

2011 Pulse of Pennsylvania's Dentist and Dental Hygienist Workforce

A Report on the 2011 Survey of Dentists
and Dental Hygienists

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Bureau of Health Planning
Division of Plan Development

ERRATA

Notice of correction to the 2011 Pulse of Pennsylvania's Dentist and Dental Hygienist Workforce: A Report on the 2011 Survey of Dentists and Dental Hygienists

This notice is to inform recipients that a prior version of the 2011 Pulse of Pennsylvania's Dentist and Dental Hygienist Workforce: A Report on the 2011 Survey of Dentists and Dental Hygienists had an error in the number of dentists by sex in **Table 10** on **page 11**. This version of the report has been corrected.

We apologize for any inconvenience this has caused.

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INTRODUCTION

Dentists diagnose and treat conditions and diseases of the head and neck that are generally related to the oral cavity. They also provide preventive direction and advice to patients. Dentists perform a variety of activities such as removing tooth decay, filling cavities, repairing fractured teeth and bones of the jaws, reading x-rays, performing corrective surgery on gums and supporting bones to treat gum diseases, extracting teeth, and providing replacements for missing teeth. Dentists may administer anesthetics and write medication prescriptions in conjunction with the activities that they perform.

Individuals studying to become dentists will complete at least eight years of education following high school. In addition to completing a bachelor's degree, individuals must take the Dental Admission Test before applying for admission to dental school. Upon graduation from an accredited dental school, a dentist receives a degree of either a Doctor of Dental Surgery (DDS) or a Doctor of Dental Medicine (DMD). Dentists may practice in general dentistry or may choose to undergo further training by completing a residency program in general practice or one of the specialty areas of dentistry that include orthodontics, oral and maxillofacial surgery, pediatric dentistry, periodontics, prosthodontics, endodontics, oral pathology, oral and maxillofacial radiology, or public health dentistry. Dental residencies require an additional commitment of one to four years to complete, depending on the area of specialty.



According to the American Dental Association, there are 64 dental schools operating in the United States. Pennsylvania is home to three dental schools.

In all 50 states, the District of Columbia and territories, dentists must be licensed to practice dentistry. To obtain a license, dentists must graduate from an accredited dental school and pass a licensing clinical examination accepted by the state in which they wish to practice. In Pennsylvania, the State Board of Dentistry within the Department of State is responsible for regulating dental practice through licensure, registration and certification of members of the dental professions.

Dental hygienists provide preventive dental care such as cleaning teeth and educating patients on good oral health practices. The State Board of Dentistry also licenses dental hygienists upon completion of an approved dental hygiene education program and passing written and clinical examinations.

Individuals who have completed a Board-approved training program and passed an initial certification examination may become certified by the State Board of Dentistry as an expanded function dental assistant. A dental hygienist whose accredited training program included sufficient hours of instruction on restorative functions may also become certified as an expanded function dental assistant. Expanded function dental assistants may perform designated higher level assisting procedures under the direct supervision of a dentist.

A dental hygienist may become certified by the State Board of Dentistry as a public health dental hygiene practitioner upon completion of 3,600 hours of practice under the supervision of a dentist and after securing appropriate professional liability insurance. Public health dental hygiene practitioners may provide dental hygiene services in certain public health settings without the supervision of a dentist.

METHODS AND TECHNICAL NOTES

Dentists and dental hygienists renew their Pennsylvania license 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, Bureau of Health Planning, surveys dentists and dental hygienists renewing their licenses. The surveys are designed to collect information on the characteristics and distribution of the dentist and dental hygienist workforces in the commonwealth.

In 2011, dentists and dental hygienists licensed under the State Board of Dentistry were surveyed during the license renewal period that ran from January to April. The surveys were conducted online and on paper, depending on the medium chosen by the respondent. Because these surveys are tied to the licensure renewal process, the data captured does not include first-time licensees or most individuals in training. The dentist survey instrument, in its paper form, is available in Appendix 8, and the dental hygienist survey instrument, in its paper form, is available in Appendix 13.

Data analysis was completed on valid surveys returned for both dentists and dental hygienists. Surveys without a valid license number, duplicate responses and surveys with inactive or expired license numbers were removed. The tables below provide the number of dentists and dental hygienists eligible for license renewal, the number who renewed their licenses, the rate of license renewal, the number of valid surveys returned, and the response rates to the surveys.

Dentists

| | 2003 | 2005 | 2007 | 2009 | 2011 |
|---------------------------------------|--------|--------|-------|--------|-------|
| Dentists eligible for license renewal | 10,235 | 10,249 | 9,937 | 11,238 | - |
| Renewals | 9,241 | 8,757 | 9,222 | 9,274 | 9,428 |
| Renewal rate | 90% | 85% | 93% | 83% | - |
| Valid surveys returned | 6,800 | 6,956 | 8,326 | 8,628 | 8,320 |
| Response rate (surveys/renewals) | 73.6% | 79.4% | 90.3% | 93.0% | 88.2% |

Dental Hygienists

| | 2003 | 2005 | 2007 | 2009 | 2011 |
|--|-------|-------|-------|-------|-------|
| Dental hygienists eligible for license renewal | 7,285 | 7,534 | 7,835 | 8,276 | - |
| Renewals | 6,745 | 6,787 | 7,440 | 7,934 | 8,304 |
| Renewal rate | 93% | 90% | 95% | 96% | - |
| Valid surveys returned | 5,453 | 5,738 | 6,878 | 7,671 | 7,774 |
| Response rate (surveys/renewals) | 80.8% | 84.5% | 92.4% | 96.7% | 93.6% |

- Information not available

METHODS AND TECHNICAL NOTES, CONTINUED

With data for approximately 12 percent of renewing dentists and 6 percent of renewing dental hygienists missing, a caution about the potential for bias is in order. Bias occurs when there is a correlation between some characteristic in the population and the decision to respond or not to respond to the survey. Dentists or dental hygienists with the characteristic may choose to respond at a higher rate than those who do not have the characteristic. Usually, little or no data exists to show what characteristics are correlated with the decision to respond or how strong any correlation might be. This report describes the 88 percent of dentists and 94 percent of dental hygienists who responded to the survey—not all dentists and dental hygienists.

A reasonable estimate of the size and characteristics of the entire population of renewing dentists and dental hygienists 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 female dentists licensed in Pennsylvania, divide the number of female survey respondents by the response rate.

$$1,818 \div 0.882 = 2,061$$

This method does not include an adjustment for items with missing values, thus yielding a conservative, or low, estimate.

The information presented in this report, unless noted, is based upon actual response counts. Not all questions were answered by all respondents; therefore, the number of responses may vary for each question.

Information from prior dentist and dental hygienist report findings and national findings is included for comparison purposes.

The survey questions used for both dentists and dental hygienists changed from the 2009 survey year, resulting in some differences in the data collected. The 2011 surveys collected more data than was collected in previous years.

EXECUTIVE SUMMARY

The 2011 Pulse of Pennsylvania's Dentist and Dental Hygienist Workforce presents findings from the 2011 Dentist Survey and 2011 Dental Hygienist Survey. These surveys were designed to collect information on the characteristics and distribution of the dentist and dental hygienist workforces within the commonwealth.

The surveys were conducted in conjunction with the biennial license renewal for dentists and dental hygienists. It is important to note that dentists and dental hygienists receiving their first license were not included in the survey. A detailed explanation of the data collection and analysis may be found in the Methods and Technical Notes, beginning on page x.

In 2011, there were more dentists and dental hygienists who renewed their licenses compared to prior survey years. Since 2003, there were 187 or 2 percent more dentists and 1,559 or 23 percent more dental hygienists who renewed their license in Pennsylvania.

Dentists

Responding dentists licensed in Pennsylvania resided around the nation, Washington, D.C., and across the globe, with 94 percent employed in health care. Almost nine out of every 10 respondents provided direct patient care in Pennsylvania.

Respondents who provided direct patient care in Pennsylvania became a more diverse workforce, with females increasing from 18 percent in 2007 to 21 percent in 2011. Asian respondents increased from 6 percent in 2007 to 8 percent in 2011.

Respondents who provided direct patient care in Pennsylvania are aging, with the average age increasing from 51.3 years in 2007 to 51.9 in 2011. Almost three out of every 10 respondents was age 60 or older.

In 2011, 15 percent of respondents who provided direct patient care in Pennsylvania were board certified in a dental specialty, an increase from 11 percent in 2007. Seventy-six percent of respondents who provided direct patient care spent most of their time performing general dentistry.

Dentist respondents who provided direct patient care in Pennsylvania and practiced in rural counties decreased, from 22 percent in 2003 to 19 percent in 2011.* The rate of respondents per 100,000 population was 35 in rural counties and 55 in urban counties.*

In 2011, 87 percent of respondents who provided direct patient care in Pennsylvania worked in a private office practice. Over half (53 percent) of respondents owned a solo private practice and 21 percent were an owner of a partnership private practice.

Medicaid patients were accepted by 23 percent of respondents who provided direct patient care in Pennsylvania, an increase from 17 percent in 2003. Ninety-six percent of respondents accepted new patients in 2011. Of those who accepted new patients, 21 percent accepted Medicaid patients.

Thirty-five percent of dentist respondents who practiced direct patient care in Pennsylvania anticipated practicing for 16+ years and 22 percent for the next five years. Respondents who specialized in oral surgery reported the highest percentage (31 percent) of all specialties leaving direct patient care in the next five years.

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

EXECUTIVE SUMMARY, CONTINUED

Dental Hygienists

Responding dental hygienists licensed in Pennsylvania resided around the nation, Washington, D.C., and across the globe, with 89 percent employed in dental hygiene. Ninety-four percent of respondents provided direct patient care in Pennsylvania.

Respondents who provided direct patient care in Pennsylvania became a more diverse workforce, with the number of males increasing 30 percent from 2007 to 2011. The number of Asian respondents increased 70 percent from 2007 to 2011, and the number of black respondents increased 29 percent from 2007 to 2011.

Seven out of every 10 respondents who provided direct patient care in Pennsylvania completed an associate degree as their highest level of education. In 2011, 6 percent of respondents who provided direct patient care in Pennsylvania were enrolled in higher education programs. Of those respondents enrolled in higher education programs, 29 percent were enrolled in dental hygiene bachelor degree programs.

In 2011, 9 percent of respondents who provided direct patient care in Pennsylvania had a dental hygiene certification such as an expanded function dental assistant or Pennsylvania school hygienist certificate. Eleven percent of respondents intended to apply for a license to practice as a public health dental hygiene practitioner. Of those respondents who intended to apply for a license to practice as a public health dental hygiene practitioner, 25 percent anticipated practicing in a rural county.

Twenty-three percent of respondents who provided direct patient care in Pennsylvania held their primary job in a rural county.* The rate of dental hygienist respondents per 100,000 population was 40 in rural counties and 50 in urban counties.

Over a quarter (27 percent) of respondents who provided dental hygiene direct patient care in Pennsylvania were employed in more than one dental office. Private dental practices, both partnerships and solo dentists, employed 93 percent of respondents who provided direct patient care in Pennsylvania.

Of respondents who provided direct patient care in Pennsylvania, 95 percent were satisfied or very satisfied with their primary job and 96 percent were satisfied or very satisfied with dental hygiene as a career.

Forty-two percent of dental hygiene respondents who practiced direct patient care in Pennsylvania anticipated practicing for 16+ years and 14 percent for the next five years. Of respondents who anticipated practicing for 16+ years, 90 percent anticipated practicing those 16 years in Pennsylvania.

In the next five years, 35 percent of respondents who provided direct patient care in Pennsylvania planned to leave dental hygiene direct patient care. Of those who planned to leave direct patient care, 13 percent reported a career change as their principal reason.

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

**All Dentists Who Responded
to the
2011 Survey of Pennsylvania Dentists**

All Dentists Licensed in Pennsylvania

This section provides information on all of the dentists who responded to the 2011 Pennsylvania dentist relicensing survey. Since 2009, there was a 4 percent decrease in the number of respondents. In 2011, these 8,320 respondents resided in 47 states, Washington, D.C., and around the world.

Age

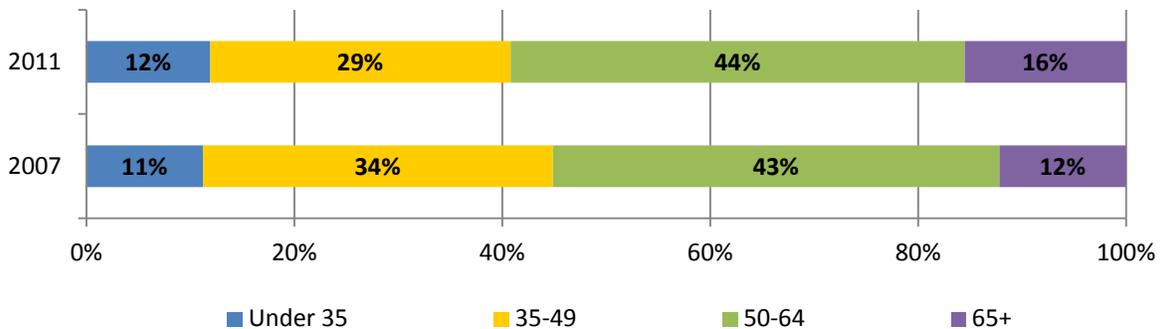
In 2011, the average age of dentist respondents was 51.9 years, an increase from 2007, when the average age of respondents was 50.7 years. Table 1 lists the distribution of respondents across age groups for 2011, with 59 percent of respondents age 50 or older.

Table 1: Respondents Licensed in Pennsylvania by Age Groups, 2011 Dentist Survey

| Age Groups | Number | Percent |
|------------|--------|---------|
| 25-29 | 275 | 3% |
| 30-34 | 712 | 9% |
| 35-39 | 698 | 8% |
| 40-44 | 807 | 10% |
| 45-49 | 901 | 11% |
| 50-54 | 1,107 | 13% |
| 55-59 | 1,362 | 16% |
| 60-64 | 1,163 | 14% |
| 65+ | 1,291 | 16% |
| Total | 8,316 | 100% |

Figure 1 compares the distribution of dentist respondents across age groups in 2007 and 2011. While the 65+ age group increased from 12 percent in 2007 to 16 percent in 2011, the 35-49 age group decreased from 34 percent in 2007 to 29 percent in 2011.

Figure 1: Respondents Licensed in Pennsylvania by Age Groups, 2007 and 2011 Dentist Surveys



Sex

In 2011, males comprised 78 percent of dentist respondents. Females increased from 19 percent of respondents in 2007 to 22 percent in 2011. Table 2 lists the distribution of respondents by sex.

Table 2: Respondents Licensed in Pennsylvania by Sex, 2011 Dentist Survey

| Sex | Number | Percent |
|--------|--------|---------|
| Male | 6,497 | 78% |
| Female | 1,818 | 22% |
| Total | 8,315 | 100% |

Race and Ethnicity

Dentist respondents selected one category that best described their race and indicated if they were of Hispanic/Latino origin. The distribution of respondents by race is listed in Table 3. Asian respondents increased from 7 percent in 2007 to 9 percent in 2011.

Table 3: Respondents Licensed in Pennsylvania by Race, 2011 Dentist Survey

| Race | Number | Percent |
|--|--------|---------|
| White | 7,045 | 85% |
| Asian | 761 | 9% |
| Other | 230 | 3% |
| Black | 229 | 3% |
| American Indian/Alaska Native | 23 | < 1% |
| Native Hawaiian/Other Pacific Islander | 16 | < 1% |
| Total | 8,304 | 100% |

The percentage of dentist respondents who reported being of Hispanic/Latino origin held stable from 2007 to 2011 at 2 percent of respondents. Table 4 lists the ethnicity of respondents in 2011.

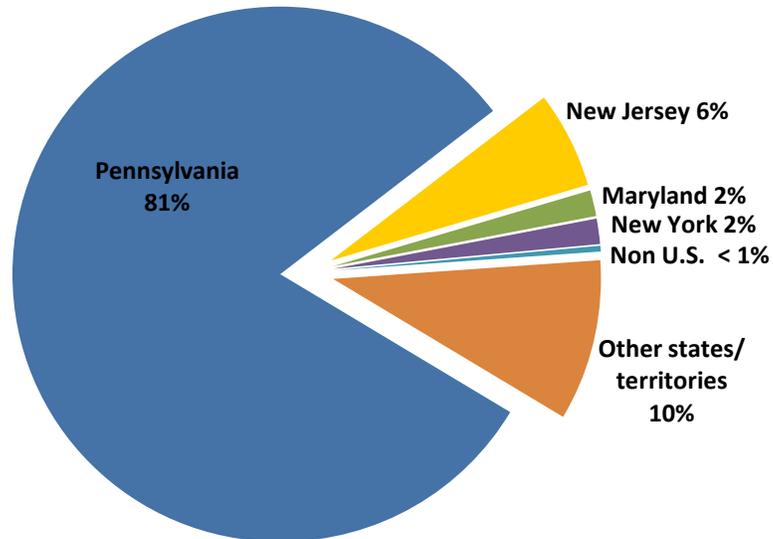
Table 4: Respondents Licensed in Pennsylvania by Ethnicity, 2011 Dentist Survey

| Ethnicity | Number | Percent |
|---------------------|--------|---------|
| Hispanic/Latino | 140 | 2% |
| Non-Hispanic/Latino | 8,077 | 98% |
| Total | 8,217 | 100% |

Residence

Dentist respondents resided in 47 states, Washington, D.C., and around the world in 2011. Figure 2 presents the state of residence for respondents, with 81 percent residing in Pennsylvania. Other states and territories, not specified in the figure, each accounted for 1 percent or less of respondents.

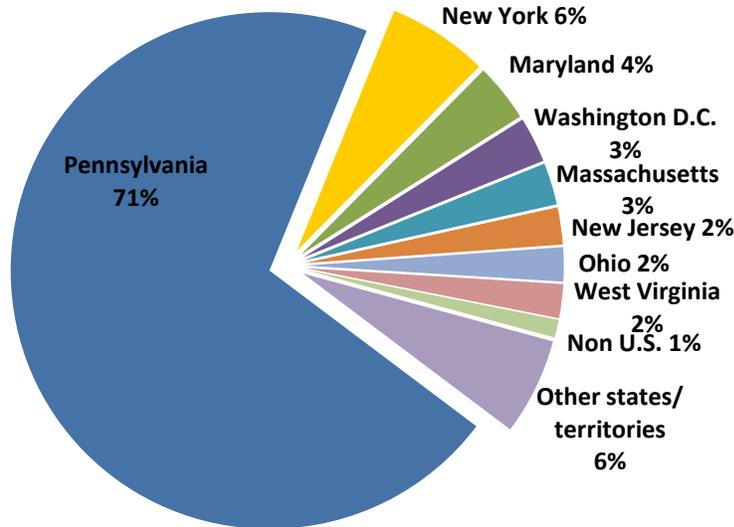
Figure 2: Respondents Licensed in Pennsylvania by State of Residence, 2011 Dentist Survey



Dental Education

In 2011, 71 percent of respondents graduated from dental school in Pennsylvania. Figure 3 shows the states from which respondents graduated from dental school. Other states and territories, not specified in the figure, each accounted for 1 percent or less of respondents.

Figure 3: Respondents Licensed in Pennsylvania by State of Dental School Graduation, 2011 Dentist Survey



Following graduation from dental school, 26 percent of respondents completed a postdoctoral certificate program in general dentistry.

Six percent of dentist respondents were completing training as a resident or fellow in 2011. Table 5 lists the training status of respondents.

Table 5: Respondents Licensed in Pennsylvania by Training Status, 2011 Dentist Survey

| Training Status | Number | Percent |
|-----------------|--------|---------|
| Resident | 318 | 4% |
| Fellow | 162 | 2% |
| Neither | 7,730 | 94% |
| Total | 8,210 | 100% |

Board Certification

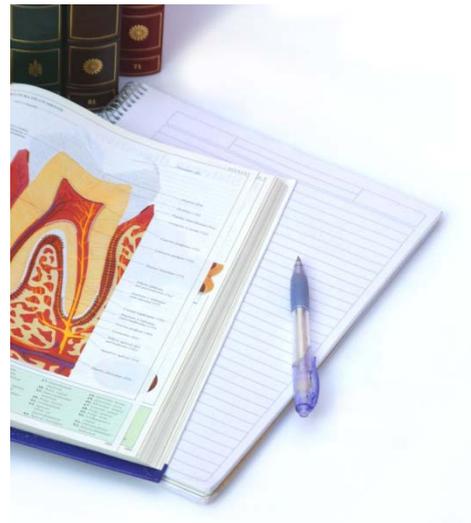
In 2011, 18 percent of respondents were board certified in a dental specialty, and less than 1 percent had double board certification. Table 6 lists the board certification or lack of board certification of respondents.

Table 6: Respondents Licensed in Pennsylvania by Board Certification, 2011 Dentist Survey

| Certification | Number | Percent |
|--|--------|---------|
| None | 5,861 | 82% |
| American Board of Orthodontics | 339 | 5% |
| American Board of Oral and Maxillofacial Surgery | 322 | 5% |
| American Board of Periodontology | 196 | 3% |
| American Board of Pediatric Dentistry | 168 | 2% |
| American Board of Endodontics | 124 | 2% |
| American Board of Prosthodontics | 68 | 1% |
| American Board of Dental Public Health | 19 | < 1% |
| American Board of Oral and Maxillofacial Pathology | 17 | < 1% |
| American Board of Oral and Maxillofacial Radiology | 7 | < 1% |
| Total | 7,121 | 100% |

Licensure

Eighty-one percent of respondents received their first dental license in Pennsylvania, followed by 4 percent in New York, 3 percent in New Jersey and 2 percent in Maryland. Other states, territories and countries reported each accounted for 1 percent or less of respondents.



Employment

In 2011, 94 percent of dentist respondents were employed in health care, direct or indirect. Table 7 lists the employment status of respondents.

Table 7: Respondents Licensed in Pennsylvania by Employment Status, 2011 Dentist Survey

| Employment Status | Number | Percent |
|--|--------|---------|
| Employed in health care, direct or indirect | 7,826 | 94% |
| Retired | 166 | 2% |
| Employed, not in health care | 111 | 1% |
| Student, leave of absence or sabbatical | 82 | 1% |
| Unemployed, seeking health care employment | 50 | 1% |
| Unemployed, disabled | 26 | < 1% |
| Unemployed, not seeking health care employment | 24 | < 1% |
| Total | 8,285 | 100% |

Eighty-nine percent of dentist respondents employed in health care provided one or more hours of direct patient care in Pennsylvania per week in 2011. Table 8 lists the number of hours that respondents, employed in health care, provided direct patient care in Pennsylvania each week.

Table 8: Respondents Employed in Health Care by the Number of Hours Spent Providing Direct Patient Care in Pennsylvania Each Week, 2011 Dentist Survey

| Hours | Number | Percent |
|--------------|--------|---------|
| Zero | 843 | 11% |
| 1-10 | 336 | 4% |
| 11-19 | 399 | 5% |
| 20-30 | 1,211 | 15% |
| 31-40 | 3,962 | 51% |
| More than 40 | 1,066 | 14% |
| Total | 7,817 | 100% |

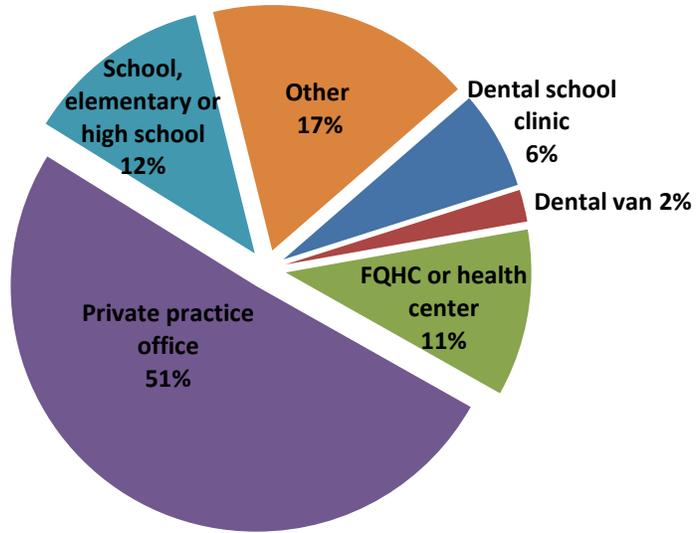
Of those dentist respondents whose primary employment situation was not in direct patient care, 52 percent planned to return to direct patient care within the next five years.



Volunteering

In the prior year, 23 percent of respondents volunteered their services as a dentist in Pennsylvania. Of those who volunteered, 18 percent did so at more than one location. Respondents were able to select more than one location where they volunteered their services. Figure 4 presents the locations where respondents volunteered dental services in Pennsylvania.

Figure 4: Locations Where Respondents Provided Volunteer Dental Services in Pennsylvania, 2011 Dentist Survey



**Dentists Who Provided Direct Patient Care
in Pennsylvania and Responded to the
2011 Survey of Pennsylvania Dentists**

Dentists Who Provided Direct Patient Care in Pennsylvania

This section provides information on dentists who responded to the 2011 Pennsylvania dentist relicensing survey and provided direct patient care in Pennsylvania. In 2011, these 6,329 respondents were 76 percent of all respondents.

