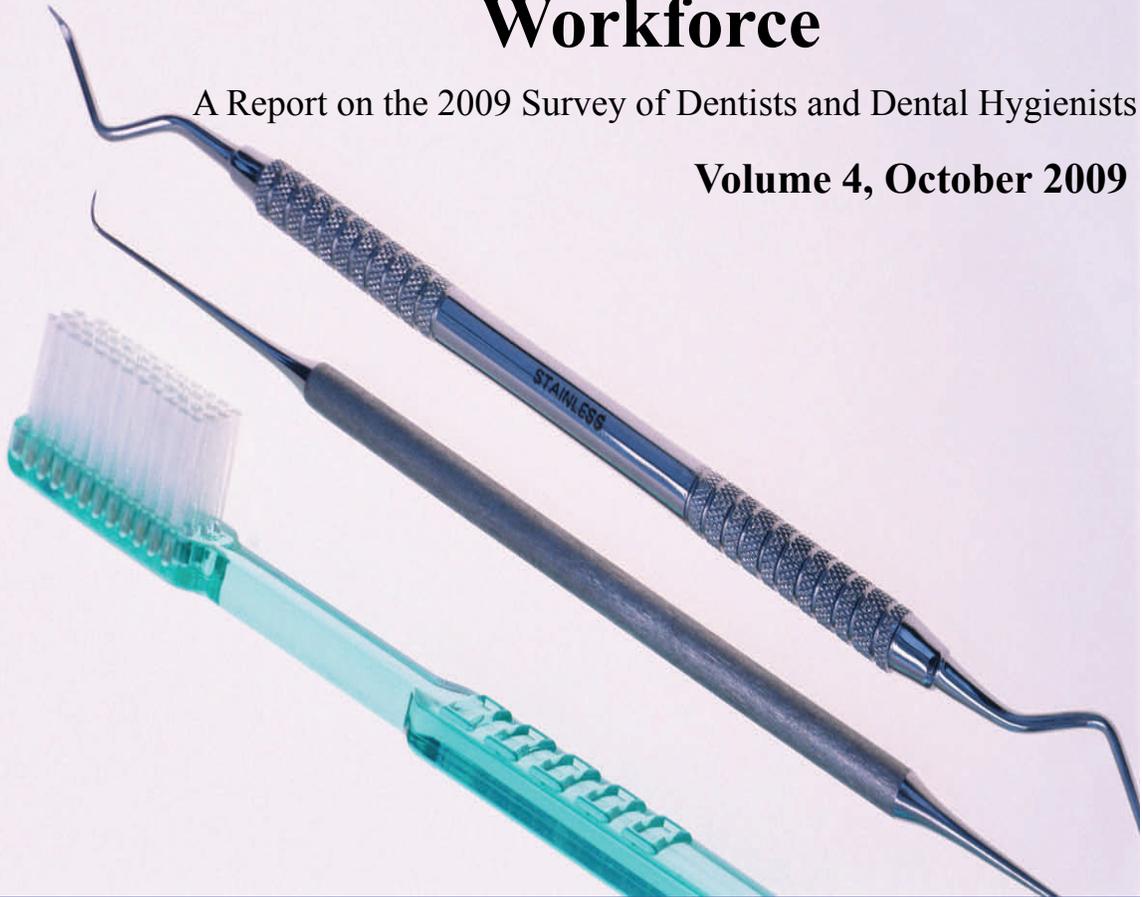


2009 Pulse of Pennsylvania's Dentist and Dental Hygienist Workforce

A Report on the 2009 Survey of Dentists and Dental Hygienists

Volume 4, October 2009



State Health Improvement Plan
Healthy Pennsylvanians 2010 And Beyond



TABLE OF CONTENTS

	PAGE
Introduction.....	4
Executive Summary.....	7
Pennsylvania’s Dentist Population	
Overview.....	14
Return to Direct Patient Care in Five Years.....	15
Dentists Employed in Health Care and Providing Direct Patient Care in Pennsylvania.....	16
Dentist Respondents Employed in Health Care and Providing Direct Patient Care in Pennsylvania	
Geography.....	18
Demographics.....	19
Age.....	19
Gender.....	20
Racial & Ethnic Diversity.....	21
Dental/Medical Translation.....	22
Education.....	22
Board Certifications.....	23
Practice Specialty.....	23
Employment Settings.....	24
Hours in Primary Job.....	24
Employment of Auxiliaries.....	25
Insurance Coverage.....	26
New Patients.....	27
Length of Practice in Pennsylvania.....	27
Anticipated Dental Practice in Pennsylvania.....	28
Reasons for Leaving Direct Patient Care in 5 Years.....	29

TABLE OF CONTENTS

	PAGE
Pennsylvania's Dental Hygienist Population	
Overview	31
Return to Direct Patient Care in Five Years	32
Public Health Dental Hygiene Practitioner	32
Dental Hygienists Employed in Health Care and Provide Direct Patient Care in Pennsylvania	34
Dental Hygienist Respondents Employed in Health Care and Providing Direct Patient Care in Pennsylvania	
Geography	36
Demographics	37
Age	37
Gender	38
Racial & Ethnic Diversity	38
Dental/Medical Translation	39
Education	39
Certifications	41
Employment Settings	41
Multiple Office Employment	42
Hours in Primary Job	42
Career & Job Satisfaction	43
Length of Practice in Pennsylvania	43
Anticipated Practice in Pennsylvania	44
Reasons for Leaving Direct Patient Care in 5 Years	44
Dentists and Dental Hygienists	
Next Steps	45

TABLE OF CONTENTS

PAGE

Appendices:

Dentists Employed in Health Care and Providing Direct Patient Care

1. (All) Dentists by County Where Majority of Practice Time is Spent.....	48
2. General Dentists by County Where Majority of Practice Time is Spent.....	49
3. Age and Average Age by County Where Majority of Practice Time is Spent.....	50
4. Accepted Form of Insurance Coverage by County.....	52
5. Years Anticipate Practicing in Pennsylvania by County Where Majority of Practice Time is Spent	54
6. Accepting New Patience by Insurance Option	56
7. Comparison of Responses, 2003-2009	58
8. 2009 Survey of Dentists.....	60

Dental Hygienists Employed in Health Care and Providing Direct Patient Care

9. County of Primary Job	62
10. Age and Average Age by County of Primary Job	63
11. Years Anticipate Practicing in Pennsylvania by County of Primary Job	65
12. Comparison of Responses, 2003-2009	67
13. 2009 Survey of Dental Hygienists	69
Endnotes.....	71

Introduction

Dentists diagnose and treat oral health issues. They also provide preventative direction and advice to patients. Dentists perform a variety of activities, including removing tooth decay, filling cavities, repairing fractured teeth, reading x-rays, performing corrective oral surgery on gums and supporting bones to treat gum diseases and extracting teeth. Dentists can also administer anesthetics and write prescriptions.

Typically, individuals studying to become dentists will complete eight years of post-high school education. Following completion of a minimum two years of college-level pre-dental coursework, individuals can enter an accredited dental school. Upon graduation from an accredited dental school, an individual will be awarded the degree of Doctor of Dental Surgery (DDS) or the equivalent degree of Doctor of Dental Medicine (DMD).¹ Regardless of the degree conferred, dentists can work in a number of specialties including general dentistry, orthodontics, oral and maxillofacial surgery, pediatric dentistry, periodontics, prosthodontics, endodontics, oral pathology, oral and maxillofacial radiology or public health dentistry.

According to the American Dental Association's Commission on Dental Accreditation, there are 58 dental schools operating in the United States.² Pennsylvania is home to three of those institutions.



In all 50 states, the District of Columbia and U.S. territories, individuals must be licensed in order to practice dentistry. To obtain a license, dentists must graduate from an accredited dental school and pass a licensing examination. In Pennsylvania, the Department of State's State Board of Dentistry is responsible for regulating dental practice through the licensure, registration and certification of members of the dental profession.

The State Board of Dentistry is also responsible for licensing dental hygienists. To become licensed, graduates of dental hygiene education programs must pass both a written and clinical examination.

Specializing in prevention, dental hygienists are trained to examine patients' teeth and gums, to remove deposits from teeth and provide preventative care and advice to patients. Dental hygienists may also diagnose patients and prepare tests for the dentist to review and interpret. Hygienists may also assist the dentist during treatment.³

Introduction, cont'd

Survey

Dentists and dental hygienists in Pennsylvania renew their licenses to practice every two years through the Department of State, Bureau of Professional and Occupational Affairs (BPOA). In cooperation with the BPOA, the Department of Health administers surveys to members of these professional groups as part of the renewal process. The surveys are designed to collect information on the characteristics of the dentist and dental hygienist workforce.

Unless otherwise specified, the information contained in this report was collected as part of the 2009 license renewal process.

The 2009 surveys attempted to collect information on the numbers of dentists and dental hygienists performing community outreach to uninsured and underinsured individuals. Questions pertained to community service conducted as a part of, and aside from, a primary employment situation. If community outreach was performed outside of a primary employment situation, respondents were asked to indicate if this outreach was paid or unpaid. These questions also attempted to gather information on the means through which community service was performed. Due to concerns over the statistical reliability of the data collected, the information gathered through these questions will not be published in this report.

Please note that this survey does not capture first-time licensees or dentists or hygienists in training.

Changes to this Report

Readers of this report will notice numerous changes from past reports. Largely format changes, these updates have been undertaken to ensure that information is presented in a user-friendly format.

This report is organized in two sections: dentists and dental hygienists. Each section begins with an overview of the survey respondents, specifically those dentists and dental hygienists who are licensed to practice dental medicine in Pennsylvania. The remainder of each section then focuses on respondents who are employed in health care *and* provide direct patient care in Pennsylvania.

In recognition of the importance of county-level data, such information has been included. Readers will now find county-by-county data in the Appendices.

The surveys upon which this report was developed have also been updated. Readers can find these updated surveys in Appendices 8 (dentists) and 13 (dental hygienists). Comparative data that has been affected by these changes is noted throughout the report. Appendices 7 (dentists) and 12 (dental hygienists) contain comparative data tables.

Introduction, cont'd

Technical Notes

When comparing results across survey years, response rates should be utilized to estimate the number of workers that would be in a particular category if a 100 percent response was received in each year. This requires an assumption that those not responding in a particular year have the same characteristics as responders in that particular survey year.

If a bias between the respondents and non-respondents alters the characteristics of the non-respondent group, it would change the statistical results of the non-respondents' information. This must be made clear when performing this method of comparison, so the strength of a resulting difference is not misinterpreted.

A reasonable estimate of the size and characteristics of the entire population of renewing professionals can be obtained by applying the response rate to most of the counts reported. The calculation is:

$$\text{Count} \div \text{response rate}$$

For example, to estimate the number of male dentists practicing in Pennsylvania, divide the number of male survey respondents by the response rate

$$5,083 \div 0.93 = 5,466$$

This method does not include an adjustment for items with missing values, and will, in such cases, yield a conservative, or low, estimate.

Response rates for this and previous reports can be found on pages 14 (Dentists) and 31 (Dental Hygienists).

Requests for additional information

Readers familiar with past publications may notice some information that has not been reported in this document. Requests for such information or for any other additional information, can be directed to the Workforce Reports Coordinator at 717-772-5298 or ra-ship@state.pa.us.

Executive Summary

Introduction

The “2009 Pulse of Pennsylvania’s Dentist and Dental Hygienist Workforce” presents findings from a state-wide survey of both professions. Surveys were distributed in conjunction with licensure renewal applications for each profession, ensuring a high response rate.

Because surveys are collected in conjunction with license renewal applications, information is obtained on all responding dentists and dental hygienists licensed to practice in Pennsylvania. It is important to note, however, that this does not include individuals who are receiving their first license in the state or those who are in training.

Although the number of dentists eligible for renewal was higher than in any previous survey year, fewer dentists chose to renew their Pennsylvania license than in any previous survey year. The number of dentists licensed to practice in Pennsylvania rose slightly (by 52 dentists) since 2007.

The number of dental hygienists eligible to renew their licenses in Pennsylvania rose by 441 since 2007. With a high renewal rate (95.9 percent), more dental hygienists are licensed to practice in Pennsylvania than in any previous survey year.

Dentists Overview

Approximately 95.0 percent of survey respondents were employed in health care at the time of the survey. Of those dentists who were not currently providing direct patient care, 62.0 percent intend to return to direct patient care within five years.

The following information is presented on those dentist respondents who reported being employed in health care *and* providing direct patient care in Pennsylvania.

Dentist Geography

Although 72.0 percent of Pennsylvania’s population resides in urban counties, 92.6 percent of respondents report practicing in urban counties.

In 2007, this survey found 46.7 dentists per 100,000 population in Pennsylvania. This rate increased to 50.4 dentists per 100,000 population in 2009. The rate per 100,000 population in urban counties increased from 48.9 to 52.8 from 2007 to 2009. In rural counties, the rate increased from 30.3 to 31.9 dentists per 100,000 population.

Executive Summary, cont'd

Dentist Characteristics

The average age of Pennsylvania's dentists was found to be 51.6 years. Of the health care professions surveyed, dentists have the highest average age—followed by physicians who have an average age of 48.9 years.

The dentist population was also found to be increasing in diversity. The percent of female dentists increased 4.7 percent since 2003. Additionally, the racial and ethnic diversity of this population has also increased. While the percent of dentists identifying themselves as White has decreased 5.2 percent since 2003, the number of Blacks, Asians, Native Hawaiian/Pacific Islanders and American Indian/Alaska Natives has increased. The percent of dentists identifying themselves as Hispanic has also increased over the four survey periods.

Despite the increasing diversity of this professional population, few dentists are proficient in providing medical translation in a language other than English.



Education & Board Certification

Nearly 97.0 percent of dentists who graduated in Pennsylvania obtained their first license in this state.

Approximately one-fourth (24.0 percent) of dentists have completed a postdoctoral certification in general dentistry. Just 15.6 percent of dentists are board certified in a dental specialty. Of those who are, the highest numbers are certified in orthodontics or oral and maxillofacial surgery.

Practice Specialty

General dentistry is practiced by 77.5 percent of dentists. The remaining dentists practice orthodontics (6.3 percent), oral surgery (4.3 percent), endodontics (3.0 percent), pediatric dentistry (2.8 percent), prosthodontics (2.2 percent), geriatric dentistry (0.9 percent) or another specialty (3.1 percent).

Employment Settings & Work Hours

Over half (57.6 percent) of dentists work in a solo private practice. Approximately 21.0 percent are employed in a partnership private practice, and just 13.1 percent are employees of another dentist. Roughly 62.0 percent of dentists work 31-40 hours per week.

Executive Summary, cont'd

Employment of Auxiliaries

The 2009 survey found that 86.3 percent of dentists employ dental assistants, 67.0 percent employ dental hygienists and just 21.4 percent employ expanded function dental assistants.

Numerous vacancies were cited as a result of an inability to find qualified staff. At the time of the survey, dentists reported 517 dental assistant vacancies, 350 dental hygienist vacancies and 171 expanded function dental assistant vacancies.

Insurance Coverage

Less than a quarter of dentists accept Medicaid or Medicare. Residents of rural counties may experience particular difficulty finding local dentists who accept either of these plans.

Statewide, 10.3 percent of dentists in rural counties accept Medicaid and just 7.5 percent accept Medicare.

New Patients

Just 5.3 percent of respondents were not accepting new patients at the time of this survey. Of those dentists accepting new patients, 13.1 percent and 11.4 percent were accepting Medicaid and Medicare patients, respectively. Nearly 80.0 percent of these dentists were accepting patients covered through private insurance and nearly 70.0 percent were accepting new, uninsured patients.

Length of Dental Practice & Reason for Leaving in Five Years

A significant percentage (68.0 percent) of dentists providing direct patient care in Pennsylvania have practiced in the state for 16 or more years.

Thirty-seven percent of dentists anticipated practicing in Pennsylvania for 16 or more years. An additional 22.5 percent of dentists anticipated practicing in Pennsylvania for 11-15 years. Approximately one-fourth of dentists anticipate practicing in Pennsylvania for 6-10 years. Just 16.1 percent of dentists anticipate practicing in this state for 0-5 years.

Among dentists who plan to practice 0-5 years, 99.0 percent intend to practice in Pennsylvania for the same amount of time. As the years that respondents anticipate practicing medicine increase to 16 or more, the percentage of dentists who anticipate practicing medicine in Pennsylvania 16 or more years falls to 88.9 percent.

Of those dentists who intend to leave direct patient care within five years, 71.7 percent report retirement as their reason for leaving.

Executive Summary, cont'd

Dental Hygienist Overview

Nearly 90.0 percent of survey respondents were employed in health care in Pennsylvania at the time of the survey. Of those dental hygienists who were not performing direct patient care, 68.1 percent intended to return to direct patient care within five years.

Just 9.9 percent of respondents expressed an intention to obtain a public health dental hygiene practitioner license. Approximately 22.0 percent of these individuals intend to utilize this license in a healthcare facility.

The following information is presented on those dental hygienist respondents who reported being employed in health care *and* providing direct patient care in Pennsylvania.

Dental Hygienist Geography

Nearly 92.0 percent of Pennsylvania's dental hygienists are employed in urban counties. Statewide, Pennsylvania has 46.6 dental hygienists per 100,000 population. This is an increase from 2007 when 44.2 dental hygienists per 100,000 population were employed in the state. In 2009, urban counties had a rate of 48.3 dental hygienists per 100,000 population. Rural counties had a rate of 33.7 dental hygienists per 100,000 population in 2009.



Dental Hygienist Characteristics

The average age of dental hygienists in Pennsylvania is approximately 42.3 years. Nearly half of dental hygienists are 35-49 years of age. Additionally, dental hygienists are predominantly female (99.2 percent). This group of professionals is also predominantly White (96.5 percent), non-Hispanic (98.9 percent). Additionally, few dental hygienists are proficient in dental/medical translation in a language other than English.

Executive Summary, cont'd

Dental Hygienist Education & Certifications

Most (72.6 percent) of Pennsylvania's dental hygienists hold associate degrees in dental Hygiene, and just 4.2 percent are pursuing higher education. Of those dental hygienists who are furthering their education, 29.6 percent are pursuing a dental hygiene bachelors degree.

Approximately 7.0 percent of dental hygienists hold additional certifications. Of those who do, 2.0 percent hold an expanded function dental assistant permit, and 1.8 percent hold a school teaching certificate or school hygienist certification. The remaining 3.1 percent hold other types of certifications.

Dental Hygienist Employment Settings & Multiple Employment

Nearly 60.0 percent of dental hygienists are employed in a solo private practice. Another 34.6 percent of dental hygienists are employed in private practice partnerships.

Less than 30.0 percent of dental hygienists work in multiple offices. Most dental hygienists (44.3 percent) work 31-40 hours per week.

Career & Job Satisfaction

Dental hygienists report high levels of career and job satisfaction. Respondents indicated they are "very satisfied" with their career 50.2 percent of the time and their job 43.6 percent. An additional 40.8 percent and 45.6 percent of respondents indicated they are "satisfied" with their career and job, respectively.

Dental Hygienist Length of Practice

Less than half (45.2 percent) of dental hygienist respondents have worked in Pennsylvania for 16 or more years. Conversely, 21.4 percent have worked in Pennsylvania for 5 or fewer years.

The intent to practice in Pennsylvania increases among dental hygienists as length of anticipated practice increases. Among dental hygienists who anticipate practicing 0-5 years, 72.8 percent anticipate practicing in Pennsylvania 0-5 years. However, 98.3 percent of dental hygienists who plan to practice 16 or more years intend to practice in Pennsylvania for 16 or more years.

Retirement is most often cited as a primary reason for leaving direct patient care in five years among dental hygienists (25.0 percent). However, retirement is closely followed by family reasons (21.9 percent), career change (16.0 percent) and physical reasons (14.8 percent).

Executive Summary, cont'd

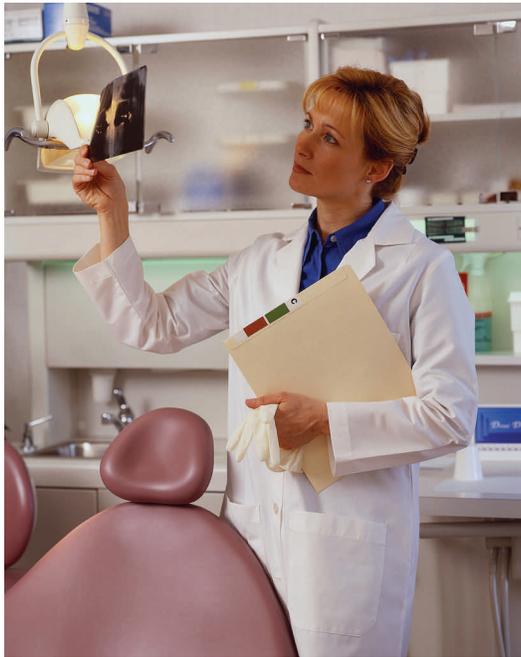
Dentists and Dental Hygienists

Next Steps

1. Access to oral health care needs to be taken as seriously as access to medical care.
2. Current knowledge of the dentist and dental hygienist workforces should be complemented by further study of provider productivity and affordability of services.
3. Recruitment of dentists and dental hygienists to practice in underserved areas through scholarship and loan repayment/forgiveness programs must be increased.
4. Stakeholders should further examine the impact that adjustments to Medicaid and Medicare reimbursements may have on increasing access to existing dentists and enticing students into dental careers.
5. Successful recruitment and retention efforts, particularly those that bring underrepresented populations to these professions, must be identified.
6. Improved research in this field should be utilized to increase access.
7. Additional research regarding the role of dental hygienists in increasing access to care should be undertaken.
8. Infrastructure should be developed to educate and train new dentists.



Pennsylvania's Dentist Population

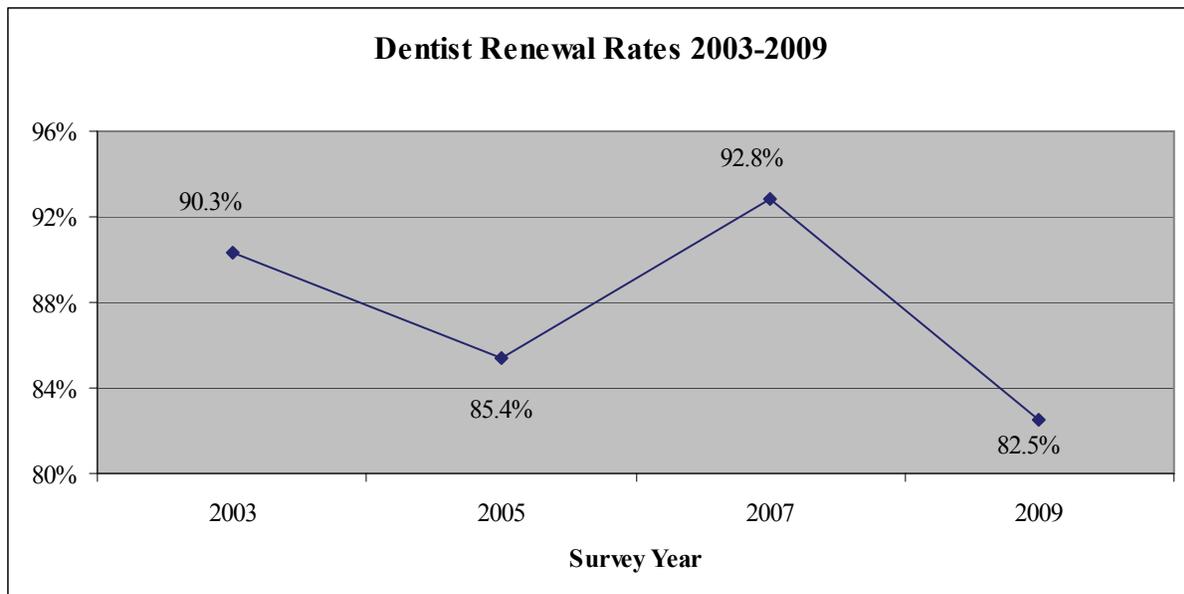


Overview

A total of 9,274 dentists renewed their Pennsylvania licenses in 2009, an increase of 52 dentists from 2007. Of the 11,238 dentists eligible to renew a license in Pennsylvania, just 82.5 percent chose to do so. Of those dentists who renewed a license to practice in Pennsylvania, 8,628 (93.0 percent) returned valid surveys.

