

# The Dentist Workforce in North Carolina

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**January 15, 2009**



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# Overview

- Trends in supply of dentists in NC
- Geographic distribution of dentists in NC
- Characteristics of NC dentists
  - Demographics
  - Practice characteristics
  - Location of education program
- New supply projections



# Supply

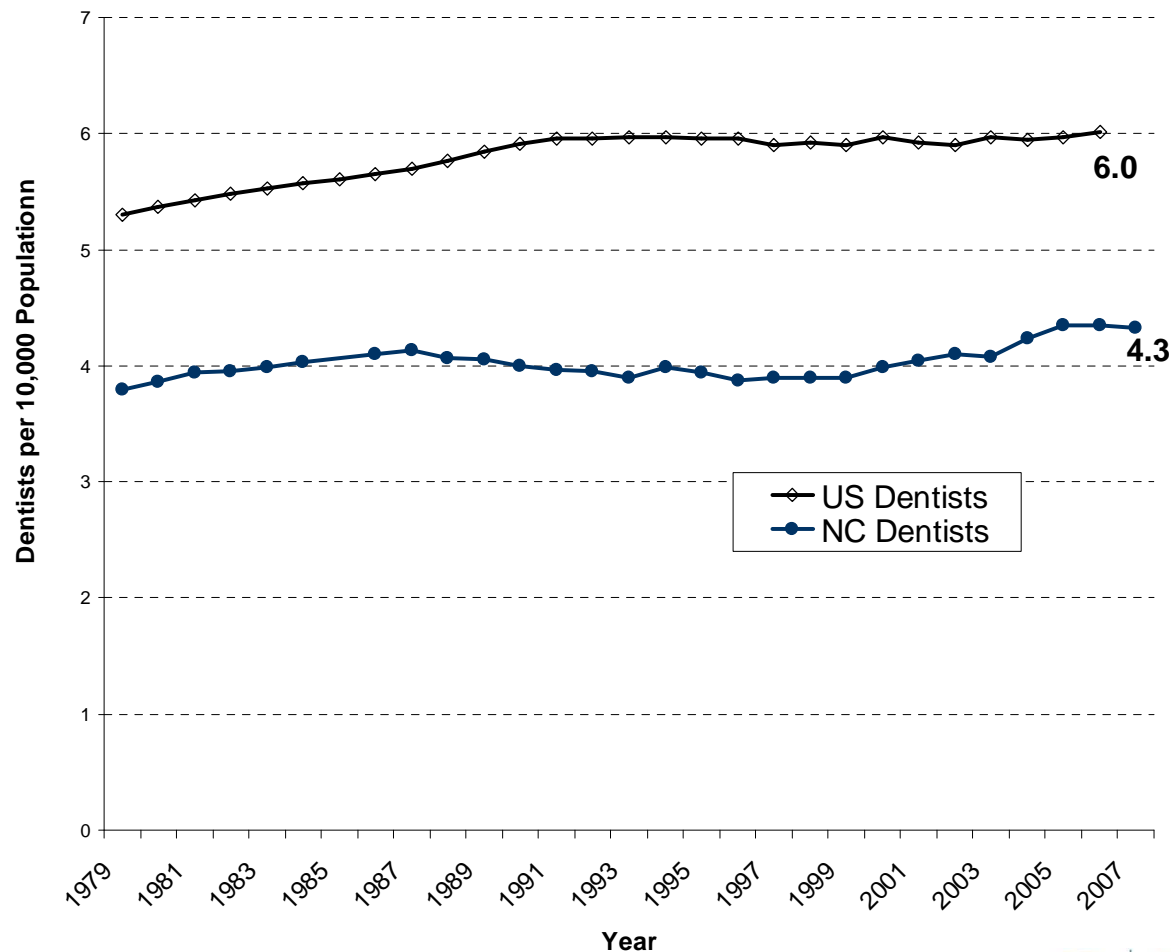


# North Carolina Dental Supply

- NC had 3,921 active dentists in 2007
- Trend is toward slowing supply. Annual change in dentist to population ratio has been:
  - *Decrease* of -0.7% between 2006 and 2007
  - Increase of 0.0097% between 2005 and 2006
  - Increase of 2.8% between 2004 and 2005
  - Increase of 3.9% between 2003 and 2004
- NC supply significantly lags behind U.S. supply



# Dentists per 10,000 Population US and NC, 1979-2007



Sources: North Carolina Health Professions Data System, 1979 to 2005 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.



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# North Carolina Dental Workforce Is Dynamic

- About 10% of the workforce either enters or exits practice in a given year.
- Recently, the net gain in dentists (dentists entering practice – dentists leaving practice) has declined.
- Larger number of dentists left practice between 2006-2007 than in previous years.



# Components of Change, 2004-2007

2004 Supply 3,628	+	Gain 279	-	Loss 135	=	2005 total 3,772 <i>Net gain 144</i>
2005 Supply 3,772	+	Gain 219	-	Loss 133	=	2006 total 3,858 <i>Net gain 86</i>
2006 Supply 3,858	+	Gain 220	-	Loss 157	=	2007 total 3,921 <i>Net gain 63</i>



# New Dentists in 2007

**Of the 220 new dentists in NC:**

- 57 (26%) were new graduates from UNC-CH
- 62 (28%) were new graduates from other states
- 29 (13%) were newly licensed by credential
- 72 (33%) previously held a NC license and were not practicing in 2006