In previous Pennsylvania Dentist and Dental Hygienist Workforce Reports, respondents who provided direct patient care in Pennsylvania were defined as those who reported employment in health care and a primary employment situation of direct patient care in Pennsylvania. In this report, respondents who provided direct patient care in Pennsylvania are defined as those who reported employment in health care and provided at least one hour of direct patient care in Pennsylvania per week during the prior year. The report includes 3.6 percent more respondents providing direct patient care in Pennsylvania.

Age

In 2011, the average age of dentist respondents who provided direct patient care in Pennsylvania was 51.9 years, an increase from 2007 when the average age of respondents was 51.3 years. Table 9 lists the distribution of respondents who provided direct patient care in Pennsylvania across age groups for 2011, with 60 percent of respondents age 50 or older. Appendix 3 lists respondents by age groups and county of primary practice.

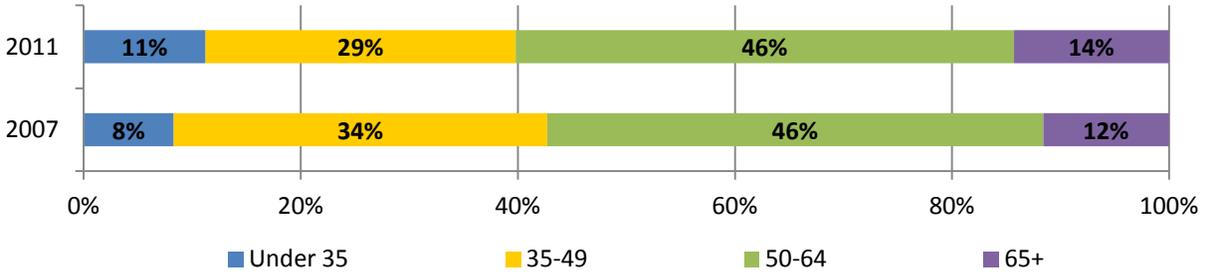
Table 9: Respondents Who Provided Direct Patient Care in Pennsylvania by Age Groups, 2011 Dentist Survey

| Age Groups | Number | Percent |
|------------|--------|---------|
| 25-29 | 188 | 3% |
| 30-34 | 523 | 8% |
| 35-39 | 514 | 8% |
| 40-44 | 589 | 9% |
| 45-49 | 704 | 11% |
| 50-54 | 912 | 14% |
| 55-59 | 1,085 | 17% |
| 60-64 | 908 | 14% |
| 65+ | 904 | 14% |
| Total | 6,327 | 100% |

Figure 5 compares the distribution of dentist respondents who provided direct patient care in Pennsylvania across age groups in 2007 and 2011. While the under 35 age group increased from 8 percent in 2007 to 11 percent in 2011, the 35-49 age decreased from 34 percent in 2007 to 29 percent in 2011.

Age, continued

Figure 5: Respondents Who Provided Direct Patient Care in Pennsylvania by Age Groups, 2007 and 2011 Dentist Surveys



Sex

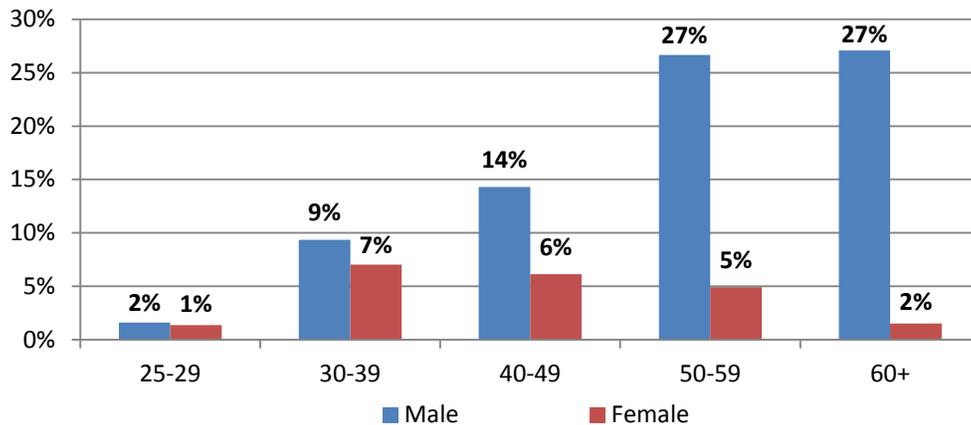
In 2011, males comprised 79 percent of dentist respondents who provided direct patient care in Pennsylvania. Females increased from 18 percent of respondents in 2007 to 21 percent in 2011. Table 10 lists the distribution of respondents who provided direct patient care in Pennsylvania by sex.

Table 10: Respondents Who Provided Direct Patient Care in Pennsylvania by Sex, 2011 Dentist Survey

| Sex | Number | Percent |
|--------|--------|---------|
| Male | 5,000 | 79% |
| Female | 1,327 | 21% |
| Total | 6,327 | 100% |

While males who provided direct patient care in Pennsylvania outnumbered females in all age groups in 2011, the difference was not as large for those under 40 years, as shown in Figure 6.

Figure 6: Respondents Who Provided Direct Patient Care in Pennsylvania by Age and Sex, 2011 Dentist Survey



Race and Ethnicity

Dentist respondents selected one category that best described their race and indicated if they were of Hispanic/Latino ethnicity. Of respondents who provided direct patient care in Pennsylvania, 86 percent were white, followed by 8 percent who were Asian. The distribution of race for respondents who provided direct patient care in Pennsylvania is listed in Table 11.

Table 11: Respondents Who Provided Direct Patient Care in Pennsylvania by Race, 2011 Dentist Survey

| Race | Number | Percent |
|--|--------|---------|
| White | 5,456 | 86% |
| Asian | 526 | 8% |
| Other | 162 | 3% |
| Black | 149 | 2% |
| American Indian/Alaska Native | 18 | < 1% |
| Native Hawaiian/Other Pacific Islander | 10 | < 1% |
| Total | 6,321 | 100% |

The percentage of dentist respondents who provided direct patient care in Pennsylvania and reported being of Hispanic/Latino origin held stable from 2007 to 2011 at 1 percent of respondents. Table 12 lists the ethnicity of respondents who provided direct patient care in Pennsylvania in 2011.

Table 12: Respondents Who Provided Direct Patient Care in Pennsylvania by Ethnicity, 2011 Dentist Survey

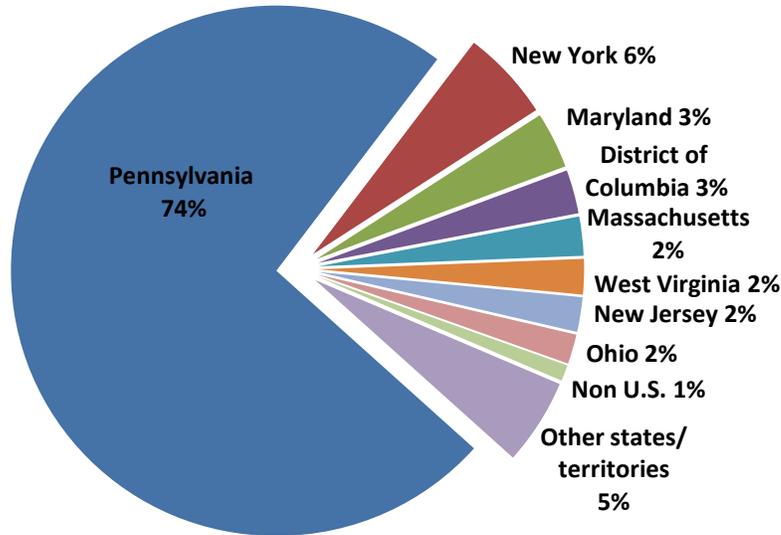
| Ethnicity | Number | Percent |
|---------------------|--------|---------|
| Hispanic/Latino | 86 | 1% |
| Non-Hispanic/Latino | 6,179 | 99% |
| Total | 6,265 | 100% |



Dental Education

In 2011, 74 percent of respondents who provided direct patient care in Pennsylvania graduated from one of the three dental schools in Pennsylvania. Figure 7 shows the states from which respondents graduated from dental school. Other states and territories, not listed in the figure, each accounted for 1 percent or less of respondents.

Figure 7: Respondents Who Provided Direct Patient Care in Pennsylvania by State of Dental School Graduation, 2011 Dentist Survey



Following graduation from dental school, 24 percent of respondents who provided direct patient care in Pennsylvania completed a postdoctoral certificate program in general dentistry. Postdoctoral programs in general dentistry are either an Advanced Education in General Dentistry (AEGD) or General Practice Residency (GRP) program at a dental school or medical institution such as a hospital.¹

In 2011, 5 percent of dentist respondents who provided direct patient care in Pennsylvania were completing training as a resident or fellow. Table 13 lists the training status of respondents.

Table 13: Respondents Who Provided Direct Patient Care in Pennsylvania by Training Status, 2011 Dentist Survey

| Training Status | Number | Percent |
|-----------------|--------|---------|
| Neither | 5,983 | 95% |
| Resident | 178 | 3% |
| Fellow | 115 | 2% |
| Total | 6,276 | 100% |

Board Certification

In 2011, 15 percent of respondents who provided direct patient care in Pennsylvania were board certified in a dental specialty, an increase from 11 percent in 2007. Orthodontics remained the most reported board certification since 2007. Table 14 lists the board certification or lack of board certification of respondents who provided direct patient care in Pennsylvania in 2011.

Table 14: Respondents Who Provided Direct Patient Care in Pennsylvania by Board Certification, 2011 Dentist Survey

| Certification | Number | Percent |
|--|--------|---------|
| None | 4,716 | 85% |
| American Board of Orthodontics | 248 | 4% |
| American Board of Oral and Maxillofacial Surgery | 199 | 4% |
| American Board of Periodontology | 126 | 2% |
| American Board of Pediatric Dentistry | 119 | 2% |
| American Board of Endodontics | 80 | 1% |
| American Board of Prosthodontics | 45 | 1% |
| American Board of Dental Public Health | 12 | < 1% |
| American Board of Oral and Maxillofacial Pathology | - | < 1% |
| American Board of Oral and Maxillofacial Radiology | - | < 1% |
| Total | 5,556 | 100% |

- Numbers less than six are withheld for privacy purpose, although they are included in the total number

Licensure

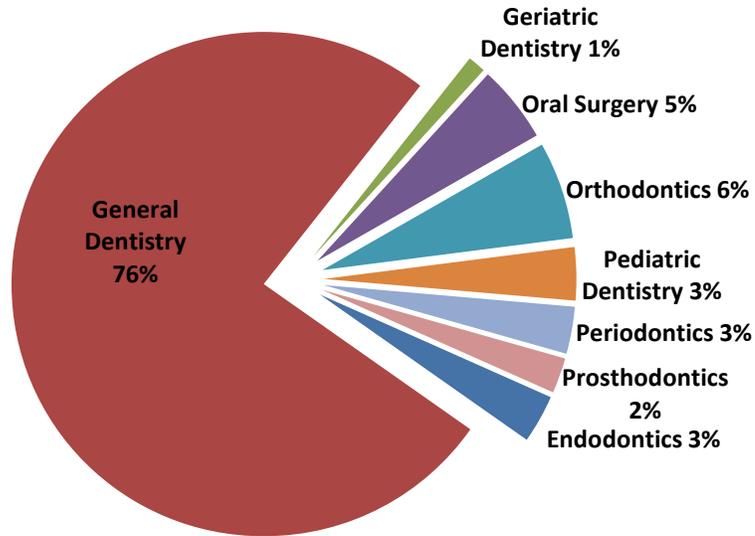
Eighty-four percent of respondents who provided direct patient care in Pennsylvania received their first dental license in Pennsylvania, followed by 3 percent in New York, 3 percent in New Jersey and 2 percent in Maryland. Other states, territories and countries reported each accounted for 1 percent or less of respondents.

Of respondents who provided direct patient care in Pennsylvania and received their first dental license in Pennsylvania, 84 percent completed dental school in Pennsylvania. For respondents who provided direct patient care in Pennsylvania and completed dental school in Pennsylvania, 96 percent received their first dental license in Pennsylvania.

Specialty

General dentistry was the most reported specialty by respondents who provided direct patient care in Pennsylvania. Figure 8 presents the dental practice specialties of respondents. Appendix 2 lists respondents who provided direct patient care in Pennsylvania with a general dentistry specialty by county of primary practice.

Figure 8: Respondents Who Provided Direct Patient Care in Pennsylvania by Specialty, 2011 Dentist Survey



While males comprised the overwhelming majority of respondents who provided direct patient care, females were 44 percent of respondents with the specialty of pediatric dentistry. Table 15 lists the dental practice specialties of respondents by sex.

Table 15: Respondents Who Provided Direct Patient Care in Pennsylvania by Specialty and Sex, 2011 Dentist Survey

| Specialty | Males | | Females | | Total |
|---------------------|--------|---------|---------|---------|-------|
| | Number | Percent | Number | Percent | |
| General dentistry | 3,781 | 60% | 1,019 | 16% | 4,802 |
| Orthodontics | 310 | 5% | 85 | 1% | 395 |
| Oral Surgery | 295 | 5% | 18 | < 1% | 313 |
| Pediatric dentistry | 120 | 2% | 95 | 2% | 215 |
| Endodontics | 162 | 3% | 33 | 1% | 195 |
| Periodontics | 161 | 3% | 30 | < 1% | 191 |
| Prosthodontics | 119 | 2% | 25 | < 1% | 144 |
| Geriatric dentistry | 51 | 1% | 22 | < 1% | 73 |
| Total | 4,999 | 79% | 1,327 | 21% | 6,328 |

Specialty, continued

The percentage of respondents who specialized in general dentistry, compared to all other specialties, varied among age groups as listed in Table 16. The 25-29 age group and the 55-59 age group reported the highest percentage (81 percent) of general dentistry respondents who provided direct patient care in Pennsylvania.

Table 16: Respondents Who Provided Direct Patient Care by Specialty and Age Groups, 2011 Dentist Survey

| Age Groups | Specialists | | General Dentists | | Total |
|------------|-------------|---------|------------------|---------|-------|
| | Number | Percent | Number | Percent | |
| 25-29 | 36 | 19% | 152 | 81% | 188 |
| 30-34 | 151 | 29% | 372 | 71% | 523 |
| 35-39 | 129 | 25% | 385 | 75% | 514 |
| 40-44 | 171 | 29% | 418 | 71% | 589 |
| 45-49 | 165 | 23% | 539 | 77% | 704 |
| 50-54 | 206 | 23% | 706 | 77% | 912 |
| 55-59 | 201 | 19% | 884 | 81% | 1,085 |
| 60-64 | 208 | 23% | 699 | 77% | 908 |
| 65+ | 259 | 29% | 645 | 71% | 904 |
| Total | 1,526 | 24% | 4,800 | 76% | 6,327 |

Geography

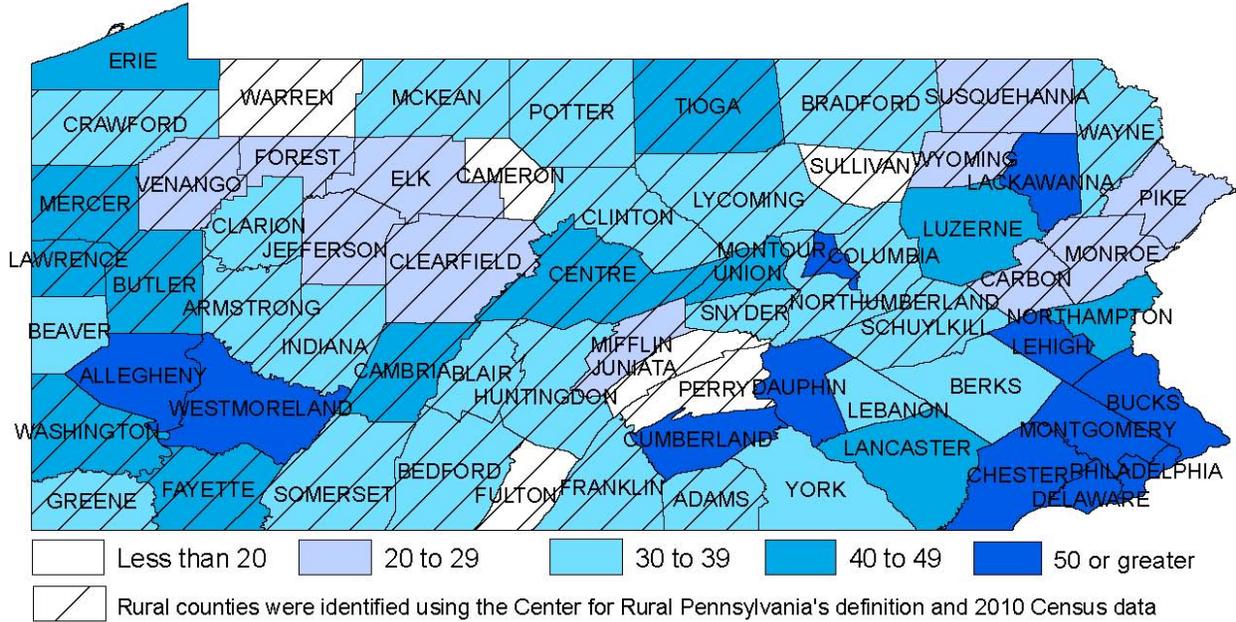
Respondents who provided direct patient care in Pennsylvania practiced dentistry in all 67 counties in 2011. Across the commonwealth, the rate of respondents who provided direct patient care in Pennsylvania was 50 per 100,000 population. Appendix 1 lists respondents who provided direct patient care in Pennsylvania by their county of primary practice.

Based upon the Center for Rural Pennsylvania's definition of rural and urban counties and the 2010 U.S. Census population, Pennsylvania has 48 rural counties with 27 percent of the population residing in those counties. This classification of rural and urban counties is different than the U.S. Census definition of rural counties used in previous Pennsylvania Dentist and Dental Hygienist Workforce Reports.

In 2011, approximately one out of every five respondents (1,229 or 19 percent) who provided direct patient care in Pennsylvania practiced in rural counties. The rate of respondents who provided direct patient care in Pennsylvania was 35 per 100,000 population in rural counties and 55 per 100,000 in urban counties. The map in Figure 9 shows the wide variation in rates of respondents who provided direct patient care in Pennsylvania per 100,000 population across the commonwealth.

Geography, continued

Figure 9: Respondents Who Provided Direct Patient Care in Pennsylvania per 100,000 Population by County of Primary Practice, 2011 Dentist Survey



Hours Providing Direct Patient Care

Almost three out of every four dentist respondents who provided direct patient care in Pennsylvania provided 31 or more hours of direct patient care in Pennsylvania each week in the prior year. Table 17 lists respondents by the number of hours they spent providing direct patient care in Pennsylvania each week.

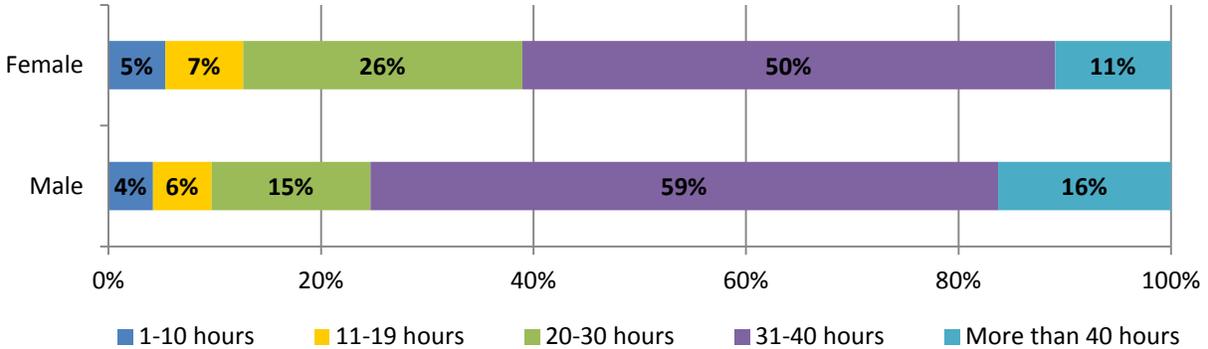
Table 17: Respondents by the Hours Spent Providing Direct Patient Care in Pennsylvania, 2011 Dentist Survey

| Hours | Number | Percent |
|--------------|--------|---------|
| 1-10 | 281 | 4% |
| 11-19 | 372 | 6% |
| 20-30 | 1,096 | 17% |
| 31-40 | 3,621 | 57% |
| More than 40 | 959 | 15% |
| Total | 6,329 | 100% |

Hours Providing Direct Patient Care, continued

Sex impacted the number of hours dentist respondents spent providing direct patient care in Pennsylvania. Males were more likely to have spent 31 or more hours each week providing direct patient care in Pennsylvania. Figure 10 compares the number of hours respondents spent providing direct patient care by sex.

Figure 10: Respondents Who Provided Direct Patient Care in Pennsylvania by Sex and Hours Spent Providing Direct Patient Care in Pennsylvania, 2011 Dentist Survey



Practice Setting

In 2011, dentist respondents who provided direct patient care in Pennsylvania practiced in a variety of settings, such as schools and clinics. Private office practice was by far the most reported practice setting and accounted for 87 percent of respondents. Table 18 lists the practice settings of respondents who provided direct patient care in Pennsylvania.

Table 18: Respondents Who Provided Direct Patient Care in Pennsylvania by Practice Setting, 2011 Dentist Survey

| Practice Setting | Number | Percent |
|--|--------|---------|
| Private office practice | 5,492 | 87% |
| Clinic or center | 533 | 8% |
| Dental school setting | 149 | 2% |
| Other | 84 | 1% |
| Industry/business | 47 | 1% |
| School health (elementary/high/college/university) | 18 | < 1% |
| Total | 6,323 | 100% |

Practice Ownership

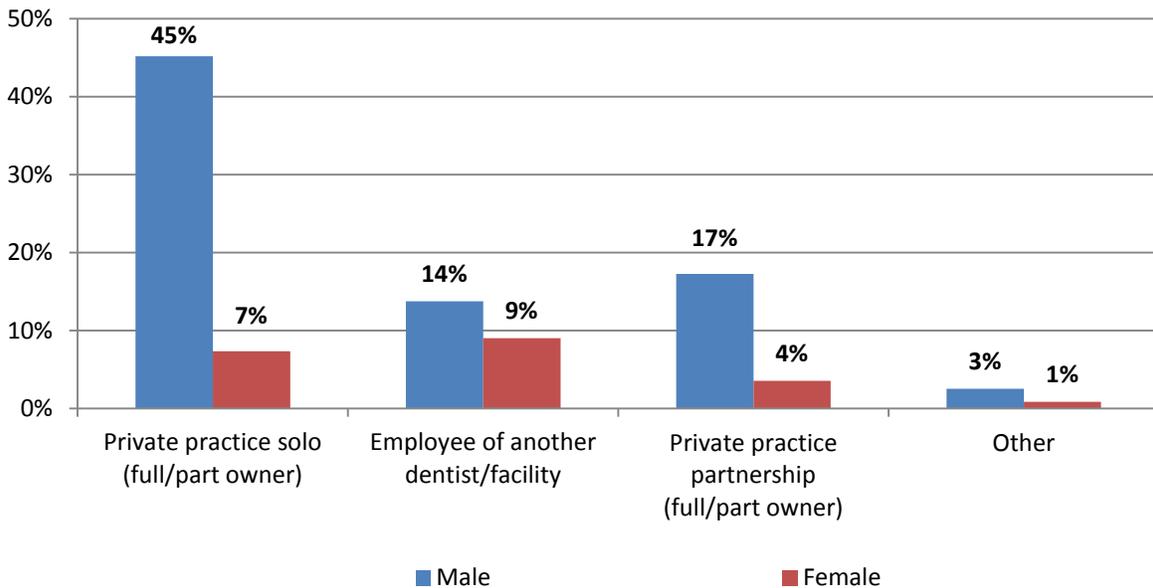
In 2011, 74 percent of dentist respondents who provided direct patient care in Pennsylvania were full or part owners of a private practice compared to 84 percent in 2007. Table 19 lists the practice ownership of respondents in 2011.

Table 19: Respondents Who Provided Direct Patient Care in Pennsylvania by Practice Ownership, 2011 Dentist Survey

| Practice Ownership | Number | Percent |
|--|--------|---------|
| Private practice solo (full/part owner) | 3,319 | 53% |
| Employee of another dentist/facility | 1,437 | 23% |
| Private practice partnership (full/part owner) | 1,316 | 21% |
| Other | 213 | 3% |
| None/volunteer | 31 | < 1% |
| Total | 6,316 | 100% |

Seventy-nine percent of males who provided direct patient care in Pennsylvania were full or part owners of private practices compared to 52 percent of females. Seventeen percent of males who provided direct patient care in Pennsylvania were employees of another dentist or a facility compared to 43 percent of females. Figure 11 shows the distribution of respondents who provided direct patient care in Pennsylvania by practice ownership and sex.

