



February, 2018

Data Brief

Changes in the Size of the Dentist Workforce in South Carolina: 2009 - 2015

The number of dentists holding a license to practice in South Carolina increased by a count of 409 between 2009 and 2015. However, not all dentists licensed in the state actively practice within the state. In 2015, 74% of those with a license were actively practicing in South Carolina and providing direct patient care. Table 1 reports dentist counts in 2009 and 2015 as well as growth rates between those two years.

Table 1. Licensed Dentists in South Carolina: 2009 and 2015.

	2009 Headcount	2015 Headcount	Six-year Growth %
# with an active license to practice in SC	2,544	2,953	16.1%
# who are licensed and actively practicing within SC	1,998	2,244	12.4%
Of those who actively practice in SC:			
# in military facilities AND holding a South Carolina license ^a	32	39	21.9%
Total # of Dentists in the South Carolina workforce	1,966	2,205	12.2%
# of Dentists providing direct patient care	1,943	2,177	12.0%

^a Department of Defense and other federal healthcare facilities do not require that dentists hold an active license to practice in the facility's state as long as they are actively licensed somewhere. Thus, the military figures above may be an under-count of the actual number of dentists practicing in military facilities within South Carolina.

Dentists practicing in military facilities not open to the general public are not counted as being part of the active workforce.

The majority of dentists work between 36 and 45 hours a week, but some work fewer hours and some work more. In 2009, 10% of dentists worked fewer than 30 hours a week. In 2015 that had grown to 14%. The variability in hours worked and the change over time suggests that measuring the workforce in terms of full-time equivalents (FTEs), based on a 40 hour week, provides a more accurate assessment of changes in the size of the workforce.

Table 2. Changes in the South Carolina Dentist Workforce by Clinical Specialty: 2009 - 2015

Clinical practice focus:	Dentists (Headcounts)		Headcount Growth Rate 2009 to 2015	Dentist Full Time Equivalents (FTEs)		FTE Growth Rate 2009 to 2015
	2009	2015		2009	2015	
General Dentistry	1,512	1,687	11.6%	1,364.6	1,487.4	9.0%
Orthodontics	125	131	4.8%	115.2	117.7	2.2%
Oral Surgery	96	111	15.6%	109.4	125.6	14.8%
Pediatric Dentistry	75	90	20.0%	70.7	85.1	20.4%
Periodontics	70	72	2.9%	62.9	62.7	-0.3%
Endodontics	49	63	28.6%	48.8	62.2	27.6%
Prosthodontics	23	23	0.0%	21.5	21.3	-0.7%
Other	16	23	43.8%	14.5	21.8	50.9%
Unknown	0	5	NA	0.0	4.1	NA
All Dentists	1,966	2,205	12.2%	1,807.3	1,987.8	10.0%

The "Other" category includes: Administrative Dentistry, Dental Health Programs, Dental Public Health, Institutional Dentistry, Oral Pathology, and United States Public Health Services. "Unknown" indicates no specialty area was reported. See the Endnotes section for dentist specialty definitions.

As noted earlier, the number of dentists increased by 12.2%, but the size of the FTE workforce has grown by only 10%, reflecting an overall reduction in work hours. Table 2 measures the dentist workforce in both headcounts and FTEs, by clinical specialty area, and shows growth rates between 2009 and 2015 for each specialty group. The majority of dentists (about 77%) have a general practice. Endodontics and Pediatric Dentistry are the specialty areas that grew the fastest in South Carolina from 2009 to 2015.

Another way to assess changes in the size of the dentist workforce is to measure it relative to the population in South Carolina which grew by 6.6% between 2009 and 2015. Figure 1 shows how the dentist workforce has grown based on headcounts, FTEs, and FTEs per 100,000 persons in the state. Once population is factored into the size of the workforce, growth in the number of FTE dentists for every 100,000 people is much reduced – a total of 3.1% between 2009 and 2015. Table 3 contains the figures on which growth rates have been calculated.

Figure 1.

