
<td>66</td>
<td>38%</td>
</tr>
<tr>
<td>Endodontics</td>
<td>90</td>
<td>119</td>
<td>32%</td>
</tr>
<tr>
<td>General Practice</td>
<td>2,679</td>
<td>3,203</td>
<td>20%</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>221</td>
<td>247</td>
<td>12%</td>
</tr>
<tr>
<td>Oral surgery</td>
<td>142</td>
<td>152</td>
<td>7%</td>
</tr>
<tr>
<td>Periodontics</td>
<td>96</td>
<td>100</td>
<td>4%</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>51</td>
<td>47</td>
<td>-8%</td>
</tr>
<tr>
<td>Oral Pathology</td>
<td>1</td>
<td>0</td>
<td>-100%</td>
</tr>
<tr>
<td>Oral/Maxillofacial</td>
<td>0</td>
<td>6</td>
<td>----</td>
</tr>
</tbody>
</table>

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2009. Counts include active, instate dentists licensed in North Carolina as of October 31, 2009.

Average workforce growth = 20%
Slight Increase in Self-Employed Dentists

Projections
Projections Show Decline in Dentists per Population by 2020
Questions?

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North Carolina Health Professions Data System
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