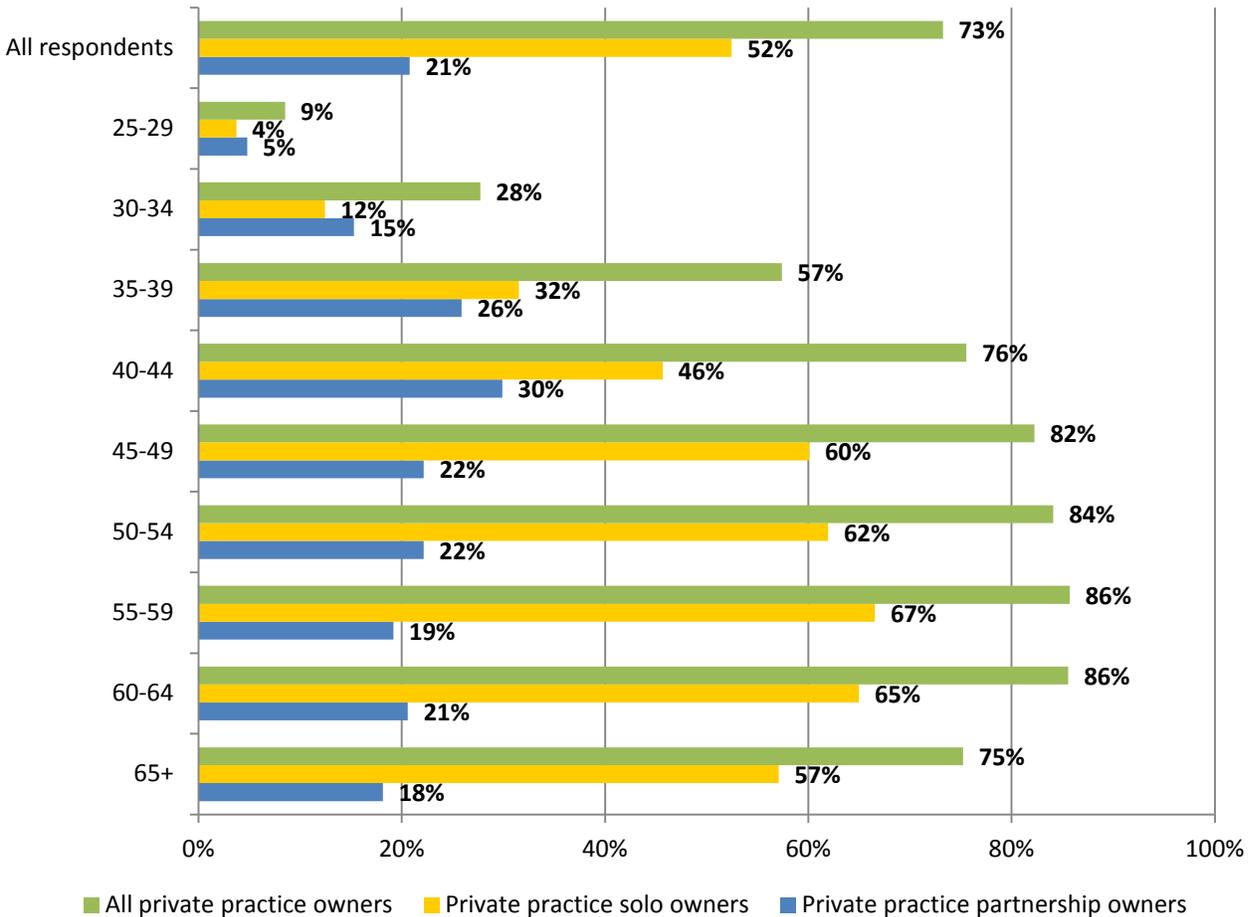
Figure 11: Respondents Who Provided Direct Patient Care in Pennsylvania by Practice Ownership and Sex, 2011 Dentist Survey



Practice Ownership, continued

Younger dentist respondents were less likely to be a full or part owner of a private practice than older respondents. Private practice ownership peaked with respondents in the 55-64 age group at 86 percent. Private practice owners were more than twice as likely to report solo ownership, compared to partnership owners. Figure 12 compares all private practice ownership with solo and partner ownership for respondents who provided direct patient care in Pennsylvania by age groups.

Figure 12: Respondents Who Provided Direct Patient Care in Pennsylvania by Private Practice Ownership and Age Groups, 2011 Dentist Survey



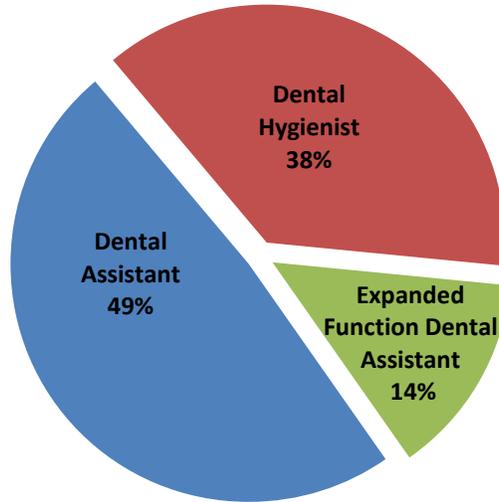
Auxiliary Staff

In addition to dentists, dental practices frequently employ auxiliary staff, such as dental assistants, dental hygienists and expanded function dental assistants. Ninety-one percent of respondents who provided direct patient care in Pennsylvania reported their office employed at least one type of auxiliary staff. Almost half (47 percent) of respondents reported their office employed two types of auxiliary staff.

Auxiliary Staff, continued

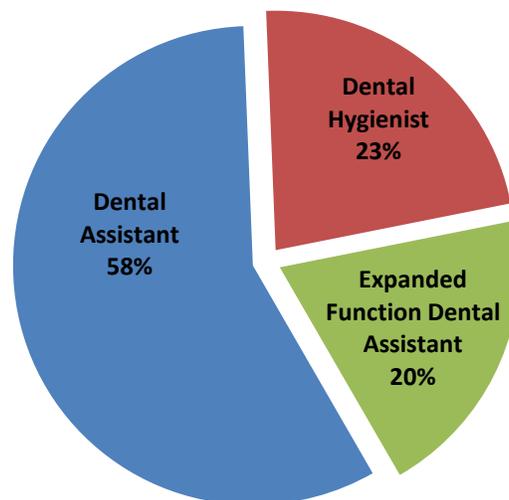
Dentist respondents who provided direct patient care in Pennsylvania selected up to three types of auxiliary staff employed in their office. Of all auxiliary staff reported by respondents, 49 percent were dental assistants. Figure 13 shows the distribution of auxiliary staff reported by respondents who provided direct patient care in Pennsylvania.

Figure 13: Distribution of Auxiliary Staff Employed in the Office of Respondents Who Provided Direct Patient Care in Pennsylvania, 2011 Dentist Survey



Difficulty filling auxiliary staff positions with qualified staff was a problem for 16 percent of dentist respondents who provided direct patient care in Pennsylvania. Dental assistant positions were the most reported type of auxiliary staff positions that respondents had difficulty finding qualified staff to fill, as shown in Figure 14.

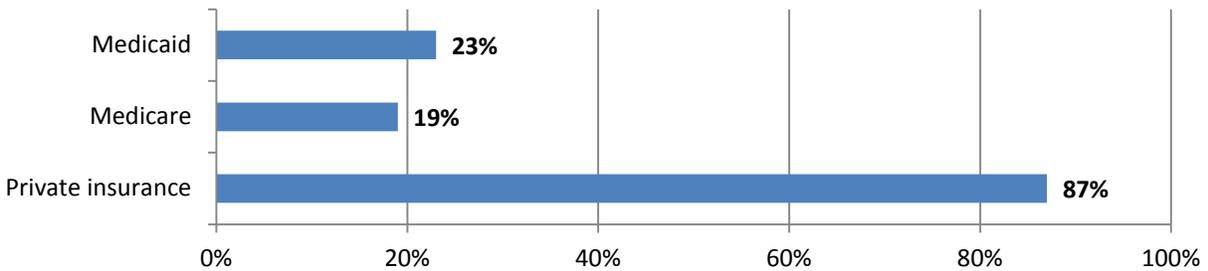
Figure 14: Type of Auxiliary Positions that Respondents Who Provided Direct Patient Care in Pennsylvania Had Difficulty Finding Qualified Staff to Fill, 2011 Dentist Survey



Accepted Dental Coverage

Acceptance of Medicaid by dentist respondents who provided direct patient care in Pennsylvania increased from 19 percent in 2007 to 23 percent in 2011. Figure 15 compares the acceptance of private insurance, Medicare and Medicaid dental coverage by respondents providing direct patient care in Pennsylvania. Appendix 4 lists respondents who provided direct patient care in Pennsylvania by their county of practice and acceptance of Medicaid, Medicare and private insurance.

Figure 15: Respondents Who Provided Direct Patient Care in Pennsylvania by Accepted Dental Coverage, 2011 Dentist Survey



Specialty impacted the rate at which dentist respondents who provided direct patient care in Pennsylvania accepted Medicaid, Medicare or private insurance. Respondents specializing in pediatric dentistry had the highest acceptance of Medicaid (57 percent), while respondents specializing in oral surgery had the highest acceptance of Medicare (78 percent) and private insurance (95 percent). Table 20 lists the acceptance of Medicaid, Medicare and private insurance for respondents who provided direct patient care in Pennsylvania by specialty.

Table 20: Respondents Who Provided Direct Patient Care in Pennsylvania by Acceptance of Dental Coverage and Specialty, 2011 Dentist Survey

| Specialty | Medicaid | | Medicare | | Private insurance | |
|---------------------|----------|---------|----------|---------|-------------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Endodontics | 19 | 10% | 11 | 6% | 171 | 89% |
| General Dentistry | 976 | 21% | 747 | 16% | 4,212 | 88% |
| Geriatric Dentistry | 26 | 37% | 20 | 29% | 59 | 82% |
| Oral Surgery | 148 | 48% | 241 | 78% | 295 | 95% |
| Orthodontics | 70 | 18% | 37 | 10% | 334 | 85% |
| Pediatric Dentistry | 118 | 57% | 46 | 23% | 194 | 92% |
| Periodontics | 19 | 10% | 19 | 10% | 136 | 72% |
| Prosthodontics | 17 | 13% | 17 | 13% | 67 | 50% |
| Total | 1,393 | 23% | 1,138 | 19% | 5,469 | 87% |

Almost all (96 percent) dentist respondents who provided direct patient care in Pennsylvania reported that their practice submitted claims to insurance companies on behalf of patients.

New Patients

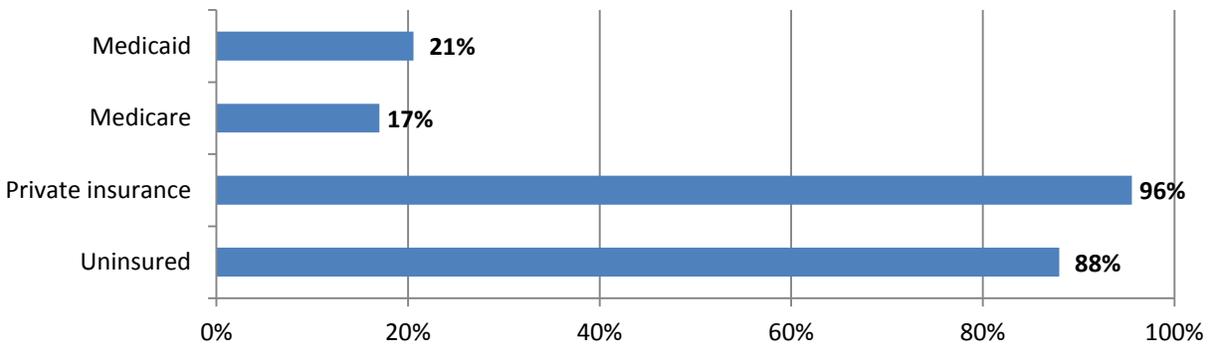
In 2011, 96 percent of dentist respondents who provided direct patient care in Pennsylvania accepted new patients. Respondents were asked which of the following four types of dental coverage for new patients they accepted: Medicaid, Medicare, private insurance and uninsured. Ninety percent of respondents providing direct patient care in Pennsylvania who accepted new patients accepted at least two types of dental coverage. Table 21 lists the number of respondents who accepted new patients by each type of dental coverage. The total number of responses are greater than the number of respondents because respondents were able to select all types of dental coverage they accepted.

Table 21: Respondents Who Provided Direct Patient Care in Pennsylvania and Accepted New Patients by Dental Coverage, 2011 Dentist Survey

| Accepted Coverage Plan | Number |
|------------------------|--------|
| Medicaid | 1,236 |
| Medicare | 1,022 |
| Private insurance | 5,740 |
| Uninsured | 5,284 |

Of dentist respondents who provided direct patient care in Pennsylvania and accepted new patients, 96 percent accepted new private insurance patients, while only 21 percent accepted new Medicaid patients. Figure 16 compares respondents who accepted new patients by dental coverage.

Figure 16: Respondents Who Provided Direct Patient Care in Pennsylvania and Accepted New Patients by Dental Coverage, 2011 Dentist Survey



Appendix 6 lists respondents who provided direct patient care in Pennsylvania by their county of practice and acceptance of new patient by Medicaid, Medicare, private insurance or no dental coverage.

Sedation

Patients with severe developmental or physical handicaps may have difficulty receiving dental treatment. A variety of accommodations, including general anesthesia or deep sedation, are used by dentists to provide these patients with access to dental services. Thirty-nine percent of respondents who provided direct patient care in Pennsylvania provided general anesthesia or deep sedation for general dentistry procedures to patients with severe developmental or physical handicaps.

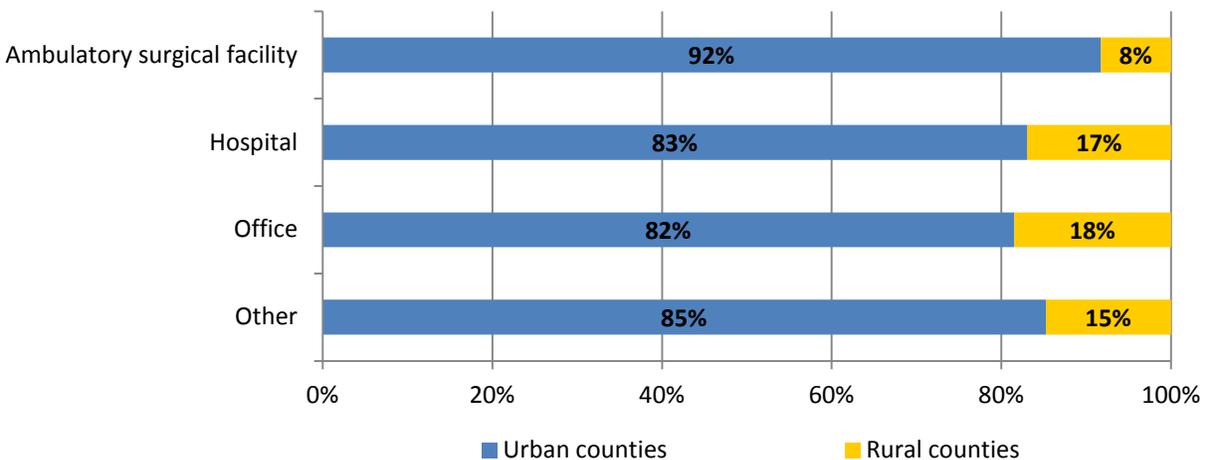
Respondents were asked if they provided general anesthesia or deep sedation in the following settings: ambulatory surgical facility, hospital, office or other. Of respondents who provided general anesthesia or deep sedation, 94 percent provided it in one setting, 4 percent provided it in two settings and 2 percent provided it in three settings. Table 22 lists the number of respondents who provided general anesthesia or deep sedation to patients with severe developmental or physical handicaps by setting.

Table 22: Respondents Who Provided General Anesthesia or Deep Sedation for General Dentistry Procedures on Patients With Severe Developmental or Physical Handicaps by Setting, 2011 Dentist Survey

| Setting | Number |
|------------------------------|--------|
| Office | 2,089 |
| Hospital | 331 |
| Ambulatory surgical facility | 133 |
| Other | 61 |

Respondents who provided general anesthesia or deep sedation to patients with severe developmental or physician handicaps were overwhelmingly located in urban counties for all settings, as shown in Figure 17.

Figure 17: Respondents Who Provided General Anesthesia or Deep Sedation for General Dentistry Procedures on Patients With Severe Developmental or Physical Handicaps by Setting and Rural or Urban County of Practice, 2011 Dentist Survey*



* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

Volunteering

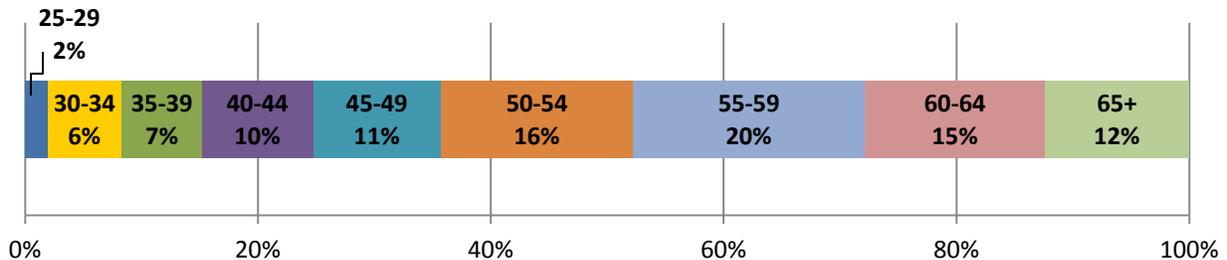
In 2011, 28 percent of respondents who provided direct patient care in Pennsylvania also volunteered their services as a dentist in Pennsylvania. Respondents of all age groups volunteered their services in the last year, with one out of every three respondents in the 55-59 age group doing so. Table 23 lists the rate of volunteerism by age groups for respondents who provided direct patient care services in Pennsylvania.

Table 23: Respondents Who Provided Direct Patient Care in Pennsylvania and Who Volunteered Their Services as a Dentist in Pennsylvania in the Last Year by Age Groups, 2011 Dentist Survey

| Age Groups | Number | Percent |
|------------|--------|---------|
| 25-29 | 34 | 18% |
| 30-34 | 113 | 22% |
| 35-39 | 122 | 24% |
| 40-44 | 168 | 29% |
| 45-49 | 195 | 28% |
| 50-54 | 291 | 32% |
| 55-59 | 353 | 33% |
| 60-64 | 273 | 30% |
| 65+ | 219 | 24% |
| Total | 1,768 | 28% |

The distribution of dentist respondents who provided direct patient care in Pennsylvania and volunteered their services in Pennsylvania in the last year generally increases with age groups and declines after age 60. One out of every five volunteers was in the 55-59 age group as shown in Figure 18.

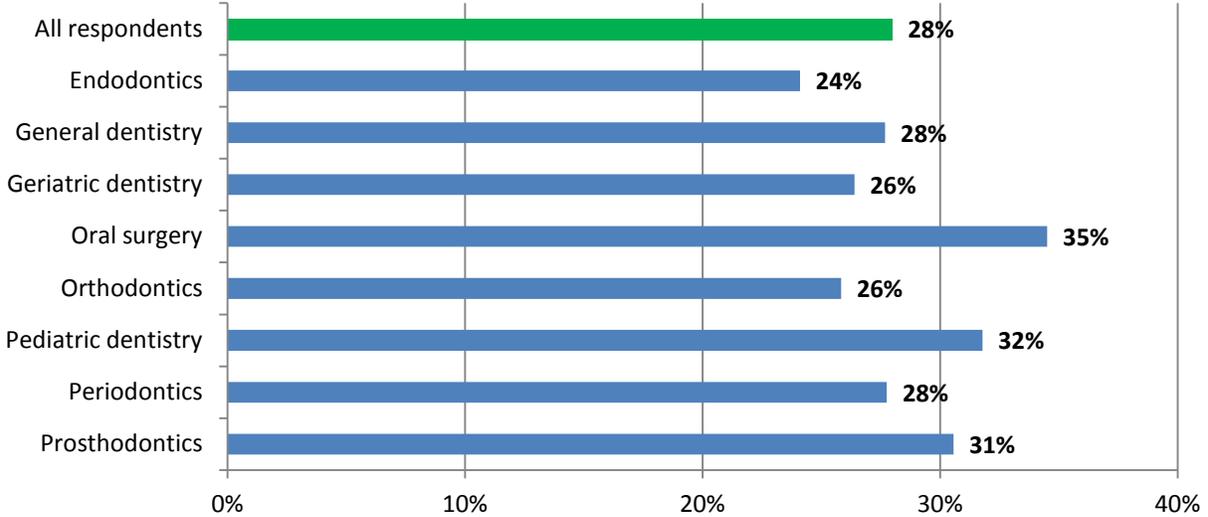
Figure 18: Respondents Who Provided Direct Patient Care in Pennsylvania and Volunteered Their Services as a Dentist in Pennsylvania in the Last Year by Age Groups, 2011 Dentist Survey



Specialty impacted which respondents who provided direct patient care in Pennsylvania volunteered their services as a dentist in Pennsylvania. Respondents with specialties of prosthodontics, pediatric dentistry and oral surgery all exceeded the rate for all respondents who provided direct patient care in Pennsylvania, as presented in Figure 19.

Volunteering, continued

Figure 19: Respondents Who Provided Direct Patient Care in Pennsylvania and Volunteered Their Services as a Dentist in Pennsylvania in the Last Year by Specialty, 2011 Dentist Survey



Four out of every five respondents who provided direct patient care in Pennsylvania and volunteered their services as a dentist in Pennsylvania did so at one location. Private practice offices were the most reported location where respondents volunteered. Table 24 lists the number of respondents who provided direct patient care in Pennsylvania and volunteered their services as a dentist in Pennsylvania by service location.

Table 24: Respondents Who Provided Direct Patient Care in Pennsylvania and Volunteered Their Services as a Dentist in Pennsylvania in the Last Year by Service Location, 2011 Dentist Survey

| Service Location | Number |
|---|--------|
| Private practice office | 1,130 |
| Other | 366 |
| School, elementary or high school | 273 |
| Federally Qualified Health Center (FQHC) or health center | 233 |
| Dental school clinic | 123 |
| Dental van | 45 |

Professional Satisfaction/Dissatisfaction

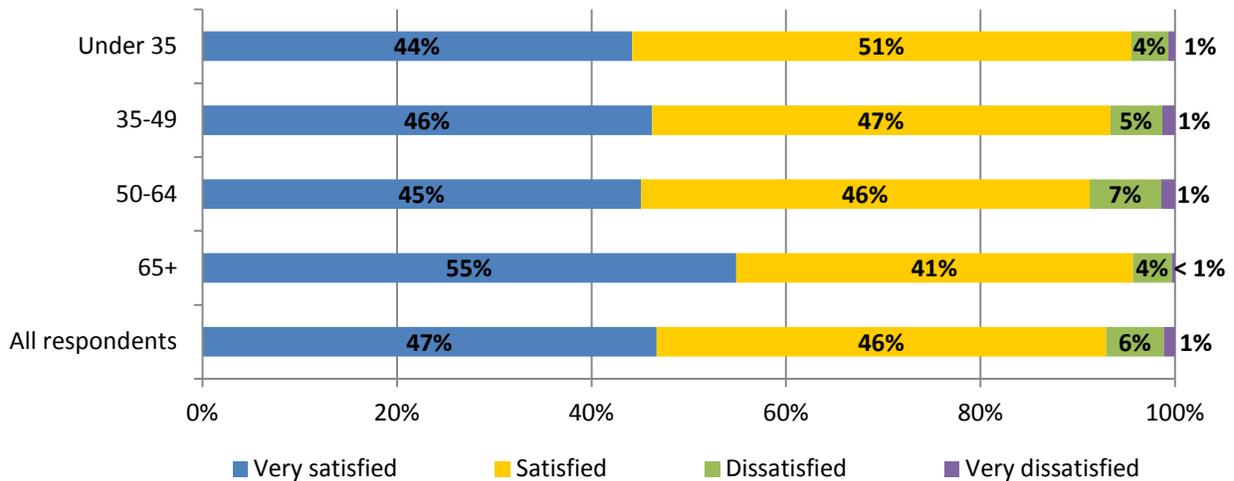
In 2011, 93 percent of dentist respondents who provided direct patient care in Pennsylvania were either satisfied or very satisfied with their dental career in the last 12 months. Table 25 lists respondents' satisfaction with their dental career in the last 12 months.

Table 25: Respondents Who Provided Direct Patient Care in Pennsylvania by Dental Career Satisfaction in the Last 12 Months, 2011 Dentist Survey

| Satisfaction | Number | Percent |
|-------------------|--------|---------|
| Very satisfied | 2,949 | 47% |
| Satisfied | 2,920 | 46% |
| Dissatisfied | 373 | 6% |
| Very dissatisfied | 73 | 1% |
| Total | 6,315 | 100% |

The 65+ age group reported the highest percentage (55 percent) of dentist respondents who provided direct patient care in Pennsylvania being very satisfied with their dental career in the last 12 months. Figure 20 compares respondents' satisfaction with their dental career in the last 12 months by age groups.