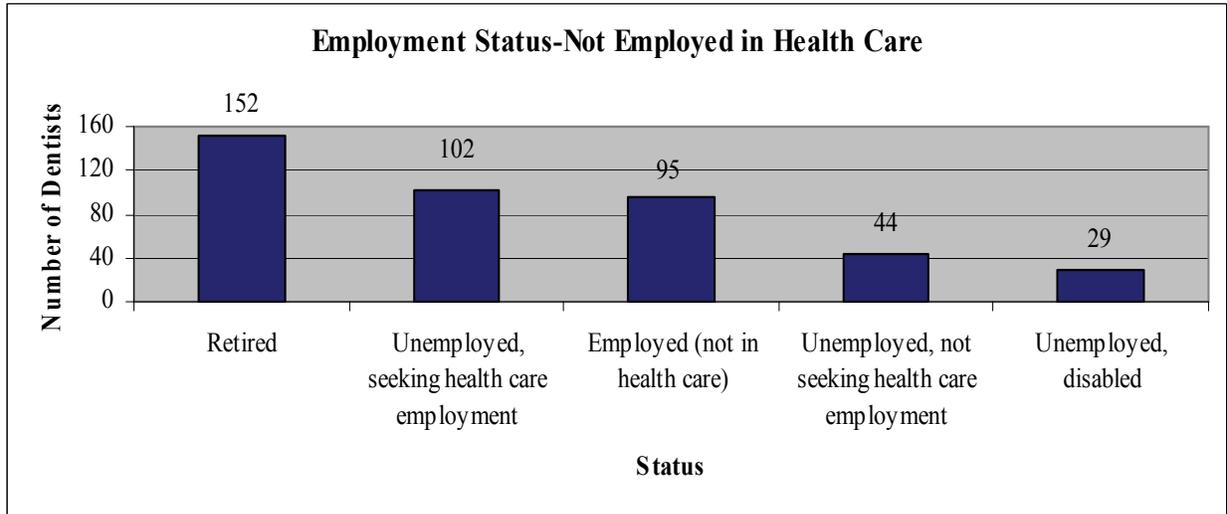
Dentists				
	2003	2005	2007	2009
Eligible for License Renewal	10,235	10,249	9,937	11,238
Licenses Renewed	9,241	8,757	9,222	9,274
Renewal Rate	90.3%	85.4%	92.8%	82.5%
Valid Surveys	6,800	6,956	8,326	8,628
Response Rate	73.6%	79.4%	90.3%	93.0%

As the table above shows, after decreasing in 2007, the number of dentists eligible for renewal increased in 2009. The number of dentists choosing to renew a Pennsylvania license has fluctuated over the four survey periods. The rate of license renewals increased to a high of 92.8 percent in 2007, but fell 10.3 percent in 2009.



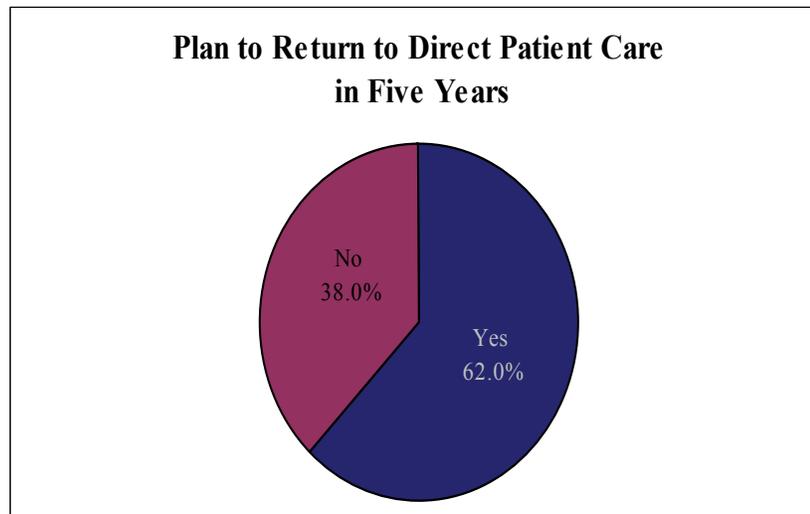
Overview, cont'd

Of the valid surveys returned, 8,174 (95.1 percent) dentists reported being employed in health care (direct, indirect). Another 152 (1.8 percent) were retired. The remaining 270 (3.1 percent) dentists were employed (not in health care) or unemployed.



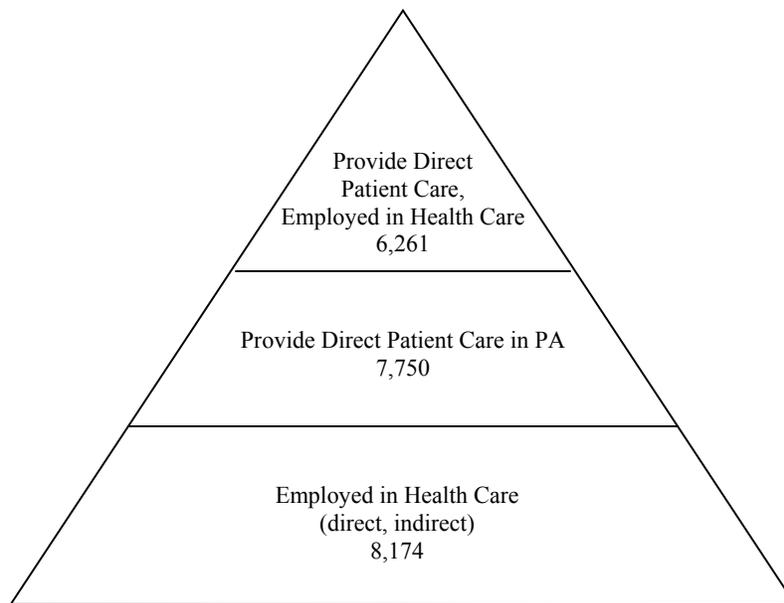
Return to Direct Patient Care

Of those licensed dentists who were not providing direct patient care at the time of the survey, 62.0 percent (501) indicated an intention to return to direct patient care within the next five years.



Dentists Employed in Health Care and Providing Direct Patient Care in Pennsylvania

At the time of this survey, 7,750 dentists reported providing direct patient care in Pennsylvania. This number includes individuals who also indicated a variety of employment statuses. For the purpose of this report, the decision was made to focus on those individuals who provide direct patient care in Pennsylvania *and* are currently employed in health care. Therefore, the remainder of this section focuses on those 6,261 dentists (72.6 percent) who indicated current health care employment and who provided direct patient care in Pennsylvania.



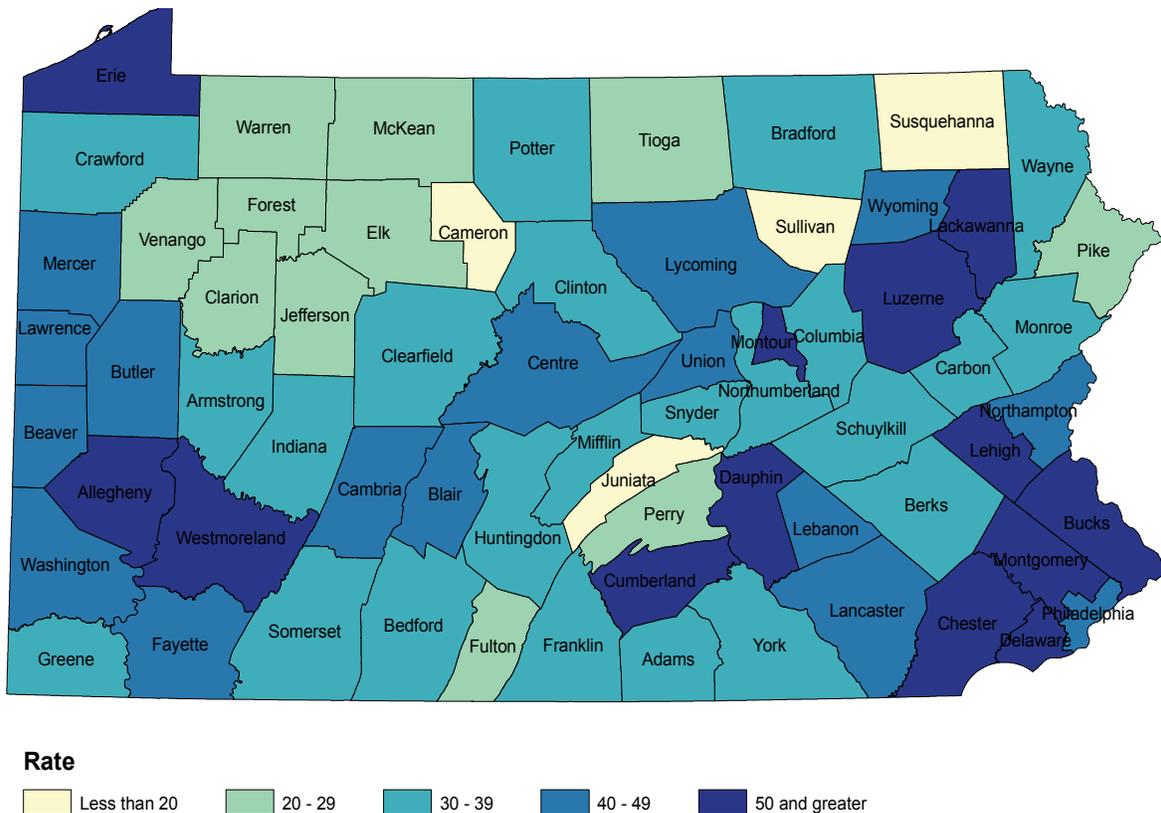
This section focuses on those 6,261 dentist respondents who are employed in health care and provide direct patient care in Pennsylvania.

Geography

According to the U.S. Census Bureau, 72.0 percent of Pennsylvania residents live in urban counties.⁴ However, 92.6 percent of survey respondents report practicing in urban counties. Despite being home to 28.0 percent of the state’s population, rural counties employ just 7.4 percent of dentists. According to the National Conference of State Legislatures Rural Health Brief, “Where Have All the Dentists Gone,” residents of rural communities have particular difficulty accessing oral health care. Factors include geographic isolation, lack of transportation, lack of fluoridated water, poverty, low Medicaid reimbursement and the fact that many rural dentists are nearing retirement.⁵

In 2007, this survey found 46.7 dentists per 100,000 population in Pennsylvania. This rate increased to 50.4 dentists per 100,000 population in 2009. The rate per 100,000 population in urban counties increased from 48.9 to 52.8 from 2007 to 2009. In rural counties, the rate increased from 30.3 to 31.9 physicians per 100,000 population. The map below shows the wide variations in rates of physicians per 100,000 population throughout the state.

Rate of Dentists Employed in Health Care and Direct Patient Care in Pennsylvania per 100,000 Population by County of Majority of Scheduled Practice Time

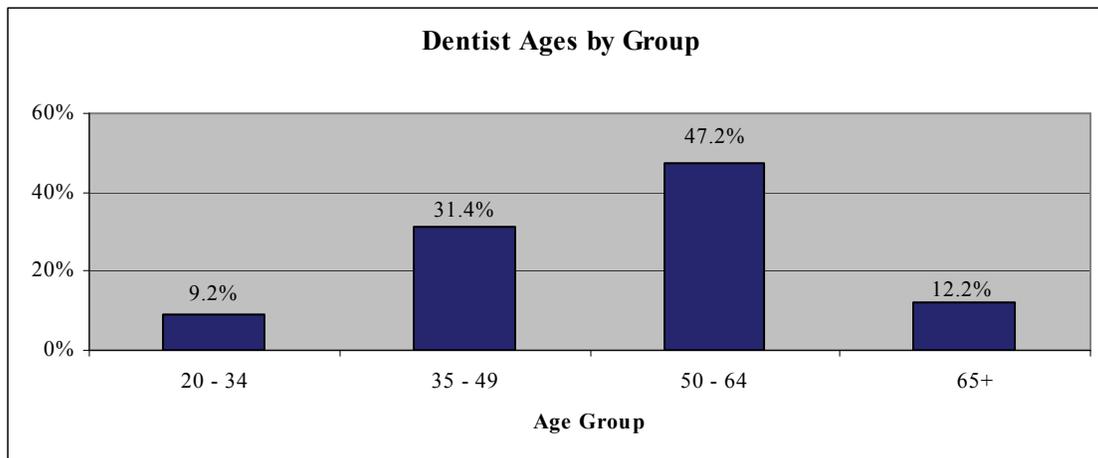


Demographics

Age

The average age of respondents was 51.6 years, a slight increase from 2007, when the average age of respondents was 51.3 years. The average age of dentists in rural counties is 53.1 compared to 51.5 in urban counties. According to U.S. Census Bureau population estimates, the median age of Pennsylvania's adult population (18 and older) was 49.6 years of age.⁶

According to the American Dental Association (ADA), the average age of dentists nationwide is approximately 50 years of age. Additionally, the ADA reports that approximately 65.0 percent of dentists are 45 years of age or more.⁷



A complete county-by-county listing of average age can be found in Appendix 3. Average ages of Pennsylvania's dentists range from a high of 70 years of age to a low of 45.

Counties with highest average ages:

1. Cameron*
2. Potter*
3. Huntingdon

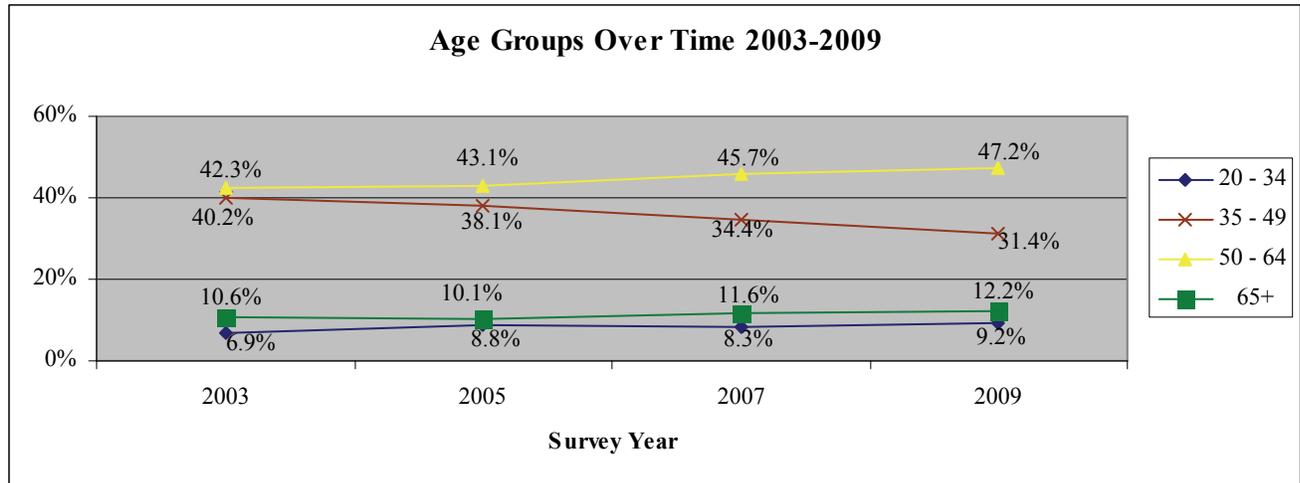
* Due to small sample size, data may not be statistically reliable.

Counties with lowest average ages:

1. Fulton
2. Elk
3. Centre

Age, cont'd.

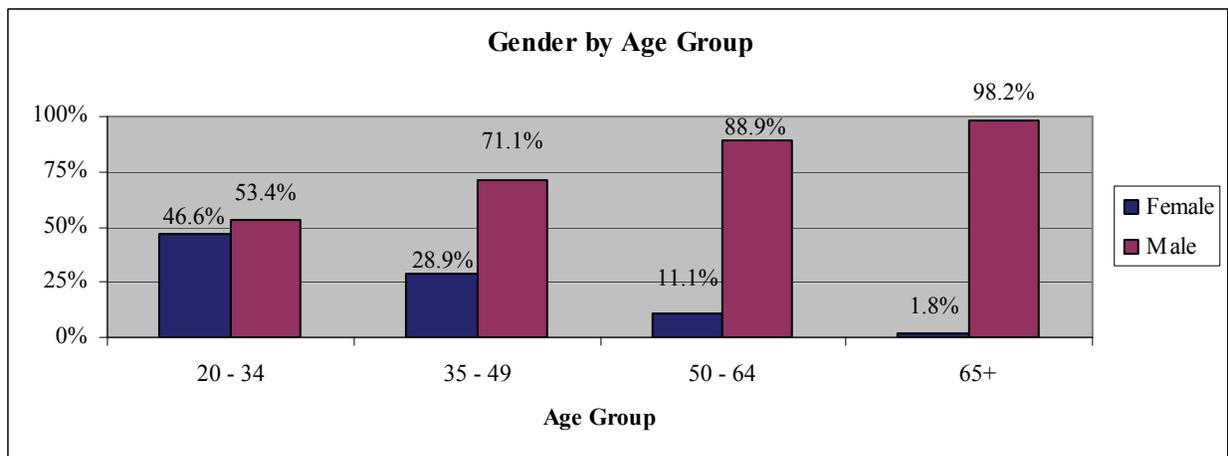
Slight variations can be seen in the age of Pennsylvania's dentist population when examined by age group over time. As the chart below shows, the highest percentage of dentists fall within the 50-64 age group. Since 2003, this age group has increased by 4.9 percent. Over the four survey periods, only the 35-49 age group has decreased as a percentage of the dentist population. Since 2003, the percentage of dentists in the 35-49 age group has fallen 8.8 percent.



Gender

The 2009 survey of dentists continues to find an increasing number of women in the dental profession—18.8 percent in 2009 compared to 14.1 percent in 2003. Nationally, the American Dental Association reports that approximately 20.0 percent of dental school graduates are female.⁶

Both the ADA and the Pennsylvania license renewal survey indicate that female dentists are more likely than their male counterparts to be under 50 years of age.



Racial & Ethnic Diversity

As Pennsylvania becomes more racially and ethnically diverse, so does the dentist population. The percentage of dentists identifying themselves as “White” decreased once again this year. In 2003, 93.3 percent of survey respondents identified themselves as “White.” In 2009, 88.1 percent did so. The American Dental Association reports that 86.2 percent of dentists nationwide are “White.”⁷

Since 2007, the percentage of “Black” dentists has decreased by 0.3 percent. Despite this decrease, the percentage of “Black” dentists has increased overall by 0.6 percent since 2003. In 2009, 2.1 percent of respondents identified themselves as “Black.”

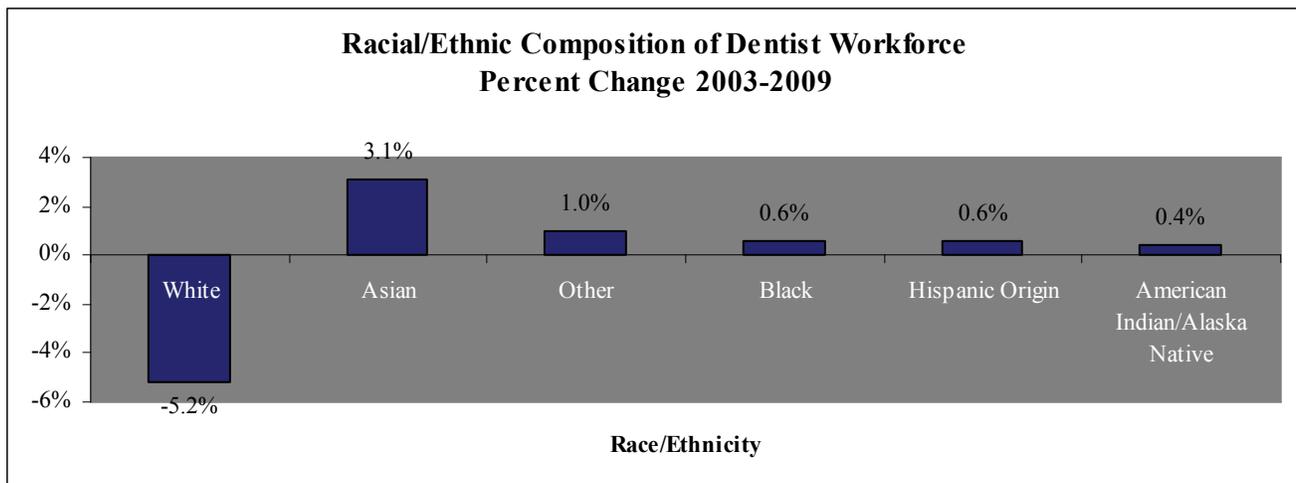
The percentage of dentists identifying themselves as “Asian” increased 1.1 percent between 2007 and 2009 (to 6.9 percent). Since 2003, this group has grown by 3.1 percent.

Despite the variation in percentages of most racial groups identified in this survey, the percentage of “Native Hawaiian/Pacific Islander” dentists has remained the same over the four survey periods (0.2 percent).

The 2009 survey was the first to identify an increase was among “American Indian/Alaska Native” dentists. In previous survey years, zero percent of dentists identified with this racial category. In 2009, 0.4 percent did so.

Survey respondents also have the option of identifying themselves as “Other.” In 2009, 140 respondents (2.2 percent) chose to do so, writing in a wide variety of races and ethnicities.

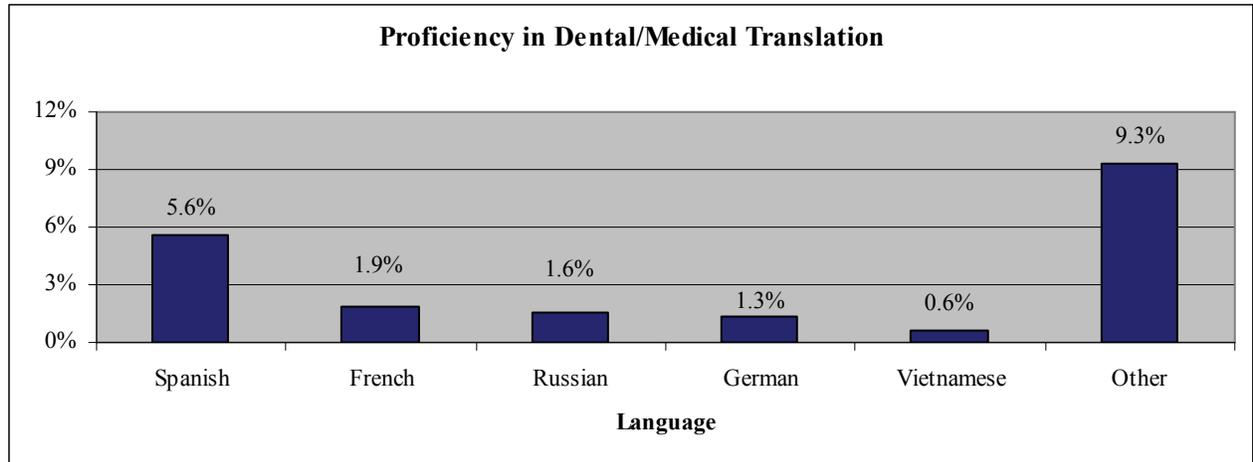
As Pennsylvania’s Hispanic population continues to grow, the percentage of the dentist population identifying themselves as “Hispanic” has increased slowly since 2003—growing just 0.6 percent to 1.6 percent of the dentist respondents.



Note: “Native Hawaiian/Pacific Islanders” are not represented on this chart because this population experienced a zero percent change from 2003-2009.

Dental/Medical Translation

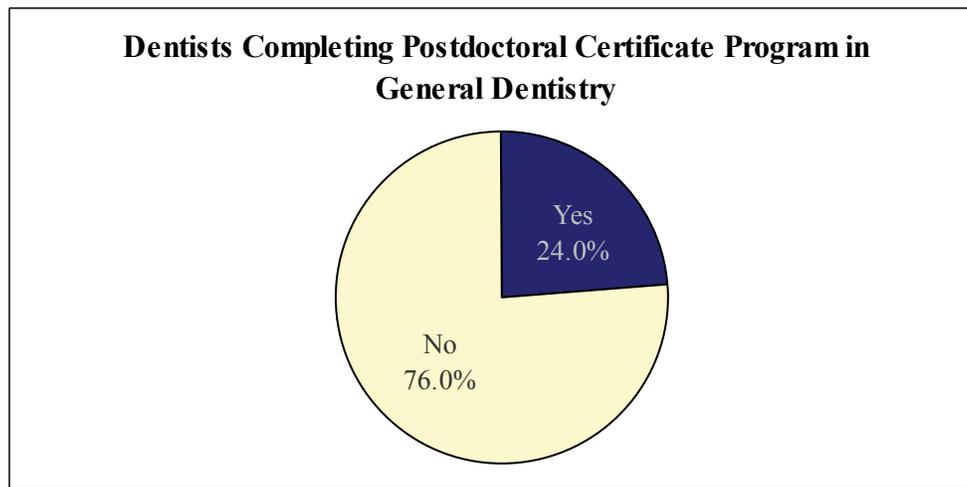
Although the U.S. Census Bureau reports that 9.3 percent of Pennsylvania residents above the age of five speak a language other than English at home, few of Pennsylvania's dentists are proficient in dental/medical translation.⁸ Of those dentists who are proficient in dental/medical translation, Spanish was the most commonly cited language (348 dentists). French (117) was the second most commonly cited language, with Russian (101) and German (83) following closely. Vietnamese (38) was the least cited language.