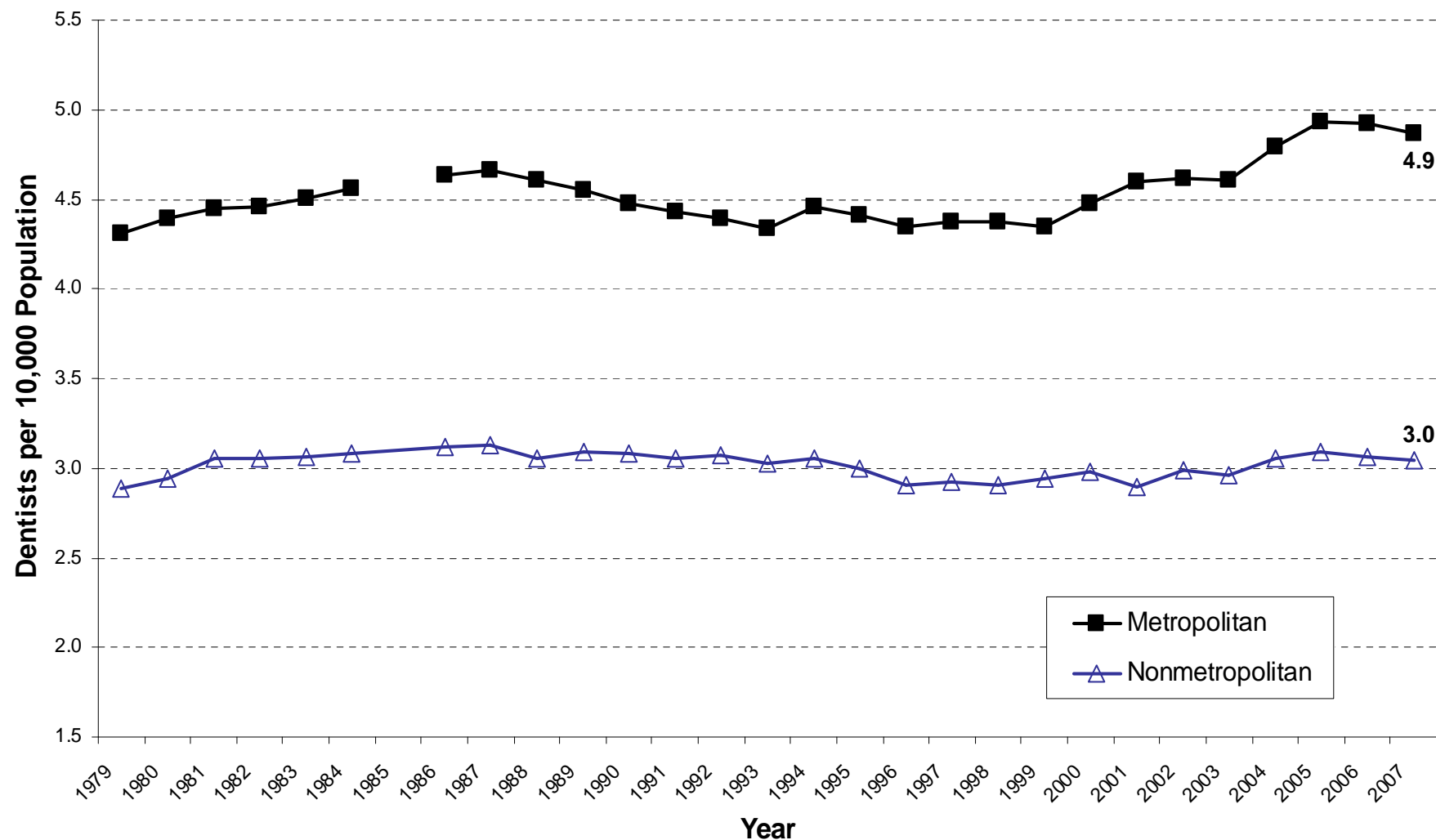
# Geographic Distribution



# Distribution Is Problematic

- *Supply* of dentists per population is lower in rural counties.
- *Growth* in dentists per population has been slower in rural counties.
- 4 counties, all in eastern NC, have no actively practicing dentists.
- Between 1997-2007, the supply of dentists in 44 counties did not keep pace with population growth.

## Dentists per 10,000 Population by Metropolitan and Nonmetropolitan Counties, North Carolina, 1979 to 2007



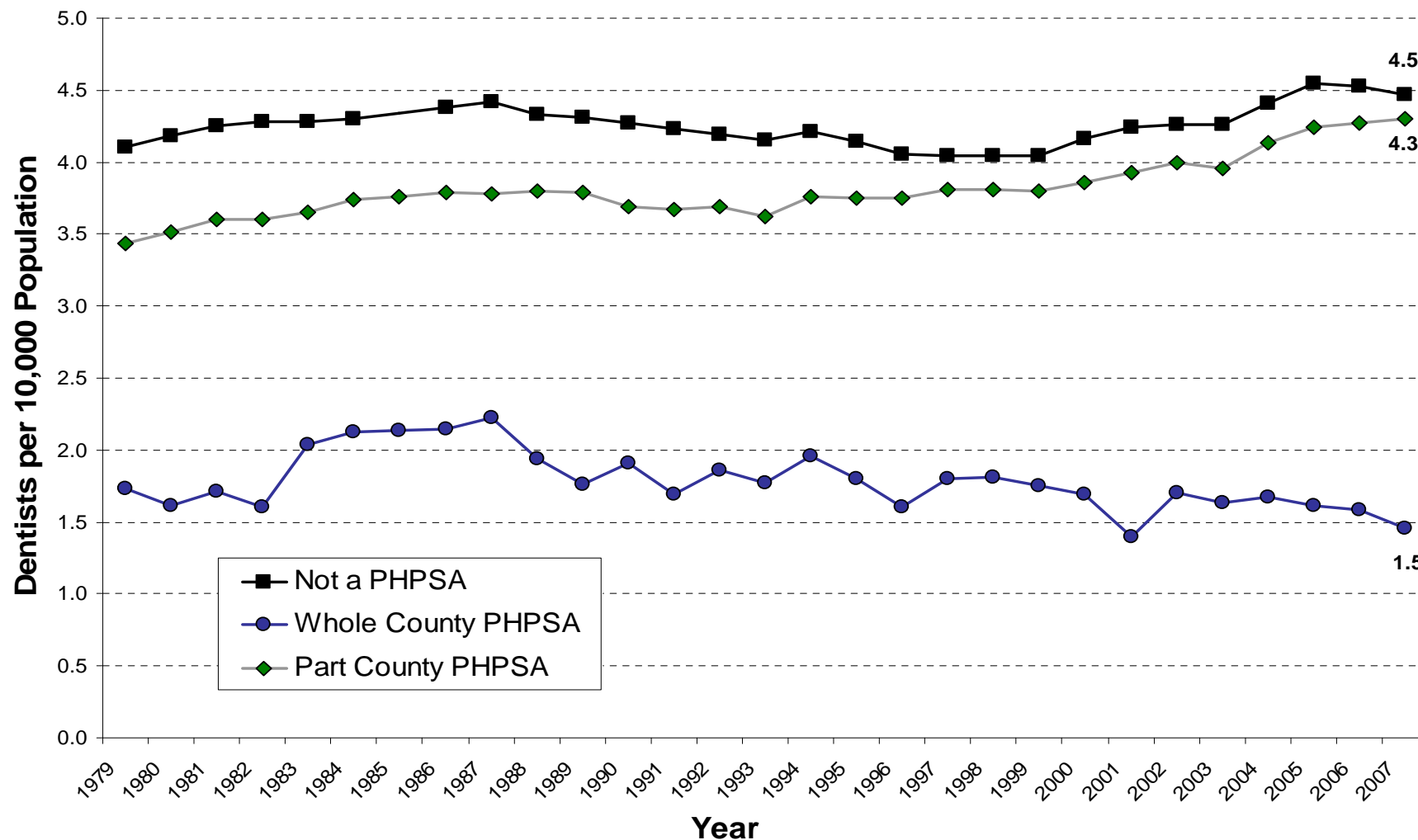
Source for Metropolitan-Nonmetropolitan definition: Office of Management and Budget, 1999.