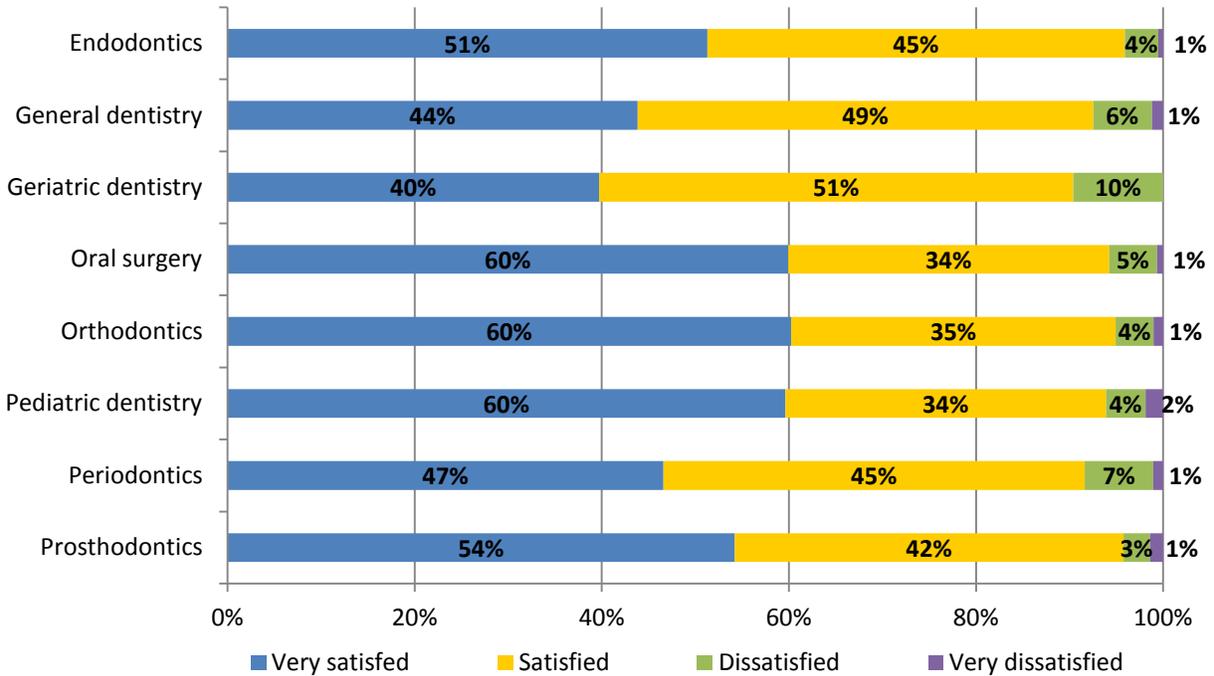
Figure 20: Respondents Who Provided Direct Patient Care in Pennsylvania by Dental Career Satisfaction in the Last 12 Months and Age Groups, 2011 Dentist Survey



With the highest percentage of dissatisfaction at 10 percent, geriatric dentists were the only specialty with no respondents who provided direct patient care in Pennsylvania who reported being very dissatisfied with their dental career in the last 12 months. Figure 21 compares respondents' dental career satisfaction in the last 12 months by specialties.

Professional Satisfaction/Dissatisfaction, continued

Figure 21: Respondents Who Provided Direct Patient Care in Pennsylvania by Dental Career Satisfaction in the Last 12 Months and Specialty, 2011 Dentist Survey



Dentist respondents who provided direct patient care in Pennsylvania reported higher levels of satisfaction with their dental career overall compared to the last 12 months. Ninety-six percent were either satisfied or very satisfied with their dental career overall. Table 26 lists respondents' satisfaction with their dental career overall.

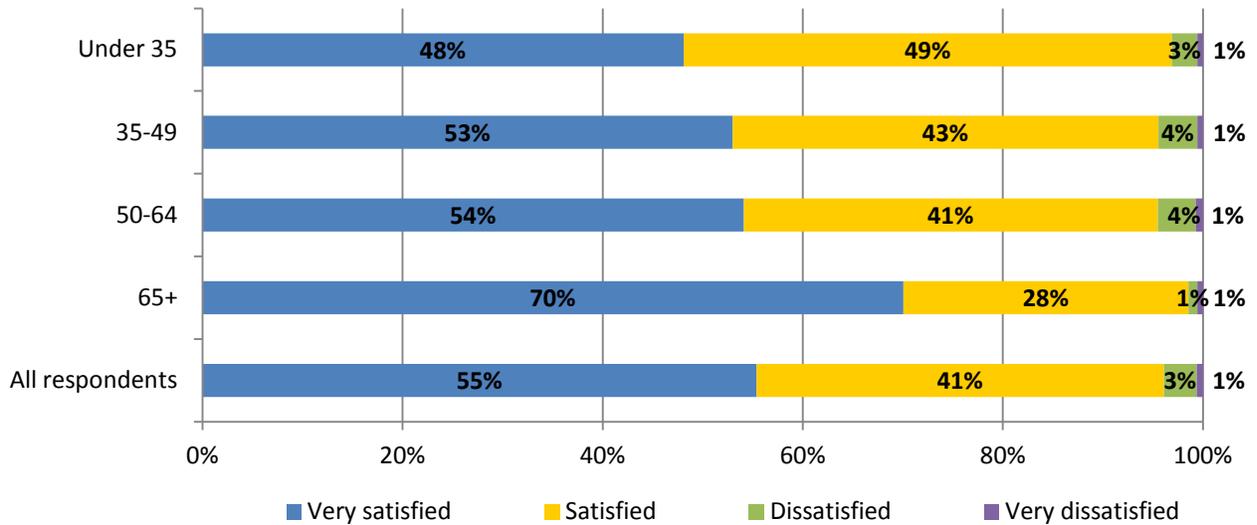
Table 26: Respondents Who Provided Direct Patient Care in Pennsylvania by Overall Dental Career Satisfaction, 2011 Dentist Survey

| Satisfaction | Number | Percent |
|-------------------|--------|---------|
| Very satisfied | 3,498 | 55% |
| Satisfied | 2,570 | 41% |
| Dissatisfied | 206 | 3% |
| Very dissatisfied | 40 | 1% |
| Total | 6,314 | 100% |

The 65+ age group by far reported the highest percentage (70 percent) of dentist respondents who provided direct patient care in Pennsylvania being very satisfied with their dental career overall. Figure 22 compares respondents' satisfaction with their dental career overall by age groups.

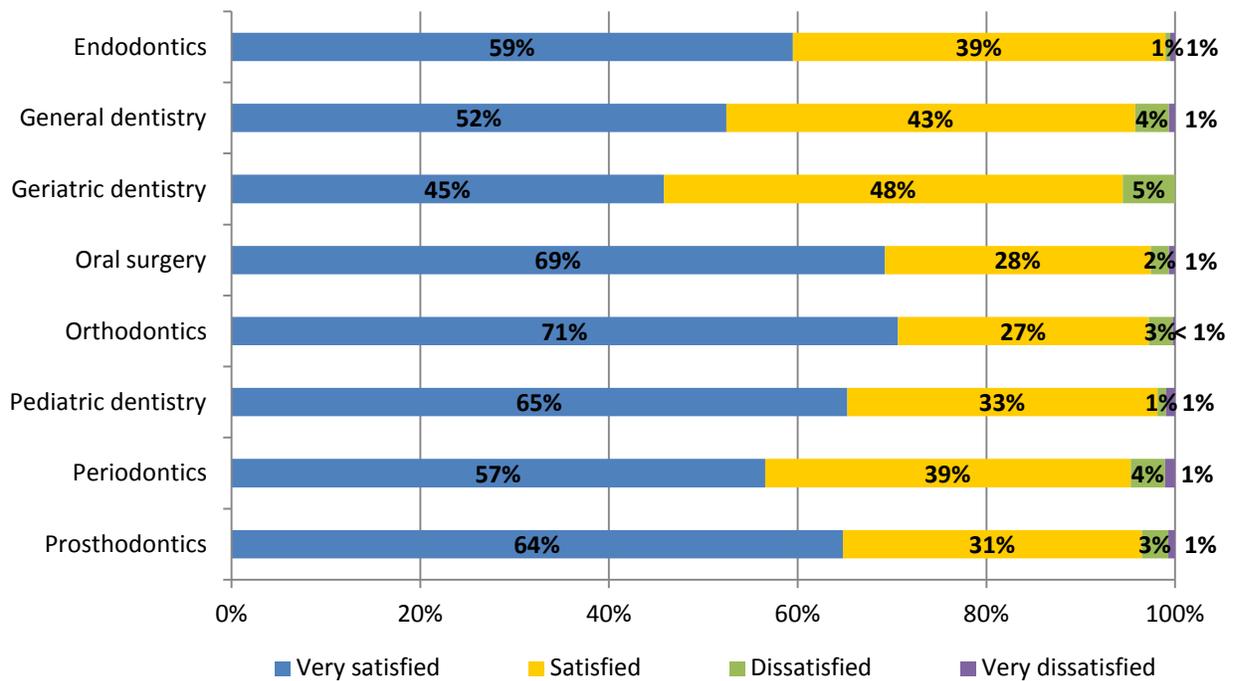
Professional Satisfaction/Dissatisfaction, continued

Figure 22: Respondents Who Provided Direct Patient Care in Pennsylvania by Overall Dental Career Satisfaction and Age Groups, 2011 Dentist Survey



Orthodontics was the specialty with the highest percentage (71 percent) of respondents who provided direct patient care in Pennsylvania who were very satisfied with their overall dental career. Figure 23 compares respondents satisfaction with their dental career overall by specialty.

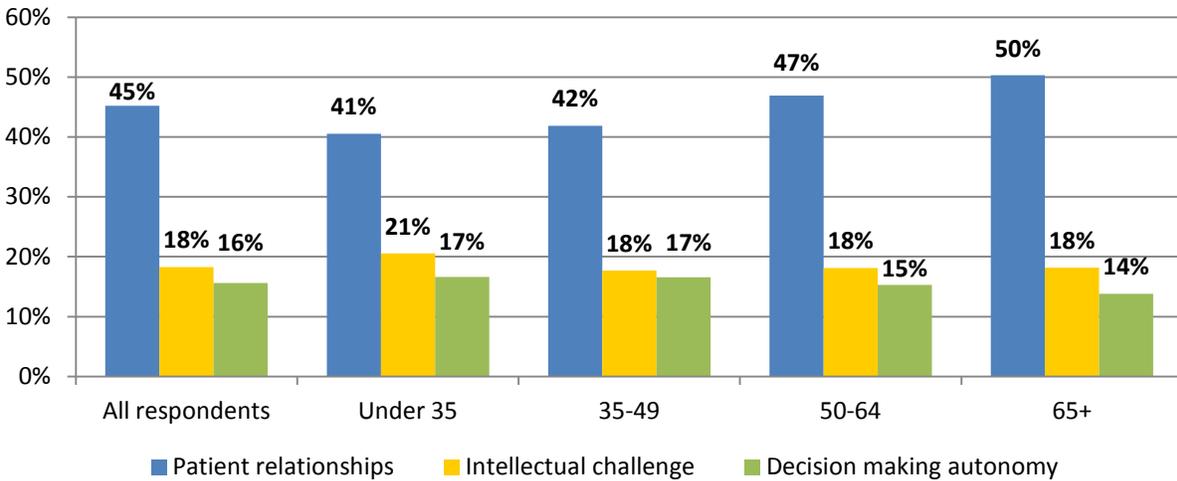
Figure 23: Respondents Who Provided Direct Patient Care in Pennsylvania by Overall Dental Career Satisfaction and Specialty, 2011 Dentist Survey



Professional Satisfaction/Dissatisfaction, continued

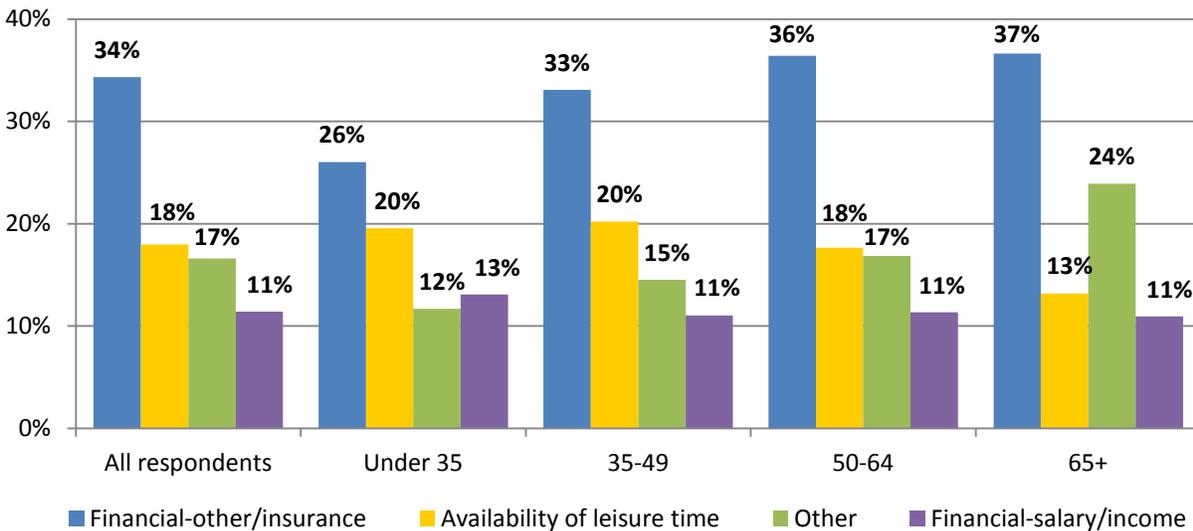
Patient relationships were the greatest source of professional satisfaction for 45 percent of dentist respondents who provided direct patient care in Pennsylvania, followed by intellectual challenge and decision-making autonomy. Figure 24 compares the distribution of these sources of professional satisfaction for respondents by age groups.

Figure 24: Respondents Who Provided Direct Patient Care in Pennsylvania by the Three Greatest Sources of Professional Satisfaction and Age Groups, 2011 Dentist Survey



Financial-other/insurance was the greatest source of professional dissatisfaction for 34 percent of dentist respondents who provided direct patient care in Pennsylvania. Across age groups, the next greatest source of professional dissatisfaction was not consistent. All age groups consistently reported availability of leisure time, other and financial-salary/income as their greatest sources of professional dissatisfaction, as shown in Figure 25.

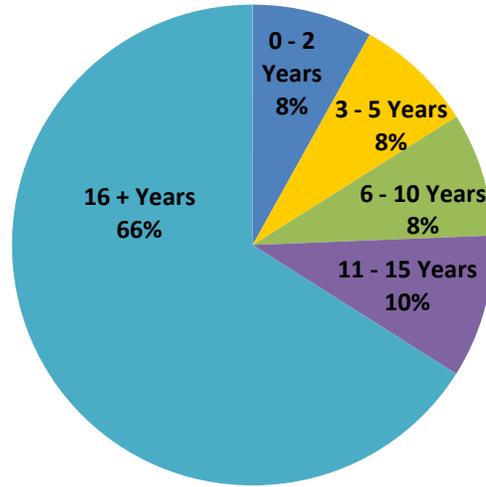
Figure 25: Respondents Who Provided Direct Patient Care in Pennsylvania by the Four Greatest Sources of Professional Dissatisfaction and Age Groups, 2011 Dentist Survey



Length of Practice

Two out of every three respondents who provided direct patient care in Pennsylvania practiced dentistry in Pennsylvania for 16 or more years, the highest percentage since 2003. Figure 26 presents the length of time respondents who provided direct patient care in Pennsylvania practiced dentistry.

Figure 26: Respondents Who Provided Direct Patient Care in Pennsylvania by Years Practicing Dentistry in Pennsylvania, 2011 Dentist Survey



Age groups varied greatly in the length of time respondents who provided direct patient care in Pennsylvania anticipated continuing to practice dentistry in Pennsylvania, as presented in Table 27 and Figure 27. Sixty-nine percent of respondents in the 65+ age group anticipated leaving the practice of dentistry in Pennsylvania in the next five years. Appendix 5 lists respondents' anticipated length of dental practice in Pennsylvania by their county of primary practice.

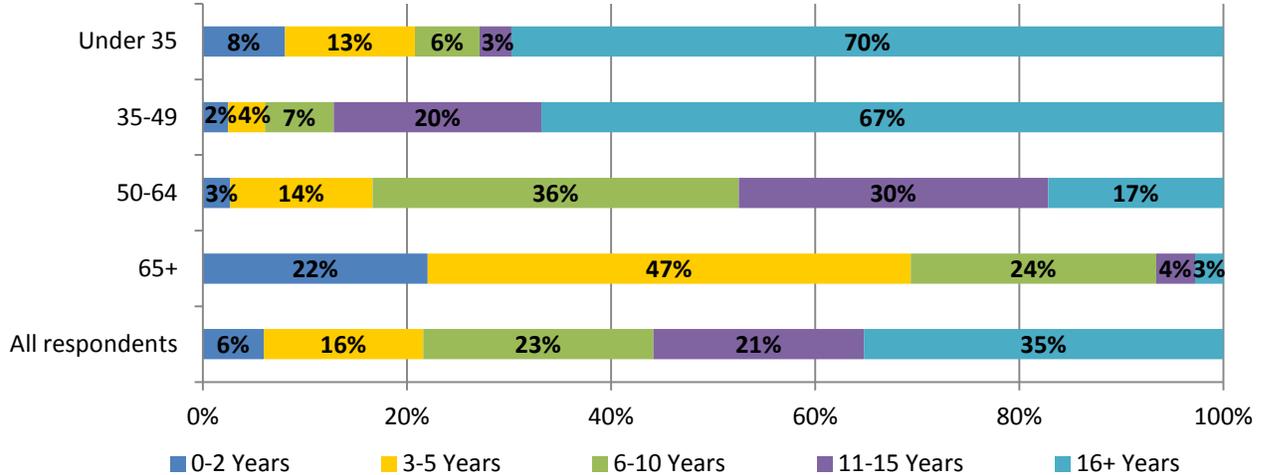
Table 27: Respondents Who Provided Direct Patient Care in Pennsylvania by the Length of Time They Anticipated Continuing to Practice Dentistry in Pennsylvania and Age Groups, 2011 Dentist Survey

| Age Groups | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | |
|------------|-----------|---------|------------|---------|-------------|---------|-----------|---------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 25-29 | 49 | 26% | - | - | - | - | 117 | 63% |
| 30-34 | 98 | 19% | 27 | 5% | 19 | 4% | 377 | 72% |
| 35-39 | 51 | 10% | 30 | 6% | 35 | 7% | 394 | 77% |
| 40-44 | 31 | 5% | 26 | 4% | 90 | 15% | 437 | 75% |
| 45-49 | 27 | 4% | 65 | 9% | 240 | 34% | 368 | 53% |
| 50-54 | 44 | 5% | 170 | 19% | 390 | 43% | 305 | 34% |
| 55-59 | 134 | 12% | 443 | 41% | 365 | 34% | 138 | 13% |
| 60-64 | 303 | 34% | 424 | 47% | 122 | 14% | 54 | 6% |
| 65+ | 620 | 69% | 215 | 24% | 34 | 4% | 25 | 3% |
| Total | 1,357 | 22% | 1,418 | 23% | 1,298 | 21% | 2,215 | 35% |

- Numbers less than six are withheld for privacy purposes, although they are included in the total numbers.

Length of Practice, continued

Figure 27: Respondents Who Provided Direct Patient Care in Pennsylvania by the Length of Time They Anticipated Continuing to Practice Dentistry in Pennsylvania by Age Groups, 2011 Dentist Survey



Respondents specializing in orthodontics had the highest percentage (45 percent) of those who anticipated practicing dentistry in Pennsylvania for 16+ years. Conversely, almost one out of three (31 percent) respondents specializing in oral surgery anticipated continuing to practice dentistry in Pennsylvania for the next five years. Table 28 lists the length of time respondents anticipated practicing dentistry in Pennsylvania by specialty.

Table 28: Respondents Who Provided Direct Patient Care in Pennsylvania by the Length of Time They Anticipated Continuing to Practice Dentistry in Pennsylvania and Specialty, 2011 Dentist Survey

| Specialty | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | |
|---------------------|-----------|---------|------------|---------|-------------|---------|-----------|---------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Endodontics | 43 | 22% | 46 | 24% | 38 | 20% | 66 | 34% |
| General dentistry | 1,000 | 21% | 1,092 | 23% | 1,027 | 21% | 1,661 | 35% |
| Geriatric dentistry | 15 | 21% | 13 | 18% | 20 | 28% | 24 | 33% |
| Oral surgery | 94 | 31% | 75 | 24% | 56 | 18% | 83 | 27% |
| Orthodontics | 83 | 21% | 74 | 19% | 58 | 15% | 179 | 45% |
| Pediatric dentistry | 55 | 26% | 39 | 18% | 31 | 15% | 86 | 41% |
| Periodontics | 38 | 20% | 40 | 21% | 37 | 19% | 75 | 39% |
| Prosthodontics | 30 | 21% | 38 | 27% | 32 | 23% | 41 | 29% |
| Total | 1,358 | 22% | 1,417 | 23% | 1,299 | 21% | 2,215 | 35% |

- Numbers less than six are withheld for privacy purposes, although they are included in the total numbers.

Length of Practice, continued

Respondents who provided direct patient care in Pennsylvania were asked how long they anticipated practicing dentistry, as well as how long they anticipated practicing dentistry in Pennsylvania. Of respondents who anticipated practicing dentistry for 16+ years, 87 percent anticipated practicing for those 16+ years in Pennsylvania.

Leaving Direct Patient Care in the Next Five Years

Of dentist respondents who provided direct patient care in Pennsylvania, 30 percent planned to leave direct patient care in the next five years. Retirement was the principal reason why respondents who provided direct patient care in Pennsylvania planned to leave direct patient care in the next five years, as listed in Table 29.

Table 29: Respondents Who Provided Direct Patient Care in Pennsylvania and Planned to Leave Direct Patient Care in the Next Five Years by Reason for Leaving, 2011 Dentist Survey

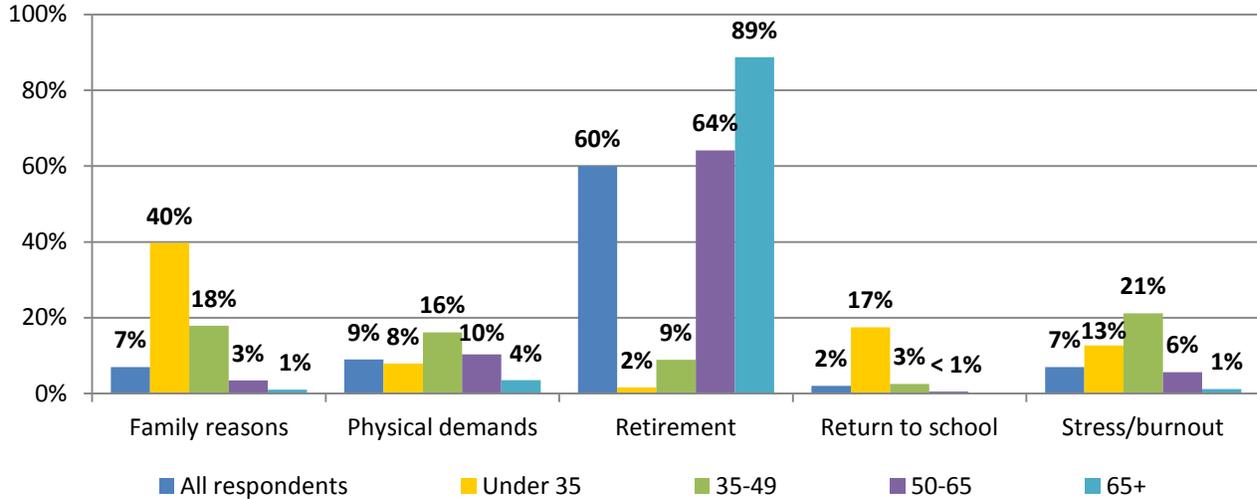
| Reason | Number | Percent |
|--|--------|---------|
| Retirement | 1,128 | 60% |
| Physical demands | 162 | 9% |
| Family reasons | 135 | 7% |
| Stress/burnout | 129 | 7% |
| Career change | 85 | 5% |
| Financial reasons-salary/income | 59 | 3% |
| Other | 57 | 3% |
| Financial reasons-other, including insurance | 55 | 3% |
| Return to school | 33 | 2% |
| Practice demands | 28 | 1% |
| Total | 1,871 | 100% |

Across age groups, the primary reason why dentist respondents who provided direct patient care in Pennsylvania planned to leave direct patient care in the next five years varied. Family reasons and returning to school were the first and second most reported reasons why respondents under 35 planned to leave direct patient care, while retirement and physical demands were the first and second most reported reasons for respondents in the 65+ age group. Figure 28 compares five reasons why respondents who provided direct patient care in Pennsylvania planned to leave direct patient care in the next five years by age groups.