Education

Graduation from dental school within the state of Pennsylvania appears to be a strong indicator that a dentist will receive his or her first dental license in this state. Among respondents who graduated in Pennsylvania, 96.6 percent went on to obtain their first license in this state.

Nearly one-fourth of respondents have completed a postdoctoral certificate program in general dentistry.



Board Certifications

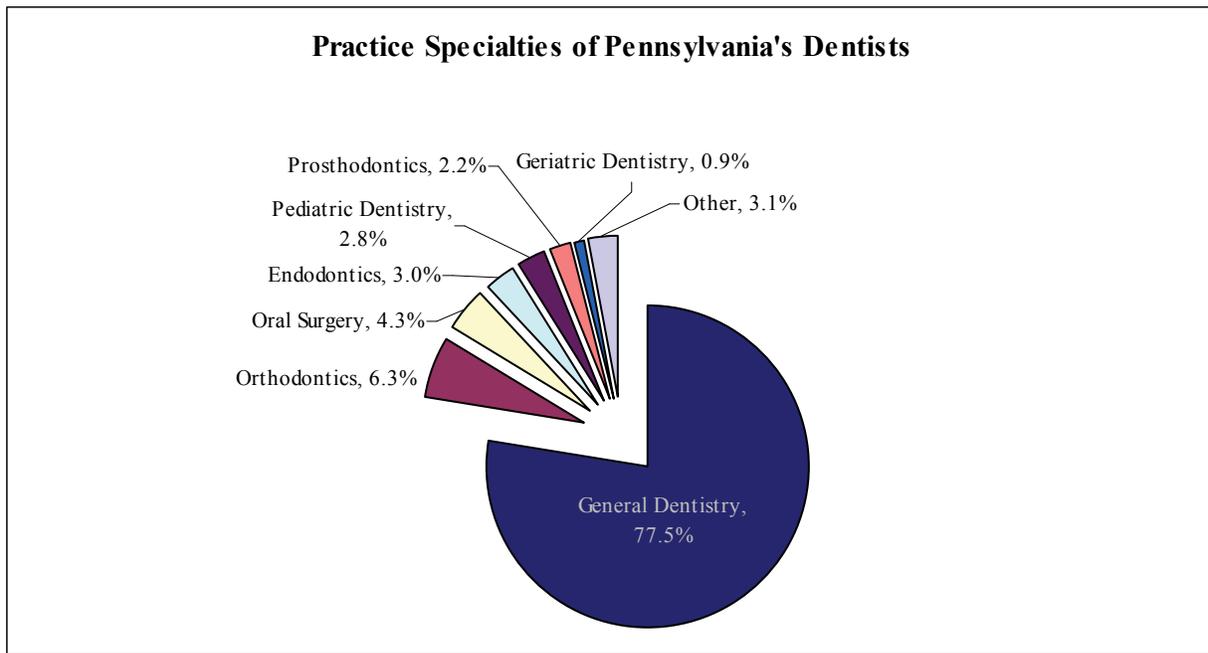
Just 15.6 percent of dentists are certified in a dental specialty. Of the 797 dentists who are certified in a dental specialty, most are certified to specialize in orthodontics.

Board	Number of Certified Dentists
American Board of Orthodontics	263
American Board of Oral and Maxillofacial Surgery	194
American Board of Periodontology	108
American Board of Endodontics	82
American Board of Pediatric Dentistry	81
American Board of Prosthodontics	38
American Board of Dental Public Health	24
American Board of Oral and Maxillofacial Pathology	4
American Board of Maxillofacial Radiology	3

Practice Specialty

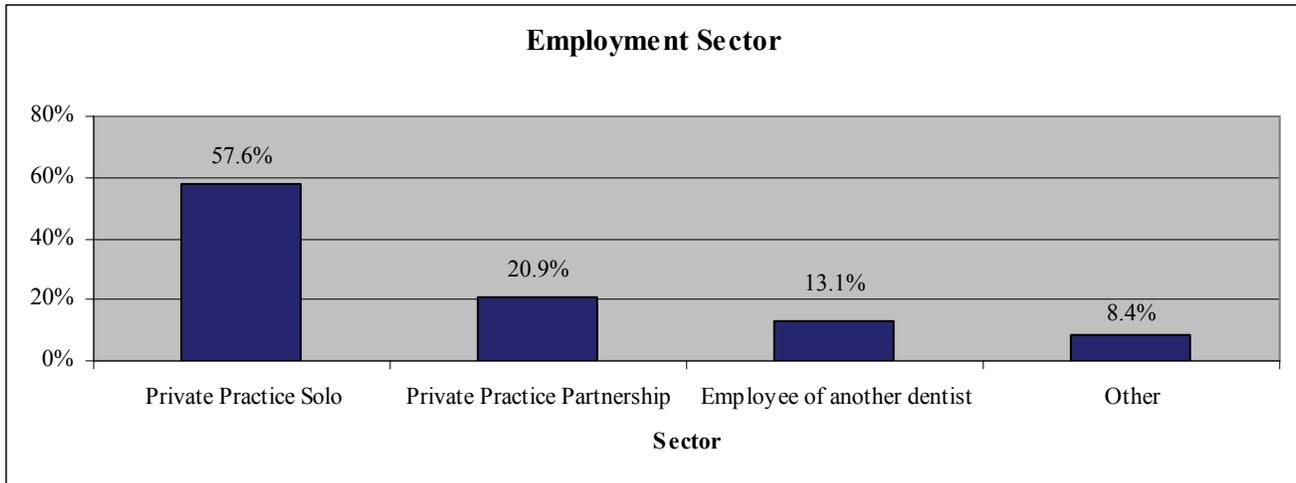
Regardless of board certification, Pennsylvania's dentists are practicing in a range of specialties. Most Pennsylvania dentists (4,837) are spending the majority of their practice time performing general dentistry. This is similar to national figures showing approximately 80.0 percent of private practice dentists working in general dentistry.⁷

The remaining respondents identified orthodontics (393), oral surgery (269), endodontics (186), pediatric dentistry (172), prosthodontics (137), geriatric dentistry (59) and other (191) specialties as areas in which they spend the majority of their practice time.



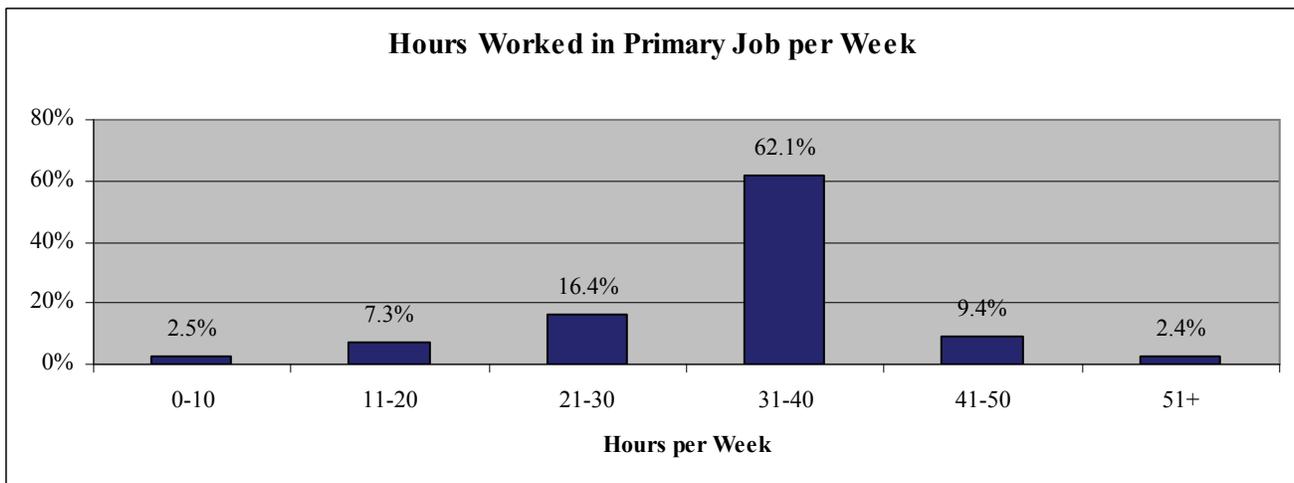
Employment Settings

The American Dental Association reports that approximately 72.0 percent of dentists are employed in a variety of private practice settings.⁷ The 2009 renewal survey found that 78.5 percent of Pennsylvania's dentists are in private practice—nearly 58 percent operate a solo private practice and 20.9 percent work in a private practice partnership. Just 13.1 percent of Pennsylvania dentists are employed by another dentist.



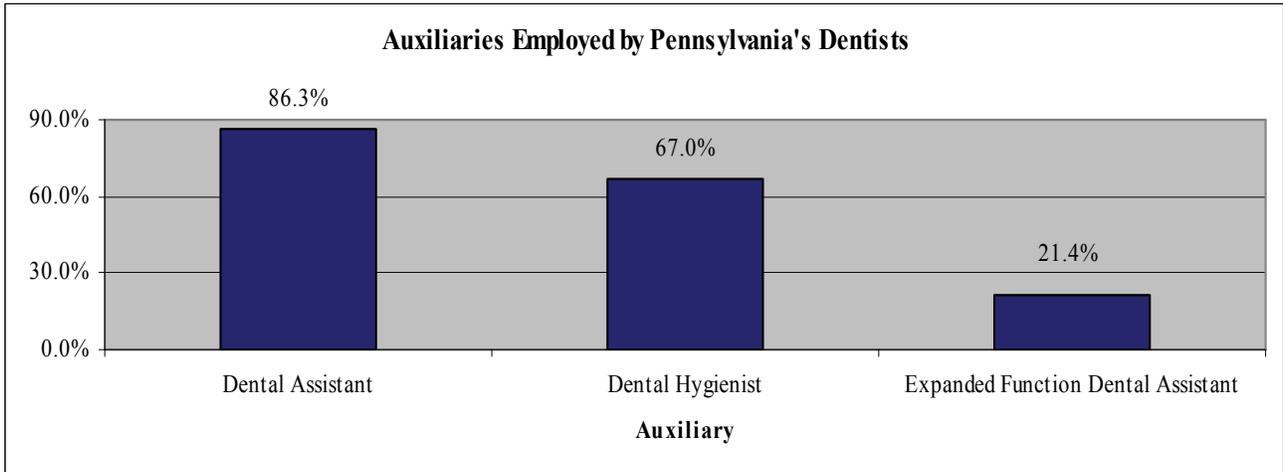
Hours in Primary Job

In a departure from previous years, the 2009 dentist survey asked respondents to indicate the number of hours worked in the individual's primary job each week. Most respondents (62.1 percent) indicated working 31-40 hours per week in their primary jobs. An additional 16.4 percent indicated working 21-30 hours per week.

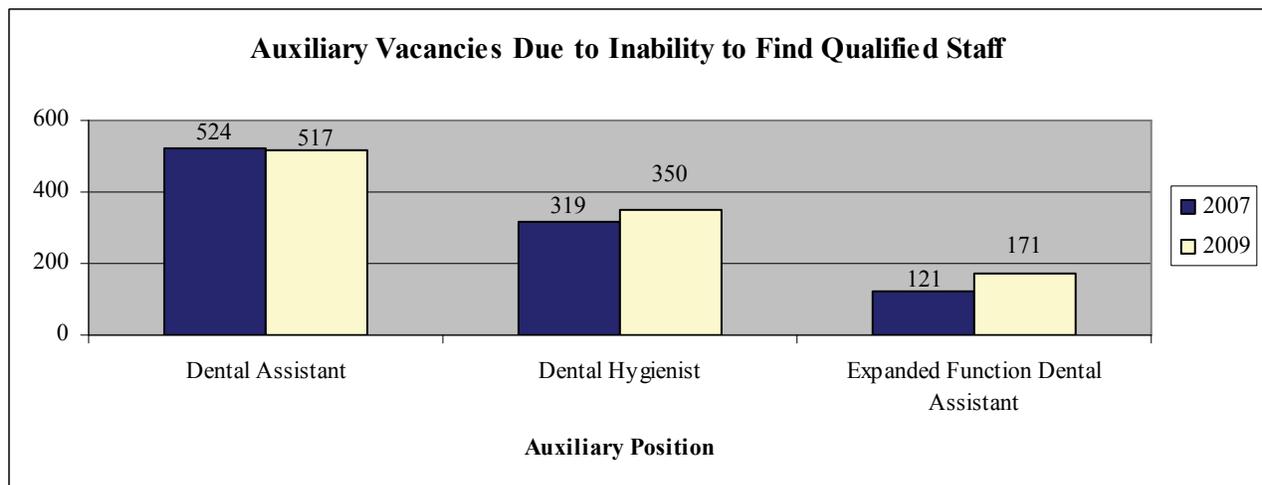


Employment of Auxiliaries

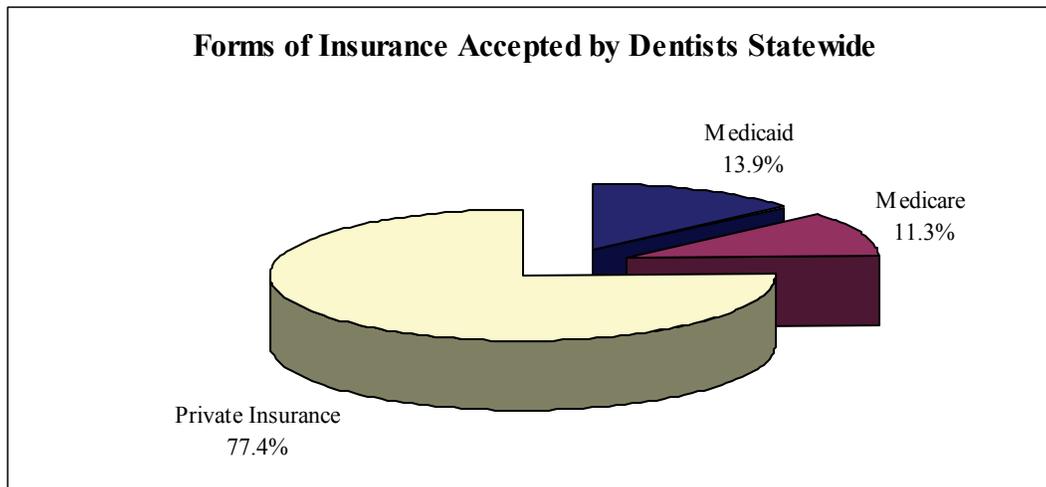
The 2009 survey found that 86.3 percent (5,405) of dentists employ dental assistants, 67.0 percent (4,192) employ dental hygienists and just 21.4 percent (1,342) employ expanded function dental assistants.



Dentists reported a number of vacancies due to an inability to find qualified auxiliary staff. As reported in this survey, dentists appear to be experiencing increased difficulty in filling both dental hygienist and expanded function dental assistant positions.



Insurance Coverage



Approximately one-fourth of respondents accept Medicaid or Medicare. Dentists specializing in Pediatric Dentistry reported the highest levels of Medicaid acceptance (30.0 percent). Oral surgeons reported the highest levels of Medicare acceptance (35.0 percent). Dentists specializing in Endodontics reported the highest level of private insurance acceptance (84.6 percent), followed closely by Orthodontists (82.5 percent).

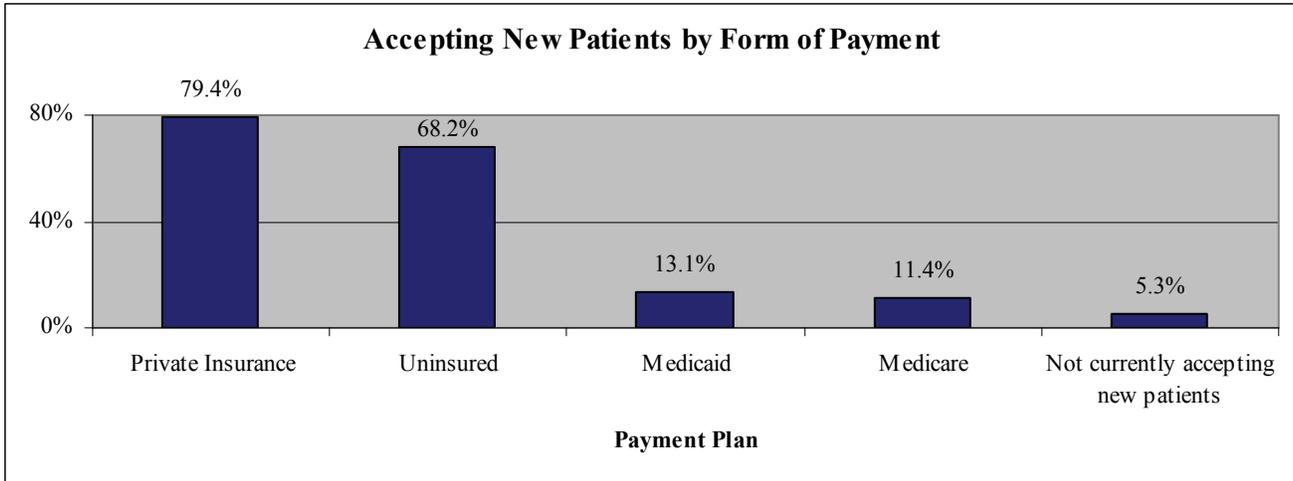
Residents of rural communities may have particular difficulty finding local dentists who accept Medicaid or Medicare. Statewide, 10.3 percent of dentists in rural counties accept Medicaid, and 7.5 percent accept Medicare. Private insurance is accepted by 7.0 percent of dentists in rural counties. A county-by-county listing of accepted forms of payment can be found in Appen-

Dentists Accepting Each Plan by Practice Specialty							
Specialty	Total	Medicaid		Medicare		Private Insurance	
		Number	Percent [^]	Number	Percent [^]	Number	Percent [^]
Endodontics	169	14	8.3%	12	7.1%	143	84.6%
General Dentistry	4,812	611	12.7%	426	8.9%	3,775	78.4%
Geriatric Dentistry	46	8	17.4%	9	19.6%	29	63.0%
Oral Surgery	500	93	18.6%	175	35.0%	232	46.4%
Orthodontics	377	43	11.4%	23	6.1%	311	82.5%
Pediatric Dentistry	240	72	30.0%	30	12.5%	138	57.5%
Prosthodontics	86	10	11.6%	11	12.8%	65	75.6%
Other	187	19	10.2%	23	12.3%	145	77.5%

[^]Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

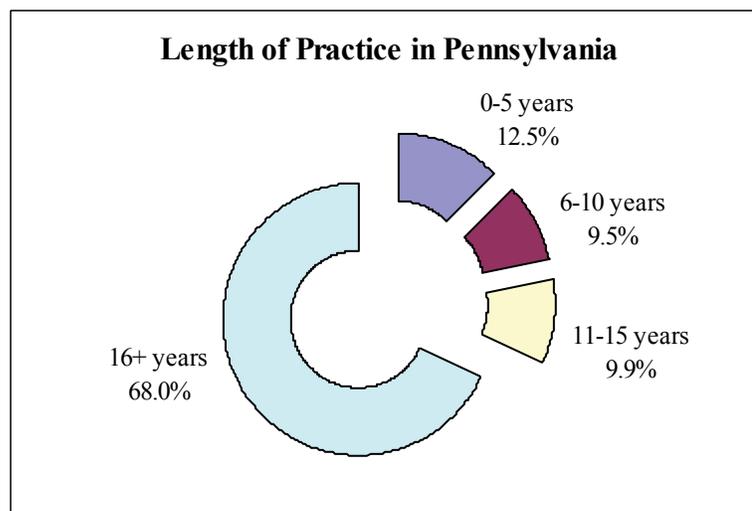
New Patients

Just 5.3 percent (331) of respondents were not accepting new patients at the time of this survey. Of those dentists who were accepting new patients, 13.1 percent (818) and 11.4 percent (716) were accepting patients covered through Medicaid and Medicare, respectively. Nearly 80.0 percent (4969) of these dentists were accepting new patients covered through private insurance. Approximately 68.0 percent (4269) of dentists who were accepting new patients were accepting uninsured patients.



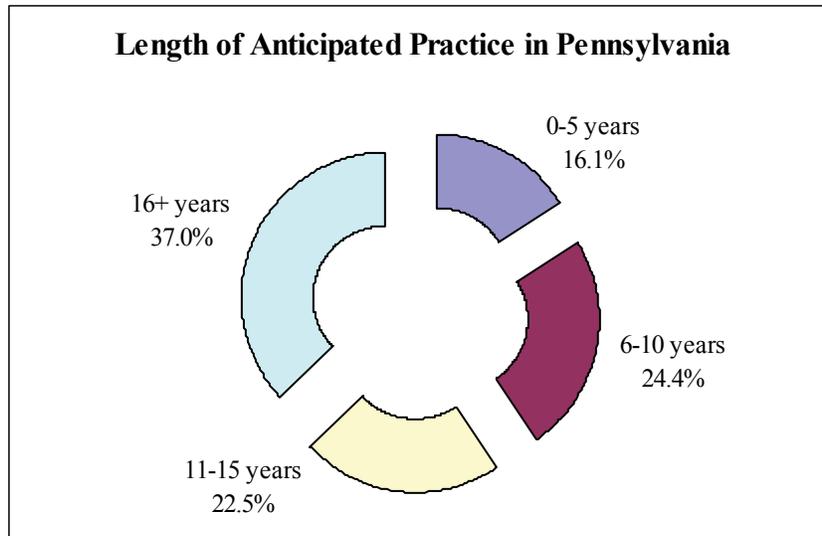
Length of Practice in Pennsylvania

A significant (68.0) percentage of dentists have practiced in Pennsylvania for 16 or more years. Just 12.5 percent of dentists have practiced in this state for five or fewer years.



Anticipated Dental Practice in Pennsylvania

The percentage of dentists who anticipate practicing in Pennsylvania for five or fewer years decreased slightly since 2007, from 17.0 percent to 16.1 percent. Respondents indicating an intention to practice in Pennsylvania 6-10 years increased by 1.5 percent, while those indicating an intention to practice in the state for 11-15 years decreased by 1.2 percent. The percentage intending to practice in Pennsylvania 16 or more years increased by just 0.5 percent between 2007 and 2009.



As seen among other health care workforce professionals, as the years of anticipated practice time increase, intent to practice in Pennsylvania the same number of years decreases. Among dentists, this survey found that 99.0 percent of respondents who intend to practice dentistry for 0-5 years also intend to practice in Pennsylvania for 0-5 years. This percentage decreases slightly, to 97.2 percent, among dentists who plan to practice 6-10 years. Among dentists who plan to practice 11-15 years, 92.2 percent also plan to practice in Pennsylvania 11-15 years. Among dentists who intend to practice 16 or more years, just 88.9 percent plan to practice in Pennsylvania for this same amount of time.

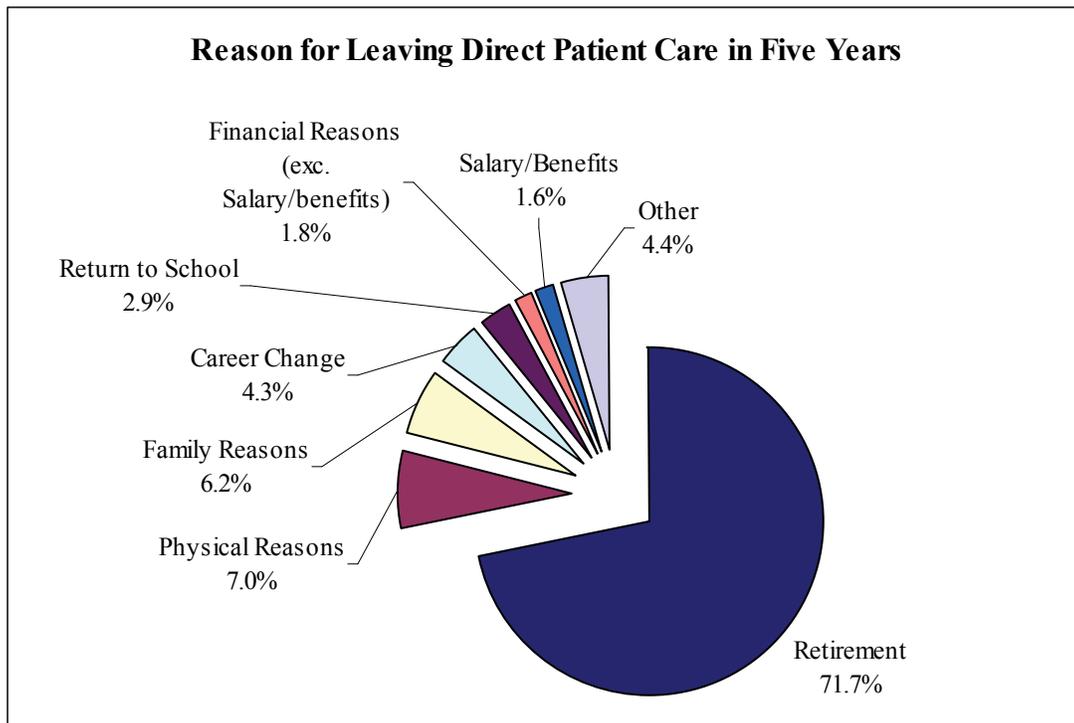
Intent to Practice

Anticipate Practicing	Anticipate Practicing in Pennsylvania							
	0-5 years		6-10 years		11-15 years		16+ years	
	Number	Percent [^]	Number	Percent [^]	Number	Percent [^]	Number	Percent [^]
0-5 years	803	99.0%	2	0.2%	0	0.0%	6	0.7%
6-10 years	32	2.3%	1,370	97.2%	4	0.3%	3	0.2%
11-15 years	21	1.5%	73	5.1%	1,331	92.2%	18	1.2%
16+ years	145	5.7%	76	3.0%	63	2.5%	2,276	88.9%

[^]Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

Reasons for Leaving Direct Patient Care in Five Years

When asked about their reasons for leaving direct patient care within the next five years, 1,473 dentists indicated a variety of reasons. Nearly 72 percent (1,055) of respondents cited retirement as their primary reason for leaving direct patient care in the next 5 years. The remaining respondents indicated reasons including physical reasons (103), family reasons (92), career change (64), return to school (43), financial reasons other than salary and/or benefits (27), salary/benefits (24) and other (65).