Sources: North Carolina Health Professions Data System, 1979 to 2007 with data derived from the North Carolina State Board of Dental Examiners; North Carolina Office of State Planning. Figures include all licensed active, in-state, dentists.



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## Dentists per 10,000 Population by Persistent Health Professional Shortage Area (PHPSA) Status North Carolina, 1979 to 2007

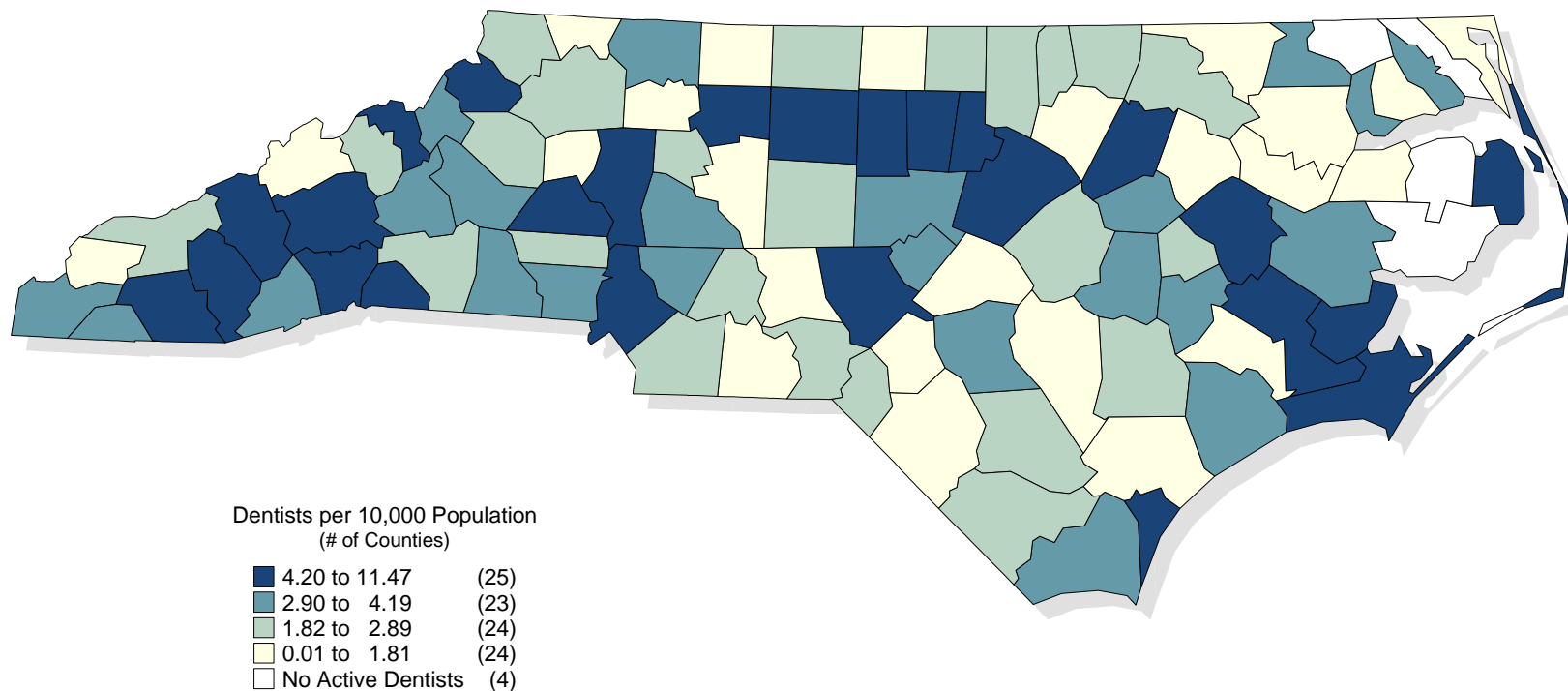


Sources: North Carolina Health Professions Data System, 1979 to 2007 with data derived from the North Carolina State Board of Dental Examiners; North Carolina Office of State Planning. Figures include all licensed active, in-state, dentists. Source for Health Professional Shortage Areas: Area Resource File, HRSA, Department of Health and Human Services, 2006. Persistent HPSAs are those designated as HPSAs by HRSA from 1999 through 2005, or in 6 of the last 7 releases of HPSA definitions.