Leaving Direct Patient Care in the Next Five Years, continued

Figure 28: Respondents Who Provided Direct Patient Care in Pennsylvania and Planned to Leave Direct Patient Care in the Next Five Years by Reason for Leaving and Age Groups, 2011 Dentist Survey



Dental/Medical Translation

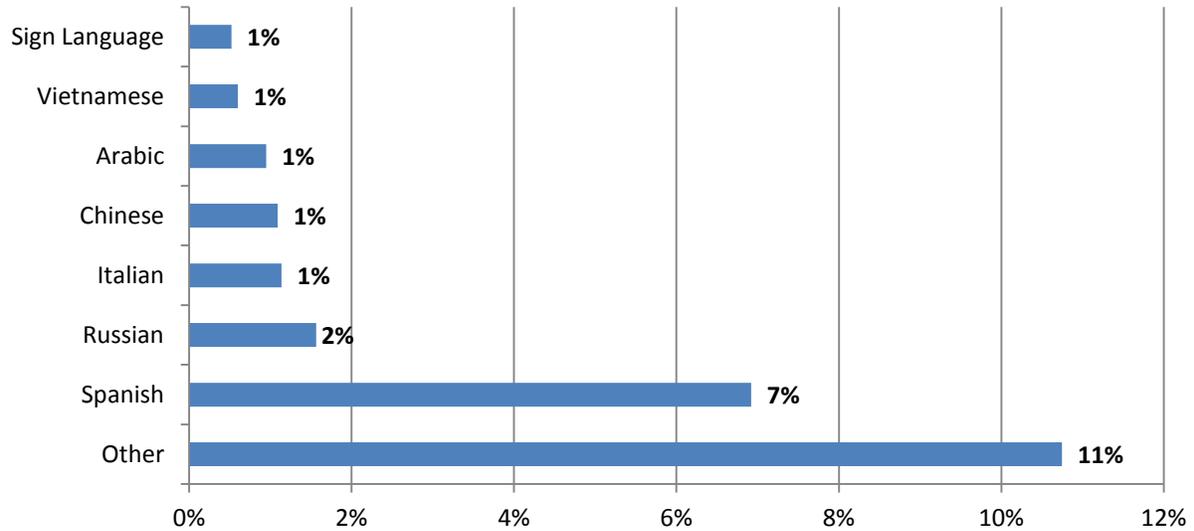
For individuals with limited English proficiency, language can become a barrier to obtaining quality medical care. Patients who speak limited or no English have been found to experience longer hospital stays, increased risk of misdiagnosis and medical errors, as well as decreased access to acute and preventive care services, all in spite of their socioeconomic or insurance status.²

More Pennsylvanians spoke a language other than English at home in 2010 than in 2008, according to the 1-Year Estimates from the 2008 and 2010 American Community Surveys. In 2008, 9 percent of Pennsylvanians spoke a language other than English at home, and in 2010, that grew to 10 percent. Also increasing among Pennsylvanians who spoke a language other than English at home are those who speak English less than very well. In 2008, of those Pennsylvanians who spoke a language other than English at home, 37 percent spoke English less than very well, which increased to 38 percent in 2010 according to the 1-Year Estimates from the 2008 and 2010 American Community Surveys.

In 2011, 20 percent of respondents who provided direct patient care in Pennsylvania reported personally providing dental/medical translation to patients. Of respondents who personally provided dental/medical translation to patients, 86 percent communicated effectively for most clinical purposes in one language, followed by 11 percent in two languages. Over 20 languages were represented in the category of other, including: French, German, Hindi, Korean, Pennsylvania Dutch, Polish and Urdu. Figure 29 shows the languages in which respondents who provided direct patient care in Pennsylvania communicated effectively for most clinical purposes.

Dental/Medical Translation, continued

Figure 29: Languages Other than English in Which Respondents Who Provided Direct Patient Care in Pennsylvania Communicated Effectively for Most Clinical Purposes, 2011 Dentist Survey



**All Dental Hygienists Who Responded
to the
2011 Survey of Pennsylvania
Dental Hygienists**

All Dental Hygienists Licensed in Pennsylvania

This section provides information on all of the dental hygienists who responded to the 2011 Pennsylvania dental hygienist relicensing survey. Since 2009, there was a 1 percent increase in the number of respondents. In 2011, these 7,774 respondents resided in most states, Washington, D.C., and around the world.

Age

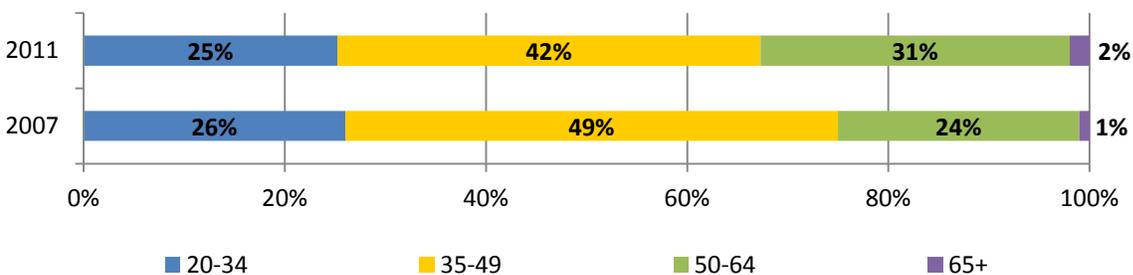
In 2011, the average age of dental hygienist respondents was 43.4 years, an increase from 2007 when the average age of respondents was 42.1 years. Table 30 lists the distribution of respondents across age groups for 2011, with one out of every three respondents age 50 or older.

Table 30: Respondents Licensed in Pennsylvania by Age Groups, 2011 Dental Hygienist Survey

| Age Groups | Number | Percent |
|------------|--------|---------|
| 20-24 | 250 | 3% |
| 25-29 | 809 | 10% |
| 30-34 | 901 | 12% |
| 35-39 | 914 | 12% |
| 40-44 | 1,152 | 15% |
| 45-49 | 1,206 | 16% |
| 50-54 | 1,198 | 15% |
| 55-59 | 834 | 11% |
| 60-64 | 358 | 5% |
| 65+ | 152 | 2% |
| Total | 7,774 | 100% |

Figure 30 compares the distribution of dental hygienist respondents across age groups in 2007 and 2011. While the 35-49 age group decreased from 49 percent in 2007 to 42 percent in 2011, the 50-64 age group increased from 24 percent in 2007 to 31 percent in 2011.

Figure 30: Respondents Licensed in Pennsylvania by Age Groups, 2007 and 2011 Dental Hygienist Surveys



Sex

In 2011, females comprised 99 percent of dental hygienist respondents. The number of males increased by 20 percent from 2007 to 2011. Table 31 lists the distribution of respondents by sex.

Table 31: Respondents Licensed in Pennsylvania by Sex, 2011 Dental Hygienist Survey

| Sex | Number | Percent |
|--------|--------|---------|
| Male | 76 | 1% |
| Female | 7,698 | 99% |
| Total | 8,315 | 100% |

Race and Ethnicity

Dental hygienist respondents selected one category that best described their race and indicated if they were of Hispanic/Latino origin. The distribution of respondents by race is listed in Table 32. Black respondents increased from 1 percent in 2007 to 2 percent in 2011.

Table 32: Respondents Licensed in Pennsylvania by Race, 2011 Dental Hygienist Survey

| Race | Number | Percent |
|--|--------|---------|
| White | 7,440 | 96% |
| Black | 126 | 2% |
| Asian | 84 | 1% |
| Other | 78 | 1% |
| American Indian/Alaska Native | 28 | < 1% |
| Native Hawaiian/Other Pacific Islander | 6 | < 1% |
| Total | 7,762 | 100% |

The percentage of dental hygienist respondents who reported being of Hispanic/Latino origin held stable from 2007 to 2011 at 1 percent of respondents. Table 33 lists the ethnicity of respondents in 2011.

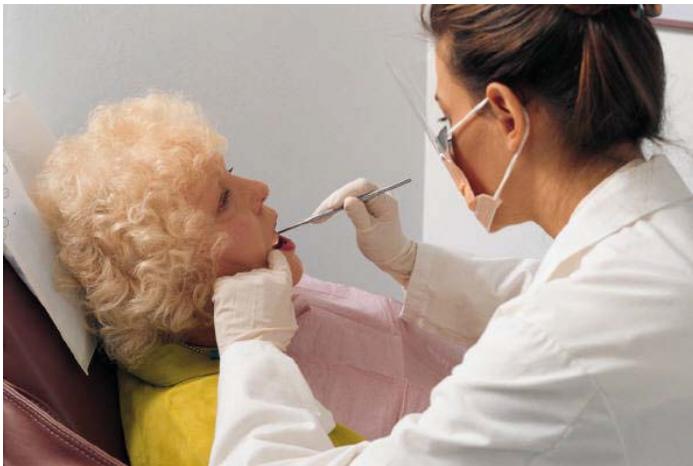
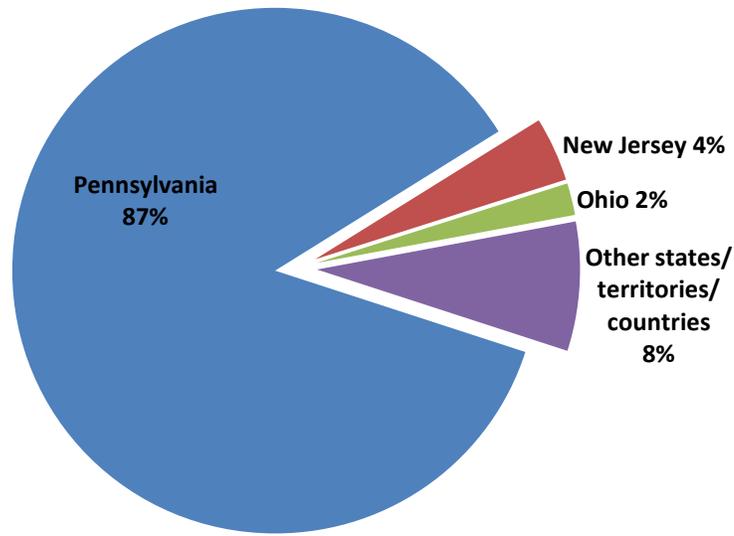
Table 33: Respondents Licensed in Pennsylvania by Ethnicity, 2011 Dental Hygienist Survey

| Ethnicity | Number | Percent |
|---------------------|--------|---------|
| Hispanic/Latino | 110 | 1% |
| Non-Hispanic/Latino | 7,613 | 99% |
| Total | 8,217 | 100% |

Residence

Dental hygienist respondents resided in 40 states, Washington, D.C., and around the world in 2011. Figure 31 presents the state of residence for respondents, with 87 percent residing in Pennsylvania. Other states, territories and countries, not specified in the figure, each accounted for 1 percent or less of respondents.

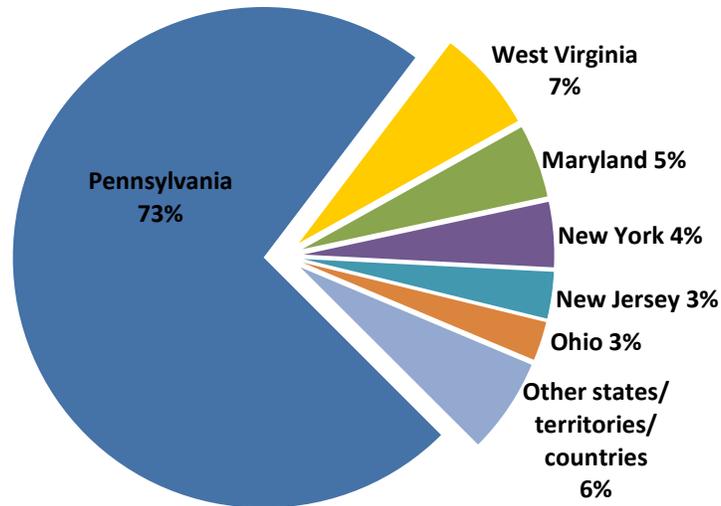
Figure 31: Respondents Licensed in Pennsylvania by State of Residence, 2011 Dental Hygienist Survey



Dental Hygiene Education

Respondents graduated from dental hygiene schools in 43 states, Washington, D.C., and around the world. Figure 32 shows the states in which respondents graduated from dental hygiene school with 73 percent graduating in Pennsylvania. Other states, territories and countries, not specified in the figure, each accounted for 1 percent or less of respondents.

Figure 32: Respondents Licensed in Pennsylvania by State of Graduation from Dental Hygiene School, 2011 Dental Hygienist Survey



Seventy percent of respondents completed an associate degree as their highest dental hygiene degree. Table 34 lists respondents by the highest dental hygiene degree.

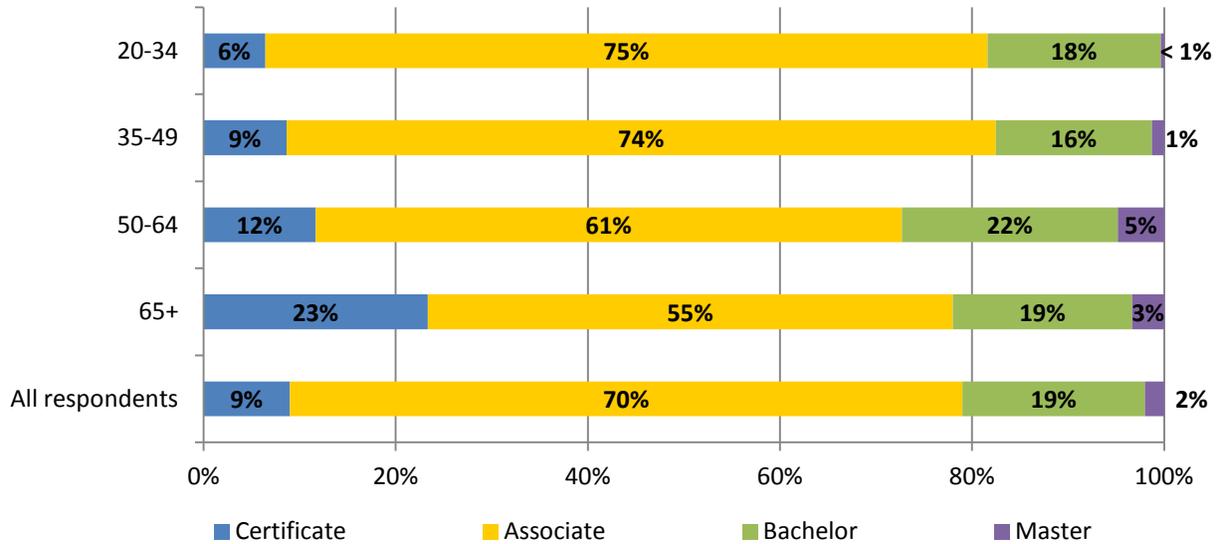
Table 34: Respondents Licensed in Pennsylvania by Highest Dental Hygiene Degree, 2011 Dental Hygienist Survey

| Dental Hygiene Degree | Number | Percent |
|-----------------------|--------|---------|
| Certificate | 723 | 9% |
| Associate | 5,424 | 70% |
| Bachelor | 1,449 | 19% |
| Master | 169 | 2% |
| Total | 7,765 | 100% |

Respondents in the 50+ age group have higher rates of their highest dental hygiene degree being a bachelor's or master's degree than those under age 50. Younger age groups have lower rates of certificates being the highest dental hygiene degree. Figure 33 compares respondents' highest dental hygiene degree by age groups.

Dental Hygiene Education, continued

Figure 33: Respondents Licensed in Pennsylvania by Highest Dental Hygiene Degree and Age Groups, 2011 Dental Hygienist Survey



Six percent of respondents were enrolled in higher education programs in 2011. Of those respondents enrolled in higher education programs, 52 percent were enrolled in dental hygiene programs. Of those respondents enrolled in dental hygiene programs, almost half (49 percent) were enrolled in bachelor degree programs. Table 35 lists respondents by enrollment in a higher education program.

Table 35: Respondents Licensed in Pennsylvania by Enrollment in a Higher Education Program, 2011 Dental Hygienist Survey

| Higher Education Program | Number | Percent |
|---------------------------------|--------|---------|
| Dental hygiene associate degree | 121 | 2% |
| Dental hygiene bachelor degree | 127 | 2% |
| Dental hygiene master degree | 9 | < 1% |
| Other bachelor degree | 88 | 1% |
| Other master degree | 66 | 1% |
| Other non-degree | 81 | 1% |
| None | 7,265 | 94% |
| Total | 7,757 | 100% |

Dental Hygiene Certification

Through additional training, dental hygienists can become certified to perform advanced duties with or without direct supervision. Ten percent of respondents had at least one dental hygiene certification, and less than 1 percent had more than one certification. Respondents reported certification of an expanded function dental assistant permit, school teaching certificate-Pennsylvania school hygienist position or other. Respondents were able to select more than one type of certification. Table 36 lists the number of respondents who held dental hygiene certifications.

Table 36: Respondents Licensed in Pennsylvania by Dental Hygiene Certification, 2011 Dental Hygienist Survey

| Certification | Number |
|--|--------|
| Expanded function dental assistant permit | 175 |
| School teaching certificate-Pennsylvania school hygienist position | 146 |
| Other | 469 |
| None | 6,913 |

Public Health Dental Hygiene Practitioners

Public health dental hygiene practitioners (PHDHPs) were first licensed in Pennsylvania in January 2010. At the end of 2011, 401 PHDHPs were licensed in Pennsylvania, according to the State Board of Dentistry.

PHDHPs were created to increase access to dental services for individuals living in Health Professional Shortage Areas (HPSAs) by allowing these dental hygienists to perform educational, preventive, therapeutic, intra-oral and radiologic procedures without the direct supervision of a dentist at identified practice sites. PHDHPs are required to refer patients to a dentist annually.

Identified practice sites include schools; correctional facilities; healthcare facilities, such as hospitals; personal care homes; domiciliary care facilities; older adult daily living centers; continuing care provider facilities, such as retirement communities; Federally Qualified Health Centers (FQHCs); FQHC lookalikes; public or private institutions under the jurisdiction of a federal, state or local agency; and free and reduced-fee nonprofit health clinics.

In 2011, 10 percent of respondents intended to apply for a PHDHP license, the same as in 2009. Almost half (48 percent) of respondents who intended to apply for a PHDHP license intended to practice at only one location. Table 37 lists how many practice sites respondents intended to practice as a PHDHP.



Public Health Dental Hygiene Practitioners, continued

Table 37: Respondents Licensed in Pennsylvania by the Number of Practice Sites at Which They Intended to Practice as a Public Health Dental Hygiene Practitioner, 2011 Dental Hygienist Survey

| Number of PHDHP Practice Sites | Number | Percent |
|--------------------------------|--------|---------|
| One | 385 | 48% |
| Two | 146 | 18% |
| Three | 97 | 12% |
| Four | 70 | 9% |
| Five | 41 | 5% |
| Six | 33 | 4% |
| Seven | 14 | 2% |
| Eight | - | - |
| Nine | - | - |
| Total | 797 | 100% |

- Numbers less than six are withheld for privacy purposes, although they are included in the total number.

Respondents selected all types of practice sites at which they intended to practice as a PHDHP. Healthcare facilities, such as hospitals, were the most selected practice site, followed by schools. Table 37 lists the number of respondents who intended to work at each type of practice site. Because respondents were able to select multiple practice sites, the total number of responses is greater than the number of respondents who intended to practice as a PHDHP.

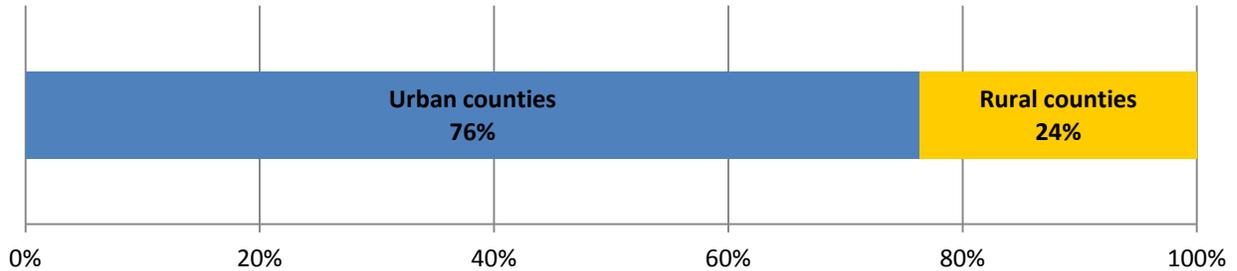
Table 38: Respondents Licensed in Pennsylvania Who Intended to Practice as a Public Health Dental Hygiene Practitioner by Type of Practice Site, 2011 Dental Hygienist Survey

| Types of Practice Sites | Number |
|---|--------|
| Health care facility | 373 |
| School | 337 |
| Older adult daily living center | 244 |
| Personal care home | 236 |
| Federally-Qualified Health Center (FQHC) | 211 |
| Public/private or federal/state institution | 194 |
| Other | 118 |
| Correctional facility | 86 |
| Domiciliary care facility | 39 |

Public Health Dental Hygiene Practitioners, continued

Respondents who intended to practice as a PHDHP in Pennsylvania overwhelmingly intended to practice in urban counties. Figure 34 shows respondents by the type of county they intended to practice in as a PHDHP.

Figure 34: Respondents Licensed in Pennsylvania Who Intended to Practice as a Public Health Dental Hygiene Practitioner in Pennsylvania by Rural or Urban County of Intended Practice, 2011 Dental Hygienist Survey*



* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

Employment

In 2011, 89 percent of respondents were employed in dental hygiene. Table 39 lists the employment status of respondents.

Table 39: Respondents Licensed in Pennsylvania by Employment Status, 2011 Dental Hygienist Survey

| Employment Status | Number | Percent |
|---|--------|---------|
| Employed in dental hygiene | 6,899 | 89% |
| Unemployed, seeking dental hygiene employment | 288 | 4% |
| Employed, not in dental hygiene | 275 | 4% |
| Unemployed, not seeking dental hygiene employment | 161 | 2% |
| Retired | 54 | 1% |
| Student, leave of absence or sabbatical | 43 | 1% |
| Unemployed, disabled | 30 | < 1% |
| Total | 7,750 | 100% |

Of respondents employed in dental hygiene, 94 percent provided one or more hours of direct patient care per week in Pennsylvania in 2011. Table 40 lists the number of hours respondents who were employed in dental hygiene provided direct patient care in Pennsylvania each week.

Employment, continued

Table 40: Respondents Employed in Dental Hygiene by the Number of Hours Spent Providing Direct Patient Care in Pennsylvania Each Week, 2011 Dental Hygienist Survey

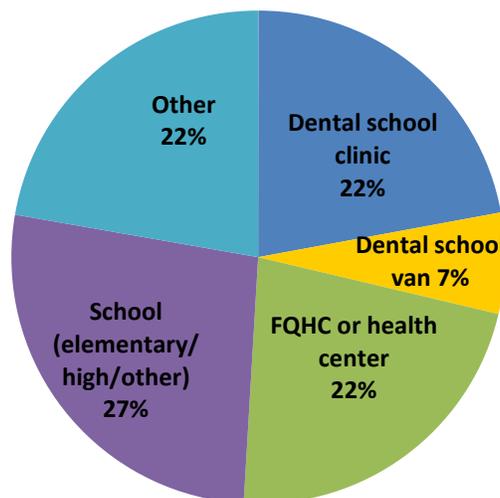
| Hours | Number | Percent |
|--------------|--------|---------|
| Zero | 446 | 6% |
| 1-10 | 493 | 7% |
| 11-19 | 820 | 12% |
| 20-30 | 2,000 | 29% |
| 31-40 | 2,843 | 41% |
| More than 40 | 292 | 4% |
| Total | 6,894 | 100% |

Of those respondents who held a position in dental hygiene that was not direct patient care, 71 percent planned to return to direct patient care within the next five years.

Dental Care for Uninsured or Underinsured Individuals in Pennsylvania

In 2011, 8 percent (591) of dental hygienist respondents provided dental care to uninsured or underinsured individuals in Pennsylvania at a place other than their primary job. Figure 35 presents the locations where respondents provided dental care to uninsured or underinsured individuals in Pennsylvania other than at their primary job, both as paid and unpaid dental hygienists. Respondents were able to select more than one location where they provided services.

Figure 35: Locations Where Respondents Provided Dental Care to Uninsured or Underinsured Individuals in Pennsylvania, 2011 Dental Hygienist Survey



Over half (53 percent) of these respondents provided this care as unpaid volunteer work.

**Dental Hygienists Who Provided
Direct Patient Care in Pennsylvania
and Responded to the 2011 Survey
of Pennsylvania Dental Hygienists**

Dental Hygienists Who Provided Direct Patient Care in Pennsylvania

This section provides information on dental hygienists who responded to the 2011 Pennsylvania dental hygienist relicensing survey and provided direct patient care in Pennsylvania. In 2011, these 6,058 respondents were 78 percent of all respondents.

In previous Pennsylvania Dentist and Dental Hygienist Workforce Reports, respondents who provided direct patient care in Pennsylvania were defined as those respondents who reported employment in dental hygiene and a primary employment situation of direct patient care in Pennsylvania. In this report, respondents who provided direct patient care in Pennsylvania are defined as those respondents who reported employment in dental hygiene and provided at least one hour of direct patient care in Pennsylvania per week during the prior year. The report includes 4.4 percent more respondents providing direct patient care in Pennsylvania.

Age

In 2011, the average age of dental hygienist respondents was 43.2 years, an increase from 2007 when the average age of respondents was 41.4 years. Table 41 lists the distribution of respondents who provided direct patient care in Pennsylvania across age groups for 2011, with over half (55 percent) of the respondents in the 30-49 age group. Appendix 10 lists respondents by age groups and county of their primary job.