Pennsylvania's Dental Hygienist Population



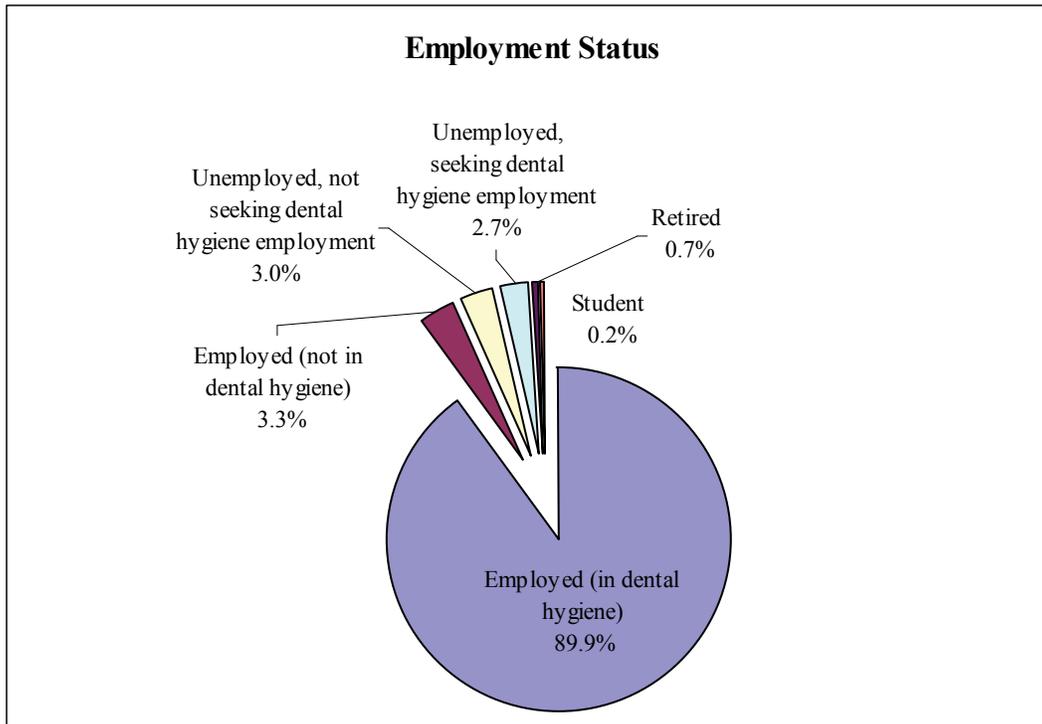
Overview

Dental Hygienists were surveyed for the fourth time in 2009. Valid surveys were returned by 7,671 (96.7 percent) of the 7,934 individuals who renewed their Pennsylvania license.

Based upon the number of individuals renewing licenses in Pennsylvania, the dental hygienist workforce is growing faster than the dentist workforce.

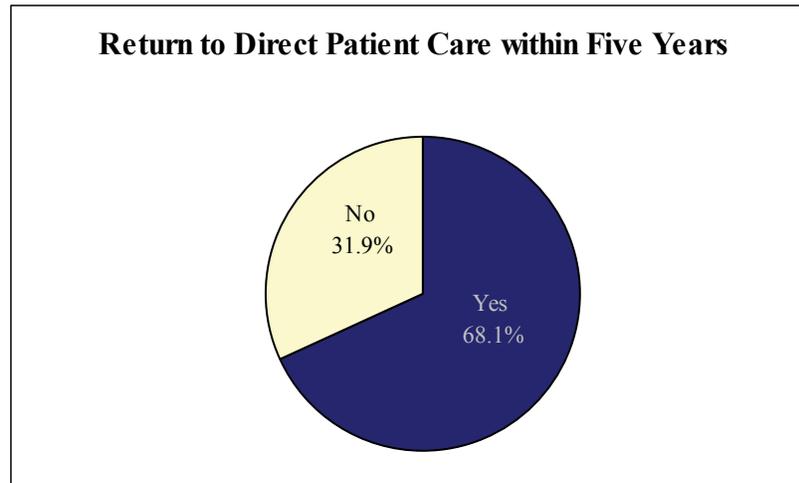
Dental Hygienists				
	2003	2005	2007	2009
Eligible for License Renewal	7,285	7,534	7,835	8,276
Licensed Renewed	6,745	6,787	7,440	7,934
Renewal Rate	92.6%	90.1%	95.0%	95.9%
Valid Surveys	5,453	5,738	6,878	7,671
Response Rate	80.9%	84.5%	92.5%	96.7%

Of the valid surveys collected in 2009, 6,891 (89.9 percent) respondents indicated that they are employed in health care in dental hygiene. Another 255 respondents (3.3 percent) are employed, but not in dental hygiene. Unemployed individuals not seeking employment in dental hygiene numbered 233 (3.0 percent). An additional 207 (2.7 percent) respondents were unemployed but seeking employment in dental hygiene. Fewer than one percent of respondents were either retired (57) or students (19).



Return to Direct Patient Care in Five Years

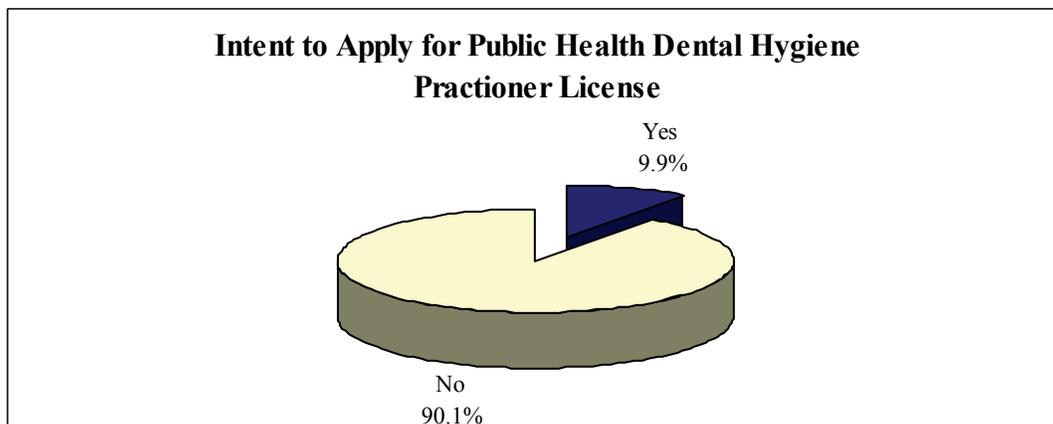
Of those individuals who are not currently working in direct patient care, 68.1 percent (628) indicated plans to return to direct patient care in the next five years.



Public Health Dental Hygiene Practitioner

In an effort to increase access to individuals living in health profession shortage areas (HPSAs), the public health dental hygiene practitioner was created as part of Governor Rendell's Prescription for Pennsylvania (Rx for PA) initiative. These practitioners will be empowered to provide intra-oral and radiologic procedures practice without the direct supervision of a dentist in certain identified shortage areas.

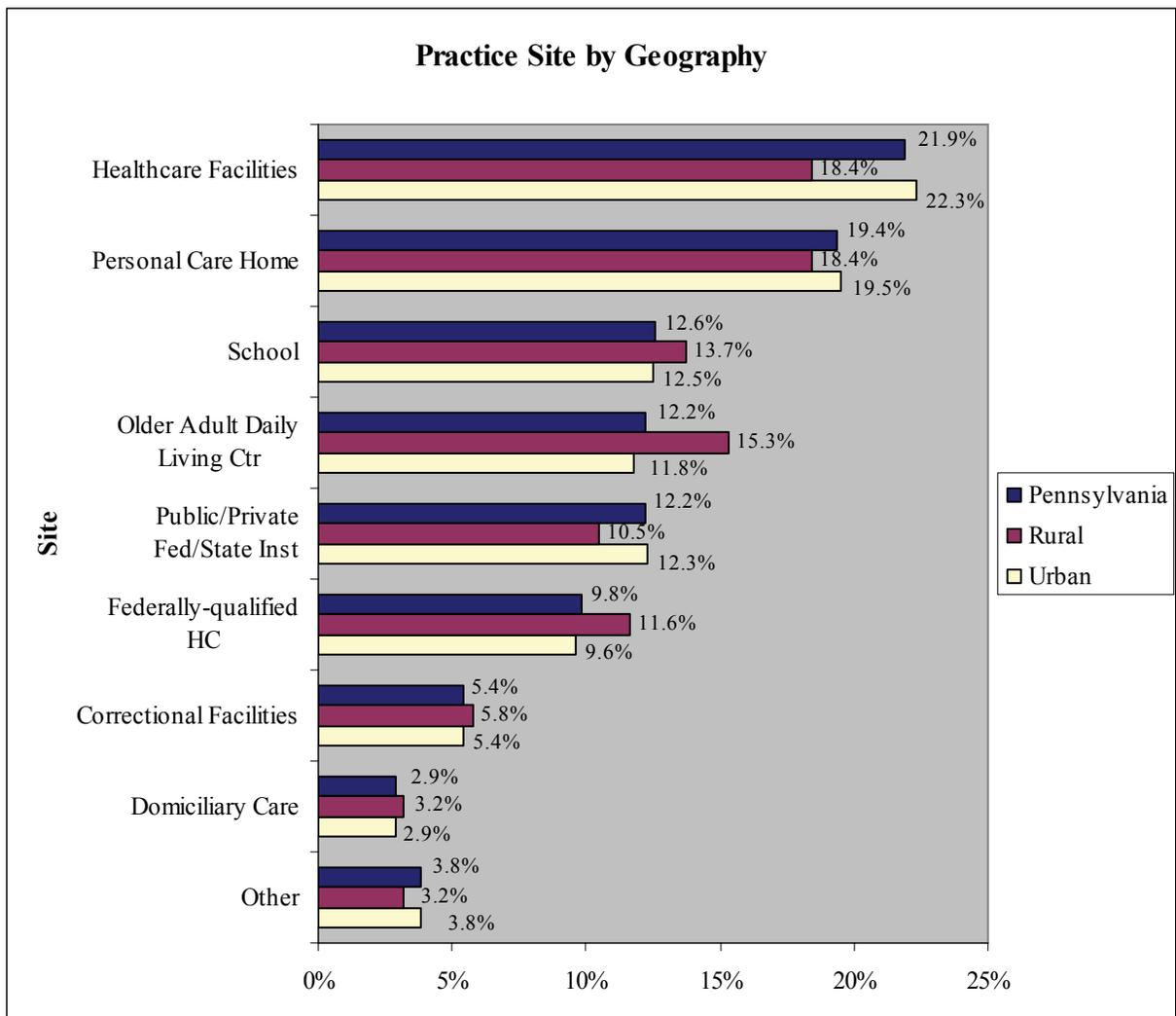
The 2009 survey of dental hygienists attempted to learn more about the number of dental hygienists intending to apply for licensure as a public health dental hygiene practitioner. Just 9.9 percent (755) of respondents indicated an intent to apply for licensure in this capacity.



Public Health Dental Hygiene Practitioner, cont'd

Public health dental hygiene practitioners may practice at schools, correctional facilities, health care facilities, personal care homes, domiciliary care, older adult daily living centers, federally qualified health centers, public or private institutions under the jurisdiction of a federal, state or local agency, other facilities and institutions that the State Board of Dentistry deems appropriate.

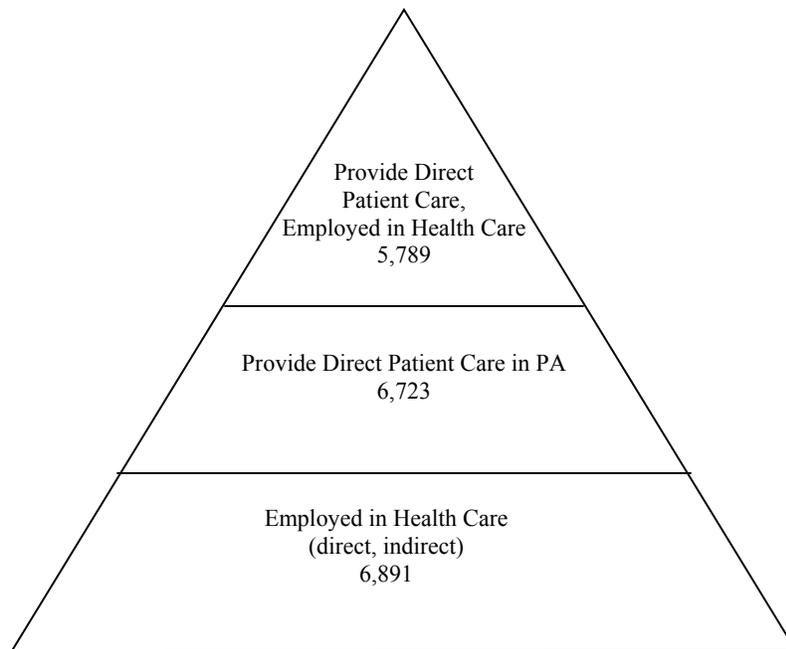
Of those respondents indicating an intention to work as a public health dental hygiene practitioner, 90.7 percent reported an intent to work in urban counties. According to this survey, the highest percentage of respondents (21.9 percent) anticipate practicing as public health dental hygiene practitioners in healthcare facilities. The chart below provides an overview of the practice sites where public health dental hygiene practitioners anticipate working.



Dental Hygienists Employed in Health Care and Providing Direct Patient Care in Pennsylvania

Of the 7,671 valid surveys returned, 6,891 dental hygienists indicated current employment in health care (direct, indirect). Of these, 6,723 individuals provide direct patient care in Pennsylvania. Overall, 5,789 respondents are employed in health care (direct, indirect) *and* provide direct patient care in Pennsylvania.

For the purpose of this report, the decision was made to focus on those individuals who provide direct patient care in Pennsylvania *and* are currently employed in health care. Therefore, the remainder of this section focuses on those 5,789 (75.5 percent) dental hygienists who indicated current health care employment and who provided of direct patient care in Pennsylvania.



The remainder of this section focuses on those 5,789 dental hygienist respondents who are employed in health care and provide direct patient care in Pennsylvania.

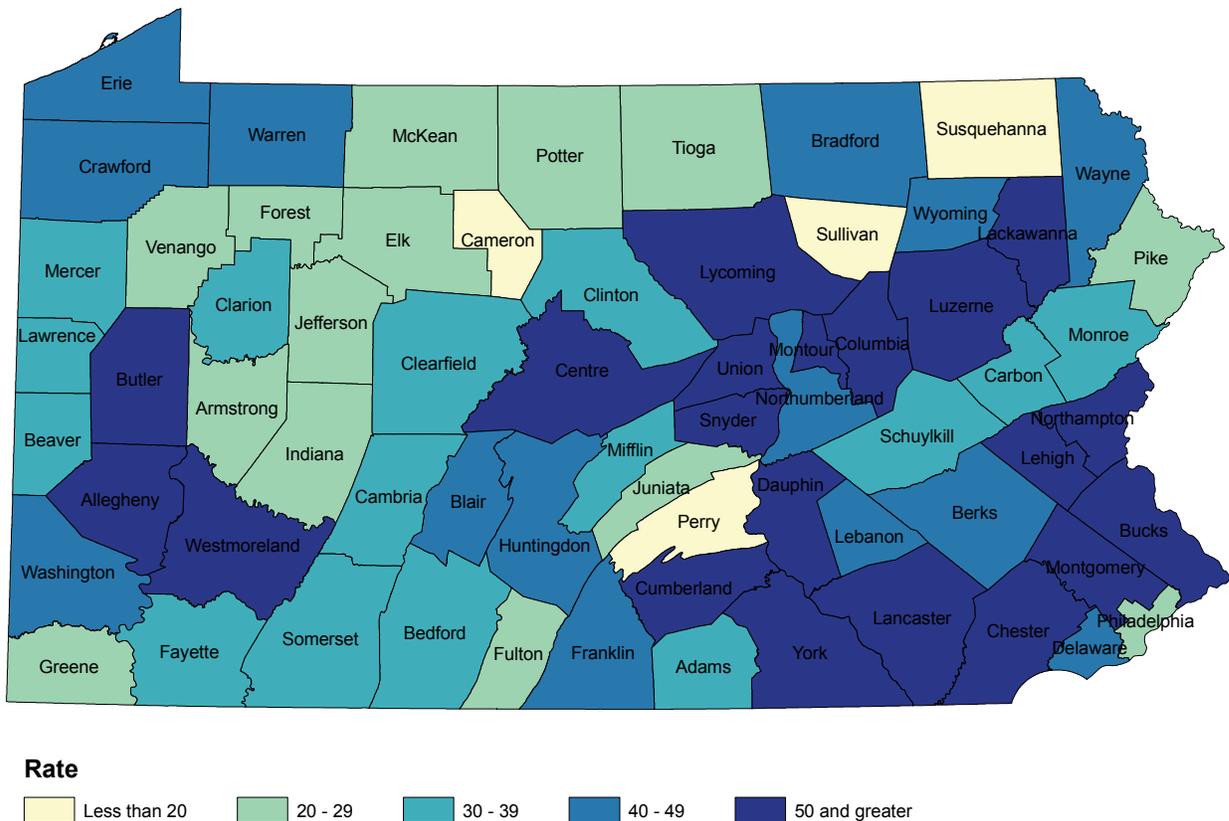
Geography

Nearly 92.0 percent of Pennsylvania’s dental hygienists are employed in urban counties.

In 2007, approximately 42.6 dental hygienists per 100,000 population practiced in Pennsylvania. This rate increased to 46.6 dental hygienists per 100,000 population in 2009. In 2007, Pennsylvania’s urban counties were found to have a rate of 44.2 dental hygienists per 100,00 population, compared to 30.6 in rural counties. In 2009, these rates increased to 48.3 dental hygienists per 100,000 population in urban counties and 33.7 in rural counties.

Please see Appendix 9 for a county-by-county listing of dental hygienists by county of primary job.

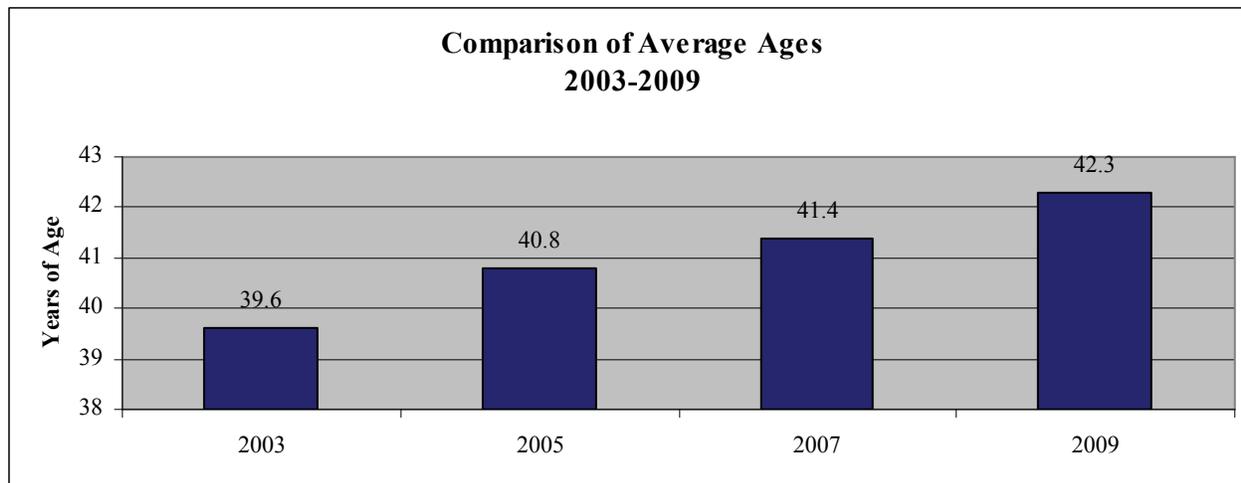
Rate of Dental Hygienists Employed in Health Care and Direct Patient Care in Pennsylvania per 100,000 Population by County of Primary Job



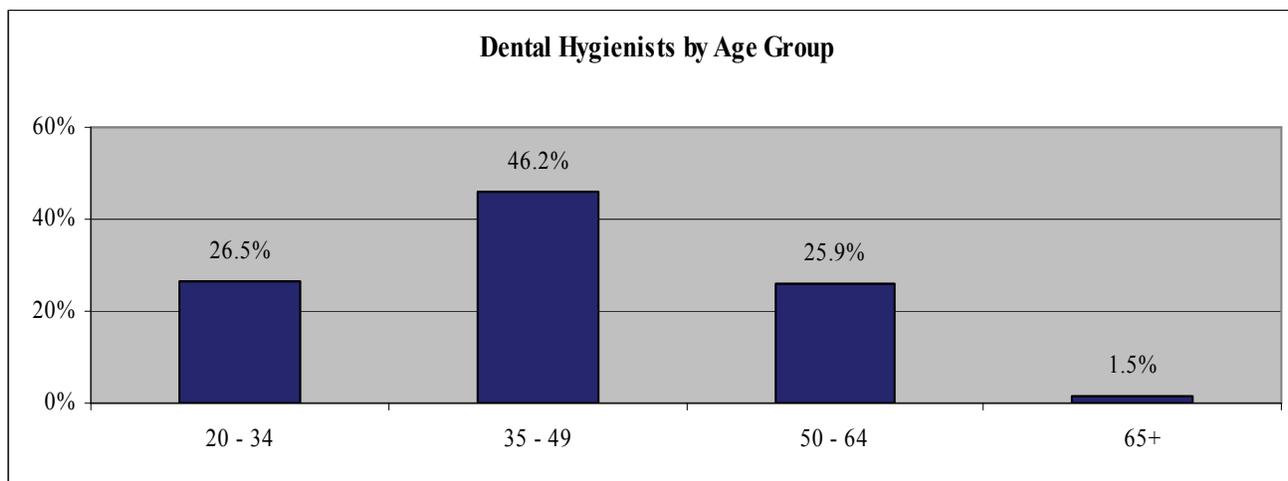
Demographics

Age

The average age of Pennsylvania's dental hygienists continues to increase. The 2009 survey found an average age of 42.3, an increase of 0.9 years since 2007 and a 2.7 year increase since 2003.