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## Dentists per 10,000 Population North Carolina, 2007

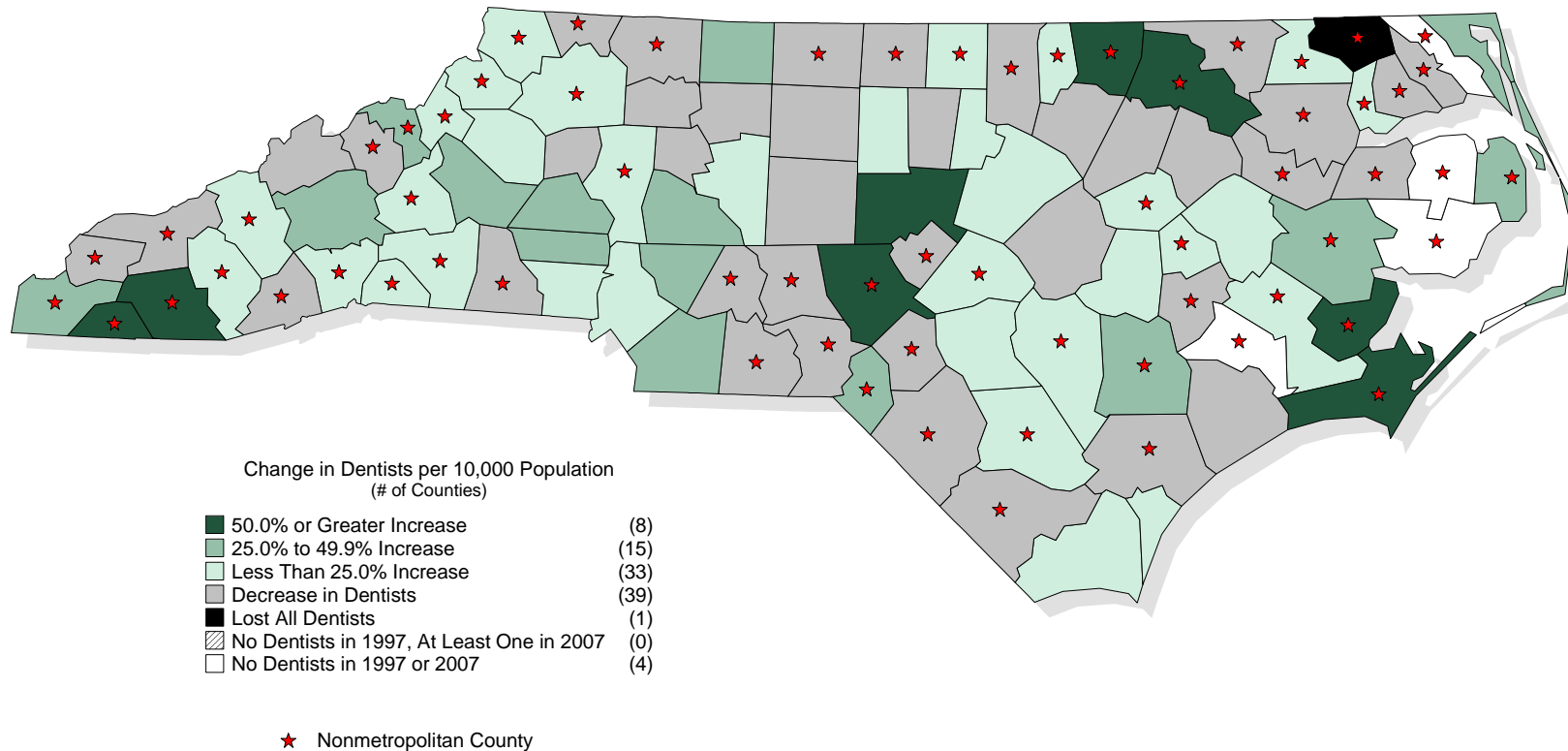


Source: North Carolina Health Professions Data System, with data derived from the NC State Board of Dental Examiners, 2007.

Produced by: North Carolina Health Professions Data System, and the Southeast Regional Center for Health Workforce Studies, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

\*Dentists included are active or have unknown activity status.


## Change in Dentists per 10,000 Population North Carolina, 1997-2007



Source: North Carolina Health Professions Data System, with data derived from the NC State Board of Dental Examiners, 2007.

Produced by: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

\*Data include active, in-state dentists.



# Demographic Characteristics



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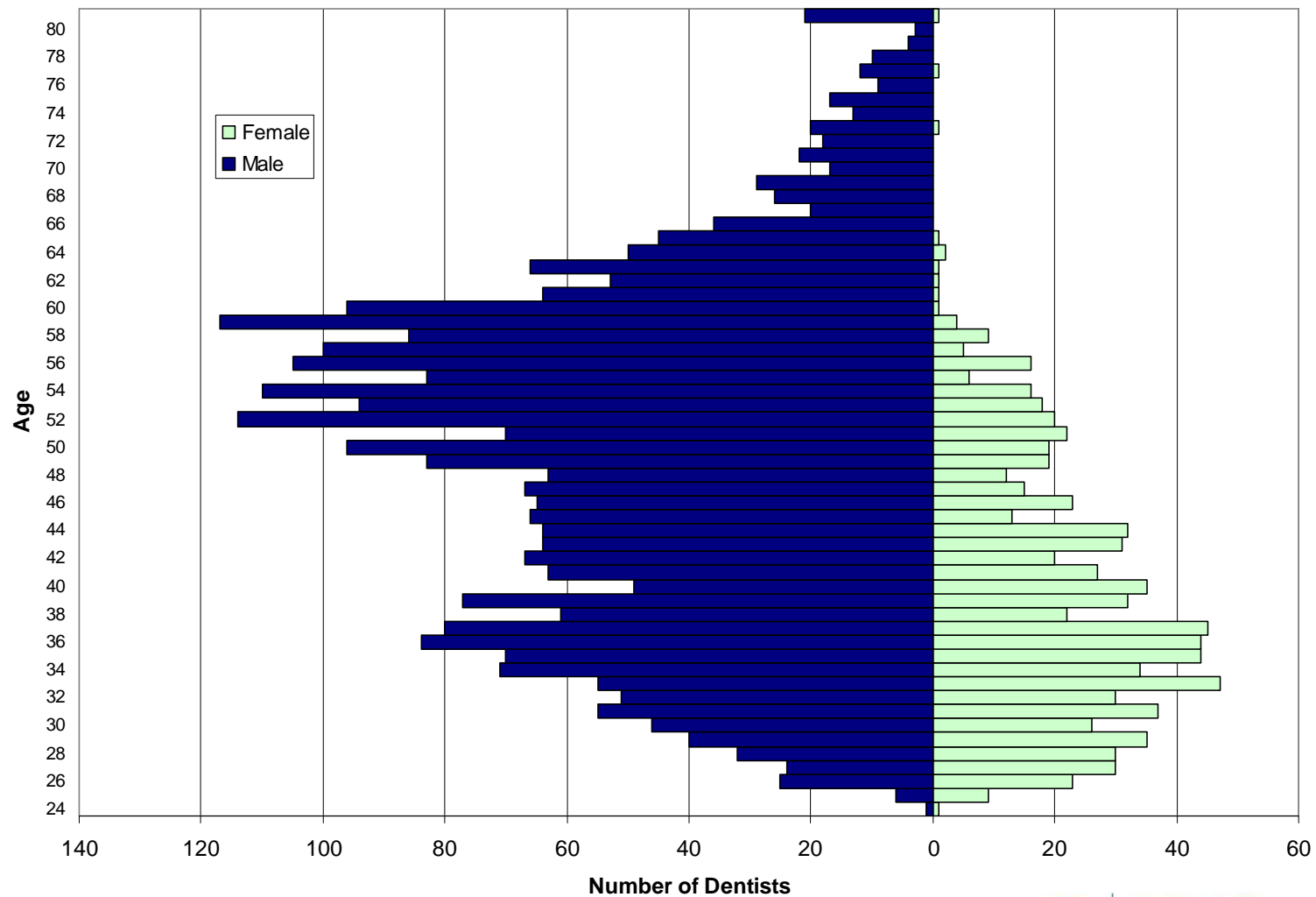