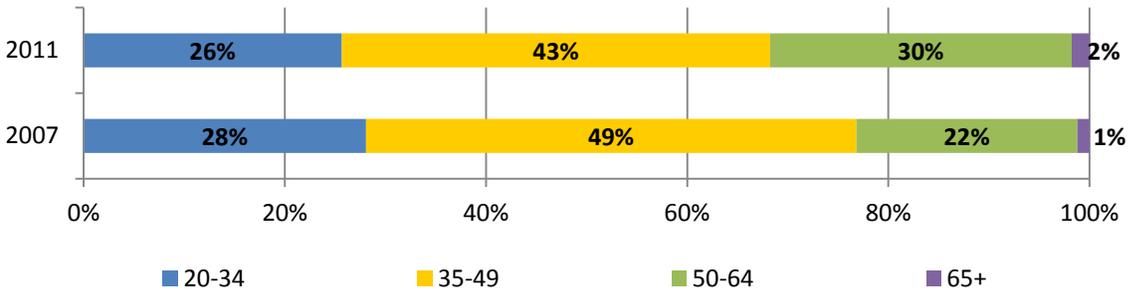
Table 41: Respondents Who Provided Direct Patient Care in Pennsylvania by Age Groups, 2011 Dental Hygienist Survey

| Age Groups | Number | Percent |
|------------|--------|---------|
| 20-24 | 189 | 3% |
| 25-29 | 659 | 11% |
| 30-34 | 706 | 12% |
| 35-39 | 708 | 12% |
| 40-44 | 906 | 15% |
| 45-49 | 967 | 16% |
| 50-54 | 927 | 15% |
| 55-59 | 624 | 10% |
| 60-64 | 264 | 4% |
| 65+ | 108 | 2% |
| Total | 6,058 | 100% |

Figure 36 compares the distribution of dental hygienist respondents who provided direct patient care in Pennsylvania across age groups in 2007 and 2011. While the 35-49 age group decreased from 49 percent in 2007 to 43 percent in 2011, the 60-64 age group increased from 22 percent in 2007 to 30 percent in 2011.

Age, continued

Figure 36: Respondents Who Provided Direct Patient Care in Pennsylvania by Age Groups, 2007 and 2011 Dental Hygienist Surveys



Sex

In 2011, females comprised 99 percent of dental hygienist respondents who provided direct patient care in Pennsylvania. The number of males increased by 30 percent from 2007 to 2011. Table 42 lists the distribution of respondents by sex.

Table 42: Respondents Who Provided Direct Patient Care in Pennsylvania by Sex, 2011 Dental Hygienist Survey

| Sex | Number | Percent |
|--------|--------|---------|
| Male | 61 | 1% |
| Female | 5,997 | 99% |
| Total | 6,058 | 100% |

The 35-49 age group accounted for almost half (49 percent) of the males who provided direct patient care in Pennsylvania. Table 43 lists the distribution of respondents by age groups and sex.

Table 43: Respondents Who Provided Direct Patient Care in Pennsylvania by Age Groups and Sex, 2011 Dental Hygienist Survey

| Age Groups | Male | Female |
|------------|------|--------|
| 20-34 | 10% | 26% |
| 35-49 | 49% | 43% |
| 50-64 | 21% | 30% |
| 65+ | 2% | 2% |
| Total | 100% | 100% |

Race and Ethnicity

Dental hygienist respondents selected one category that best described their race and indicated if they were of Hispanic/Latino origin. The distribution of respondents who provided direct patient care in Pennsylvania by race is listed in Table 44. The number of black respondents increased 29 percent from 2007 to 2011, and the number of Asian respondents increased 70 percent from 2007 to 2011.

Table 44: Respondents Who Provided Direct Patient Care in Pennsylvania by Race, 2011 Dental Hygienist Survey

| Race | Number | Percent |
|--|--------|---------|
| White | 5,831 | 96% |
| Black | 84 | 1% |
| Other | 57 | 1% |
| Asian | 51 | 1% |
| American Indian/Alaska Native | - | < 1% |
| Native Hawaiian/Other Pacific Islander | - | < 1% |
| Total | 6,050 | 100% |

- Numbers less than six are withheld for privacy purposes, although they are included in the total number.

The percentage of dental hygienist respondents who provided direct patient care in Pennsylvania and reported being of Hispanic/Latino origin held stable from 2007 to 2011, at 1 percent of respondents. Table 45 lists the ethnicity of respondents in 2011.

Table 45: Respondents Who Provided Direct Patient Care in Pennsylvania by Ethnicity, 2011 Dental Hygienist Survey

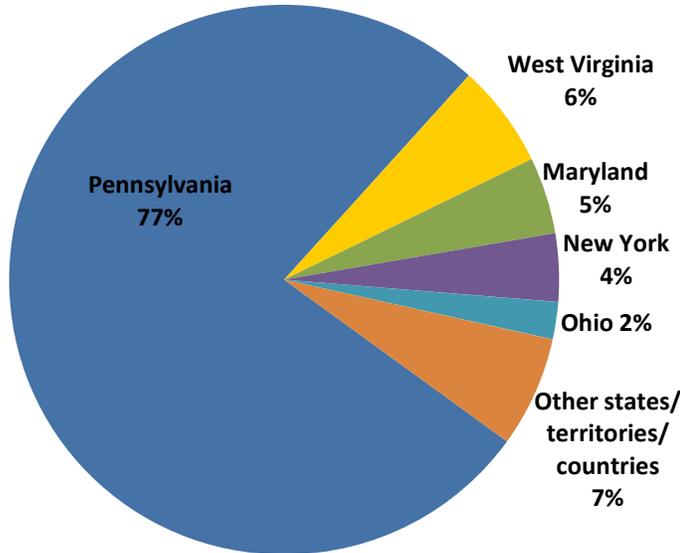
| Ethnicity | Number | Percent |
|---------------------|--------|---------|
| Hispanic/Latino | 68 | 1% |
| Non-Hispanic/Latino | 5,958 | 99% |
| Total | 6,026 | 100% |



Dental Hygiene Education

Respondents who provided direct patient care in Pennsylvania graduated from dental hygiene schools in 42 states, Washington, D.C., and around the world. Figure 37 presents the states in which respondents who provided direct patient care in Pennsylvania graduated from dental hygiene school. Other states, territories and countries, not specified in the figure, each accounted for 1 percent or less of respondents.

Figure 37: Respondents Who Provided Direct Patient Care in Pennsylvania by State of Graduation from Dental Hygiene School, 2011 Dental Hygienist Survey



Almost three out of every four (72 percent) respondents who provided direct patient care in Pennsylvania completed an associate degree as their highest dental hygiene degree. Table 46 lists respondents by their highest dental hygiene degree.

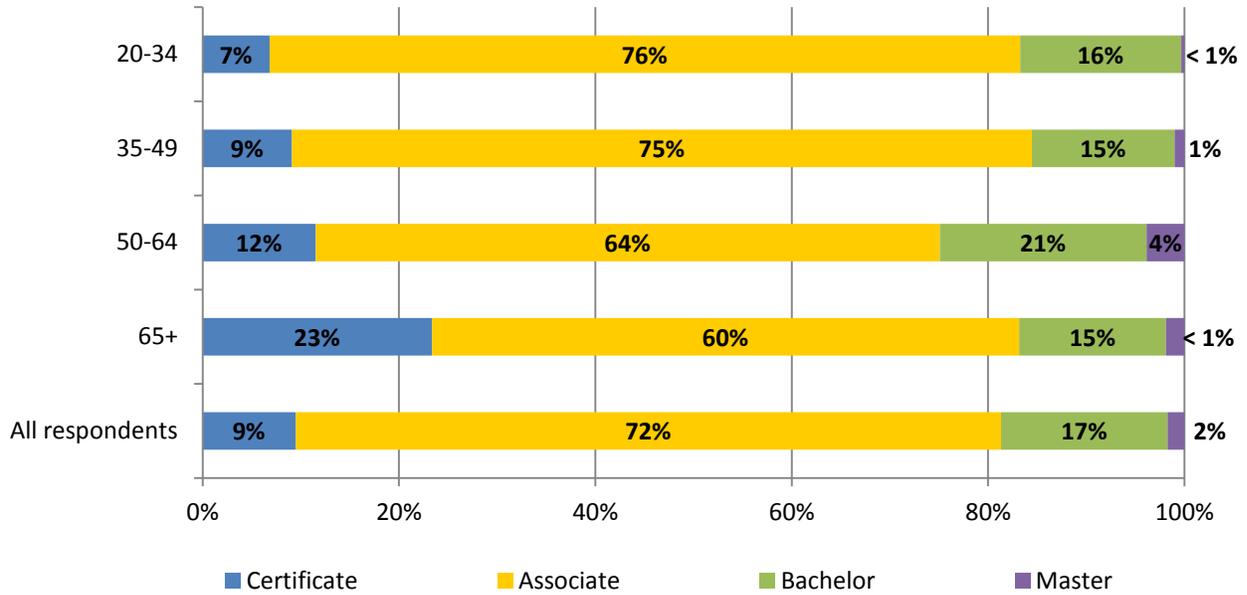
Table 46: Respondents Who Provided Direct Patient Care in Pennsylvania by Highest Dental Hygiene Degree, 2011 Dental Hygienist Survey

| Dental Hygiene Degree | Number | Percent |
|-----------------------|--------|---------|
| Certificate | 575 | 9% |
| Associate | 4,349 | 72% |
| Bachelor | 1,028 | 17% |
| Master | 103 | 2% |
| Total | 6,055 | 100% |

Respondents who provided direct patient care in Pennsylvania in the 50-64 age group had the highest rates of a bachelor's or master's degree as their highest dental hygiene degree. The rate of certificates as the highest dental hygiene degree is greatest in the 65+ age group (23 percent) and lowest in the 20-34 age group (7 percent). Figure 38 compares the highest dental hygiene degree respondents attained by age groups.

Dental Hygiene Education, continued

Figure 38: Respondents Who Provided Direct Patient Care in Pennsylvania by Highest Dental Hygiene Degree and Age Groups, 2011 Dental Hygienist Survey



Compared to females, males who provided direct patient care in Pennsylvania had a lower percentage of the highest dental hygiene degree as a certificate, as shown in Figure 39. Females accounted for all respondents who provided direct patient care in Pennsylvania with a master's degree in dental hygiene.

Figure 39: Respondents Who Provided Direct Patient Care in Pennsylvania by Highest Dental Hygiene Degree and Sex, 2011 Dental Hygienist Survey



Dental Hygiene Education, continued

In 2011, 6 percent of respondents who provided direct patient care in Pennsylvania were enrolled in higher education programs. Of those respondents enrolled in higher education programs, 59 percent were enrolled in dental hygiene programs. Half of those respondents enrolled in dental hygiene programs were enrolled in bachelor degree programs. Table 47 lists respondents who provided direct patient care in Pennsylvania by enrollment in a higher education program.

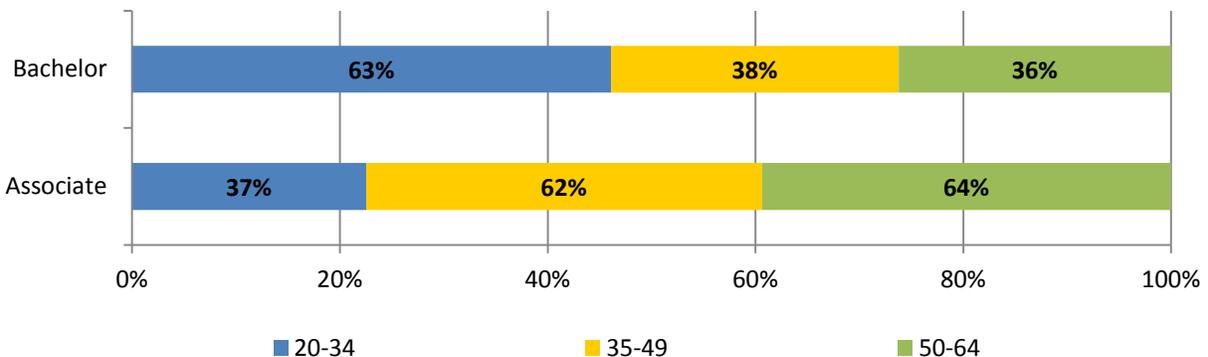
Table 47: Respondents Who Provided Direct Patient Care in Pennsylvania by Enrollment in a Higher Education Program, 2011 Dental Hygienist Survey

| Higher Education Program | Number | Percent |
|---------------------------------|--------|---------|
| None | 5,710 | 94% |
| Dental hygiene associate degree | 98 | 2% |
| Dental hygiene bachelor degree | 100 | 2% |
| Dental hygiene master degree | - | < 1% |
| Other bachelor degree | 59 | 1% |
| Other master degree | - | 1% |
| Other non-degree | 49 | 1% |
| Total | 6,053 | 100% |

- Numbers less than six are withheld for privacy purposes, although they are included in the total number.

Fifty-one percent of respondents who provided direct patient care in Pennsylvania and were enrolled in dental hygiene higher education programs were in the 20-34 age group. Younger respondents were more likely to be enrolled in dental hygiene bachelor degree programs than older respondents. Figure 40 compares enrollment in dental hygiene associate and bachelor degree programs by age groups of respondents who provided direct patient care in Pennsylvania.

Figure 40: Respondents Who Provided Direct Patient Care in Pennsylvania and Were Enrolled in Dental Hygiene Higher Education Programs by Age Groups, 2011 Dental Hygienists Survey



Dental Hygiene Certification

Through additional training, dental hygienists can become certified to perform advanced duties with or without direct supervision. In 2011, 9 percent of respondents who provided direct patient care in Pennsylvania had at least one dental hygiene certification, an increase from 7 percent in 2009. Less than 1 percent of respondents had two certifications. Respondents reported certification of an expanded function dental assistant permit, school teaching certificate-Pennsylvania school hygienist position or other. Respondents were able to select more than one type of certification. Table 48 lists the number of respondents who provided direct patient care in Pennsylvania by the type of dental hygiene certification(s) they held.

Table 48: Respondents Who Provided Direct Patient Care in Pennsylvania by Dental Hygiene Certification, 2011 Dental Hygienist Survey

| Certification | Number |
|--|--------|
| Expanded function dental assistant permit | 128 |
| School teaching certificate-Pennsylvania school hygienist position | 100 |
| Other | 348 |
| None | 5,444 |

Public Health Dental Hygiene Practitioners

Public health dental hygiene practitioners (PHDHPs) were first licensed in Pennsylvania in January of 2010. At the end of 2011, 401 PHDHPs were licensed in Pennsylvania according to the State Board of Dentistry.

PHDHPs were created to increase access to dental services for individuals living in Health Professional Shortage Areas (HPSAs) by allowing these dental hygienists to perform educational, preventive, therapeutic, intra-oral and radiologic procedures without the direct supervision of a dentist at identified practice sites. PHDHPs are required to refer patients to a dentist annually.

Identified practice sites include schools; correctional facilities; healthcare facilities, such as hospitals; personal care homes; domiciliary care facilities; older adult daily living centers; continuing care provider facilities, such as retirement communities; Federally Qualified Health Centers (FQHCs); FQHC lookalikes; public or private institutions under the jurisdiction of a federal, state or local agency; and free and reduced-fee nonprofit health clinics.

In 2011, 11 percent (694) of respondents who provided direct patient care in Pennsylvania intended to apply for a PHDHP license. Twenty-four percent of the respondents who intended to apply for a PHDHP license reported already holding a certification such as an expanded function dental assistant permit or school teaching certificate-Pennsylvania school hygienist position.

Half of the respondents who intended to apply for a PHDHP license intended to practice at only one location. Table 49 lists the number of practice sites at which respondents who provided direct patient care in Pennsylvania intended to practice as a PHDHP.

Public Health Dental Hygiene Practitioners, continued

Table 49: Respondents Who Provided Direct Patient Care in Pennsylvania by the Number of Practice Sites at Which They Intended to Practice as a Public Health Dental Hygiene Practitioner, 2011 Dental Hygienist Survey

| Number of PHDHP Practice Sites | Number | Percent |
|--------------------------------|--------|---------|
| One | 342 | 50% |
| Two | 126 | 18% |
| Three | 80 | 12% |
| Four | 63 | 9% |
| Five | 33 | 5% |
| Six | 22 | 3% |
| Seven | 13 | 2% |
| Eight | - | - |
| Nine | - | - |
| Total | 688 | 100% |

- Numbers less than six are withheld for privacy purposes, although they are included in the total number.

Respondents who provided direct patient care in Pennsylvania selected all types of practice sites at which they intended to practice as a PHDHP. Healthcare facilities, such as hospitals, were the most selected practice site, followed by schools. Table 50 lists the number of respondents who provided direct patient care in Pennsylvania and who intended to work as a PHDHP at each type of practice site. Because respondents were able to select multiple practice sites, the total number of responses is greater than the number of respondents who intended to practice as PHDHPs.

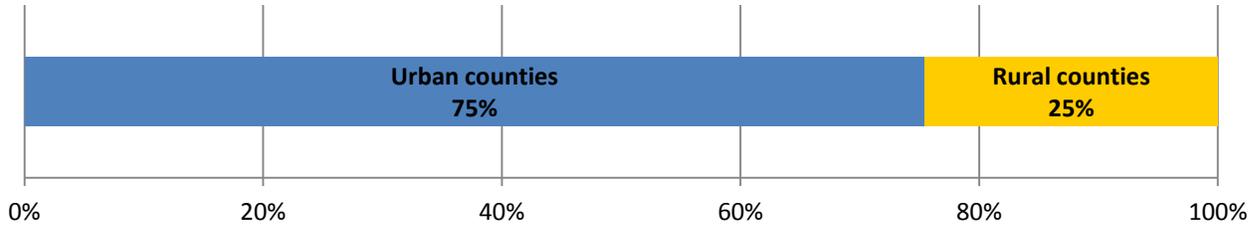
Table 50: Respondents Who Provided Direct Patient Care in Pennsylvania and Intended to Practice as a Public Health Dental Hygiene Practitioner by Type of Practice Site, 2011 Dental Hygienist Survey

| Types of Practice Sites | Number |
|---|--------|
| Health care facility | 318 |
| School | 280 |
| Older adult daily living center | 210 |
| Personal care home | 202 |
| Federally Qualified Health Center (FQHC) | 176 |
| Public/private or federal/state institution | 156 |
| Other | 102 |
| Correctional facility | 69 |
| Domiciliary care facility | 34 |

Public Health Dental Hygiene Practitioners, continued

Respondents who provided direct patient care and intended to practice as a PHDHP overwhelmingly intended to practice in urban counties. Figure 41 shows respondents by the type of county in which they intended to practice as a PHDHP.

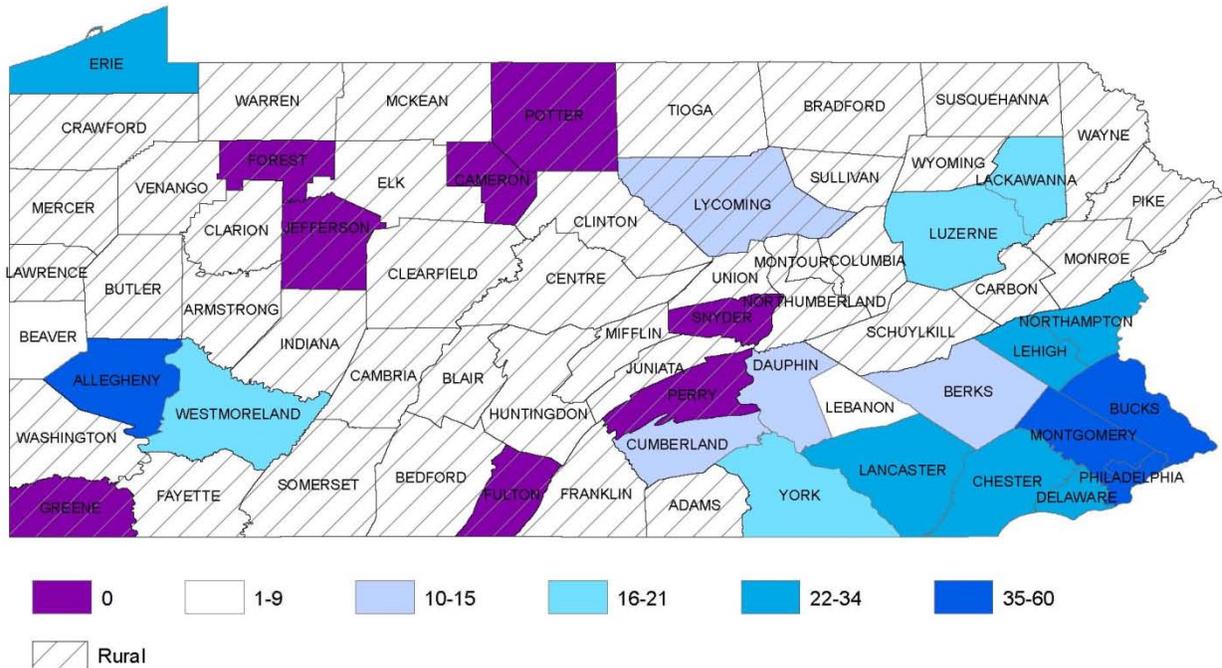
Figure 41: Respondents Who Provided Direct Patient Care in Pennsylvania and Intended to Practice as a Public Health Dental Hygiene Practitioner in Pennsylvania by Rural or Urban County of Intended Practice, 2011 Dental Hygienist Survey*



* Rural counties were identified using the Center for Rural Pennsylvania’s definition and 2010 Census data.

Respondents who provided direct patient care in Pennsylvania and intended to practice as PHDHPs anticipated practicing in 59 of the 67 counties in the commonwealth. Figure 42 shows the number of respondents who intended to practice as a PHDHP by the county in which they intended to practice.

Figure 42: Respondents Who Provided Direct Patient Care in Pennsylvania by County in Which They Intended to Practice as a Public Health Dental Hygiene Practitioner, 2011 Dental Hygienist Survey*

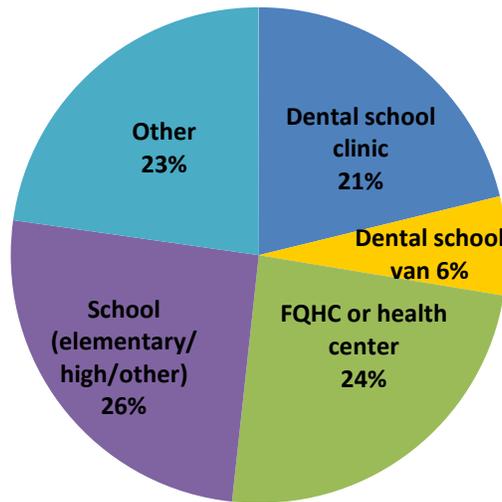


* Rural counties were identified using the Center for Rural Pennsylvania’s definition and 2010 Census data.

Dental Care for Uninsured or Underinsured Individuals in Pennsylvania

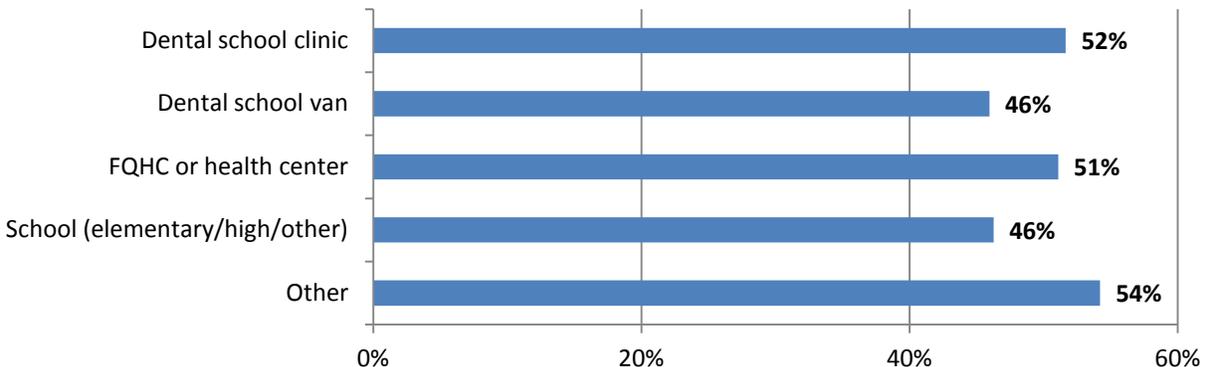
In 2011, 8 percent (487) of dental hygienist respondents who provided direct patient care in Pennsylvania provided care to uninsured or underinsured individuals at locations other than their primary job. Figure 43 presents the locations where respondents who provided direct patient care in Pennsylvania provided care to uninsured or underinsured individuals other than at their primary job, both as paid and unpaid dental hygienists. Respondents were able to select more than one location where they provided services.

Figure 43: Locations Where Respondents Who Provided Direct Patient Care in Pennsylvania Provided Care to Uninsured or Underinsured Individuals Other Than at Their Primary Job, 2011 Dental Hygienist Survey



Over half (53 percent) of the dental hygienist respondents who provided direct patient care in Pennsylvania and care to uninsured or underinsured individuals other than at their primary job, provided this care as unpaid volunteer work. Figure 44 compares the percentages of respondents who volunteered their services to provide care to uninsured or underinsured individuals at locations other than their primary job by location.