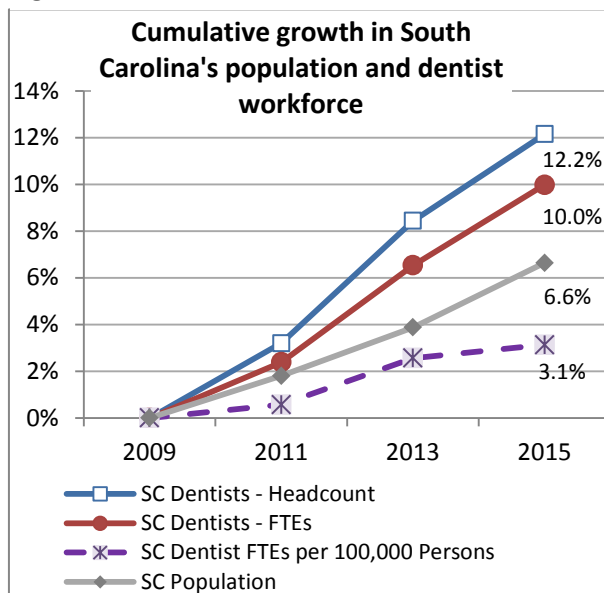


Table 3. Dentist Workforce Size Measures by Year

Dentist Workforce Counts	2009	2011	2013	2015
# of Dentists (Headcounts)	1,966	2,029	2,132	2,205
Full Time Equivalent (FTEs)	1,807.3	1,850.4	1,925.6	1,987.8
Headcount per 100,000 Persons	42.8	43.4	44.7	45.1
FTEs per 100,000 Persons	39.4	39.6	40.4	40.6

Population growth within South Carolina has not been evenly distributed across the state, nor has the growth in the dentist workforce. Table 4 summarizes population figures in 2009 and

2015 for the four AHEC regions in the state and the counties designated as Metropolitan, Micropolitan and non-Metropolitan based on the 2010 census.¹ In spite of general population growth, our non-Metropolitan counties lost population between 2009 and 2015.

Table 4. Regional and Metropolitan Area Population Counts and Growth Rates 2009 - 2015

Regional Population Counts	2009	2015	Growth Rate
Lowcountry AHEC	1,050,508	1,159,746	10.4%
Mid-Carolina AHEC	1,325,051	1,432,350	8.1%
Pee Dee AHEC	853,074	905,123	6.1%
Upstate AHEC	1,332,609	1,398,927	5.0%
Metropolitan counties	3,809,024	4,146,729	8.9%
Micropolitan counties	439,358	442,689	0.8%
Non-Metropolitan counties	312,860	306,728	-2.0%
Statewide Totals	4,589,872	4,894,834	6.6%

¹ See the Endnotes for a list of counties in each AHEC region and the counties falling under each of the Metropolitan designations.

Table 5 reports the number of FTE dentists, by specialty, for every 100,000 people in each AHEC region of the state and South Carolina as a whole in 2015. The 2009-2015 growth rate for each specialty is also reported. The Pee Dee region, which had the smallest per-capita dentist workforce in 2009, suffered a loss of dentists in almost every specialty between 2009 and 2015. In contrast, the Upstate AHEC region had the strongest growth in the per-capita dentist workforce (8.8% overall), but had uneven growth rates across the specialties. Growth among pediatric dentists occurred almost entirely in the Upstate AHEC region. The Lowcountry AHEC region, which contains Charleston, had the highest per-capita concentration of dentists in 2015 but an overall growth rate slightly less than the statewide rate (2.5% vs. 3.1%).

Table 5. Dentist FTEs per 100,000 Persons in 2015 by AHEC Region and Regional Growth Rate since 2009