# North Carolina Dental Workforce is Graying

- Over 42% of NC dentists are 50 or older
  - 31% are 55 or older
- The average age of all NC dentists is 47.4 years.
  - Average age in metropolitan counties is 46.7 years
  - Average age in non-metropolitan counties is 49.9 years
  - Average age in whole-county HPSAs is 51.4 years
- 5 counties in NC have dentists whose average age is 65 years or older. If dentists are unable to sell their practices, these 5 counties are at risk for not having any dentists.
- Female dentists in NC are 10.5 years younger than male dentists, on average.



# Dentists by Age and Gender, 2007



Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2007 . Figures include active, instate dentists licensed in North Carolina as of October 31, 2007.



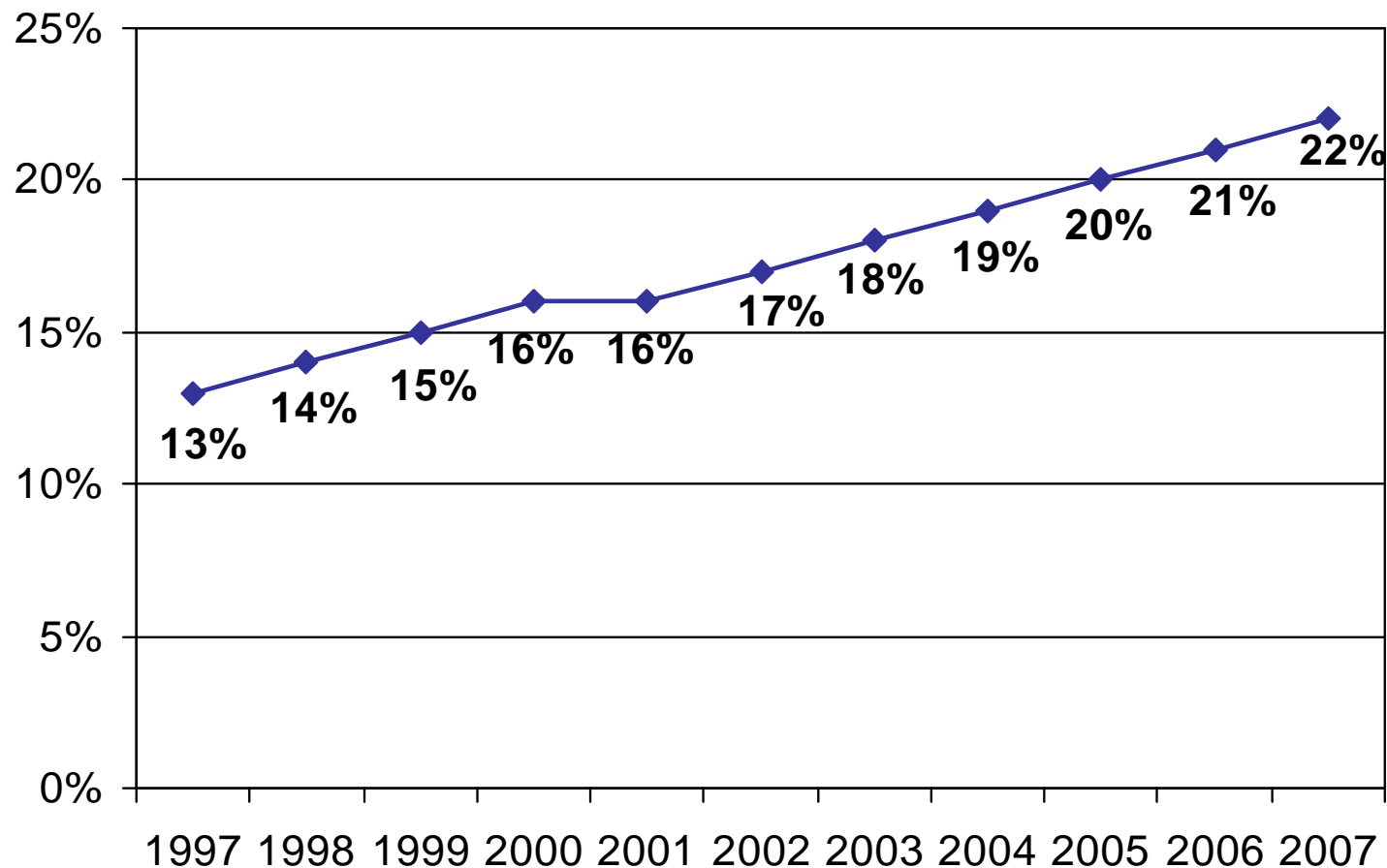
# Age of North Carolina Dentists, 2007

Age	
<31	8.4%
31-40	26.1%
41-50	23.2%
51-60	27.9%
61-70	10.5%
> 70	3.9%

Note: Figures include active, instate dentists; five dentists had missing age data.