Figure 44: Respondents Who Provided Direct Patient Care in Pennsylvania to Uninsured or Underinsured Individuals Whose Services Were Provided as a Volunteer by Location, 2011 Dental Hygienist Survey



Hours Providing Direct Patient Care

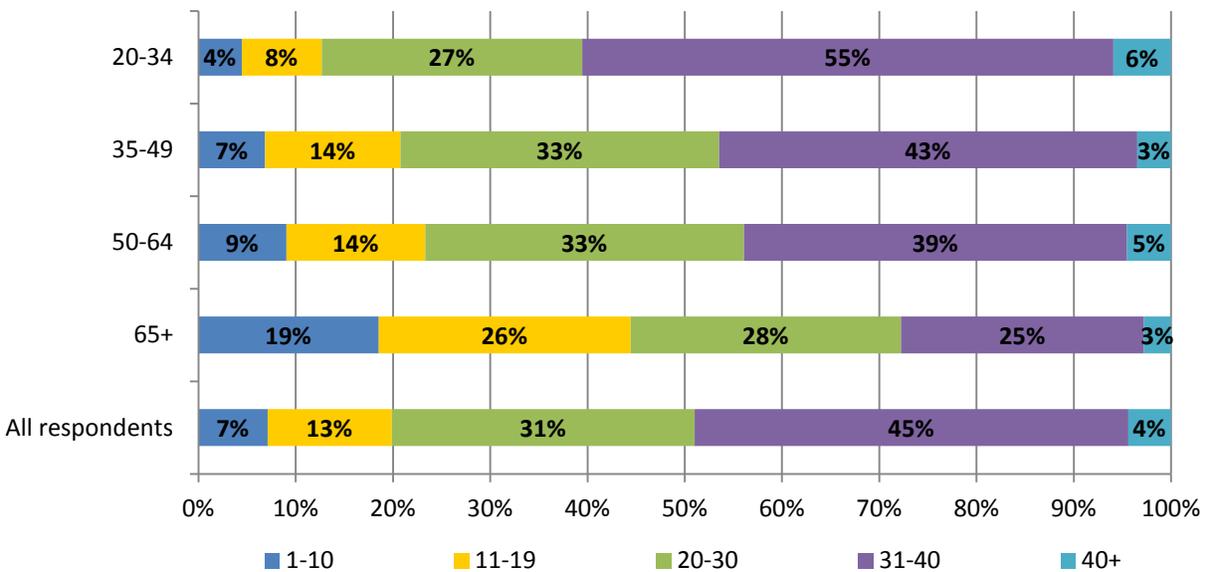
Approximately half (51 percent) of the dental hygienist respondents who provided direct patient care in Pennsylvania provided less than 30 hours of direct patient care in Pennsylvania each week in the prior year. Table 51 lists respondents by the number of hours they spent providing direct patient care in Pennsylvania each week.

Table 51: Respondents by the Number of Hours Spent Providing Direct Patient Care in Pennsylvania, 2011 Dental Hygienist Survey

| Hours | Number | Percent |
|--------------|--------|---------|
| 1-10 | 430 | 7% |
| 11-19 | 774 | 13% |
| 20-30 | 1,887 | 31% |
| 31-40 | 2,700 | 45% |
| More than 40 | 267 | 4% |
| Total | 6,058 | 100% |

Age impacted the number of hours dental hygienist respondents spent providing direct patient care in Pennsylvania. Fifty-five percent of respondents in the 20-34 age group provided direct patient care 31-40 hours per week, compared to 25 percent of respondents in the 65+ age group. Overall, as respondents' age increased, the number of hours they spend each week providing direct patient care in Pennsylvania decreased. Figure 45 compares the number of hours respondents spent providing direct patient care by age groups.

Figure 45: Respondents by the Number of Hours Spent Providing Direct Patient Care in Pennsylvania and Age Groups, 2011 Dental Hygienist Survey



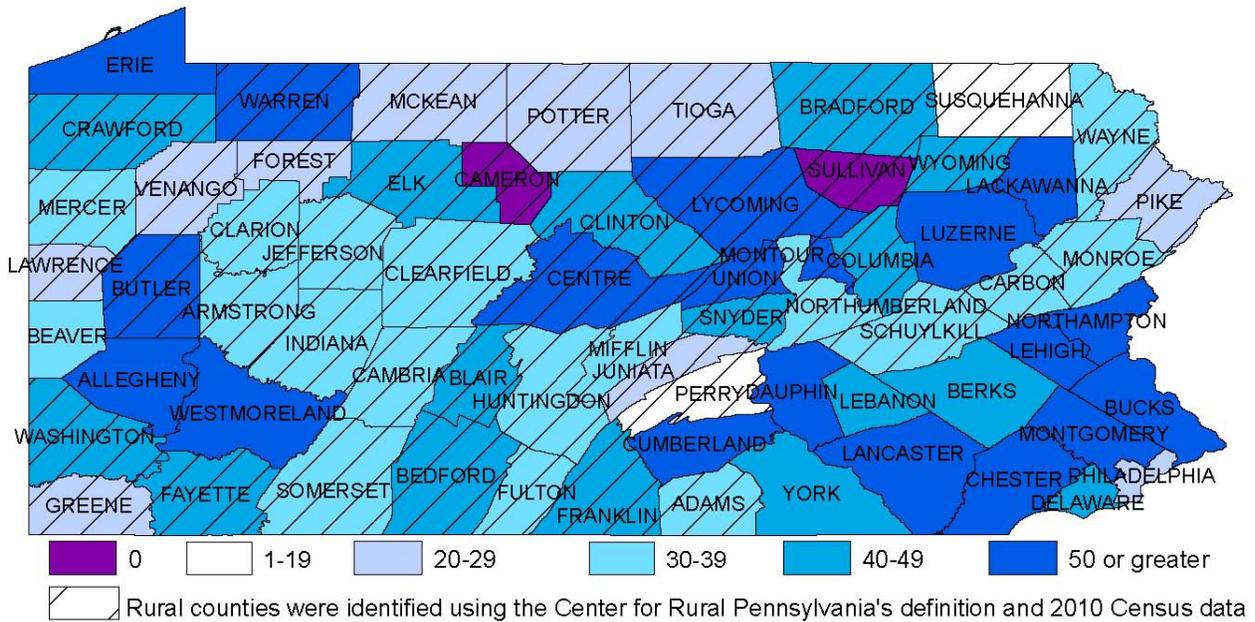
Geography

In 2011, dental hygienist respondents who provided direct patient care in Pennsylvania were employed in 65 of the 67 counties. Across the commonwealth, the rate of respondents who provided direct patient care in Pennsylvania was 48 per 100,000 population. Appendix 9 lists respondents who provided direct patient care in Pennsylvania by their county of primary employment.

Based upon the Center for Rural Pennsylvania's definition of rural and urban counties and the 2010 U.S. Census population, Pennsylvania has 48 rural counties with 27 percent of the population residing in those counties. This classification of rural and urban counties is different than the U.S. Census definition of rural counties used in previous Pennsylvania Dentist and Dental Hygienist Workforce Reports.

In 2011, approximately one out of every four respondents (1,401 or 23 percent) who provided direct patient care in Pennsylvania was employed in a rural county. The rate of dental hygienist respondents who provided direct patient care in Pennsylvania per 100,000 population was 40 in rural counties and 50 in urban counties. Figure 46 shows the wide variation in rates of respondents who provided direct patient care in Pennsylvania per 100,000 population across the commonwealth, from a low of zero in Cameron and Sullivan counties to a high of 76.5 in Montour county.

Figure 46: Respondents Who Provided Direct Patient Care in Pennsylvania per 100,000 Population by County of Primary Employment, 2011 Dental Hygienist Survey



Employment

In 2011, 27 percent of dental hygienist respondents who provided direct patient care in Pennsylvania were employed in more than one dental office. Respondents in the 20-29 age group were most likely to be employed in more than one dental office. Table 52 lists respondents who provided direct patient care in Pennsylvania and were employed in more than one dental office by age groups.

Table 52: Respondents Who Provided Direct Patient Care in Pennsylvania and Were Employed in More Than One Dental Office by Age Groups, 2011 Dental Hygienist Survey

| Age Groups | Number | Percent |
|------------|--------|---------|
| 20-24 | 80 | 42% |
| 25-29 | 204 | 31% |
| 30-34 | 187 | 26% |
| 35-39 | 188 | 27% |
| 40-44 | 236 | 26% |
| 45-49 | 268 | 28% |
| 50-54 | 258 | 28% |
| 55-59 | 164 | 26% |
| 60-64 | 54 | 20% |
| 65+ | 15 | 14% |
| Total | 1,654 | 27% |

Private dental practices, both partnerships and solo dentists, employed 93 percent of dental hygienist respondents who provided direct patient care in Pennsylvania. Table 53 lists respondents by their primary employment setting.

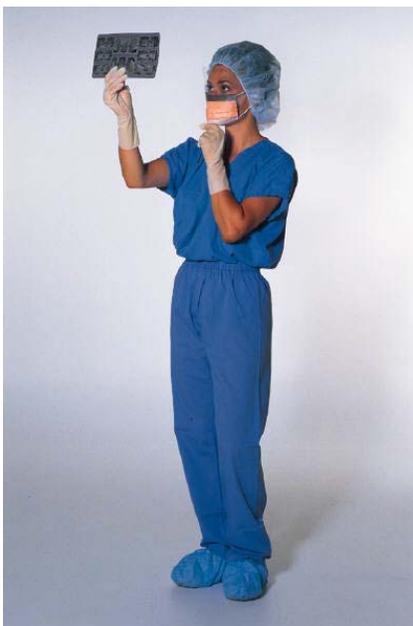
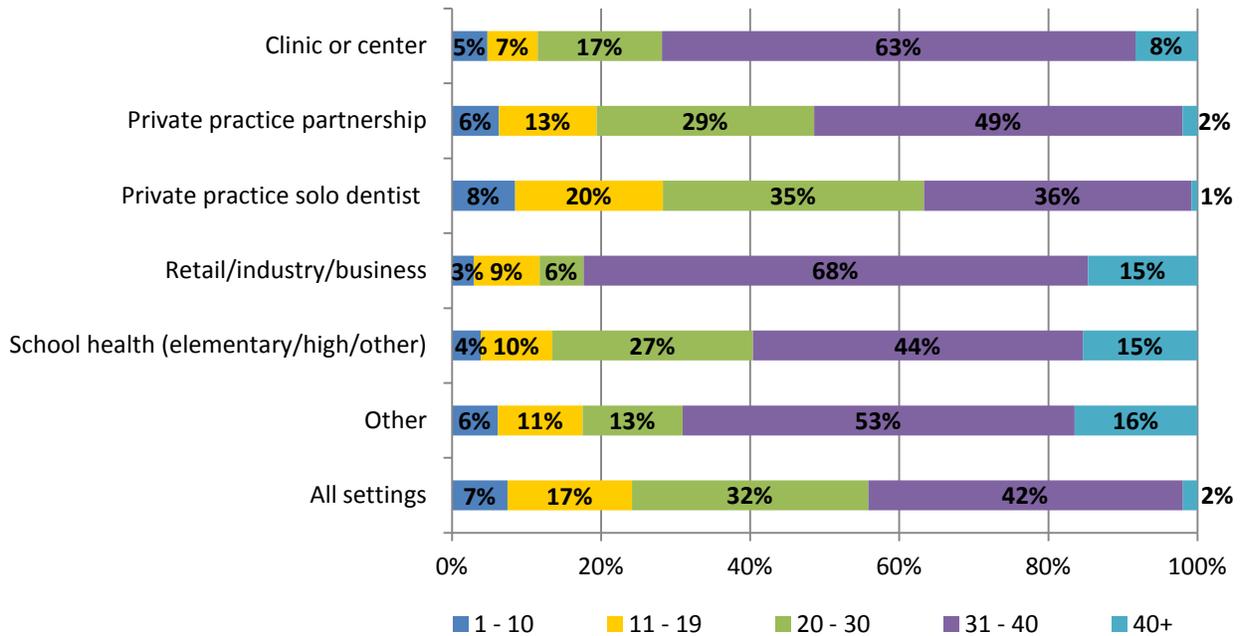
Table 53: Respondents Who Provided Direct Patient Care in Pennsylvania by Primary Employment Setting, 2011 Dental Hygienist Survey

| Employment Setting | Number | Percent |
|---|--------|---------|
| Private practice solo dentist (excluding retail site) | 3,549 | 59% |
| Private practice partnership (excluding retail site) | 2,071 | 34% |
| Clinic or center | 253 | 4% |
| Other | 98 | 2% |
| School health (elementary/high/other) | 53 | 1% |
| Retail/industry/business site | 34 | 1% |
| Total | 6,058 | 100% |

Employment, continued

Dental hygienist respondents who provided direct patient care in Pennsylvania and were employed in private practice offices, both partnerships and solo dentists, were more likely than respondents in other employment settings to work less than 31 hours per week. Figure 47 compares the number of hours respondents worked per week at their primary job by employment setting.

Figure 47: Respondents Who Provided Direct Patient Care in Pennsylvania by the Number of Hours Worked Per Week at Their Primary Job and Employment Setting, 2011 Dental Hygienist Survey



Level of Work

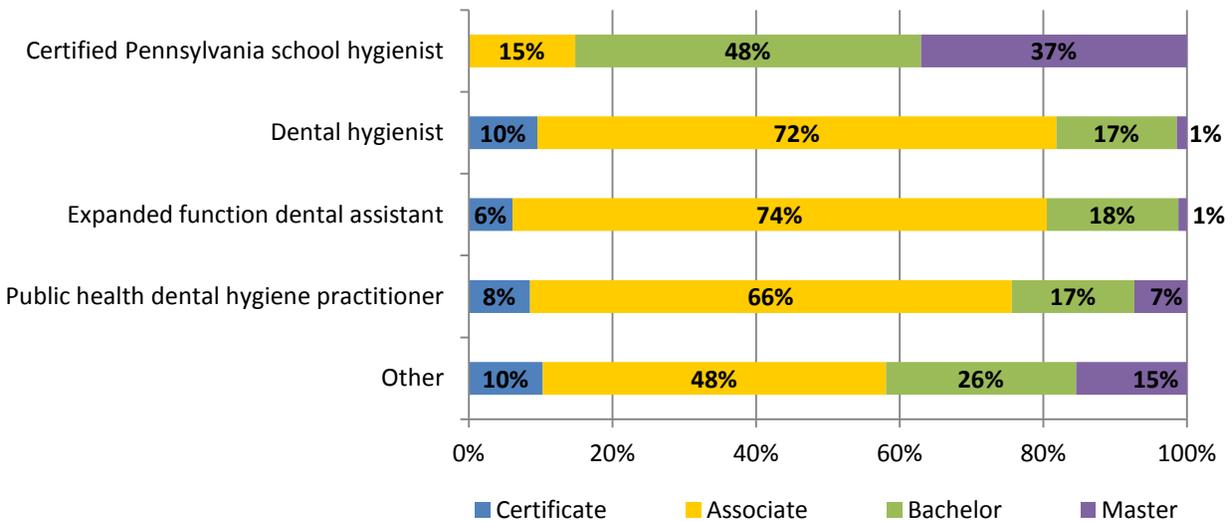
Respondents who provided direct patient care in Pennsylvania performed work at the level of a dental hygienist, expanded function dental assistant, certified Pennsylvania school hygienist, public health dental hygiene practitioner or other at their primary job. Ninety-six percent of respondents performed one level of work; 2 percent performed two levels of work; and less than 1 percent performed three or four levels of work. Table 54 lists the number of respondents who provided direct patient care in Pennsylvania by the level(s) they performed in their primary job. The total number of responses is greater than the number of respondents because respondents were able to select more than one level of work.

Table 54: Respondents Who Provided Direct Patient Care in Pennsylvania by Level of Work Performed in Their Primary Job, 2011 Dental Hygienist Survey

| Level of Work | Number |
|---|--------|
| Dental hygienist | 5,989 |
| Public health dental hygiene practitioner | 83 |
| Expanded function dental assistant | 82 |
| Certified Pennsylvania school hygienist | 27 |
| Other | 136 |

Respondents who provided direct patient care in Pennsylvania and performed work as a certified Pennsylvania school hygienist had the highest level of education, with 85 percent holding either a bachelor's or master's degree in dental hygiene. Figure 48 compares the highest education level of respondents by the level of work they performed in their primary job.

Figure 48: Respondents Who Provided Direct Patient Care in Pennsylvania by the Level of Work Performed in Their Primary Job and Highest Level of Dental Hygiene Education, 2011 Dental Hygienist Survey



Professional Satisfaction/Dissatisfaction

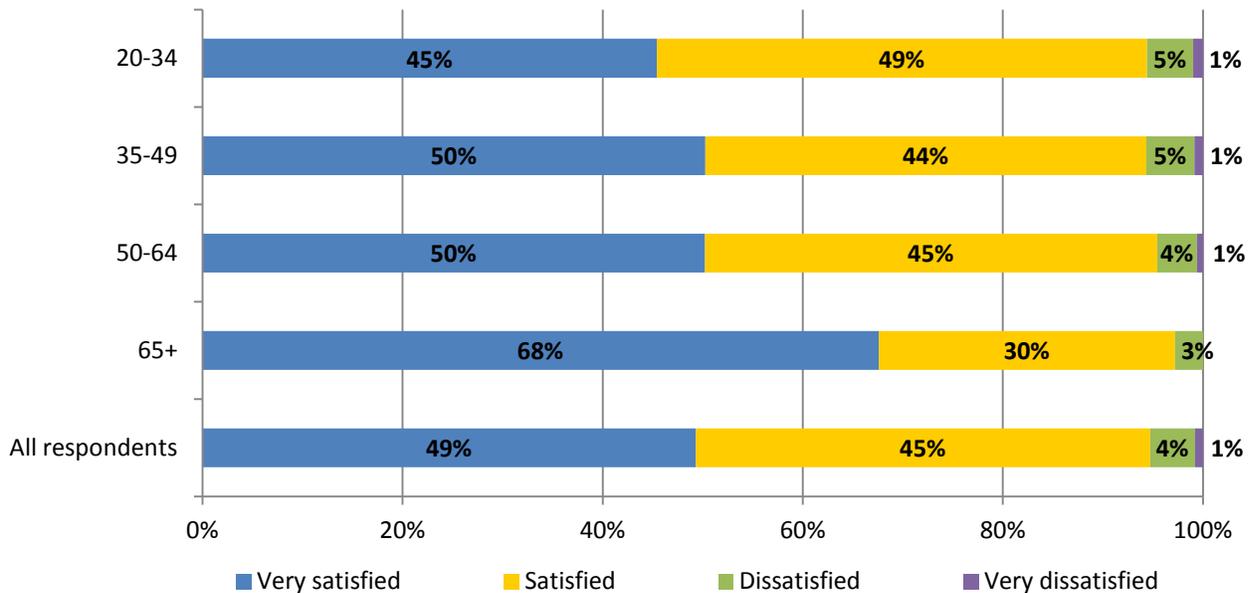
In 2011, 95 percent of dental hygienist respondents who provided direct patient care in Pennsylvania were either satisfied or very satisfied with their primary job. Table 55 lists respondents' satisfaction with their primary job.

Table 55: Respondents Providing Direct Patient Care in Pennsylvania by Primary Job Satisfaction, 2011 Dental Hygienist Survey

| Satisfaction | Number | Percent |
|-------------------|--------|---------|
| Very satisfied | 2,985 | 49% |
| Satisfied | 2,749 | 45% |
| Dissatisfied | 271 | 4% |
| Very dissatisfied | 48 | 1% |
| Total | 6,053 | 100% |

The 65+ age group reported the highest percentage (68 percent) of dental hygienist respondents who provided direct patient care in Pennsylvania and were very satisfied with their primary job. Figure 49 compares respondents' satisfaction with their primary job by age groups.

Figure 49: Respondents Who Provided Direct Patient Care in Pennsylvania by Primary Job Satisfaction and Age Groups, 2011 Dental Hygienist Survey



Professional Satisfaction/Dissatisfaction, continued

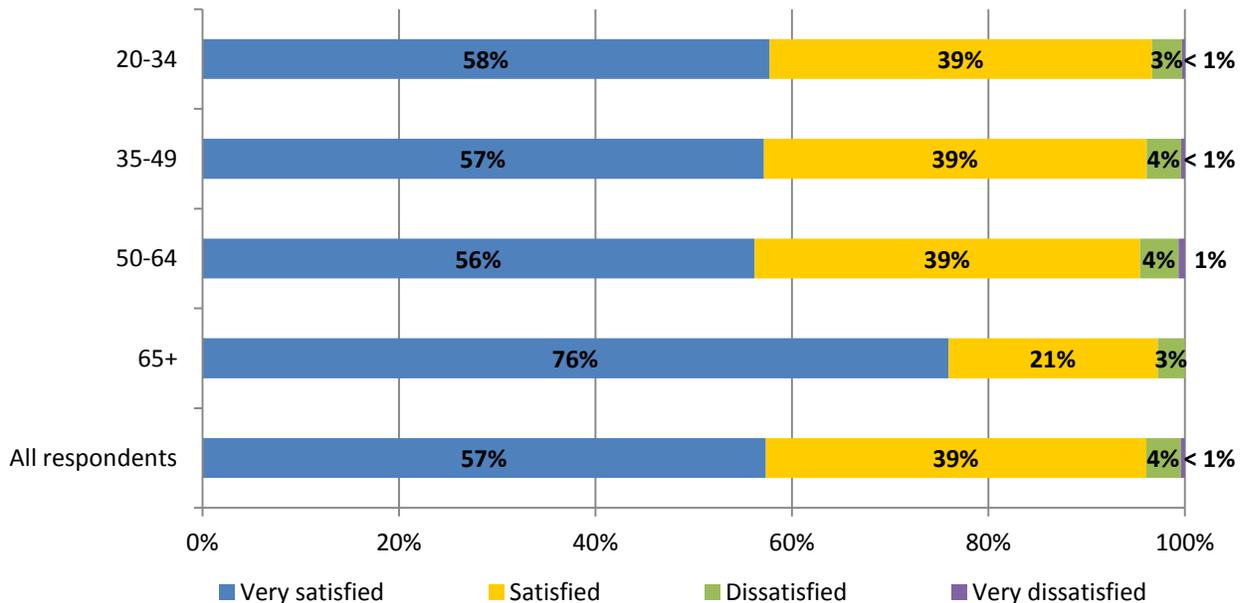
Respondents who provided direct patient care in Pennsylvania reported higher levels of satisfaction with dental hygiene as a career compared to satisfaction with their primary job. Ninety-six percent were either satisfied or very satisfied with dental hygiene as a career. Table 56 lists respondents' satisfaction with dental hygiene as a career.

Table 56: Respondents Who Provided Direct Patient Care in Pennsylvania by Satisfaction with Dental Hygiene as a Career, 2011 Dental Hygienist Survey

| Satisfaction | Number | Percent |
|-------------------|--------|---------|
| Very satisfied | 3,472 | 57% |
| Satisfied | 2,344 | 39% |
| Dissatisfied | 212 | 4% |
| Very dissatisfied | 27 | < 1% |
| Total | 6,055 | 100% |

The 65+ age group reported the highest percentage (76 percent) of respondents who provided direct patient care in Pennsylvania and were very satisfied with dental hygiene as a career; no respondents in this age group were very dissatisfied. Figure 50 compares respondents' satisfaction with dental hygiene as a career by age groups.

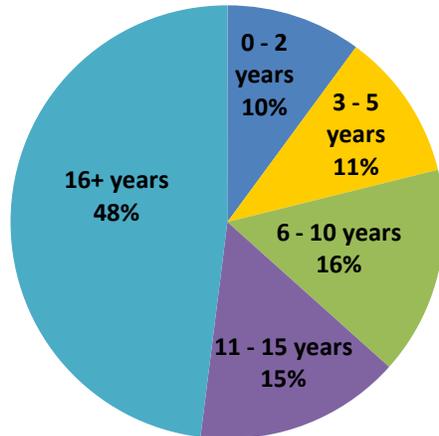
Figure 50: Respondents Who Provided Direct Patient Care in Pennsylvania by Satisfaction with Dental Hygiene as a Career and Age Groups, 2011 Dental Hygienist Survey



Length of Practice

Almost half (48 percent) of respondents who provided direct patient care in Pennsylvania have been a dental hygienist in Pennsylvania for 16+ years. Figure 51 presents the length of time respondents who provided direct patient care in Pennsylvania have been a dental hygienist in Pennsylvania.

Figure 51: Respondents Who Provided Direct Patient Care in Pennsylvania by Years as a Dental Hygienist in Pennsylvania, 2011 Dental Hygienist Survey



Age groups varied in the length of time respondents who provided direct patient care in Pennsylvania anticipated continuing to remain in dental hygiene in Pennsylvania, as presented in Table 57 and Figure 52. Eighty-one percent of respondents in the 65+ age group anticipated leaving dental hygiene in Pennsylvania in the next five years.