Dentist FTEs per 100,000 persons	Lowcountry AHEC		Mid-Carolina AHEC		Pee Dee AHEC		Upstate AHEC		South Carolina	
	2015 FTEs per 100,000	2009-2015 Growth	2015 FTEs per 100,000	2009-2015 Growth	2015 FTEs per 100,000	2009-2015 Growth	2015 FTEs per 100,000	2009-2015 Growth	2015 FTEs per 100,000	2009-2015 Growth
<i>By Clinical Specialty:</i>										
General Dentistry	35.1	3.1%	30.3	0.3%	24.3	-8.1%	30.5	6.5%	30.4	2.2%
Orthodontics	3.2	-6.4%	2.4	-1.0%	1.1	-13.6%	2.6	-4.7%	2.4	-4.2%
Oral Surgery	3.4	3.9%	2.5	5.1%	2.2	-0.3%	2.2	17.5%	2.6	7.7%
Pediatrics	2.3	4.6%	1.4	-11.0%	1.0	-7.3%	2.1	59.7%	1.7	12.9%
Periodontics	2.1	-10.5%	1.0	-14.5%	0.8	-14.0%	1.2	7.5%	1.3	-6.5%
Endodontics	1.8	26.4%	1.4	34.0%	1.0	10.7%	0.9	-2.7%	1.3	19.7%
Prosthodontics	0.7	-36.4%	0.3	41.3%	0.2	-40.5%	0.5	51.6%	0.4	-6.9%
Total Dentist FTEs per 100,000	49.5	2.5%	39.6	1.2%	30.8	-7.7%	40.5	8.8%	40.6	3.1%

'Unknown' and 'Other' categories not shown but included in 'Total Dentists.'

Note that growth rate percentages will be large when the underlying numbers used to calculate the percentage are very small.

Table 6 breaks the state into groups of counties based on the level of urbanization or urban access within each county. Metropolitan and Micropolitan statistical areas are geographic entities defined by the U.S. Office of Management and Budget (OMB) for use by Federal agencies in collecting, tabulating, and publishing Federal statistics. A Metropolitan area contains a core urban area population of 50,000 or more. A Micropolitan area contains an urban core population of at least 10,000 but less than 50,000. Each Metropolitan or Micropolitan area consists of one or more counties and includes the county(s) containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration with the urban core (as measured by commuting to work). Any county that is not designated as Metropolitan or Micropolitan is designated as a Non-Metro area. These Non-Metro areas are very rural in nature – their population is geographically dispersed and not closely integrated with any nearby urban area. (See the end notes for a list of South Carolina counties by their Metro/Micro/Non-Metro status.)

Just as with the population at large, the dentist workforce is concentrated in Metropolitan counties. Growth rates are mixed across the specialties and across the regions. The overall growth rate of 9.6% in non-Metropolitan areas should be viewed with caution because the addition of 1 or 2 dentists in these counties can make a very big difference.

It should also be noted that non-Metropolitan counties do not have a specialty dentist workforce, except for a very small number of periodontists. Micropolitan counties (those with an urban core of 10,000 – 49,999 population) experienced strong growth in pediatric FTE dentists between 2009 and 2015.

Table 6. Dentist FTEs per 100,000 Persons in 2015 by County Metropolitan Status and Growth Rates since 2009

Dentist FTEs per 100,000 persons	Metropolitan Counties		Micropolitan Counties		Non-Metropolitan Counties		South Carolina	
	2015 # FTEs	Growth	2015 # FTEs	Growth	2015 # FTEs	Growth	2015 # FTEs	Growth
<i>By Clinical Specialty:</i>								
General Dentistry	31.9	1.4%	24.2	-4.2%	18.7	5.8%	30.4	2.2%
Orthodontics	2.7	-6.0%	1.5	-2.3%	0	0	2.4	-4.2%
Oral Surgery	2.9	4.7%	1.3	33.6%	0	0	2.6	7.7%
Pediatrics	1.9	8.5%	1.2	71.2%	0	0	1.7	12.9%
Periodontics	1.4	-8.1%	0.8	-7.5%	0.3	2.0%	1.3	-6.5%
Endodontics	1.4	18.2%	0.6	7.8%	0	0	1.3	19.7%
Prosthodontics	0.5	-14.9%	0.6	100.4%	0	0	0.4	-6.9%
Total Dentist FTEs per 100,000	43.2	1.7%	30.6	1.4%	19.7	9.6%	40.6	3.1%

End Notes and References

Data sources:

The data in this report are based on information provided by dentists licensed to practice in South Carolina during their biennial license renewal process in 2009 and 2015. Among other information, dentists report their practice status (whether they are actively practicing in South Carolina), the number of hours worked in a week, the location of their practice and their clinical specialty.