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2007 .

# Percentage of Dentists Who Are Female, North Carolina, 1997-2007



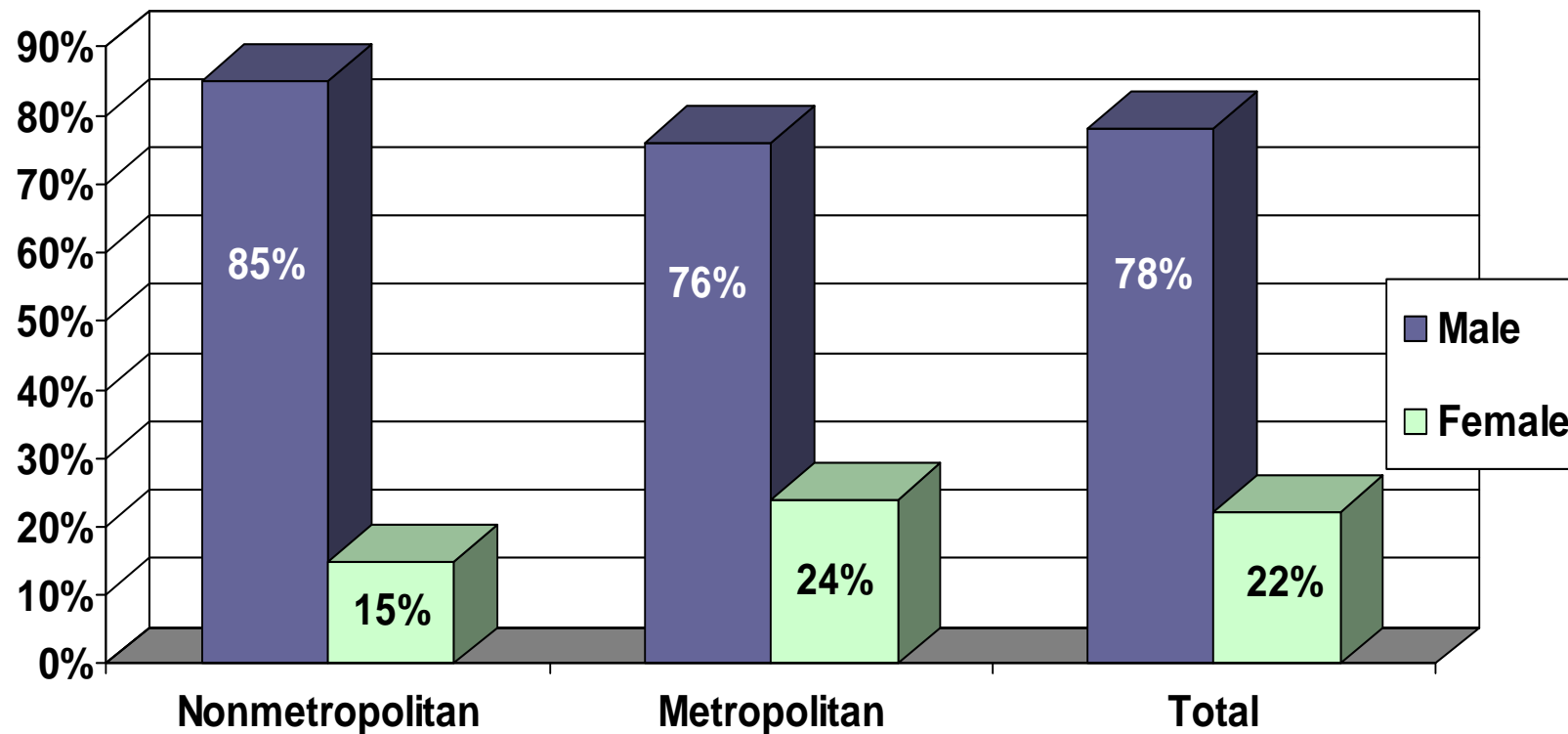
Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 1997 to 2007 .

# Difference in Hours Worked per Week, Male Hours-Female Hours, 1984 and 2007

Age	1984		2007	
	Hours per Week	Number of Women	Hours per Week	Number of Women
< 31	1.1	46	1.4	128
31-40	0.4	38	4.3	348
41-50	1.5	6	3.5	206
51-60	-0.7	5	0.9	115
61-70	-2.6	3	-4.5	6
Total	-0.6	98	1.5	808
<p>Average hours/week for males in 1984 was 37 versus 37.6 for females.</p> <p>Average hours/week for males in 2007 was 36.8 hours versus 35.3 for females.</p> <p>Note: 93 male dentists and 55 female dentists did not report total hours/week in 2007.</p>				

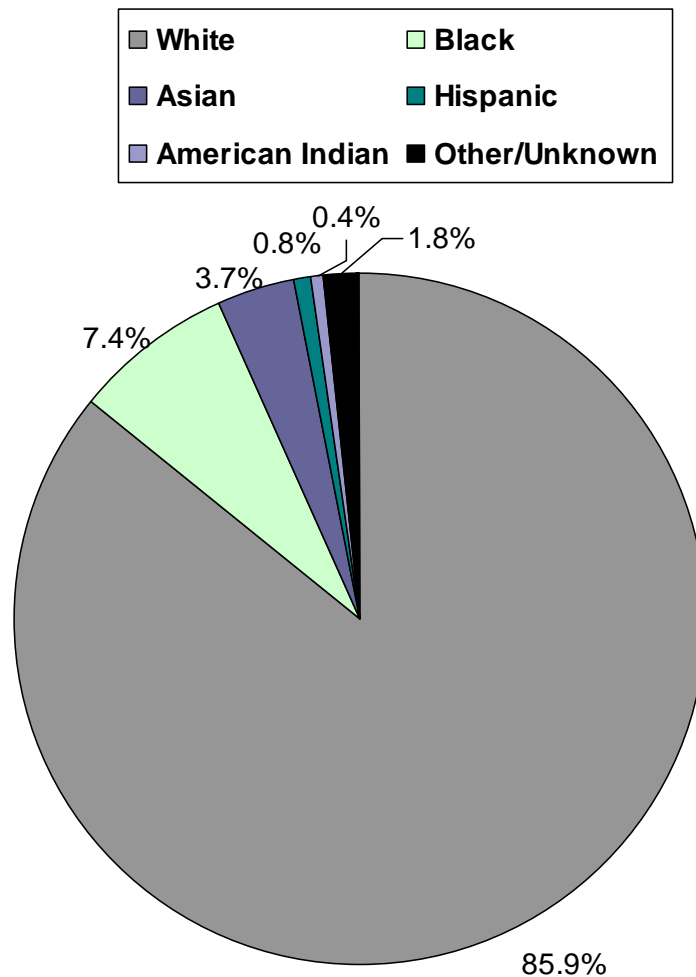
# Dentists by Gender, 2007

Percent of Dentists Who Are Male vs. Female  
in Metropolitan and Nonmetropolitan Areas



Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2007 . Figures include active, instate dentists licensed in North Carolina as of October 31, 2007.