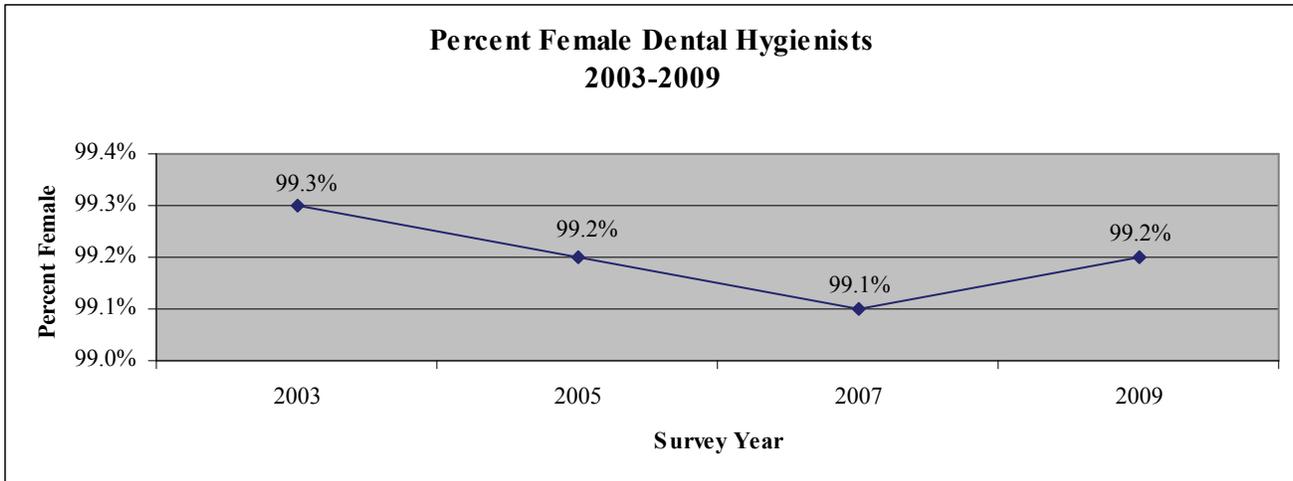


Additionally, nearly half of Pennsylvania's dental hygienists are 35-49 years of age. Since 2003, the percentages of dental hygienists in the 20-34 and 35-49 age groups have decreased approximately six percent each. During the same period, the percentages of 50-64 and 65+ age groups have increased, 11.5 percent and 0.6 percent, respectively.



Gender

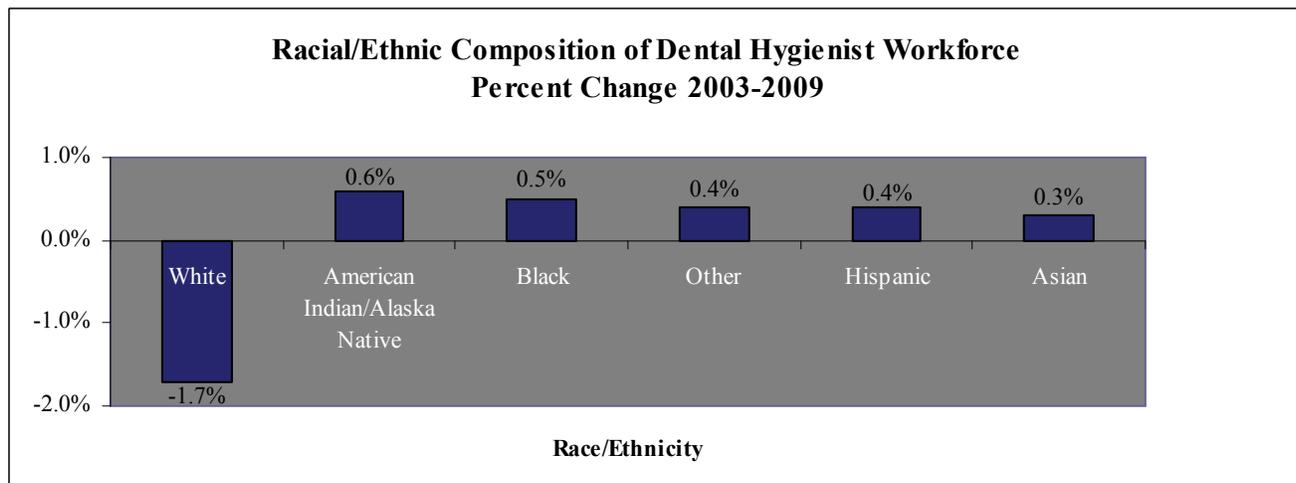
As seen in previous survey years, nearly one hundred percent of dental hygienists are female.



Racial & Ethnic Diversity

Although the percentage of dental hygienists identifying themselves as white has decreased each year since 2003, this workforce remains overwhelmingly homogenous. In 2009, 96.5 percent of the dental hygienist workforce identified themselves as White. Just 1.3 percent of this workforce identified themselves as Black. The remaining 2.2 percent of respondents identified themselves as Asian, Native Hawaiian/Pacific Islander, American Indian/Alaska Native or Other. The percentage of dental hygienists identifying themselves as Hispanic was just 1.1 percent.

The chart below depicts the percentage change among each group between 2003 and 2009.

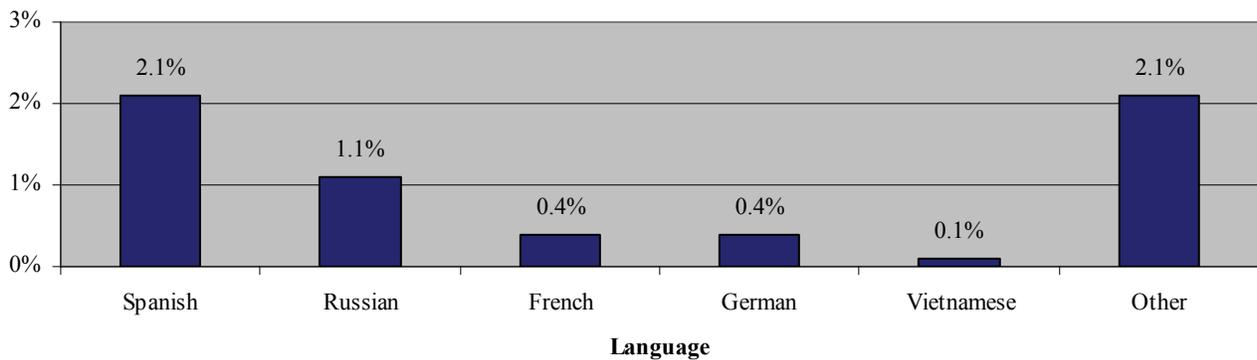


Note: "Native Hawaiian/Pacific Islanders" are not represented on this chart because this population experienced a zero percent change from 2003-2009.

Dental/Medical Translation

Despite the increasing diversity of Pennsylvania's general population, few dental hygienists are proficient in dental/medical translation in a language other than English. Of the 362 respondents who indicated proficiency in dental/medical translation in a non-English language, 124 spoke Spanish, 64 Russian, 24 French, 21 German, 6 Vietnamese and 123 Other. Respondents indicating Other reported proficiency in American sign language, Chinese, Hebrew and numerous Indian dialects.

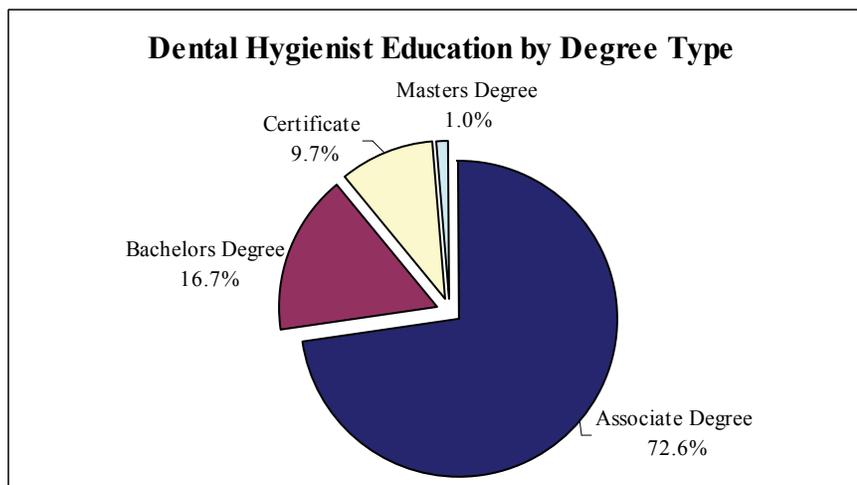
Proficiency in Dental/Medical Translation by Language



Education

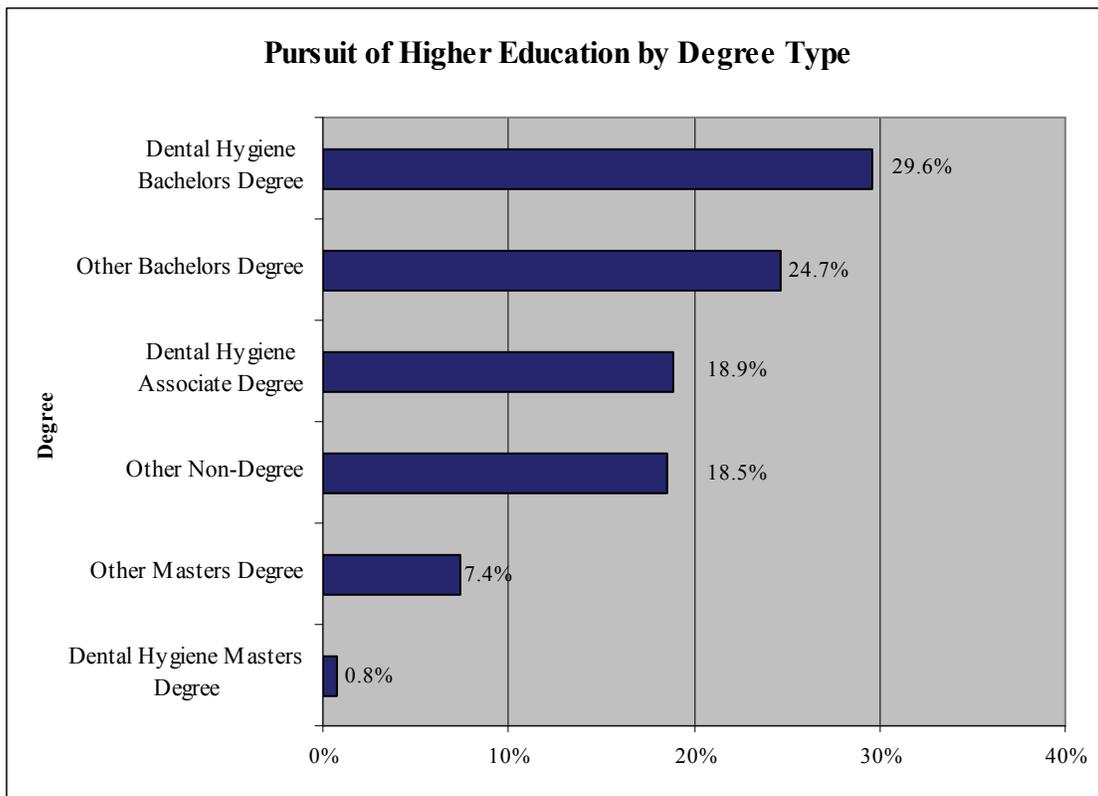
Most (72.6 percent) dental hygienists hold an associate degree. Less than 17.0 percent of dental hygienists hold a bachelors degree, and less than ten percent hold a certificate in dental hygiene. Just 1.0 percent of Pennsylvania's dental hygienists hold a masters degree in dental hygiene.

Dental Hygienist Education by Degree Type



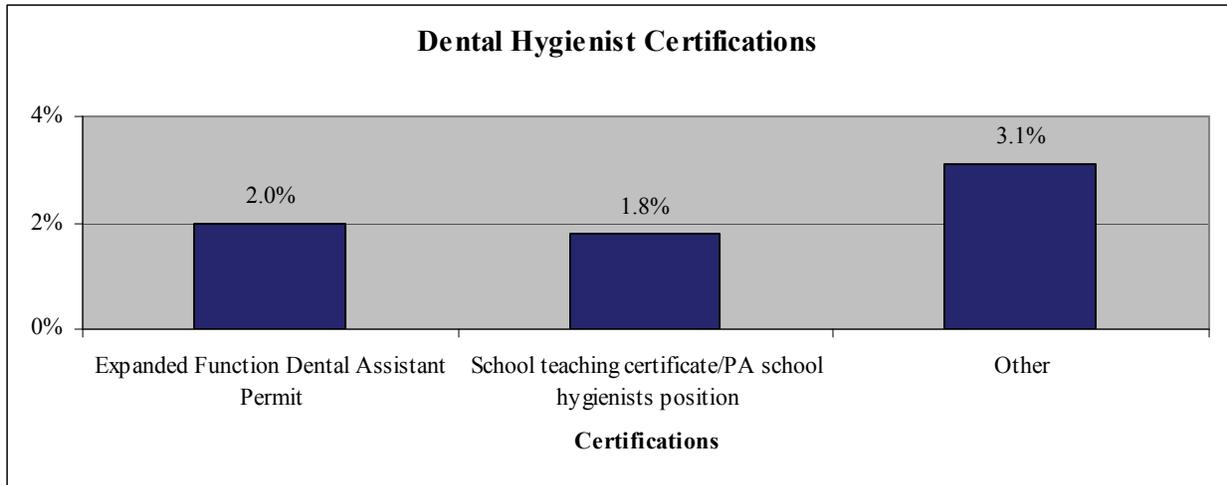
Education, cont'd

Only 4.2 percent of respondents are pursuing higher education. Of those dental hygienists who are pursuing higher education, nearly 30.0 percent are pursuing a bachelors degree in dental hygiene. Approximately 25.0 percent of this sample is pursuing a bachelors degree in a field outside of dental hygiene. Dental hygiene associate degrees and other non-degree options are being pursued by 18.9 percent and 18.5 percent of the sample, respectively. Approximately 8.0 percent of the sample are pursuing Masters degrees—7.4 percent in a field other than dental hygiene, 0.8 percent in dental hygiene.



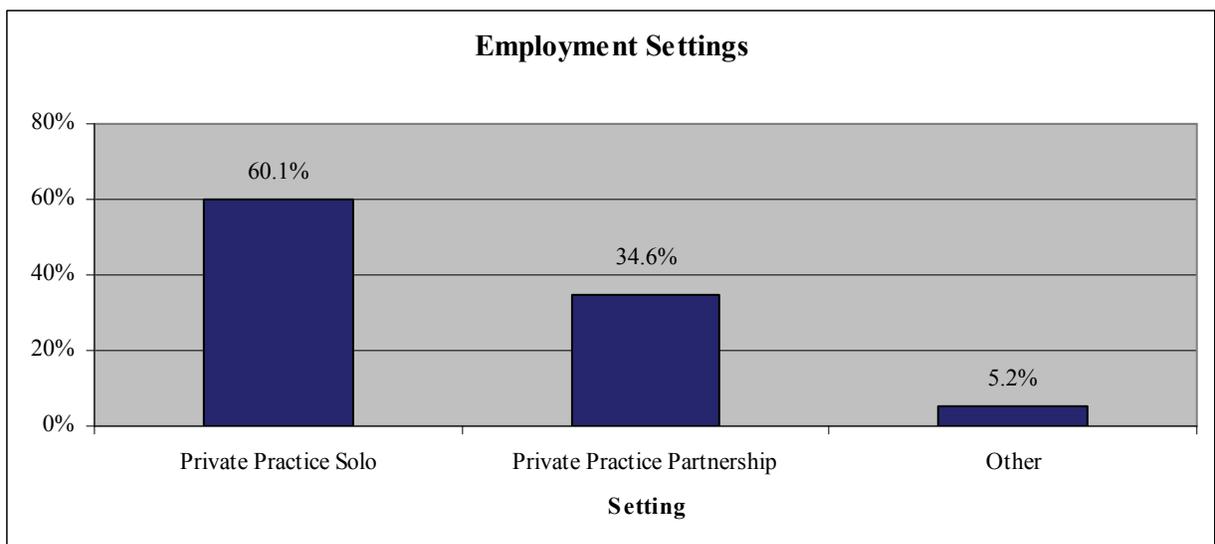
Certifications

Approximately 7.0 percent of dental hygienists hold additional certifications. Just 2.0 percent of respondents are certified as expanded function dental assistants. Another 1.8 percent of respondents hold a school teaching certificate or are certified as school hygienists. The remaining 3.1 percent of respondents who hold certifications do so in a wide variety of fields—some related to dental hygiene and many unrelated.



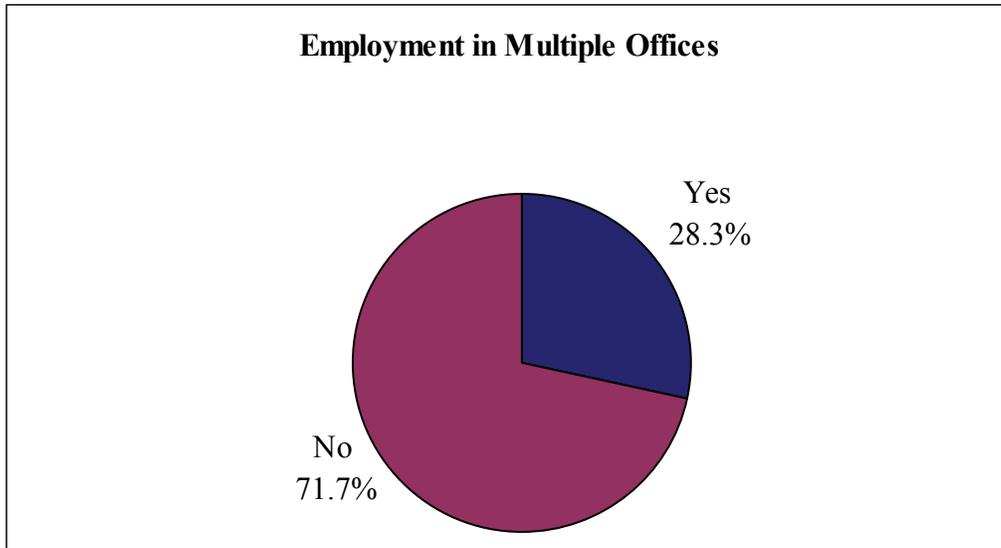
Employment Settings

Most of Pennsylvania’s dental hygienists (3,476) are working in solo private practice environments. Another 2,002 respondents are working in private practice partnerships. Just 302 dental hygienists reported working in another employment setting.



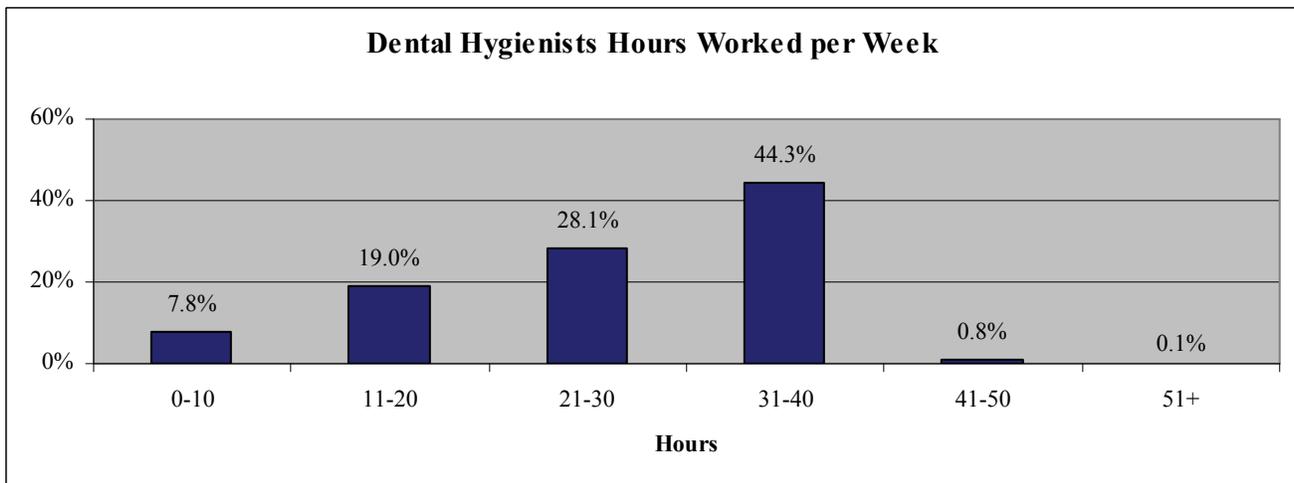
Multiple Office Employment

Less than 30.0 percent (1,636) of dental hygienists report working in multiple dental offices.



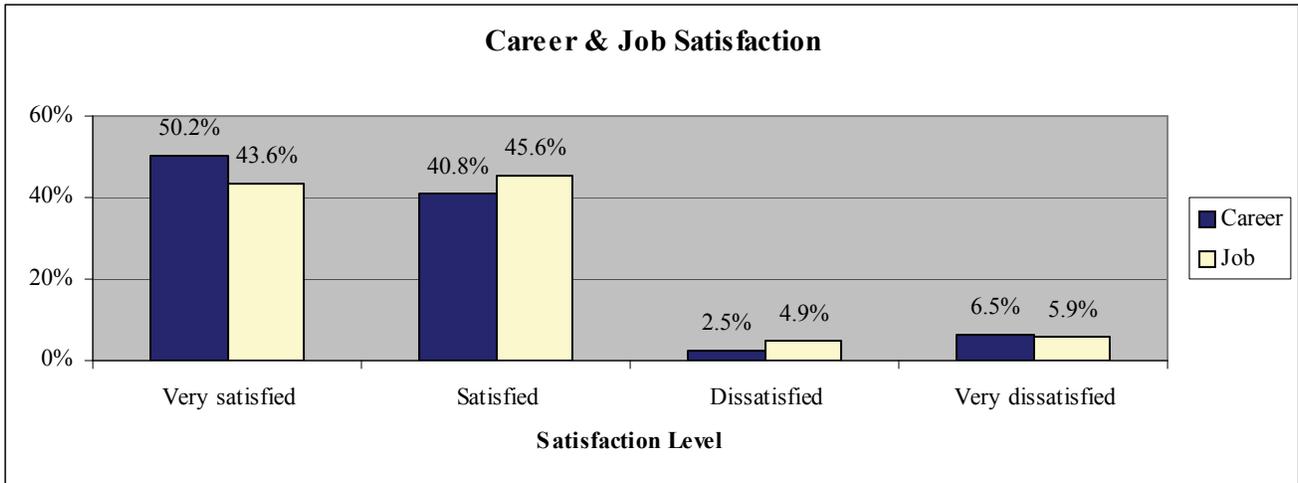
Hours Worked in Primary Job

Approximately 44.0 percent of dental hygienists work 31-40 hours per week. Another 28.0 percent of dental hygienists work 21-30 hours per week. Nearly 27.0 percent of dental hygienists work 20 or less hours per week. Less than 1.0 percent work more than 40 hours per week.



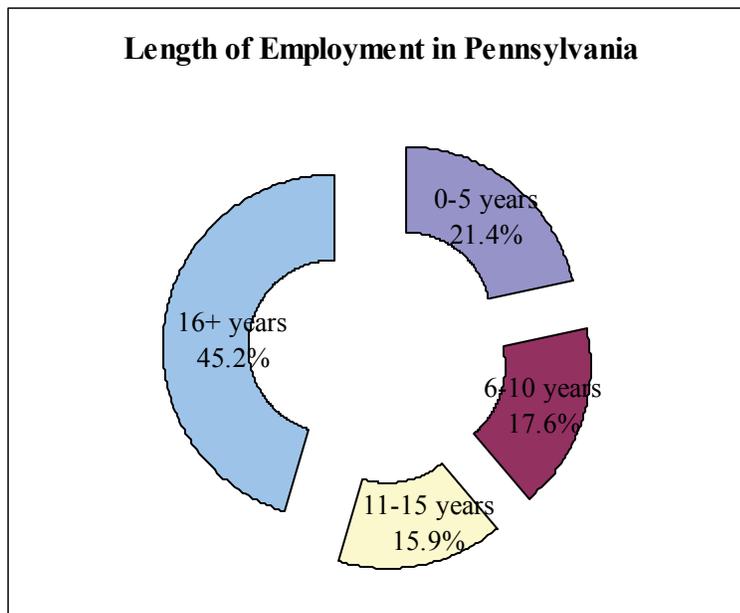
Career & Job Satisfaction

Dental hygienists report high levels of career and job satisfaction. Overall, satisfaction levels in 2009 were higher than those reported in 2007.



Length of Practice in Pennsylvania

Nearly half (45.2 percent) of respondents have worked as dental hygienists for 16 or more years. Conversely, less than one-quarter of respondents have worked as dental hygienists in Pennsylvania for five or fewer years.



Anticipated Practice in Pennsylvania

Unlike the trend identified among dentists, as the time respondents plan to remain in dental hygiene increases, so does their intent to practice in Pennsylvania. Approximately 73.0 percent of respondents who plan to remain in dental hygiene for 0-5 years also plan to practice in Pennsylvania for 0-5 years. Among dental hygienists who plan to practice for 16 or more years, 98.3 percent intent to practice in Pennsylvania for 16 or more years.