2009 population counts were drawn from *County Population Estimates by Age July 2000-2009* downloaded from <http://www.sciway.net/statistics/population.html>. This file can now be found at <http://abstract.sc.gov/chapter14.html>.

2015 population counts were drawn from the *2015 Bridged-Race Postcensal Estimates* released by the National Center for Health Statistics that can now be downloaded from https://www.cdc.gov/nchs/nvss/bridged_race.htm.

Table 6 used Metropolitan status designations based on the 2010 census and released by the OMB in 2013. South Carolina counties have the following designations:

Metropolitan: Aiken, Anderson, Beaufort, Berkeley, Calhoun, Charleston, Chester, Darlington, Dorchester, Edgefield, Fairfield, Florence, Greenville, Horry, Jasper, Kershaw, Lancaster, Laurens, Lexington, Pickens, Richland, Saluda, Spartanburg, Sumter, Union, York

Micropolitan: Abbeville, Cherokee, Georgetown, Greenwood, Marlboro, Newberry, Oconee, Orangeburg

Non-Metro / Rural: Allendale, Bamberg, Barnwell, Chesterfield, Clarendon, Colleton, Dillon, Hampton, Lee, McCormick, Marion, Williamsburg

The following dental specialty definitions are from the American Dental Association website: <http://www.ada.org/en/education-careers/careers-in-dentistry/dental-specialties/specialty-definitions> downloaded Dec. 21, 2017.

Endodontics: Endodontics is the branch of dentistry which is concerned with the morphology, physiology and pathology of the human dental pulp and periradicular tissues. Its study and practice encompass the basic and clinical sciences including biology of the normal pulp, the etiology, diagnosis, prevention and treatment of diseases and injuries of the pulp and associated periradicular conditions.

Orthodontics and Dentofacial Orthopedics: Orthodontics and dentofacial orthopedics is the dental specialty that includes the diagnosis, prevention, interception, and correction of malocclusion, as well as neuromuscular and skeletal abnormalities of the developing or mature orofacial structures.

Pediatric Dentistry: Pediatric Dentistry is an age-defined specialty that provides both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs.

Periodontics: Periodontics is that specialty of dentistry which encompasses the prevention, diagnosis and treatment of diseases of the supporting and surrounding tissues of the teeth or their substitutes and the maintenance of the health, function and esthetics of these structures and tissues.

Prosthodontics: Prosthodontics is the dental specialty pertaining to the diagnosis, treatment planning, rehabilitation and maintenance of the oral function, comfort, appearance and health of patients with clinical conditions associated with missing or deficient teeth and/or oral and maxillofacial tissues using biocompatible substitutes.

Oral and Maxillofacial Surgery: Oral and maxillofacial surgery is the specialty of dentistry which includes the diagnosis, surgical and adjunctive treatment of diseases, injuries and defects involving both the functional and esthetic aspects of the hard and soft tissues of the oral and maxillofacial region.

Dental Public Health: Dental public health is the science and art of preventing and controlling dental diseases and promoting dental health through organized community efforts. It is that form of dental practice which serves the community as a patient rather than the individual. It is concerned with the dental health education of the public, with applied dental research, and with the administration of group dental care programs as well as the prevention and control of dental diseases on a community basis.

Oral and Maxillofacial Pathology: Oral pathology is the specialty of dentistry and discipline of pathology that deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions. It is a science that investigates the causes, processes, and effects of these diseases. The practice of oral pathology includes research and diagnosis of diseases using clinical, radiographic, microscopic, biochemical, or other examinations.

Oral and Maxillofacial Radiology: Oral and maxillofacial radiology is the specialty of dentistry and discipline of radiology concerned with the production and interpretation of images and data produced by all modalities of radiant energy that are used for the diagnosis and management of diseases, disorders and conditions of the oral and maxillofacial region.

Suggested Citation:

Changes in the Size of the Dentist Workforce in South Carolina: 2009 to 2015. South Carolina Office for Healthcare Workforce. February, 2018. www.SCohw.org

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