# Dentists by Race, 2007



Race	
White	85.9%
Black	7.4%
Asian	3.7%
Hispanic	0.8%
American Indian	0.4%
Other/Unknown	1.8%

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2007 . Figures include active, instate dentists licensed in North Carolina as of October 31, 2007.



# Practice Characteristics



# Over 3 out of 4 North Carolina Dentists are in General Practice

Specialty, 2007	
General Practice	78.2% (3,065)
Orthodontics	5.9% (233)
Oral Surgery	3.6% (140)
Pediatric Dentistry	3.4% (132)
Periodontics	2.6% (100)
Endodontics	2.8% (111)
Public Health	1.9% (76)
Prosthodontics	1.4% (55)
Oral/Maxillofacial Radiology	<1%(8)
Oral Pathology	<1% (1)

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2007 . Counts include active, instate dentists licensed in North Carolina as of October 31, 2007.



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# Most North Carolina Dentists Work in a Dental Practice Office

Practice Setting, 2007			
	Nonmetropolitan	Metropolitan	Total
Dental Practice Office	87.7%	85.2%	85.7%
Clinics	2.9%	3.1%	3.1%
Schools	0.1%	2.0%	1.6%
Federal/Military	1.1%	0.8%	0.9%
Hospitals	0.2%	0.8%	0.7%
VA/Public Health/Indian Health	2.7%	1.7%	1.9%
Other	4.0%	2.6%	2.9%
Missing	1.3%	3.7%	3.2%
Total	100%	100%*	100%

\*99.9% due to rounding.

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2007 . Counts include active, instate dentists licensed in North Carolina as of October 31, 2007.



# Most North Carolina Dentists Are Self-Employed

Form of Employment, 2007			
	Nonmetropolitan	Metropolitan	Total
Self-Employed	71.4%	62.6%	64.5%
Partnership or a Group	10.1%	15.3%	14.2%
Individual Practice	8.2%	10.7%	10.2%
Local, County, State or Federal Government	6.3%	5.3%	5.5%
Other	2.5%	2.3%	2.4%
Unknown	1.5%	3.8%	3.3%
Total	100%	100%	100%*

*\*100.1% due to rounding*

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2007 . Counts include active, instate dentists licensed in North Carolina as of October 31, 2007.



# Training



# Over Half of North Carolina Dentists are UNC Graduates

Dentists Trained at UNC, 2007			
	Total Dentists	Dentists Graduating from UNC	% of Dentists Graduating from UNC
Metropolitan Counties	3,093	1,639	52.9%
Nonmetropolitan Counties	828	496	59.9%
Total	3,921	2,135	54.5%

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2007. Counts include active, instate dentists licensed in North Carolina as of October 31, 2007.



# On Average, 72% of UNC Graduates Stay in North Carolina to Practice

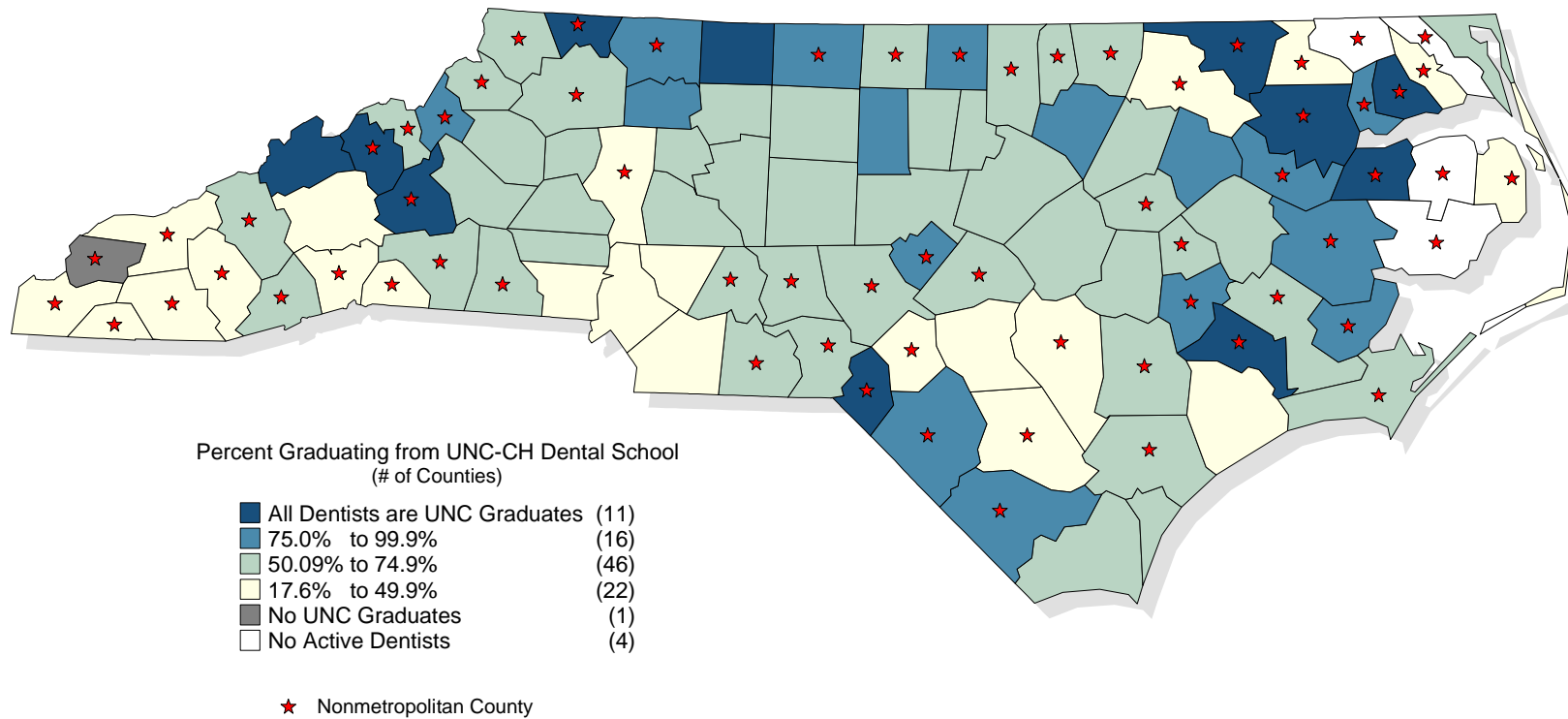
Retention of Dentists Trained at UNC			
Graduation Year	# Grads from UNC-CH	# in 2007 Licensure File	Percent Retention
2000	72	60	83.3%
2001	72	52	72.2%
2002	70	55	78.6%
2003	75	57	76.0%
2004	77	50	64.9%
2005	80	58	72.5%
2006	77	46	59.7%
2007	75	53	70.7%