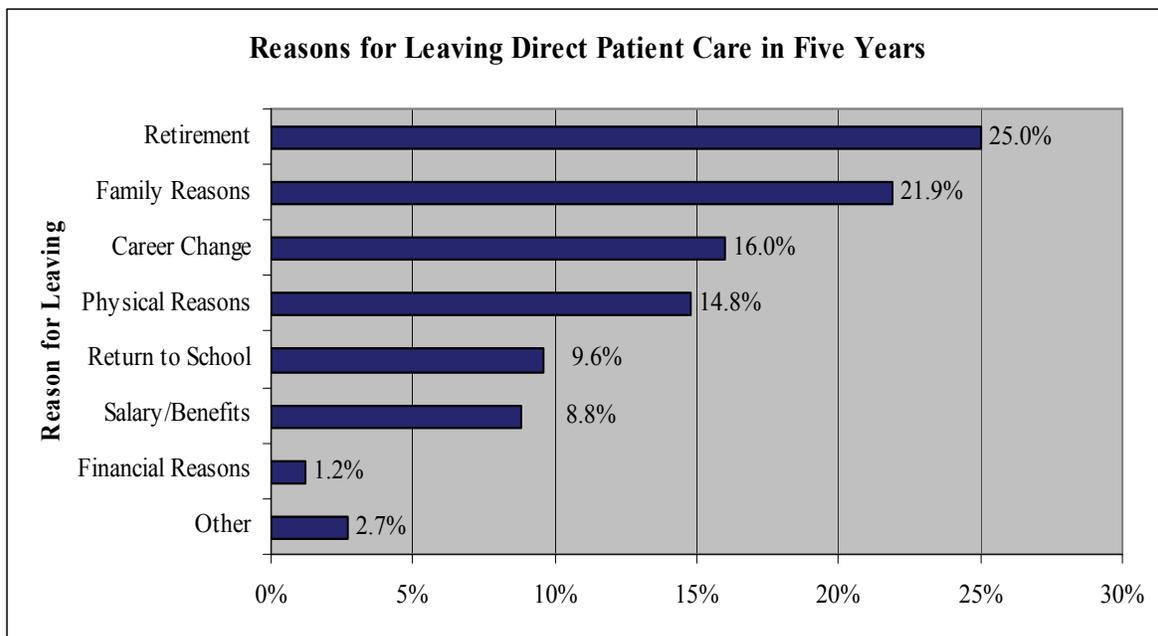
Intent to Practice

Plan to Remain in Dental Hygiene	Plan to Remain as Dental Hygienist in Pennsylvania							
	0-5 years		6-10 years		11-15 years		16+ years	
	Number	Percent^	Number	Percent^	Number	Percent^	Number	Percent^
0-5 years	432	72.8%	0	0.5%	0	0.0%	0	0.1%
6-10 years	59	9.9%	1,154	88.0%	6	0.4%	10	0.4%
11-15 years	29	4.9%	68	5.2%	1,296	93.2%	30	1.2%
16+ years	73	12.3%	83	6.3%	88	6.3%	2,430	98.3%

^Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

Reason for Leaving Direct Patient Care in Five Years

There does not appear to be one overwhelming reason identified by dental hygienists for leaving direct patient care in the next five years. One quarter of respondents identified retirement as their primary reason for leaving direct patient care within five years. Approximately 22.0 percent identified family reasons, 16.0 percent identified career change and roughly 15.0 percent identified physical reasons. Approximately 22.0 percent of respondents identified return to school, salary/benefits, financial reasons or other as their primary reason for leaving direct patient care in the next five years.



Dentists and Dental Hygienists

Next Steps

1. **Access to oral health care should be taken as seriously as access to medical care.**

Estimates indicate that the most common chronic disease among children is tooth decay—five times more common than asthma.⁸ Research has shown that chronic oral infections can lead to heart and lung disease, diabetes, stroke, premature births and low birth weights.⁴ By increasing the level of attention given to this issue, increased resources can be devoted to understanding and addressing the workforce issues that are currently part of the problem.



2. **Current knowledge of the dentist and dental hygienist workforces should be complemented by further study of provider productivity and affordability of services.** As evidenced through the 2009 survey of providers, location of practitioners is just one piece of providing oral health care access to a population. If the providers in a given area are inaccessible (for whatever reason), access will be compromised.

3. **Recruitment of dentists and dental hygienists to practice in underserved areas through scholarship and loan repayment/forgiveness programs must be increased.**

The National Association of Community Health Centers found that among non-physician practitioners, dentists comprise the highest rate of provider vacancies in Federally Qualified Health Centers (FQHCs).⁹ According to the Health Resources and Services Administration (HRSA), Pennsylvania requires an additional 276 practitioners in order to remove all of its 139 dental Health Professional Shortage Area (HPSAs) designations.¹⁰

Along with increasing the number of practitioners, these practitioners need to be geographically positioned to provide access to underserved populations. Incentive programs can be utilized to bring practitioners where they are most needed.

Next Steps, cont'd

4. **Stakeholders should further examine the impact adjustments to Medicaid and Medicare reimbursement levels may have on increasing access to existing dentists and enticing students into dental careers.** As evidenced through this survey and report, Pennsylvania dentists have low rates of Medicaid and Medicare acceptance. By increasing reimbursements offered through these programs, dentists may have an increased incentive to participate in these programs, thereby increasing access for underserved populations. Additionally, increased reimbursements will generate revenue for dentists that may increase the attractiveness of this field as a career option.

5. **Successful recruitment and retention efforts, particularly those that bring underrepresented populations to these professions, must be identified.** As Pennsylvania's population becomes increasingly diverse, the need for a representative dentist and dental hygienist workforce will also increase. Recruitment and retention efforts should begin with outreach to elementary, high school and college students and continue with mentoring programs to ensure interested candidates are retained.

6. **Improved research in this field should be utilized to increase access.** What programs are working? Why? Can they be replicated? Is there adequate funding to expand successful programs? What impact can community outreach efforts have on access in underserved communities?

7. **Additional research regarding the role of dental hygienists in increasing access to care should be undertaken.** Because fewer years of education are required to become a dental hygienist, an expansion in the number of dental hygienists may increase access to basic dental care more quickly than an increase in the number of dentists.

8. **Infrastructure should be developed to educate and train new dentists.** A decrease in the number of dental schools contributed to a decrease in the number of dentists trained. In order to develop a workforce that has the sheer numbers necessary to treat our expanding population, schools must exist to train new dentists. Although this is not an immediate solution, it is an option that should be addressed now in order to impact the future workforce.

Appendices

Dentists Employed in Health Care and Providing Direct Patient Care

1. (All) Dentists by County Where Majority of Practice Time is Spent.....	48
2. General Dentists by County Where Majority of Practice Time is Spent.....	49
3. Age and Average Age by County Where Majority of Practice Time is Spent.....	50
4. Accepted Form of Insurance Coverage by County.....	52
5. Years Anticipate Practicing in Pennsylvania by County Where Majority of Practice Time is Spent	54
6. Accepting New Patients by Insurance Option.....	56
7. Comparison of Responses, 2003-2009	58
8. 2009 Survey of Dentists.....	60

Dental Hygienists Employed in Health Care and Providing Direct Patient Care

9. County of Primary Job	62
10. Age and Average Age by County of Primary Job	63
11. Years Anticipate Practicing in Pennsylvania by County of Primary Job	65
12. Comparison of Responses, 2003-2009	67
13. 2009 Survey of Dental Hygienists	69

**DENTISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 1:
(ALL) DENTISTS BY COUNTY WHERE MAJORITY OF
PRACTICE TIME IS SPENT**

	Number	Percent[^]
<i>Pennsylvania</i>	6,261	
<i>Urban Counties</i>	5,795	92.6%
<i>Rural Counties</i>	466	7.4%
County		
Adams*	32	0.5%
Allegheny	828	13.2%
Armstrong*	24	0.4%
Beaver	76	1.2%
Bedford*	15	0.2%
Berks	155	2.5%
Blair	59	0.9%
Bradford*	23	0.4%
Bucks	398	6.4%
Butler	87	1.4%
Cambria	60	1.0%
Cameron	1	0.0%
Carbon*	23	0.4%
Centre	68	1.1%
Chester	277	4.4%
Clarion*	9	0.1%
Clearfield*	31	0.5%
Clinton*	14	0.2%
Columbia	23	0.4%
Crawford*	32	0.5%
Cumberland	134	2.1%
Dauphin	131	2.1%
Delaware	322	5.1%
Elk	8	0.1%
Erie	142	2.3%
Fayette	60	1.0%
Forest*	2	0.0%
Franklin	52	0.8%
Fulton*	3	0.0%
Greene*	13	0.2%
Huntingdon*	15	0.2%
Indiana*	27	0.4%
Jefferson*	12	0.2%
Juniata*	4	0.1%
Lackawanna	124	2.0%
Lancaster	214	3.4%
Lawrence	43	0.7%
Lebanon	54	0.9%

County	Number	Percent[^]
Lehigh	208	3.3%
Luzerne	160	2.6%
Lycoming	50	0.8%
McKean*	11	0.2%
Mercer	57	0.9%
Mifflin*	16	0.3%
Monroe	50	0.8%
Montgomery	612	9.8%
Montour*	13	0.2%
Northampton	134	2.1%
Northumberland	28	0.4%
Perry*	12	0.2%
Philadelphia	657	10.5%
Pike*	14	0.2%
Potter*	6	0.1%
Schuylkill	55	0.9%
Snyder*	15	0.2%
Somerset*	26	0.4%
Sullivan*	1	0.0%
Susquehanna*	7	0.1%
Tioga*	10	0.2%
Union	21	0.3%
Venango*	16	0.3%
Warren*	10	0.2%
Washington	99	1.6%
Wayne*	19	0.3%
Westmoreland	185	3.0%
Wyoming*	11	0.2%
York	163	2.6%

[^] Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

* Rural County - based on the 2000 U.S. Census definition

DENTISTS EMPLOYED IN HEALTH CARE AND
 PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 2:
**GENERAL DENTISTS BY COUNTY WHERE MAJORITY OF
 PRACTICE TIME IS SPENT**

	Number	Percent [^]
<i>Pennsylvania</i>	4,837	
<i>Urban Counties</i>	3,447	71.3%
<i>Rural Counties</i>	1,390	28.7%
County		
Adams*	25	0.5%
Allegheny	600	12.4%
Armstrong*	20	0.4%
Beaver	59	1.2%
Bedford*	11	0.2%
Berks	126	2.6%
Blair	43	0.9%
Bradford*	20	0.4%
Bucks	301	6.2%
Butler	67	1.4%
Cambria	48	1.0%
Cameron	1	0.0%
Carbon*	21	0.4%
Centre	48	1.0%
Chester	215	4.4%
Clarion*	9	0.2%
Clearfield*	24	0.5%
Clinton*	14	0.3%
Columbia	21	0.4%
Crawford*	26	0.5%
Cumberland	104	2.2%
Dauphin	102	2.1%
Delaware	250	5.2%
Elk	7	0.1%
Erie	111	2.3%
Fayette	50	1.0%
Forest*	1	0.0%
Franklin	43	0.9%
Fulton*	3	0.1%
Greene*	13	0.3%
Huntingdon*	14	0.3%
Indiana*	25	0.5%
Jefferson*	9	0.2%
Juniata*	3	0.1%
Lackawanna	97	2.0%
Lancaster	168	3.5%
Lawrence	37	0.8%
Lebanon	48	1.0%

County	Number	Percent [^]
Lehigh	157	3.2%
Luzerne	123	2.5%
Lycoming	35	0.7%
McKean*	11	0.2%
Mercer	46	1.0%
Mifflin*	16	0.3%
Monroe	40	0.8%
Montgomery	445	9.2%
Montour*	10	0.2%
Northampton	108	2.2%
Northumberland	26	0.5%
Perry*	12	0.2%
Philadelphia	480	9.9%
Pike*	12	0.2%
Potter*	6	0.1%
Schuylkill	48	1.0%
Snyder*	11	0.2%
Somerset*	21	0.4%
Sullivan*	1	0.0%
Susquehanna*	7	0.1%
Tioga*	9	0.2%
Union	13	0.3%
Venango*	14	0.3%
Warren*	10	0.2%
Washington	79	1.6%
Wayne*	18	0.4%
Westmoreland	152	3.1%
Wyoming*	11	0.2%
York	132	2.7%

[^] Percentages based on less than 10 events or on a total

* Rural County - based on the 2000 U.S. Census definition

DENTISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

**APPENDIX 3:
AGE AND AVERAGE AGE BY COUNTY WHERE MAJORITY OF
PRACTICE TIME IS SPENT**

	Total	20-34		35-49		50-64		65+		Average Age
	Number	Number	Percent [^]							
<i>Pennsylvania</i>	6,248	577	9.2%	1,961	31.4%	2,946	47.2%	764	12.2%	51.6
<i>Urban Counties</i>	5,783	547	9.5%	1,834	31.7%	2,702	46.7%	700	12.1%	51.5
<i>Rural Counties</i>	465	30	6.5%	127	27.3%	244	52.5%	64	13.8%	53.1
County										
Adams*	32	2	6.3%	11	34.4%	13	40.6%	6	18.8%	53.0
Allegheny	825	75	9.1%	245	29.7%	400	48.5%	105	12.7%	52.0
Armstrong*	24	0	-	5	20.8%	13	54.2%	6	25.0%	56.6
Beaver	76	5	6.6%	27	35.5%	37	48.7%	7	9.2%	51.8
Bedford*	15	1	6.7%	5	33.3%	6	40.0%	3	20.0%	53.8
Berks	155	11	7.1%	53	34.2%	74	47.7%	17	11.0%	51.5
Blair	59	3	5.1%	18	30.5%	31	52.5%	7	11.9%	52.9
Bradford*	23	3	13.0%	6	26.1%	12	52.2%	2	8.7%	51.9
Bucks	396	51	12.9%	116	29.3%	184	46.5%	45	11.4%	50.3
Butler	87	11	12.6%	35	40.2%	39	44.8%	2	2.3%	48.9
Cambria	60	3	5.0%	21	35.0%	29	48.3%	7	11.7%	52.7
Cameron	1	0	-	0	-	0	-	1	100.0%	70.0
Carbon*	23	2	8.7%	6	26.1%	13	56.5%	2	8.7%	51.4
Centre	67	10	14.9%	24	35.8%	31	46.3%	2	3.0%	47.7
Chester	277	28	10.1%	106	38.3%	112	40.4%	31	11.2%	50.6
Clarion*	9	1	11.1%	3	33.3%	4	44.4%	1	11.1%	52.1
Clearfield*	31	2	6.5%	12	38.7%	15	48.4%	2	6.5%	50.1
Clinton*	14	2	14.3%	4	28.6%	4	28.6%	4	28.6%	52.7
Columbia	23	4	17.4%	5	21.7%	11	47.8%	3	13.0%	50.3
Crawford*	32	1	3.1%	6	18.8%	18	56.3%	7	21.9%	55.4
Cumberland	134	11	8.2%	38	28.4%	72	53.7%	13	9.7%	51.9
Dauphin	131	19	14.5%	37	28.2%	65	49.6%	10	7.6%	50.3
Delaware	322	29	9.0%	79	24.5%	174	54.0%	40	12.4%	52.5
Elk	8	2	25.0%	2	25.0%	3	37.5%	1	12.5%	47.1
Erie	142	9	6.3%	43	30.3%	70	49.3%	20	14.1%	52.5
Fayette	60	5	8.3%	18	30.0%	32	53.3%	5	8.3%	51.5
Forest*	2	0	-	1	50.0%	1	50.0%	0	-	52.0
Franklin	52	1	1.9%	15	28.8%	28	53.8%	8	15.4%	54.0
Fulton*	3	0	-	2	66.7%	1	33.3%	0	-	45.0
Greene*	13	3	23.1%	1	7.7%	8	61.5%	1	7.7%	51.1
Huntingdon*	15	1	6.7%	2	13.3%	7	46.7%	5	33.3%	58.7
Indiana*	27	0	-	7	25.9%	17	63.0%	3	11.1%	55.1
Jefferson*	12	0	-	2	16.7%	10	83.3%	0	-	54.4
Juniata*	4	0	-	2	50.0%	2	50.0%	0	-	50.3
Lackawanna	124	7	5.6%	39	31.5%	58	46.8%	20	16.1%	53.1
Lancaster	214	17	7.9%	80	37.4%	98	45.8%	19	8.9%	50.4
Lawrence	43	6	14.0%	15	34.9%	18	41.9%	4	9.3%	49.3
Lebanon	54	1	1.9%	17	31.5%	25	46.3%	11	20.4%	55.5

DENTISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

**APPENDIX 3:
AGE AND AVERAGE AGE BY COUNTY WHERE MAJORITY OF
PRACTICE TIME IS SPENT, CONT'D**

County	Total	20-34		35-49		50-64		65+		Average Age
	Number	Number	Percent [^]							
Lehigh	207	18	8.7%	77	37.2%	88	42.5%	24	11.6%	50.8
Luzerne	160	10	6.3%	50	31.3%	81	50.6%	19	11.9%	52.6
Lycoming	50	3	6.0%	9	18.0%	28	56.0%	10	20.0%	55.2
McKean*	11	1	9.1%	1	9.1%	9	81.8%	0	-	54.5
Mercer	57	0	-	24	42.1%	23	40.4%	10	17.5%	53.9
Mifflin*	15	2	13.3%	4	26.7%	7	46.7%	2	13.3%	51.5
Monroe	50	5	10.0%	18	36.0%	22	44.0%	5	10.0%	50.8
Montgomery	610	50	8.2%	207	33.9%	272	44.6%	81	13.3%	51.8
Montour*	13	3	23.1%	1	7.7%	8	61.5%	1	7.7%	49.5
Northampton	133	12	9.0%	48	36.1%	59	44.4%	14	10.5%	50.9
Northumberland	28	1	3.6%	5	17.9%	18	64.3%	4	14.3%	55.5
Perry*	12	0	-	2	16.7%	9	75.0%	1	8.3%	56.5
Philadelphia	656	109	16.6%	186	28.4%	270	41.2%	91	13.9%	50.1
Pike*	14	0	-	8	57.1%	4	28.6%	2	14.3%	49.0
Potter*	6	1	16.7%	0	-	3	50.0%	2	33.3%	59.7
Schuylkill	55	2	3.6%	16	29.1%	32	58.2%	5	9.1%	53.9
Snyder*	15	0	-	6	40.0%	7	46.7%	2	13.3%	52.1
Somerset*	26	0	-	7	26.9%	16	61.5%	3	11.5%	55.1
Sullivan*	1	0	-	0	-	1	100.0%	0	-	52.0
Susquehanna*	7	0	-	2	28.6%	5	71.4%	0	-	51.7
Tioga*	10	0	-	6	60.0%	4	40.0%	0	-	48.8
Union	20	1	5.0%	9	45.0%	9	45.0%	1	5.0%	49.1
Venango*	16	0	-	1	6.3%	12	75.0%	3	18.8%	57.9
Warren*	10	0	-	4	40.0%	4	40.0%	2	20.0%	55.2
Washington	99	4	4.0%	36	36.4%	43	43.4%	16	16.2%	53.1
Wayne*	19	4	21.1%	6	31.6%	6	31.6%	3	15.8%	47.9
Westmoreland	185	11	5.9%	59	31.9%	96	51.9%	19	10.3%	52.6
Wyoming*	11	1	9.1%	4	36.4%	5	45.5%	1	9.1%	49.5
York	163	13	8.0%	57	35.0%	70	42.9%	23	14.1%	51.4

[^] Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

* Rural County - based on the 2000 U.S. Census definition

DENTISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

**APPENDIX 4:
ACCEPTED FORM OF INSURANCE COVERAGE BY COUNTY**

	Medicaid		Medicare		Private Insurance	
	Number	Percent^	Number	Percent^	Number	Percent^
<i>Pennsylvania</i>	871		709		4,845	
<i>Urban Counties</i>	781	89.7%	656	92.5%	4,504	93.0%
<i>Rural Counties</i>	90	10.3%	53	7.5%	341	7.0%
County of Specialty Where Majority of Practice Time is Spent						
Adams*	3	0.3%	4	0.6%	20	0.4%
Allegheny	127	14.6%	116	16.4%	631	13.0%
Armstrong*	4	0.5%	6	0.8%	18	0.4%
Beaver	9	1.0%	15	2.1%	63	1.3%
Bedford*	4	0.5%	2	0.3%	8	0.2%
Berks	12	1.4%	11	1.6%	122	2.5%
Blair	12	1.4%	9	1.3%	42	0.9%
Bradford*	2	0.2%	2	0.3%	12	0.2%
Bucks	27	3.1%	36	5.1%	311	6.4%
Butler	14	1.6%	13	1.8%	72	1.5%
Cambria	18	2.1%	9	1.3%	49	1.0%
Cameron	0	-	0	-	1	-
Carbon*	3	0.3%	0	-	15	0.3%
Centre	6	0.7%	3	0.4%	48	1.0%
Chester	17	2.0%	19	2.7%	228	4.7%
Clarion*	0	-	0	-	7	0.1%
Clearfield*	11	1.3%	7	1.0%	23	0.5%
Clinton*	0	-	0	-	11	0.2%
Columbia	6	0.7%	3	0.4%	18	0.4%
Crawford*	11	1.3%	6	0.8%	26	0.5%
Cumberland	7	0.8%	5	0.7%	105	2.2%
Dauphin	13	1.5%	11	1.6%	104	2.1%
Delaware	34	3.9%	29	4.1%	257	5.3%
Elk	1	0.1%	0	-	6	0.1%
Erie	19	2.2%	16	2.3%	112	2.3%
Fayette	14	1.6%	13	1.8%	50	1.0%
Forest*	0	-	0	-	2	-
Franklin	11	1.3%	7	1.0%	43	0.9%
Fulton*	1	0.1%	0	-	2	-
Greene*	5	0.6%	2	0.3%	10	0.2%
Huntingdon*	3	0.3%	0	-	12	0.2%
Indiana*	3	0.3%	2	0.3%	22	0.5%
Jefferson*	4	0.5%	3	0.4%	11	0.2%
Juniata*	0	-	0	-	2	-
Lackawanna	26	3.0%	11	1.6%	92	1.9%
Lancaster	25	2.9%	19	2.7%	158	3.3%
Lawrence	7	0.8%	5	0.7%	34	0.7%
Lebanon	0	-	0	-	38	0.8%
Lehigh	20	2.3%	16	2.3%	154	3.2%

DENTISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

APPENDIX 4:

ACCEPTED FORMS OF INSURANCE COVERAGE BY COUNTY, CONT'D

County of Specialty Where Majority of Practice Time is Spent	Medicaid		Medicare		Private Insurance	
	Number	Percent [^]	Number	Percent [^]	Number	Percent [^]
Luzerne	28	3.2%	21	3.0%	131	2.7%
Lycoming	4	0.5%	2	0.3%	26	0.5%
McKean*	1	0.1%	0	-	9	0.2%
Mercer	11	1.3%	11	1.6%	49	1.0%
Mifflin*	3	0.3%	2	0.3%	13	0.3%
Monroe	2	0.2%	1	0.1%	36	0.7%
Montgomery	41	4.7%	46	6.5%	466	9.6%
Montour*	4	0.5%	4	0.6%	9	0.2%
Northampton	6	0.7%	11	1.6%	98	2.0%
Northumberland	1	0.1%	1	0.1%	20	0.4%
Perry*	0	-	1	0.1%	9	0.2%
Philadelphia	199	22.8%	142	20.0%	536	11.1%
Pike*	0	-	0	-	12	0.2%
Potter*	2	0.2%	0	-	5	0.1%
Schuylkill	5	0.6%	4	0.6%	44	0.9%
Snyder*	2	0.2%	1	0.1%	14	0.3%
Somerset*	8	0.9%	4	0.6%	21	0.4%
Sullivan*	0	-	0	-	1	-
Susquehanna*	1	0.1%	0	-	4	0.1%
Tioga*	3	0.3%	1	0.1%	7	0.1%
Union	4	0.5%	5	0.7%	12	0.2%
Venango*	1	0.1%	0	-	7	0.1%
Warren*	3	0.3%	0	-	9	0.2%
Washington	10	1.1%	10	1.4%	81	1.7%
Wayne*	5	0.6%	3	0.4%	12	0.2%
Westmoreland	33	3.8%	28	3.9%	138	2.8%
Wyoming*	3	0.3%	3	0.4%	8	0.2%
York	12	1.4%	8	1.1%	129	2.7%

[^] Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

* Rural County - based on the 2000 U.S. Census definition

DENTISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

APPENDIX 5:

**YEARS ANTICIPATE PRACTICING IN PENNSYLVANIA
BY COUNTY WHERE MAJORITY OF PRACTICE TIME IS SPENT**

	Total	0-5 years		6-10 years		11-15 years		16+ years	
		Number	Percent^	Number	Percent^	Number	Percent^	Number	Percent^
<i>Pennsylvania</i>	6,227	1,001	16.1%	1,521	24.4%	1,400	22.5%	2,305	37.0%
<i>Urban Counties</i>	5,765	916	15.9%	1,409	24.4%	1,297	22.5%	2,143	37.2%
<i>Rural Counties</i>	462	85	18.4%	112	24.2%	103	22.3%	162	35.1%
County									
Adams*	32	7	21.9%	7	21.9%	7	21.9%	11	34.4%
Allegheny	826	139	16.8%	192	23.2%	183	22.2%	308	37.3%
Armstrong*	24	5	20.8%	6	25.0%	6	25.0%	7	29.2%
Beaver	75	7	9.3%	21	28.0%	20	26.7%	27	36.0%
Bedford*	15	3	20.0%	4	26.7%	3	20.0%	5	33.3%
Berks	153	26	17.0%	32	20.9%	34	22.2%	61	39.9%
Blair	59	14	23.7%	19	32.2%	9	15.3%	17	28.8%
Bradford*	23	3	13.0%	8	34.8%	4	17.4%	8	34.8%
Bucks	396	68	17.2%	85	21.5%	91	23.0%	152	38.4%
Butler	86	8	9.3%	21	24.4%	17	19.8%	40	46.5%
Cambria	59	7	11.9%	17	28.8%	13	22.0%	21	35.6%
Cameron	1	1	100.0%	0	-	0	-	0	-
Carbon*	23	6	26.1%	1	4.3%	5	21.7%	11	47.8%
Centre	68	5	7.4%	16	23.5%	15	22.1%	32	47.1%
Chester	276	37	13.4%	51	18.5%	81	29.3%	107	38.8%
Clarion*	9	2	22.2%	3	33.3%	2	22.2%	2	22.2%
Clearfield*	31	5	16.1%	7	22.6%	4	12.9%	15	48.4%
Clinton*	14	2	14.3%	4	28.6%	1	7.1%	7	50.0%
Columbia	23	2	8.7%	10	43.5%	5	21.7%	6	26.1%
Crawford*	32	7	21.9%	12	37.5%	2	6.3%	11	34.4%
Cumberland	132	16	12.1%	48	36.4%	31	23.5%	37	28.0%
Dauphin	131	20	15.3%	31	23.7%	31	23.7%	49	37.4%
Delaware	321	49	15.3%	80	24.9%	77	24.0%	115	35.8%
Elk	8	0	-	2	25.0%	2	25.0%	4	50.0%
Erie	140	23	16.4%	35	25.0%	30	21.4%	52	37.1%
Fayette	60	7	11.7%	17	28.3%	14	23.3%	22	36.7%
Forest*	2	0	-	0	-	2	100.0%	0	-
Franklin	52	14	26.9%	15	28.8%	9	17.3%	14	26.9%
Fulton*	3	0	-	0	-	1	33.3%	2	66.7%
Greene*	13	2	15.4%	2	15.4%	5	38.5%	4	30.8%
Huntingdon*	15	5	33.3%	3	20.0%	3	20.0%	4	26.7%
Indiana*	27	6	22.2%	7	25.9%	5	18.5%	9	33.3%
Jefferson*	11	1	9.1%	4	36.4%	4	36.4%	2	18.2%
Juniata*	4	1	25.0%	0	-	2	50.0%	1	25.0%
Lackawanna	124	20	16.1%	31	25.0%	24	19.4%	49	39.5%
Lancaster	214	28	13.1%	56	26.2%	44	20.5%	86	40.2%
Lawrence	43	7	16.3%	8	18.6%	10	23.3%	18	41.9%
Lebanon	53	11	20.7%	10	18.9%	16	30.2%	16	30.2%
Lehigh	207	39	18.8%	46	22.2%	41	19.8%	81	39.1%

DENTISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

APPENDIX 5:

**YEARS ANTICIPATE PRACTICING IN PENNSYLVANIA
BY COUNTY WHERE MAJORITY OF PRACTICE TIME IS SPENT, CONT'D**

County	Total	0-5 years		6-10 years		11-15 years		16+ years	
		Number	Percent [^]	Number	Percent [^]	Number	Percent [^]	Number	Percent [^]
Luzerne	159	24	15.1%	38	23.9%	30	18.9%	67	42.1%
Lycoming	50	13	26.0%	15	30.0%	10	20.0%	12	24.0%
McKean*	11	1	9.1%	6	54.5%	1	9.1%	3	27.3%
Mercer	57	11	19.3%	8	14.0%	11	19.3%	27	47.4%
Mifflin*	16	2	12.5%	4	25.0%	6	37.5%	4	25.0%
Monroe	50	10	20.0%	12	24.0%	10	20.0%	18	36.0%
Montgomery	610	78	12.8%	145	23.8%	146	23.9%	241	39.5%
Montour*	13	3	23.1%	2	15.4%	2	15.4%	6	46.2%
Northampton	133	20	15.0%	33	24.8%	28	21.1%	52	39.1%
Northumberland	28	4	14.3%	12	42.9%	5	17.9%	7	25.0%
Perry*	12	2	16.7%	4	33.3%	3	25.0%	3	25.0%
Philadelphia	656	125	19.1%	174	26.5%	135	20.6%	222	33.8%
Pike*	14	2	14.3%	3	21.4%	1	7.1%	8	57.1%
Potter*	6	3	50.0%	2	33.3%	0	-	1	16.7%
Schuylkill	55	7	12.7%	13	23.6%	17	30.9%	18	32.7%
Snyder*	15	2	13.3%	6	40.0%	3	20.0%	4	26.7%
Somerset*	26	5	19.2%	3	11.5%	10	38.5%	8	30.8%
Sullivan*	1	0	-	0	-	1	100.0%	0	-
Susquehanna*	7	1	14.3%	1	14.3%	2	28.6%	3	42.9%
Tioga*	10	2	20.0%	0	-	4	40.0%	4	40.0%
Union	20	6	30.0%	6	30.0%	4	20.0%	4	20.0%
Venango*	15	2	13.3%	7	46.7%	4	26.7%	2	13.3%
Warren*	10	1	10.0%	2	20.0%	3	30.0%	4	40.0%
Washington	99	18	18.2%	26	26.3%	21	21.2%	34	34.3%
Wayne*	18	3	16.7%	2	11.1%	3	16.7%	10	55.6%
Westmoreland	183	26	14.2%	42	23.0%	51	27.9%	64	35.0%
Wyoming*	10	1	10.0%	2	20.0%	4	40.0%	3	30.0%
York	163	26	15.9%	42	25.8%	32	19.6%	63	38.7%

[^] Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

* Rural County - based on the 2000 U.S. Census definition

DENTISTS EMPLOYED IN HEALTH CARE AND
 PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 6:
ACCEPTING NEW PATIENTS BY INSURANCE OPTION

	Total	Medicaid		Medicare		Private Insurance		Uninsured	
		Number	Percent^	Number	Percent^	Number	Percent^	Number	Percent^
<i>Pennsylvania</i>	10,772	818	7.6%	716	6.6%	4,969	46.1%	4,269	39.6%
<i>Urban Counties</i>	9,968	740	7.4%	657	6.6%	4,626	46.4%	3,945	39.6%
<i>Rural Counties</i>	804	78	9.7%	59	7.3%	343	42.7%	324	40.3%
County									
Adams*	60	4	6.7%	6	10.0%	27	45.0%	23	38.3%
Allegheny	1,437	125	8.7%	114	7.9%	642	44.7%	556	38.7%
Armstrong*	49	5	10.2%	7	14.3%	19	38.8%	18	36.7%
Beaver	141	8	5.7%	15	10.6%	63	44.7%	55	39.0%
Bedford*	21	4	19.0%	3	14.3%	7	33.3%	7	33.3%
Berks	272	14	5.1%	12	4.4%	131	48.2%	115	42.3%
Blair	97	10	10.3%	8	8.2%	41	42.3%	38	39.2%
Bradford*	26	1	3.8%	2	7.7%	11	42.3%	12	46.2%
Bucks	676	28	4.1%	37	5.5%	324	47.9%	287	42.5%
Butler	161	12	7.5%	11	6.8%	76	47.2%	62	38.5%
Cambria	102	13	12.7%	6	5.9%	45	44.1%	38	37.3%
Cameron	0	0	-	0	-	0	-	0	-
Carbon*	31	2	6.5%	0	-	15	48.4%	14	45.2%
Centre	114	6	5.3%	5	4.4%	56	49.1%	47	41.2%
Chester	477	18	3.8%	19	4.0%	234	49.1%	206	43.2%
Clarion*	18	1	5.6%	1	5.6%	8	44.4%	8	44.4%
Clearfield*	62	9	14.5%	6	9.7%	23	37.1%	24	38.7%
Clinton*	22	0	-	0	-	11	50.0%	11	50.0%
Columbia	43	5	11.6%	4	9.3%	18	41.9%	16	37.2%
Crawford*	67	7	10.4%	6	9.0%	27	40.3%	27	40.3%
Cumberland	218	7	3.2%	6	2.8%	112	51.4%	93	42.7%
Dauphin	222	12	5.4%	11	5.0%	106	47.7%	93	41.9%
Delaware	549	33	6.0%	27	4.9%	265	48.3%	224	40.8%
Elk	13	1	7.7%	0	-	6	46.2%	6	46.2%
Erie	241	14	5.8%	15	6.2%	113	46.9%	99	41.1%
Fayette	117	12	10.3%	13	11.1%	49	41.9%	43	36.8%
Forest*	4	0	-	0	-	2	50.0%	2	50.0%
Franklin	101	12	11.9%	5	5.0%	45	44.6%	39	38.6%
Fulton*	4	0	-	0	-	2	50.0%	2	50.0%
Greene*	28	5	17.9%	2	7.1%	10	35.7%	11	39.3%
Huntingdon*	28	4	14.3%	1	3.6%	12	42.9%	11	39.3%
Indiana*	41	3	7.3%	2	4.9%	20	48.8%	16	39.0%
Jefferson*	28	3	10.7%	4	14.3%	11	39.3%	10	35.7%
Juniata*	4	0	-	0	-	2	50.0%	2	50.0%
Lackawanna	215	20	9.3%	13	6.0%	95	44.2%	87	40.5%
Lancaster	348	22	6.3%	19	5.5%	169	48.6%	138	39.7%
Lawrence	74	7	9.5%	6	8.1%	32	43.2%	29	39.2%
Lebanon	72	1	1.4%	0	-	37	51.4%	34	47.2%
Lehigh	356	21	5.9%	18	5.1%	170	47.8%	147	41.3%

DENTISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

**APPENDIX 6:
ACCEPTING NEW PATIENTS BY INSURANCE OPTION, CONT'D**

County	Total	Medicaid		Medicare		Private Insurance		Uninsured	
		Number	Percent [^]	Number	Percent [^]	Number	Percent [^]	Number	Percent [^]
Luzerne	282	27	9.6%	20	7.1%	127	45.0%	108	38.3%
Lycoming	63	1	1.6%	1	1.6%	31	49.2%	30	47.6%
McKean*	16	1	6.3%	0	-	8	50.0%	7	43.8%
Mercer	112	11	9.8%	12	10.7%	48	42.9%	41	36.6%
Mifflin*	21	1	4.8%	0	-	10	47.6%	10	47.6%
Monroe	80	3	3.8%	3	3.8%	40	50.0%	34	42.5%
Montgomery	965	37	3.8%	45	4.7%	496	51.4%	387	40.1%
Montour*	24	5	20.8%	6	25.0%	7	29.2%	6	25.0%
Northampton	225	8	3.6%	12	5.3%	111	49.3%	94	41.8%
Northumberland	31	0	-	2	6.5%	16	51.6%	13	41.9%
Perry*	18	0	-	1	5.6%	8	44.4%	9	50.0%
Philadelphia	1,308	191	14.6%	146	11.2%	533	40.7%	438	33.5%
Pike*	24	0	-	1	4.2%	13	54.2%	10	41.7%
Potter*	9	1	11.1%	0	-	4	44.4%	4	44.4%
Schuylkill	81	4	4.9%	4	4.9%	40	49.4%	33	40.7%
Snyder*	25	0	-	0	-	14	56.0%	11	44.0%
Somerset*	51	8	15.7%	4	7.8%	21	41.2%	18	35.3%
Sullivan*	2	0	-	0	-	1	50.0%	1	50.0%
Susquehanna*	9	1	11.1%	0	-	4	44.4%	4	44.4%
Tioga*	20	1	5.0%	1	5.0%	9	45.0%	9	45.0%
Union	38	4	10.5%	5	13.2%	16	42.1%	13	34.2%
Venango*	13	1	7.7%	0	-	6	46.2%	6	46.2%
Warren*	19	3	15.8%	0	-	9	47.4%	7	36.8%
Washington	168	10	6.0%	9	5.4%	79	47.0%	70	41.7%
Wayne*	35	5	14.3%	4	11.4%	12	34.3%	14	40.0%
Westmoreland	309	31	10.0%	25	8.1%	134	43.4%	119	38.5%
Wyoming*	25	3	12.0%	2	8.0%	10	40.0%	10	40.0%
York	260	12	4.6%	9	3.5%	126	48.5%	113	43.5%

[^] Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

* Rural County - based on the 2000 U.S. Census definition

DENTISTS EMPLOYED IN HEALTH CARE AND
 PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 7:
COMPARISON OF RESPONSES OF THE PENNSYLVANIA
SURVEY OF DENTISTS,* 2003-2009

Measure	2003	2005	2007	2009*
Gender				
Male	14.1%	16.6%	17.5%	18.8%
Female	85.9%	83.4%	82.5%	81.2%
Race				
White	93.3%	90.3%	89.1%	88.1%
Black	1.5%	2.5%	2.4%	2.1%
Asian	3.8%	4.9%	5.8%	6.9%
Other	0.2%	0.2%	0.2%	2.2%
Native Hawaiian / Pacific Islander	0.0%	0.0%	0.0%	0.2%
American Indian / Alaska Native	1.2%	2.1%	2.4%	0.4%
Ethnicity				
Hispanic	1.0%	1.1%	1.2%	1.6%
Average Age	50.5	50.3	51.3	51.6
Age				
20-34	6.9%	8.8%	8.3%	9.2%
35-49	40.2%	38.1%	34.4%	31.4%
50-64	42.3%	43.1%	45.7%	47.2%
65+	10.6%	10.1%	11.6%	12.2%
Urban/Rural County of Practice**				
Urban	84.1%	84.7%	92.3%	92.6%
Rural	15.9%	15.3%	7.7%	7.4%
Majority of Practice Time Spent				
General Dentistry	79.7%	78.3%	79.2%	77.5%
Pediatric Dentistry	2.3%	2.9%	2.5%	2.8%
Geriatric Dentistry	0.8%	0.3%	0.3%	0.9%
Endodontics	2.2%	2.8%	2.7%	3.0%
Oral Surgery	4.0%	4.4%	3.9%	4.3%
Orthodontics	4.7%	5.3%	6.2%	6.3%
Prosthodontics	2.1%	2.0%	1.8%	2.2%
Primary Employment^				
Direct Patient Care	91.1%	90.0%	89.5%	90.0%
Administrative	0.6%	0.6%	0.6%	1.0%
Dental/Medical Education	2.3%	2.7%	3.2%	4.6%
Dental/Medical Research	0.3%	0.3%	0.3%	0.2%
Other non-patient care	0.2%	0.1%	0.1%	0.4%

DENTISTS EMPLOYED IN HEALTH CARE AND
 PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 7:
**COMPARISON OF RESPONSES OF THE PENNSYLVANIA
 SURVEY OF DENTISTS,* 2003-2009, CONT'D**

Measure	2003	2005	2007	2009*
How long do you anticipate practicing dentistry?				
0-5 years	13.3%	13.7%	14.2%	13.0%
6-10 years	21.4%	21.2%	20.7%	22.6%
11-15 years	25.8%	23.3%	22.6%	23.2%
16+ years	39.5%	41.8%	42.5%	41.1%
How long do you anticipate practicing dentistry in Pennsylvania?				
0-5 years	15.5%	16.7%	17.0%	16.1%
6-10 years	22.2%	21.6%	22.9%	24.4%
11-15 years	25.0%	22.7%	23.7%	22.5%
16+ years	37.3%	39.0%	36.5%	37.0%

^ All respondents

* In 2006 and prior years, the percentages shown were derived from dentists who indicated they were employed in direct patient care in Pennsylvania. For 2008, the percentages were derived from dentists who indicated they were employed in health care *and provided direct patient care in Pennsylvania.*

** The definition of urban/rural has changed from the April 2006 report. It is now defined by the 2000 U.S. Census.

Note: Percentages may not equal 100% due to rounding.

APPENDIX 8:

HD01244S

License Number D _____



Commonwealth of Pennsylvania
Department of Health
2009 Survey of Dentists

In order to gain a better understanding of the dentist workforce, the Department of Health, with the support of the Department of State, asks that you complete this brief survey.

If you completed the online license renewal survey there is NO NEED TO COMPLETE AND SUBMIT this paper survey.

Individual information from this survey is confidential and will not be shared or distributed. Your participation assures that policymakers and legislators have accurate and timely information. Information gained from the survey is used to improve knowledge of the dentist workforce and guide policy development. To view dentist workforce reports, visit www.health.state.pa.us and under Health Planning, click on State Health Improvement Plan and SHIP Health Care Workforce Reports. Thank you for your cooperation.

- 1. Year of Birth [][][][] 2. Sex [] Male [] Female 3. Hispanic Origin [] Yes [] No
4. Race (check one) [] American Indian/Alaska Native [] Native Hawaiian/ Other Pacific Islander
[] Asian [] White
[] Black [] Other
5. State of Residence (Enter two letter postal code) [][] (If not PA, please proceed to question 6.)
5a. County of Residence (Refer to PA county codes on back of form) [][]
5b. Zip Code of Residence [][][][][]
6. In which state did you graduate from dental school? (Enter two letter postal code) [][] Non-USA Graduate (check) []
7. In what state were you first licensed as a dentist? (Enter two letter postal code) [][]
8. Have you completed a postdoctoral certificate program in general dentistry? [] Yes [] No
9. Specialty Board Certification (Check all that apply)
[]=American Board of Dental Public Health []=American Board of Orthodontics
[]=American Board of Endodontics []=American Board of Pediatric Dentistry
[]=American Board of Maxillofacial Radiology []=American Board of Periodontology
[]=American Board of Oral and Maxillofacial Pathology []=American Board of Prosthodontics
[]=American Board of Oral and Maxillofacial Surgery []=None
10. Current Training Status (check one)
[] Resident [] Fellow [] Neither
11. Aside from your primary employment, do you provide community outreach to uninsured or underinsured individuals through any of the following means?
[]=Dental School Clinic []=FQHC or Health Center []=Other
[]=Dental Van []=School (Elementary or H.S.) []=None
11a. Is this outreach unpaid volunteer work? [] Yes [] No [] N/A
12. Current Employment Status (check one)
[] Employed in healthcare (direct, indirect) [] Unemployed, seeking health care employment
[] Employed (not in health care) [] Unemployed, not seeking health care employment
[] Retired [] Unemployed, disabled
13. Please check the one that best describes your primary employment situation.
[] Administrative [] Dental/Medical Education [] Dental/Medical Research [] N/A
[] Direct Patient Care [] Education [] Other non-patient care
14. If not in direct patient care, do you plan to return to direct patient care in the next 5 years? [] Yes [] No [] N/A
Please answer questions 15-27 only if you marked "direct patient care" for question 13.
15. Please indicate the category that most closely represents the specialty in which the majority of your practice time is spent (Check one)
[] Endodontics [] Geriatric Dentistry [] Orthodontics [] Prosthodontics
[] General Dentistry [] Oral Surgery [] Pediatric Dentistry [] Other
15a. In which county do you spend the majority of your scheduled practice time (primary job)?
(PA only - refer to PA county code list) County Code [][]
15b. Indicate the number of hours you work in your primary job per week: _____ (Over)

APPENDIX 8:

License Number _____

16. In what primary setting do you offer general dentistry with the aid of general anesthesia or deep sedation when needed on patients with severe developmental or physical handicaps? Hospital Ambulatory surgical setting Office None
17. Practice or employment sector (*The sector in which you spend the majority of scheduled time. Primary job only – check one*)
 =Private Practice Partnership =Private Practice Solo =Employee of another dentist =Other _____
18. Within your primary employment, do you provide community outreach to uninsured or underinsured individuals through any of the following means?
 =Dental School Clinic =FQHC or Health Center =Other _____
 =Dental Van =School (Elementary or H.S.) =None
19. Are you currently accepting new patients? (check all that apply)
 Medicaid Medicare Private Insurance Uninsured Not currently accepting new patients
20. Do you accept any of the following coverage plans?
 20a. Medicaid Yes No
 20b. Medicare Yes No
 20c. Private insurance Yes No
 20d. Does your practice submit claims to insurance companies on behalf of patients? Yes No
21. Please indicate which of the following practice auxiliaries are employed in your office. (*Check all that apply*)
 Dental Assistant Dental Hygienist Expanded Function Dental Assistant N/A
22. Please indicate the number of vacancies in your practice due to an inability to find qualified staff
 _____ Dental Assistant _____ Dental Hygienist _____ Expanded Function Dental Assistant
23. How long have you practiced dentistry in Pennsylvania?
 0 – 5 years 6 – 10 years 11 – 15 years 16+ years
24. How long do you anticipate you will continue practicing dentistry in Pennsylvania?
 0 – 5 years 6 – 10 years 11 – 15 years 16+ years Retired/Currently not in practice
25. How long do you anticipate you will continue practicing dentistry?
 0 – 5 years 6 – 10 years 11 – 15 years 16+ years Retired/Currently not in practice
26. If you plan to leave direct patient care within the next 5 years, indicate your principal reason below (*check only one*).
 Career change Physical reasons Salary/Benefits
 Family Reasons Retirement Other _____
 Financial reasons (excluding salary/benefits) Return to school N/A
27. In what languages are you proficient in providing dental/medical translation to patients? (check all that apply)
 English French German Russian Spanish Vietnamese Other _____

PENNSYLVANIA COUNTY CODES

01=Adams	15=Chester	29=Fulton	43=Mercer	57=Sullivan
02=Allegheny	16=Clarion	30=Greene	44=Mifflin	58=Susquehanna
03=Armstrong	17=Clearfield	31=Huntingdon	45=Monroe	59=Tioga
04=Beaver	18=Clinton	32=Indiana	46=Montgomery	60=Union
05=Bedford	19=Columbia	33=Jefferson	47=Montour	61=Venango
06=Berks	20=Crawford	34=Juniata	48=Northampton	62=Warren
07=Blair	21=Cumberland	35=Lackawanna	49=Northumberland	63=Washington
08=Bradford	22=Dauphin	36=Lancaster	50=Perry	64=Wayne
09=Bucks	23=Delaware	37=Lawrence	51=Philadelphia	65=Westmoreland
10=Butler	24=Elk	38=Lebanon	52=Pike	66=Wyoming
11=Cambria	25=Erie	39=Lehigh	53=Potter	67=York
12=Cameron	26=Fayette	40=Luzerne	54=Schuylkill	
13=Carbon	27=Forest	41=Lycoming	55=Snyder	
14=Centre	28=Franklin	42=McKean	56=Somerset	

DENTAL HYGIENISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

**APPENDIX 9:
COUNTY OF PRIMARY JOB**

	Number	Percent[^]
<i>Pennsylvania</i>	3,751	100.0%
<i>Urban Counties</i>	3,337	89.0%
<i>Rural Counties</i>	414	11.0%
County		
Adams*	8	0.2%
Allegheny	544	14.5%
Armstrong*	12	0.3%
Beaver	35	0.9%
Bedford*	12	0.3%
Berks	101	2.7%
Blair	79	2.1%
Bradford*	25	0.7%
Bucks	121	3.2%
Butler	32	0.9%
Cambria	65	1.7%
Cameron	2	0.1%
Carbon*	5	0.1%
Centre	45	1.2%
Chester	112	3.0%
Clarion*	9	0.2%
Clearfield*	41	1.1%
Clinton*	16	0.4%
Columbia	14	0.4%
Crawford*	18	0.5%
Cumberland	51	1.4%
Dauphin	124	3.3%
Delaware	106	2.8%
Elk	9	0.2%
Erie	97	2.6%
Fayette	23	0.6%
Forest*	2	0.1%
Franklin	33	0.9%
Fulton*	6	0.2%
Greene*	6	0.2%
Huntingdon*	12	0.3%
Indiana*	16	0.4%
Jefferson*	14	0.4%
Juniata*	8	0.2%
Lackawanna	81	2.2%
Lancaster	86	2.3%
Lawrence	7	0.2%
Lebanon	50	1.3%
Lehigh	229	6.1%