Sources: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2007; Registrar's Office, UNC School of Dentistry . Licensure Figures include active, instate dentists licensed in North Carolina as of October 31, of the respective year.



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## Percent of Dentists who Graduated from UNC-Chapel Hill Dental School North Carolina, 2007



Source: North Carolina Health Professions Data System, with data derived from the NC State Board of Dental Examiners, 2007.  
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# Projections



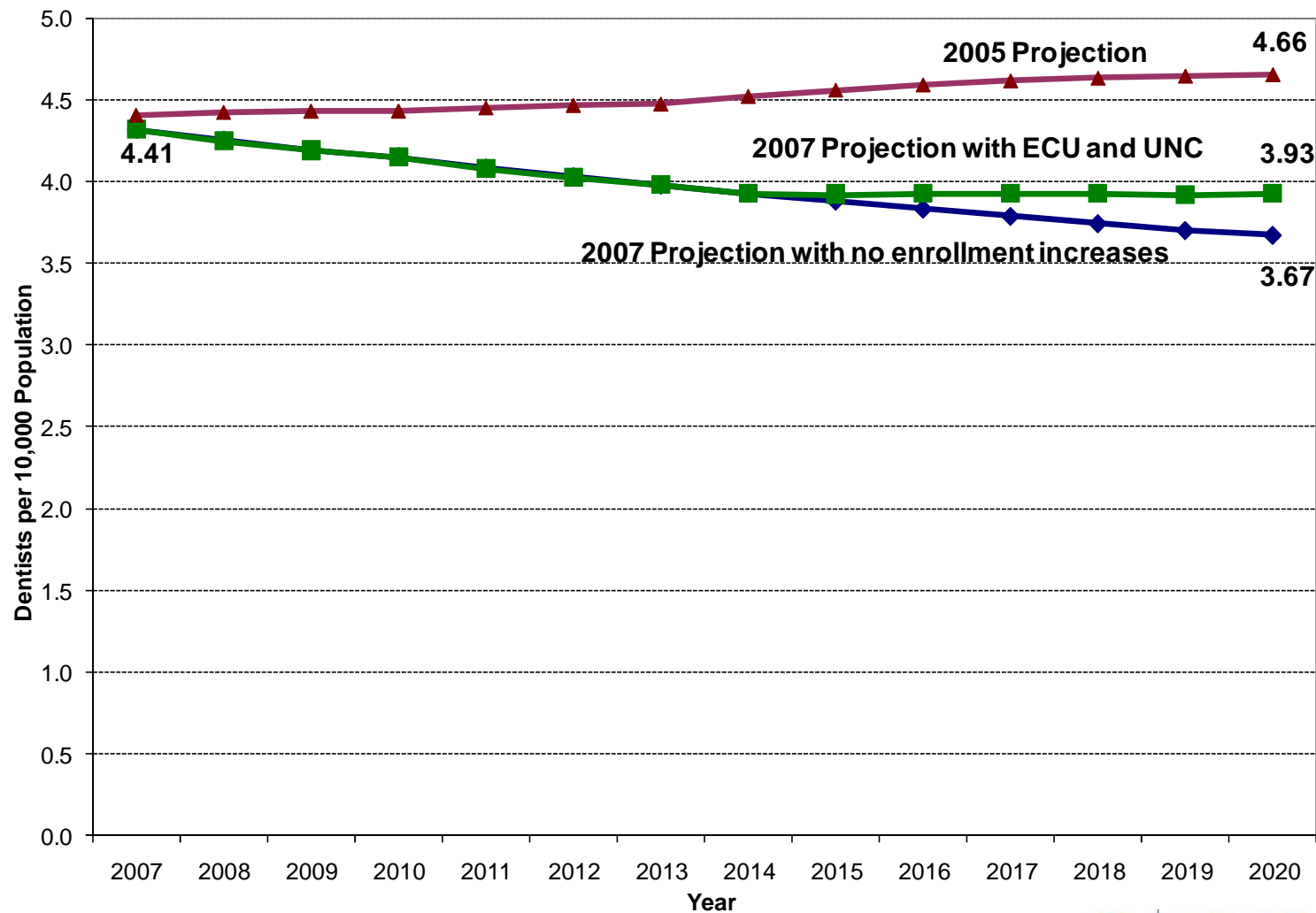
# New Projections Needed

Updated 2005 projections because:

1. The supply of dentists into the state has slowed;
2. The changing flows of dentists into and out of the practice has aged the workforce slightly more rapidly than expected;
3. Retention from the UNC program is lower than what it was when the 2005 projections were done;
4. New graduates from the UNC expansion and the opening of the new program at ECU have been delayed;
5. NC's population has grown more rapidly than previously projected.



# Updated Projections



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