County	Number	Percent[^]
Luzerne	114	3.0%
Lycoming	40	1.1%
McKean*	9	0.2%
Mercer	32	0.9%
Mifflin*	6	0.2%
Monroe	43	1.1%
Montgomery	218	5.8%
Montour*	96	2.6%
Northampton	67	1.8%
Northumberland	24	0.6%
Perry*	4	0.1%
Philadelphia	481	12.8%
Pike*	1	0.0%
Potter*	12	0.3%
Schuylkill	41	1.1%
Snyder*	5	0.1%
Somerset*	16	0.4%
Sullivan*	1	0.0%
Susquehanna*	3	0.1%
Tioga*	5	0.1%
Union	38	1.0%
Venango*	21	0.6%
Warren*	9	0.2%
Washington	30	0.8%
Wayne*	8	0.2%
Westmoreland	94	2.5%
Wyoming*	8	0.2%
York	69	1.8%

[^] Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

* Rural County - based on the 2000 U.S. Census definition

DENTAL HYGIENISTS EMPLOYED IN HEALTH CARE AND
 PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 10:
AGE & AVERAGE AGE BY COUNTY OF PRIMARY JOB

	Total		20-34		35-49		50-64		65+		Average Age
	Number	Number	Percent^	Number	Percent^	Number	Percent^	Number	Percent^		
<i>Pennsylvania</i>	5,783	1,533	26.5%	2,671	46.2%	1,495	25.9%	84	1.5%	42.3	
<i>Urban Counties</i>	5,291	1,400	26.5%	2,446	46.2%	1,367	25.8%	78	1.5%	42.3	
<i>Rural Counties</i>	492	133	27.0%	225	45.7%	128	26.0%	6	1.2%	41.9	
County											
Adams*	39	10	25.6%	18	46.2%	10	25.6%	1	2.6%	42.2	
Allegheny	634	189	29.8%	246	38.8%	185	29.2%	14	2.2%	42.6	
Armstrong*	19	4	21.1%	10	52.6%	5	26.3%	0	-	43.2	
Beaver	64	9	14.1%	33	51.6%	21	32.8%	1	1.6%	46.0	
Bedford*	17	6	35.3%	7	41.2%	4	23.5%	0	-	39.5	
Berks	194	54	27.8%	88	45.4%	50	25.8%	2	1.0%	42.1	
Blair	57	16	28.1%	31	54.4%	10	17.5%	0	-	40.4	
Bradford*	25	4	16.0%	10	40.0%	11	44.0%	0	-	46.7	
Bucks	332	65	19.6%	171	51.5%	92	27.7%	4	1.2%	43.1	
Butler	111	45	40.5%	54	48.6%	11	9.9%	1	0.9%	38.5	
Cambria	46	18	39.1%	18	39.1%	10	21.7%	0	-	38.3	
Cameron	0	0	-	0	-	0	-	0	-	-	
Carbon*	24	5	20.8%	13	54.2%	5	20.8%	1	4.2%	44.3	
Centre	83	25	30.1%	41	49.4%	17	20.5%	0	-	40.7	
Chester	260	66	25.4%	114	43.8%	74	28.5%	6	2.3%	43.4	
Clarion*	14	5	35.7%	6	42.9%	3	21.4%	0	-	38.9	
Clearfield*	29	7	24.1%	11	37.9%	11	37.9%	0	-	43.2	
Clinton*	12	4	33.3%	5	41.7%	3	25.0%	0	-	42.8	
Columbia	34	9	26.5%	22	64.7%	3	8.8%	0	-	39.3	
Crawford*	37	9	24.3%	13	35.1%	15	40.5%	0	-	43.6	
Cumberland	162	33	20.4%	83	51.2%	46	28.4%	0	-	42.7	
Dauphin	162	44	27.2%	71	43.8%	44	27.2%	3	1.9%	42.4	
Delaware	252	69	27.4%	116	46.0%	58	23.0%	9	3.6%	42.6	
Elk	9	3	33.3%	4	44.4%	2	22.2%	0	-	41.9	
Erie	134	49	36.6%	56	41.8%	29	21.6%	0	-	40.1	
Fayette	52	14	26.9%	32	61.5%	6	11.5%	0	-	40.1	
Forest*	2	1	50.0%	0	-	1	50.0%	0	-	44.0	
Franklin	65	17	26.2%	29	44.6%	18	27.7%	1	1.5%	42.7	
Fulton*	3	1	33.3%	1	33.3%	1	33.3%	0	-	38.0	
Greene*	11	1	9.1%	6	54.5%	4	36.4%	0	-	45.8	
Huntingdon*	20	7	35.0%	8	40.0%	5	25.0%	0	-	41.1	
Indiana*	25	12	48.0%	9	36.0%	4	16.0%	0	-	36.8	
Jefferson*	13	3	23.1%	7	53.8%	2	15.4%	1	7.7%	40.5	
Juniata*	6	1	16.7%	3	50.0%	2	33.3%	0	-	44.8	
Lackawanna	114	30	26.3%	63	55.3%	21	18.4%	0	-	41.6	
Lancaster	293	85	29.0%	131	44.7%	75	25.6%	2	0.7%	41.5	
Lawrence	29	7	24.1%	16	55.2%	6	20.7%	0	-	41.4	
Lebanon	57	23	40.4%	23	40.4%	9	15.8%	2	3.5%	39.8	

DENTAL HYGIENISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

APPENDIX 10:

AGE & AVERAGE AGE BY COUNTY OF PRIMARY JOB, CONT'D

County	Total	20-34		35-49		50-64		65+		Average Age
	Number	Number	Percent [^]							
Lehigh	193	41	21.2%	97	50.3%	53	27.5%	2	1.0%	43.7
Luzerne	170	35	20.6%	110	64.7%	25	14.7%	0	-	40.8
Lycoming	71	16	22.5%	41	57.7%	14	19.7%	0	-	41.8
McKean*	10	4	40.0%	4	40.0%	2	20.0%	0	-	37.7
Mercer	41	10	24.4%	20	48.8%	11	26.8%	0	-	41.8
Mifflin*	15	4	26.7%	10	66.7%	1	6.7%	0	-	39.0
Monroe	56	14	25.0%	22	39.3%	20	35.7%	0	-	42.4
Montgomery	509	96	18.9%	238	46.8%	158	31.0%	17	3.3%	44.7
Montour*	10	5	50.0%	2	20.0%	3	30.0%	0	-	38.7
Northampton	176	33	18.8%	67	38.1%	74	42.0%	2	1.1%	45.4
Northumberland	36	7	19.4%	17	47.2%	12	33.3%	0	-	42.9
Perry*	7	1	14.3%	5	71.4%	1	14.3%	0	-	42.0
Philadelphia	335	129	38.5%	139	41.5%	62	18.5%	5	1.5%	39.6
Pike*	15	2	13.3%	7	46.7%	5	33.3%	1	6.7%	44.5
Potter*	4	1	25.0%	0	-	3	75.0%	0	-	49.3
Schuylkill	55	14	25.5%	30	54.5%	11	20.0%	0	-	41.2
Snyder*	22	7	31.8%	11	50.0%	4	18.2%	0	-	40.8
Somerset*	28	5	17.9%	15	53.6%	7	25.0%	1	3.6%	43.2
Sullivan*	1	0	-	0	-	1	100.0%	0	-	52.0
Susquehanna*	6	1	16.7%	4	66.7%	1	16.7%	0	-	41.8
Tioga*	10	4	40.0%	3	30.0%	2	20.0%	1	10.0%	42.2
Union	25	8	32.0%	14	56.0%	3	12.0%	0	-	39.5
Venango*	14	4	28.6%	6	42.9%	4	28.6%	0	-	41.6
Warren*	19	8	42.1%	8	42.1%	3	15.8%	0	-	36.9
Washington	84	28	33.3%	31	36.9%	25	29.8%	0	-	40.9
Wayne*	22	4	18.2%	15	68.2%	3	13.6%	0	-	42.8
Westmoreland	180	56	31.1%	83	46.1%	41	22.8%	0	-	41.3
Wyoming*	13	3	23.1%	8	61.5%	2	15.4%	0	-	41.3
York	216	43	19.9%	95	44.0%	71	32.9%	7	3.2%	45.0

[^] Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

* Rural County - based on the 2000 U.S. Census definition

DENTAL HYGIENISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA

**APPENDIX 11:
YEARS ANTICIPATE PRACTICING IN PENNSYLVANIA BY
COUNTY OF PRIMARY JOB**

	Total	0-5 years		6-10 years		11-15 years		16+ years	
	Number	Number	Percent^	Number	Percent^	Number	Percent^	Number	Percent^
<i>Pennsylvania</i>	5,768	593	10.3%	1,311	22.7%	1,391	24.1%	2,473	42.9%
<i>Urban Counties</i>	5,277	548	10.4%	1,206	22.9%	1,271	24.1%	2,252	42.7%
<i>Rural Counties</i>	491	45	9.2%	105	21.4%	120	24.4%	221	45.0%
County									
Adams*	39	4	10.3%	6	15.4%	14	35.9%	15	38.5%
Allegheny	632	90	14.2%	172	27.2%	135	21.4%	235	37.2%
Armstrong*	19	1	5.3%	6	31.6%	8	42.1%	4	21.1%
Beaver	64	9	14.1%	23	35.9%	12	18.8%	20	31.3%
Bedford*	17	2	11.8%	5	29.4%	3	17.6%	7	41.2%
Berks	195	13	6.7%	36	18.5%	47	24.1%	99	50.8%
Blair	57	6	10.5%	6	10.5%	16	28.1%	29	50.9%
Bradford*	25	1	4.0%	10	40.0%	7	28.0%	7	28.0%
Bucks	333	24	7.2%	76	22.8%	88	26.4%	145	43.5%
Butler	112	9	8.0%	17	15.2%	30	26.8%	56	50.0%
Cambria	46	2	4.3%	8	17.4%	10	21.7%	26	56.5%
Cameron	0	0	-	0	-	0	-	0	-
Carbon*	24	3	12.5%	5	20.8%	8	33.3%	8	33.3%
Centre	83	7	8.4%	15	18.1%	21	25.3%	40	48.2%
Chester	261	27	10.3%	64	24.5%	63	24.1%	107	41.0%
Clarion*	14	1	7.1%	2	14.3%	6	42.9%	5	35.7%
Clearfield*	29	6	20.7%	6	20.7%	4	13.8%	13	44.8%
Clinton*	12	1	8.3%	2	16.7%	5	41.7%	4	33.3%
Columbia	34	4	11.8%	4	11.8%	10	29.4%	16	47.1%
Crawford*	37	4	10.8%	8	21.6%	7	18.9%	18	48.6%
Cumberland	162	16	9.9%	46	28.4%	30	18.5%	69	42.6%
Dauphin	161	17	10.6%	40	24.8%	37	23.0%	67	41.6%
Delaware	252	27	10.7%	52	20.6%	56	22.2%	116	46.0%
Elk	9	0	-	3	33.3%	3	33.3%	3	33.3%
Erie	134	14	10.4%	29	21.6%	39	29.1%	52	38.8%
Fayette	52	4	7.7%	14	26.9%	15	28.8%	18	34.6%
Forest*	2	1	50.0%	0	-	0	-	1	50.0%
Franklin	65	4	6.2%	15	23.1%	15	23.1%	30	46.2%
Fulton*	3	0	-	1	33.3%	0	-	2	66.7%
Greene*	11	1	9.1%	2	18.2%	3	27.3%	5	45.5%
Huntingdon*	21	1	4.8%	4	19.0%	2	9.5%	14	66.7%
Indiana*	25	3	12.0%	7	28.0%	1	4.0%	14	56.0%
Jefferson*	13	2	15.4%	1	7.7%	5	38.5%	5	38.5%
Juniata*	6	0	-	2	33.3%	2	33.3%	2	33.3%
Lackawanna	114	7	6.1%	22	19.3%	30	26.3%	55	48.2%
Lancaster	294	25	8.5%	72	24.5%	60	20.4%	137	46.6%
Lawrence	29	2	6.9%	9	31.0%	6	20.7%	12	41.4%
Lebanon	57	5	8.8%	7	12.3%	14	24.6%	31	54.4%
Lehigh	192	30	15.6%	36	18.8%	47	24.5%	79	41.1%

**DENTAL HYGIENISTS EMPLOYED IN HEALTH CARE AND
PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 11:
YEARS ANTICIPATE PRACTICING IN PENNSYLVANIA BY
COUNTY OF PRIMARY JOB, CONT'D**

County	Total	0-5 years		6-10 years		11-15 years		16+ years	
	Number	Number	Percent [^]	Number	Percent [^]	Number	Percent [^]	Number	Percent [^]
Luzerne	168	16	9.5%	32	19.0%	42	25.0%	78	46.4%
Lycoming	71	4	5.6%	17	23.9%	20	28.2%	30	42.3%
McKean*	10	0	-	2	20.0%	4	40.0%	4	40.0%
Mercer	41	3	7.3%	10	24.4%	9	22.0%	19	46.3%
Mifflin*	15	0	-	0	-	5	33.3%	10	66.7%
Monroe	55	3	5.5%	19	34.5%	13	23.6%	19	34.5%
Montgomery	509	55	10.8%	129	25.3%	124	24.4%	201	39.5%
Montour*	10	0	-	3	30.0%	1	10.0%	6	60.0%
Northampton	175	17	9.7%	56	32.0%	44	25.1%	58	33.1%
Northumberland	36	1	2.8%	10	27.8%	10	27.8%	15	41.7%
Perry*	7	0	-	1	14.3%	3	42.9%	3	42.9%
Philadelphia	333	47	14.1%	58	17.4%	79	23.7%	148	44.4%
Pike*	15	1	6.7%	3	20.0%	2	13.3%	9	60.0%
Potter*	4	1	25.0%	1	25.0%	1	25.0%	1	25.0%
Schuylkill	55	5	9.1%	7	12.7%	16	29.1%	27	49.1%
Snyder*	22	2	9.1%	6	27.3%	4	18.2%	10	45.5%
Somerset*	27	2	7.4%	9	33.3%	5	18.5%	11	40.7%
Sullivan*	1	0	-	0	-	1	100.0%	0	-
Susquehanna*	6	1	16.7%	2	33.3%	2	33.3%	1	16.7%
Tioga*	9	1	11.1%	2	22.2%	1	11.1%	5	55.6%
Union	25	1	4.0%	2	8.0%	8	32.0%	14	56.0%
Venango*	14	2	14.3%	0	-	6	42.9%	6	42.9%
Warren*	19	2	10.5%	3	15.8%	2	10.5%	12	63.2%
Washington	84	8	9.5%	17	20.2%	24	28.6%	34	40.5%
Wayne*	22	1	4.5%	4	18.2%	7	31.8%	10	45.5%
Westmoreland	180	12	6.7%	43	23.9%	44	24.4%	81	45.0%
Wyoming*	13	1	7.7%	2	15.4%	1	7.7%	9	69.2%
York	215	34	15.8%	40	18.6%	54	25.1%	86	40.0%

[^] Percentages based on less than 10 events or on a total response less than 30 are considered statistically unreliable.

* Rural County - based on the 2000 U.S. Census definition

DENTAL HYGIENISTS EMPLOYED IN HEALTH CARE AND
 PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 12:
**COMPARISON OF RESPONSES OF THE PENNSYLVANIA
 SURVEY OF DENTAL HYGIENISTS,* 2003-2009**

Measure	2003	2005	2007	2009*
Gender				
Male	99.3%	99.2%	99.1%	99.2%
Female	0.7%	0.8%	0.9%	0.8%
Race				
White	98.2%	97.3%	97.4%	96.5%
Black	0.8%	1.3%	1.2%	1.3%
Asian	0.4%	0.4%	0.6%	0.7%
Native Hawaiian / Pacific Islander	0.1%	0.1%	0.1%	0.1%
American Indian / Alaska Native	0.0%	0.1%	0.2%	0.6%
Other	0.4%	0.7%	0.6%	0.8%
Ethnicity				
Hispanic	0.7%	0.9%	1.0%	1.1%
Average Age				
	39.6	40.8	41.4	42.3
Age				
20-34	32.5%	28.7%	28.1%	26.5%
35-49	52.3%	52.1%	48.8%	46.2%
50-64	14.4%	18.0%	22.0%	25.9%
65+	0.9%	1.2%	1.2%	1.5%
Urban/Rural County of Practice**				
Urban	83.2%	83.3%	91.5%	91.5%
Rural	16.8%	16.7%	8.5%	8.5%
Employment Status^				
Employed (in dental hygiene)	91.1%	90.3%	90.5%	89.9%
Employed (not in dental hygiene)	3.0%	3.3%	3.3%	3.3%
Unemployed, seeking dental hygiene employment	0.9%	1.5%	1.7%	2.7%
Unemployed, not seeking dental hygiene employment	3.9%	3.7%	3.3%	3.0%
Retired	0.9%	0.9%	0.8%	0.7%
Student	0.2%	0.2%	0.4%	0.2%
Type of Position^				
Direct Patient Care	96.6%	88.9%	96.3%	93.3%
Administration/Management	0.7%	1.0%	0.9%	2.0%
Educator (includes in-service)	2.2%	2.3%	2.1%	2.5%
Researcher/Consultant	0.1%	0.2%	0.2%	0.3%
Other	0.3%	0.4%	0.3%	1.9%

DENTAL HYGIENISTS EMPLOYED IN HEALTH CARE AND
 PROVIDE DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 12:
**COMPARISON OF RESPONSES OF THE PENNSYLVANIA
 SURVEY OF DENTAL HYGIENISTS,* 2003-2009, CONT'D**

Measure	2003	2005	2007	2009*
How satisfied are you with dental hygiene as a career?				
Very dissatisfied	6.4%	7.9%	8.9%	6.5%
Dissatisfied	1.8%	2.8%	2.5%	2.5%
Satisfied	30.0%	40.0%	39.1%	40.8%
Very satisfied	61.7%	49.3%	49.4%	50.2%
How satisfied are you with dental hygiene as a job?				
Very dissatisfied	6.1%	6.9%	7.9%	5.9%
Dissatisfied	3.0%	4.5%	4.8%	4.9%
Satisfied	36.3%	43.7%	44.4%	45.6%
Very satisfied	54.6%	44.9%	43.0%	43.6%
How much longer to you plan to remain in dental hygiene?				
0-5 years	11.0%	11.6%	10.8%	7.6%
6-10 years	25.9%	25.2%	24.5%	21.3%
11-15 years	27.4%	23.6%	25.1%	24.7%
16+ years	35.7%	39.7%	39.6%	46.4%

^ All respondents

* In 2007 and prior years, the percentages shown were derived from dentists who indicated they were employed in direct patient care in Pennsylvania. For 2008, the percentages were derived from dentists who indicated they were employed in health care *and provided direct patient care in Pennsylvania*.

** The definition of urban/rural has changed from the April 2006 report. It is now defined by the 2000 U.S. Census.

Note: Percentages may not equal 100% due to rounding.

APPENDIX 13:

HD01247S

License Number DH _____



**Commonwealth of Pennsylvania
Department of Health
2009 Survey of Dental Hygienists**

In order to gain a better understanding of the dental hygienist workforce, the Department of Health, with the support of the Department of State, asks that you complete this brief survey.

****If you completed the online license renewal survey there is NO NEED TO COMPLETE AND SUBMIT this paper survey.****

Individual information from this survey is confidential and will not be shared or distributed. Your participation assures that policymakers and legislators have accurate and timely information. Information gained from the survey is used to improve knowledge of the dental hygienist workforce and guide policy development. To view dental hygienist workforce reports, visit www.health.state.pa.us and under Health Planning, click on State Health Improvement Plan and SHIP Health Care Workforce Reports. Thank you for your cooperation.

1. Year of Birth 2. Sex Male Female 3. Hispanic Origin Yes No
4. Race (check one) Asian Native Hawaiian/ Other Pacific Islander
 American Indian/Alaska Native White
 Black Other _____
5. State of Residence (Enter two letter postal code) (If not PA, please proceed to question 6.)
5a. County of Residence (Refer to PA county codes on back of form)
5b. Zip Code of Residence
6. In which state did you graduate from dental hygiene school? (Enter two letter postal code)
7. Dental Hygiene Education/Training (check highest degree)
 Certificate Associate Degree Bachelor's Degree Master's Degree
8. Are you currently enrolled in any of the following higher education programs? (check one)
 Dental Hygiene Associate Degree Dental Hygiene Master's Degree Other Master's Degree None
 Dental Hygiene Bachelor's Degree Other Bachelor's Degree Other Non-Degree
9. Certifications (check all that apply):
 Expanded Function Dental Assistant Permit Other _____
 School teaching certificate-PA school hygienist position None
10. Do you intend to apply for the Public Health Dental Hygiene Practitioner (PHDHP) license? Yes No (If no, please proceed to question 11.)
10a. At which of the following practice sites do you intend to practice as a PHDHP(choose all that apply).
 Correctional facilities Personal Care Home Other _____
 Domiciliary Care Public/Private Federal/State Institution
 Federally-qualified health center Older Adult Daily Living Ctr
 Healthcare Facilities School
- 10b. What county will you practice as a PHDHP? (Refer to PA county codes on back of form)
11. Aside from your primary job, do you provide community outreach to uninsured or underinsured individuals through any of the following means?
 =Dental School Clinic =FQHC or Health Center =Other _____
 =Dental Van =School (Elementary or H.S.) =None
- 11a. Is this outreach unpaid volunteer work? Yes No N/A
12. Employment Status (Check one)
 Employed (in dental hygiene) Unemployed, seeking dental hygiene employment
 Employed (not in dental hygiene) Unemployed, not seeking dental hygiene employment
 Retired Student
13. Type of position (Primary job only – check one)
 Administration/Management Educator (includes in-service) Other _____
 Direct patient care Researcher/Consultant N/A
14. If not employed in direct patient care, do you plan to return to direct patient care in the next 5 years? Yes No N/A

Please answer items 15-24 only if you marked "direct patient care" for question 13.

(Over)

APPENDIX 13:

License Number _____

15. Are you employed in more than one dental office? Yes No
16. Employment sector (*Sector which best describes primary job setting –check one*)
=Private Practice Partnership =Private Practice, Solo Dentist =Other _____
- 16a. In which county is your primary job located: (*PA only-- refer to PA county code list*) County Code
- 16b. Indicate the number of hours you work in your primary job per week: _____
17. Within your primary employment, do you provide community outreach to uninsured or underinsured individuals through any of the following means?
=Dental School Clinic =FQHC or Health Center =Other _____
=Dental Van =School (Elementary or H.S.) =None _____
18. How satisfied are you with dental hygiene as a career?
 Very dissatisfied Dissatisfied Satisfied Very satisfied N/A
19. How satisfied are you with your current primary job?
 Very dissatisfied Dissatisfied Satisfied Very satisfied N/A
20. How long have you been employed as a dental hygienist in *Pennsylvania*?
 5 years or less 6 – 10 years 11 – 15 years 16+ years
21. How much longer do you plan to remain in dental hygiene in *Pennsylvania*?
 0 – 5 years
 6 – 10 years
 11 – 15 years
 16+ years
 Not currently in practice
22. How much longer do you plan to remain in dental hygiene?
 0 – 5 years
 6 – 10 years
 11 – 15 years
 16+ years
 Not currently in practice
23. If you plan to leave direct patient care within the next 5 years, indicate your principal reason below (*check only one*).
 Career change Physical reasons Salary/Benefits
 Family Reasons Retirement Other _____
 Financial reasons Return to school N/A
 (excluding salary/benefits)
24. In what languages are you proficient in providing dental/medical translation to patients? (check all that apply)
 English French German Russian Spanish Vietnamese Other _____

PENNSYLVANIA COUNTY CODES

00=Not in PA	14=Centre	28=Franklin	42=McKean	56=Somerset
01=Adams	15=Chester	29=Fulton	43=Mercer	57=Sullivan
02=Allegheny	16=Clarion	30=Greene	44=Mifflin	58=Susquehanna
03=Armstrong	17=Clearfield	31=Huntingdon	45=Monroe	59=Tioga
04=Beaver	18=Clinton	32=Indiana	46=Montgomery	60=Union
05=Bedford	19=Columbia	33=Jefferson	47=Montour	61=Venango
06=Berks	20=Crawford	34=Juniata	48=Northampton	62=Warren
07=Blair	21=Cumberland	35=Lackawanna	49=Northumberland	63=Washington
08=Bradford	22=Dauphin	36=Lancaster	50=Perry	64=Wayne
09=Bucks	23=Delaware	37=Lawrence	51=Philadelphia	65=Westmoreland
10=Butler	24=Elk	38=Lebanon	52=Pike	66=Wyoming
11=Cambria	25=Erie	39=Lehigh	53=Potter	67=York
12=Cameron	26=Fayette	40=Luzerne	54=Schuylkill	
13=Carbon	27=Forest	41=Lycoming	55=Snyder	

Endnotes

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