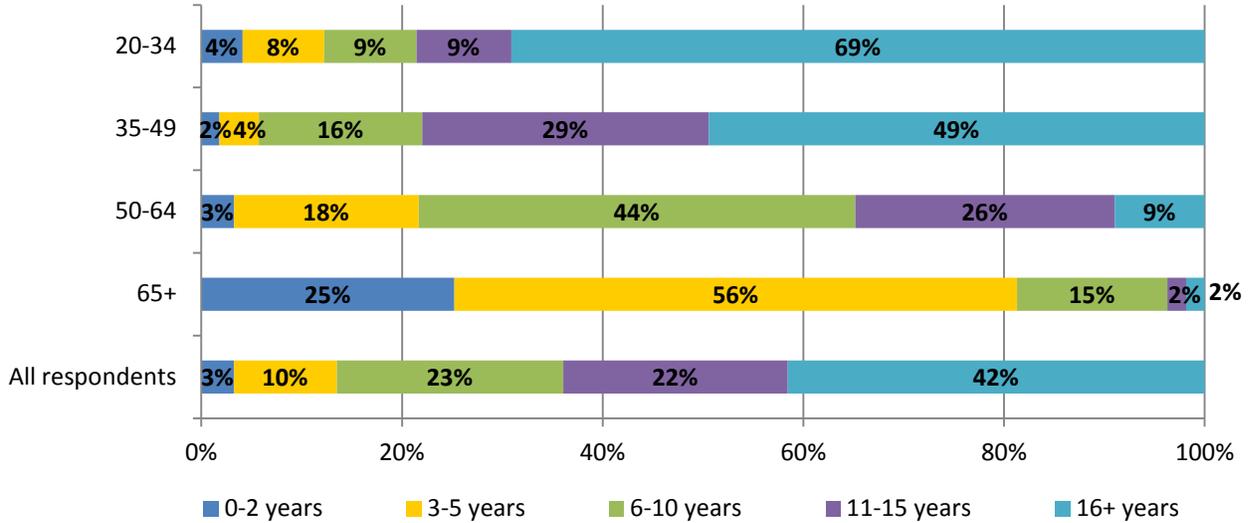
Table 57: Respondents Who Provided Direct Patient Care in Pennsylvania by the Length of Time They Anticipated Remaining in Dental Hygiene in Pennsylvania and Age Groups, 2011 Dental Hygienist Survey

| Age Groups | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | |
|------------|-----------|---------|------------|---------|-------------|---------|-----------|---------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 20-24 | 32 | 17% | 20 | 11% | 7 | 4% | 130 | 69% |
| 25-29 | 90 | 14% | 60 | 9% | 49 | 7% | 460 | 70% |
| 30-34 | 68 | 10% | 63 | 9% | 91 | 13% | 484 | 69% |
| 35-39 | 48 | 7% | 76 | 11% | 135 | 19% | 449 | 63% |
| 40-44 | 50 | 6% | 134 | 15% | 250 | 28% | 470 | 52% |
| 45-49 | 50 | 5% | 209 | 22% | 351 | 36% | 355 | 37% |
| 50-54 | 93 | 10% | 349 | 38% | 351 | 38% | 130 | 14% |
| 55-59 | 151 | 24% | 333 | 53% | 109 | 17% | 30 | 5% |
| 60-64 | 147 | 57% | 104 | 40% | - | - | - | - |
| 65+ | 87 | 81% | 16 | 15% | - | - | - | - |
| Total | 816 | 14% | 1,364 | 23% | 1,352 | 22% | 2,512 | 42% |

- Numbers less than six are withheld for privacy purposes, although they are included in the total numbers.

Length of Practice, continued

Figure 52: Respondents Who Provided Direct Patient Care in Pennsylvania by the Length of Time They Anticipated Remaining in Dental Hygiene in Pennsylvania and Age Groups, 2011 Dental Hygienist Survey



Appendix 11 lists the length of time respondents anticipated remaining in dental hygiene in Pennsylvania by the county of their primary job.

Respondents who provided direct patient care in Pennsylvania were asked how long they anticipated remaining in dental hygiene, in addition to how long they anticipated remaining in dental hygiene in Pennsylvania. Of respondents who anticipated remaining in dental hygiene for 16+ years, 90 percent anticipated remaining in Pennsylvania for those 16+ years.



Leaving Direct Patient Care in the Next Five Years

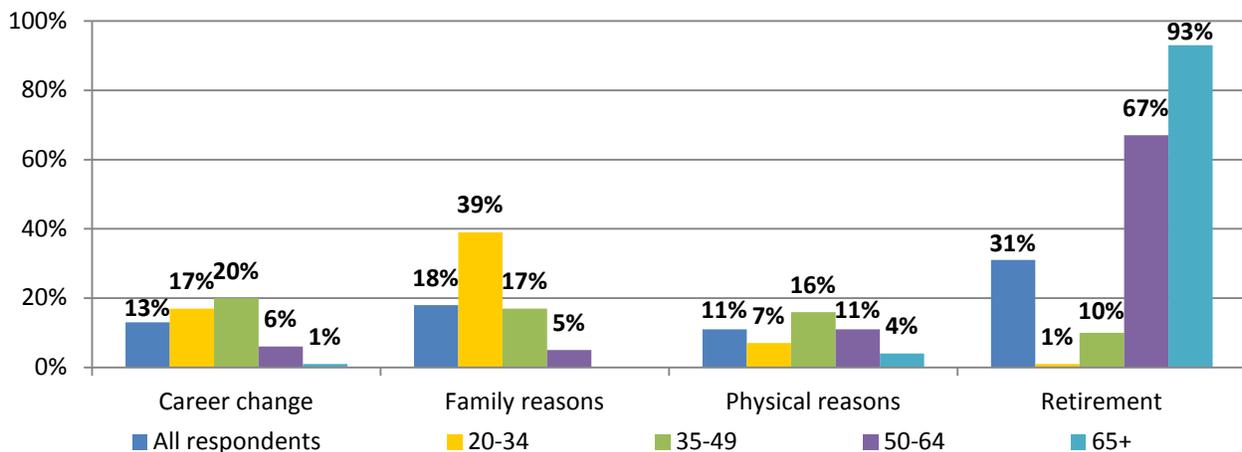
Of dental hygienist respondents who provided direct patient care in Pennsylvania, 35 percent planned to leave direct patient care in the next five years. Retirement was the principal reason why respondents who provided direct patient care in Pennsylvania planned to leave direct patient care in the next five years, as listed in Table 58.

Table 58: Respondents Who Provided Direct Patient Care in Pennsylvania and Planned to Leave Direct Patient Care in the Next Five Years by Principal Reason for Leaving, 2011 Dental Hygienist Survey

| Reason | Number | Percent |
|-----------------------------------|--------|---------|
| Retirement | 590 | 31% |
| Family reasons | 349 | 18% |
| Career change | 251 | 13% |
| Physician reasons | 206 | 11% |
| Stress/burnout | 190 | 10% |
| Return to school | 125 | 7% |
| Financial reasons-salary/benefits | 95 | 5% |
| Other | 75 | 4% |
| Financial reasons-other | 16 | 1% |
| Total | 1,897 | 100% |

Across age groups, the principal reason why respondents who provided direct patient care in Pennsylvania planned to leave direct patient care in the next five years varied. Family reasons and career change were the first and second most reported reasons among respondents under age 50, while retirement and physical demands were the first and second most reported reasons for respondents age 50 and older. Figure 53 compares four reasons why respondents who provided direct patient care in Pennsylvania planned to leave direct patient care in the next five years by age groups.

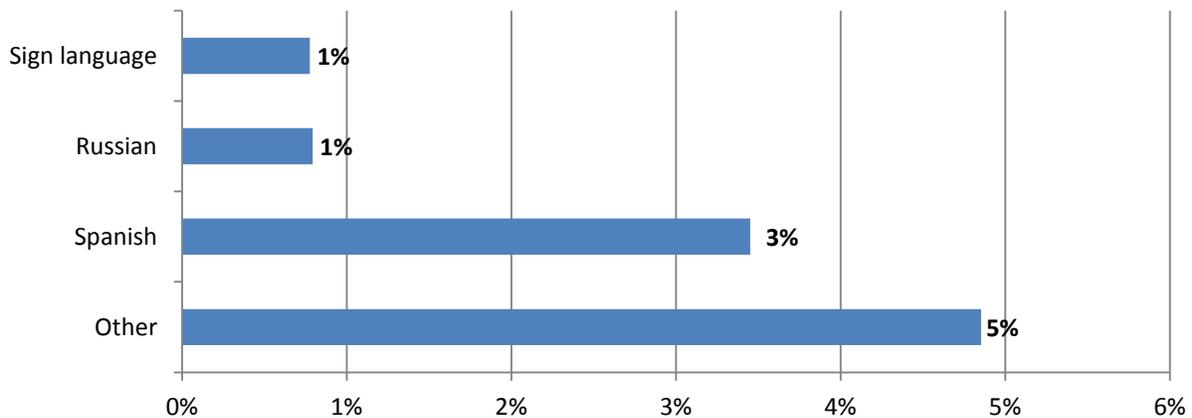
Figure 53: Respondents Who Provided Direct Patient Care in Pennsylvania and Planned to Leave Direct Patient Care in the Next Five Years by Reason for Leaving and Age Groups, 2011 Dental Hygienist Survey



Dental/Medical Translation

In 2011, 10 percent of respondents who provided direct patient care in Pennsylvania reported personally providing dental/medical translation to patients. Of respondents who personally provided dental/medical translation to patients, 95 percent communicated effectively for most clinical purposes in one language, followed by 5 percent in two languages. Languages represented in the category of other included: Arabic, Chinese, Indonesian, Italian, French, Greek, Hindi, Lithuanian, Pennsylvania Dutch, Polish, Portuguese, Thai, Ukrainian and Urdu. Figure 54 shows the languages in which respondents who provided direct patient care in Pennsylvania communicated effectively for most clinical purposes.

Figure 54: Respondents Who Provided Direct Patient Care in Pennsylvania by Languages Other than English in Which They Communicated Effectively in for Most Clinical Purposes, 2011 Dental Hygienist Survey



**RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 1:
DENTISTS BY COUNTY OF PRIMARY PRACTICE**

| County | Total | Percent |
|--------------|-------|---------|
| Pennsylvania | 6,329 | 100% |
| | | |
| Adams* | 31 | < 1% |
| Allegheny | 839 | 13% |
| Armstrong* | 22 | < 1% |
| Beaver | 66 | 1% |
| Bedford* | 16 | < 1% |
| Berks | 158 | 2% |
| Blair* | 50 | 1% |
| Bradford* | 19 | < 1% |
| Bucks | 394 | 6% |
| Butler* | 92 | 1% |
| Cambria* | 58 | 1% |
| Cameron* | - | - |
| Carbon* | 18 | < 1% |
| Centre* | 63 | 1% |
| Chester | 253 | 4% |
| Clarion* | 12 | < 1% |
| Clearfield* | 18 | < 1% |
| Clinton* | 12 | < 1% |
| Columbia* | 26 | < 1% |
| Crawford* | 33 | 1% |
| Cumberland | 130 | 2% |
| Dauphin | 138 | 2% |
| Delaware | 335 | 5% |
| Elk* | 9 | < 1% |
| Erie | 132 | 2% |
| Fayette* | 59 | 1% |
| Forest* | - | - |
| Franklin* | 47 | 1% |
| Fulton* | - | - |
| Greene* | 13 | < 1% |
| Huntingdon* | 18 | < 1% |
| Indiana* | 29 | < 1% |
| Jefferson* | 12 | < 1% |
| Juniata* | - | - |

| County | Total | Percent |
|-----------------|-------|---------|
| Rural Counties | 1,229 | 19% |
| Urban Counties | 5,100 | 81% |
| | | |
| Lackawanna | 118 | 2% |
| Lancaster | 217 | 3% |
| Lawrence* | 45 | 1% |
| Lebanon | 46 | 1% |
| Lehigh | 215 | 3% |
| Luzerne | 150 | 2% |
| Lycoming* | 44 | 1% |
| McKean* | 15 | < 1% |
| Mercer* | 55 | 1% |
| Mifflin* | 12 | < 1% |
| Monroe* | 47 | 1% |
| Montgomery | 593 | 9% |
| Montour* | 13 | < 1% |
| Northampton | 141 | 2% |
| Northumberland* | 29 | < 1% |
| Perry* | 7 | < 1% |
| Philadelphia | 817 | 13% |
| Pike* | 14 | < 1% |
| Potter* | 6 | < 1% |
| Schuylkill* | 45 | 1% |
| Snyder* | 15 | < 1% |
| Somerset* | 25 | < 1% |
| Sullivan* | - | - |
| Susquehanna* | 9 | < 1% |
| Tioga* | 18 | < 1% |
| Union* | 20 | < 1% |
| Venango* | 16 | < 1% |
| Warren* | 8 | < 1% |
| Washington* | 92 | 1% |
| Wayne* | 21 | < 1% |
| Westmoreland | 184 | 3% |
| Wyoming* | 8 | < 1% |
| York | 174 | 3% |

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

- Numbers less than six are withheld for privacy purposes and are not displayed in the county results, although they are included in the total Pennsylvania numbers and total rural/urban numbers.

**RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 2:
GENERAL DENTISTS BY COUNTY OF PRIMARY PRACTICE**

| County | Total | Percent |
|--------------|-------|---------|
| Pennsylvania | 4,802 | 100% |
| | | |
| Adams* | 23 | < 1% |
| Allegheny | 585 | 12% |
| Armstrong* | 21 | < 1% |
| Beaver | 50 | 1% |
| Bedford* | 14 | < 1% |
| Berks | 122 | 3% |
| Blair* | 40 | 1% |
| Bradford* | 15 | < 1% |
| Bucks | 298 | 6% |
| Butler* | 72 | 1% |
| Cambria* | 50 | 1% |
| Cameron* | 0 | 0% |
| Carbon* | 14 | < 1% |
| Centre* | 47 | 1% |
| Chester | 195 | 4% |
| Clarion* | 12 | < 1% |
| Clearfield* | 16 | < 1% |
| Clinton* | 12 | < 1% |
| Columbia* | 22 | < 1% |
| Crawford* | 30 | 1% |
| Cumberland | 104 | 2% |
| Dauphin | 111 | 2% |
| Delaware | 259 | 5% |
| Elk* | 7 | < 1% |
| Erie | 107 | 2% |
| Fayette* | 50 | 1% |
| Forest* | - | - |
| Franklin* | 40 | 1% |
| Fulton* | - | - |
| Greene* | 13 | < 1% |
| Huntingdon* | 17 | < 1% |
| Indiana* | 27 | 1% |
| Jefferson* | 9 | < 1% |
| Juniata* | - | - |

| County | Total | Percent |
|-----------------|-------|---------|
| Rural Counties | 1,027 | 21% |
| Urban Counties | 3,775 | 79% |
| | | |
| Lackawanna | 96 | 2% |
| Lancaster | 165 | 3% |
| Lawrence* | 40 | 1% |
| Lebanon | 41 | 1% |
| Lehigh | 164 | 3% |
| Luzerne | 116 | 2% |
| Lycoming* | 35 | 1% |
| McKean* | 15 | < 1% |
| Mercer* | 44 | 1% |
| Mifflin* | 12 | < 1% |
| Monroe* | 37 | 1% |
| Montgomery | 429 | 9% |
| Montour* | 10 | < 1% |
| Northampton | 115 | 2% |
| Northumberland* | 27 | 1% |
| Perry* | 7 | < 1% |
| Philadelphia | 530 | 11% |
| Pike* | 10 | 0% |
| Potter* | - | - |
| Schuylkill* | 40 | 1% |
| Snyder* | 10 | < 1% |
| Somerset* | 19 | < 1% |
| Sullivan* | - | - |
| Susquehanna* | 9 | < 1% |
| Tioga* | 16 | < 1% |
| Union* | 15 | < 1% |
| Venango* | 15 | < 1% |
| Warren* | 8 | < 1% |
| Washington* | 71 | 1% |
| Wayne* | 17 | 0% |
| Westmoreland | 149 | 3% |
| Wyoming* | 8 | < 1% |
| York | 139 | 3% |

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

- Numbers less than six are withheld for privacy purposes and are not displayed in the county results, although they are included in the total Pennsylvania numbers and total rural/urban numbers.

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 3:
DENTIST AGE AND AVERAGE AGE
BY COUNTY OF PRIMARY PRACTICE

| County | Total | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | | Average Age |
|----------------|-------|-----------|---------|------------|---------|-------------|---------|-----------|---------|-------------|
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent | |
| Pennsylvania | 6,327 | 711 | 11% | 1,807 | 29% | 2,905 | 46% | 904 | 14% | 51.9 |
| Rural Counties | 1,229 | 107 | 9% | 371 | 30% | 575 | 47% | 176 | 14% | 52.6 |
| Urban Counties | 5,098 | 604 | 12% | 1,436 | 28% | 2,330 | 46% | 728 | 14% | 51.7 |
| Adams* | 31 | - | - | 17 | 55% | 8 | 26% | - | - | 50.3 |
| Allegheny | 839 | 88 | 10% | 207 | 25% | 428 | 51% | 116 | 14% | 52.7 |
| Armstrong* | 22 | - | - | - | - | 11 | 50% | 6 | 27% | 58.2 |
| Beaver | 66 | - | - | 16 | 24% | 38 | 58% | - | - | 54.0 |
| Bedford* | 16 | - | - | - | - | 7 | 44% | - | - | 51.6 |
| Berks | 158 | 22 | 14% | 48 | 30% | 68 | 43% | 20 | 13% | 50.8 |
| Blair* | 50 | - | - | 13 | 26% | 25 | 50% | - | - | 52.7 |
| Bradford* | 19 | - | - | 6 | 32% | 8 | 42% | - | - | 51.7 |
| Bucks | 394 | 49 | 12% | 120 | 30% | 169 | 43% | 56 | 14% | 51.0 |
| Butler* | 92 | 14 | 15% | 31 | 34% | 37 | 40% | 10 | 11% | 48.9 |
| Cambria* | 58 | 3 | 5% | 20 | 34% | 27 | 47% | 8 | 14% | 53.7 |
| Cameron* | - | 0 | 0% | 0 | 0% | 0 | 0% | - | - | 66.0 |
| Carbon* | 18 | - | - | - | - | 11 | 61% | - | - | 53.7 |
| Centre* | 63 | - | - | 25 | 40% | 27 | 43% | - | - | 48.6 |
| Chester | 252 | 21 | 8% | 89 | 35% | 109 | 43% | 33 | 13% | 51.4 |
| Clarion* | 12 | - | - | - | - | 6 | 50% | - | - | 53.5 |
| Clearfield* | 18 | - | - | - | - | 10 | 56% | - | - | 51.9 |
| Clinton* | 12 | 0 | 0% | - | - | - | - | - | - | 55.8 |
| Columbia* | 26 | - | - | 7 | 27% | 13 | 50% | - | - | 52.2 |
| Crawford* | 33 | 0 | 0% | 6 | 18% | 16 | 48% | 11 | 33% | 58.7 |
| Cumberland | 130 | 9 | 7% | 32 | 25% | 70 | 54% | 19 | 15% | 53.6 |
| Dauphin | 138 | 18 | 13% | 36 | 26% | 68 | 49% | 16 | 12% | 51.3 |
| Delaware | 335 | 32 | 10% | 81 | 24% | 167 | 50% | 55 | 16% | 52.9 |
| Elk* | 9 | - | - | - | - | - | - | - | - | 50.0 |
| Erie | 131 | 16 | 12% | 29 | 22% | 70 | 53% | 16 | 12% | 52.3 |
| Fayette* | 59 | 9 | 15% | 17 | 29% | 25 | 42% | 8 | 14% | 50.9 |
| Forest* | - | 0 | 0% | 0 | 0% | - | - | 0 | 0% | 60.5 |
| Franklin* | 47 | - | - | 12 | 26% | 21 | 45% | - | - | 53.1 |
| Fulton* | - | 0 | 0% | - | - | - | - | 0 | 0% | 52.0 |
| Greene* | 13 | - | - | 0 | 0% | 6 | 46% | - | - | 46.6 |
| Huntingdon* | 18 | - | - | - | - | 9 | 50% | - | - | 58.4 |
| Indiana* | 29 | - | - | 6 | 21% | 16 | 55% | - | - | 55.8 |
| Jefferson* | 12 | 0 | 0% | - | - | 7 | 58% | - | - | 52.9 |
| Juniata* | - | 0 | 0% | - | - | - | - | 0 | 0% | 50.5 |

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 3:
DENTIST AGE AND AVERAGE AGE
BY COUNTY OF PRIMARY PRACTICE, CONTINUED

| County | Total | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | | Average Age |
|-----------------|-------|-----------|---------|------------|---------|-------------|---------|-----------|---------|-------------|
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent | |
| Lackawanna | 118 | 13 | 11% | 37 | 31% | 51 | 43% | 17 | 14% | 51.2 |
| Lancaster | 217 | 24 | 11% | 76 | 35% | 97 | 45% | 20 | 9% | 49.6 |
| Lawrence* | 45 | - | - | 16 | 36% | 18 | 40% | - | - | 50.6 |
| Lebanon | 46 | - | - | 11 | 24% | 25 | 54% | - | - | 57.0 |
| Lehigh | 215 | 30 | 14% | 72 | 33% | 87 | 40% | 26 | 12% | 50.0 |
| Luzerne | 150 | 9 | 6% | 47 | 31% | 65 | 43% | 29 | 19% | 53.9 |
| Lycoming* | 44 | - | - | 9 | 20% | 25 | 57% | - | - | 53.3 |
| McKean* | 15 | - | - | - | - | 8 | 53% | - | - | 55.9 |
| Mercer* | 55 | - | - | 20 | 36% | 25 | 45% | - | - | 54.3 |
| Mifflin* | 12 | 0 | 0% | - | - | 7 | 58% | - | - | 54.9 |
| Monroe* | 47 | - | - | 16 | 34% | 21 | 45% | - | - | 52.0 |
| Montgomery | 593 | 54 | 9% | 176 | 30% | 262 | 44% | 101 | 17% | 52.5 |
| Montour* | 13 | 0 | 0% | - | - | 10 | 77% | - | - | 55.2 |
| Northampton | 141 | 16 | 11% | 51 | 36% | 61 | 43% | 13 | 9% | 50.5 |
| Northumberland* | 29 | - | - | - | - | 17 | 59% | - | - | 56.4 |
| Perry* | 7 | 0 | 0% | - | - | - | - | - | - | 57.6 |
| Philadelphia | 817 | 164 | 20% | 209 | 26% | 324 | 40% | 120 | 15% | 50.1 |
| Pike* | 14 | 0 | 0% | 8 | 57% | - | - | - | - | 49.3 |
| Potter* | 6 | 0 | 0% | - | - | - | - | - | - | 57.7 |
| Schuylkill* | 45 | - | - | 13 | 29% | 22 | 49% | - | - | 55.8 |
| Snyder* | 15 | - | - | - | - | 8 | 53% | 0 | 0% | 48.9 |
| Somerset* | 25 | 0 | 0% | - | - | 16 | 64% | - | - | 53.8 |
| Sullivan* | - | 0 | 0% | 0 | 0% | - | - | 0 | 0% | 54.0 |
| Susquehanna* | 9 | 0 | 0% | - | - | - | - | - | - | 50.8 |
| Tioga* | 18 | - | - | 6 | 33% | 9 | 50% | - | - | 50.8 |
| Union* | 20 | - | - | 7 | 35% | 8 | 40% | - | - | 51.4 |
| Venango* | 16 | - | - | - | - | 10 | 63% | - | - | 57.9 |
| Warren* | 8 | 0 | 0% | - | - | - | - | - | - | 52.5 |
| Washington* | 92 | 6 | 7% | 37 | 40% | 37 | 40% | 12 | 13% | 51.6 |
| Wayne* | 21 | - | - | - | - | 8 | 38% | - | - | 50.3 |
| Westmoreland | 184 | 9 | 5% | 47 | 26% | 102 | 55% | 26 | 14% | 54.4 |
| Wyoming* | 8 | - | - | - | - | - | - | 0 | 0% | 49.0 |
| York | 174 | 26 | 15% | 52 | 30% | 69 | 40% | 27 | 16% | 50.3 |

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

- Numbers less than six are withheld for privacy purposes and are not displayed in the county results, although they are included in the total Pennsylvania numbers and total rural/urban numbers.

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 4:
ACCEPTED DENTAL COVERAGE
BY COUNTY OF PRIMARY PRACTICE

| County | Medicaid | | Medicare | | Private Insurance | |
|----------------|----------|---------|----------|---------|-------------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Pennsylvania | 1,393 | 23% | 1,139 | 19% | 5,469 | 87% |
| Rural Counties | 285 | 24% | 209 | 18% | 1,060 | 87% |
| Urban Counties | 1,108 | 22% | 930 | 19% | 4,409 | 87% |
| Adams* | - | - | - | - | 18 | 58% |
| Allegheny | 212 | 26% | 199 | 25% | 748 | 90% |
| Armstrong* | 6 | 29% | 8 | 38% | 18 | 82% |
| Beaver | 11 | 17% | 13 | 20% | 63 | 95% |
| Bedford* | 7 | 44% | - | - | 13 | 81% |
| Berks | 34 | 22% | 27 | 17% | 134 | 85% |
| Blair* | 14 | 29% | 10 | 22% | 44 | 88% |
| Bradford* | 8 | 42% | - | - | 14 | 78% |
| Bucks | 46 | 12% | 48 | 12% | 336 | 85% |
| Butler* | 20 | 22% | 19 | 21% | 83 | 90% |
| Cambria* | 18 | 32% | 13 | 24% | 55 | 95% |
| Cameron* | 0 | 0% | 0 | 0% | - | - |
| Carbon* | - | - | - | - | 17 | 100% |
| Centre* | 8 | 13% | - | - | 46 | 73% |
| Chester | 16 | 6% | 15 | 6% | 220 | 87% |
| Clarion* | - | - | 0 | 0% | 10 | 83% |
| Clearfield* | 6 | 33% | - | - | 17 | 94% |
| Clinton* | - | - | 0 | 0% | 10 | 83% |
| Columbia* | 9 | 36% | - | - | 19 | 73% |
| Crawford* | 14 | 45% | 6 | 19% | 29 | 91% |
| Cumberland | 10 | 8% | 12 | 9% | 103 | 80% |
| Dauphin | 17 | 13% | 19 | 14% | 124 | 91% |
| Delaware | 53 | 16% | 37 | 11% | 295 | 89% |
| Elk* | - | - | - | - | 9 | 100% |
| Erie | 39 | 30% | 32 | 25% | 124 | 94% |
| Fayette* | 19 | 33% | 12 | 21% | 53 | 90% |
| Forest* | 0 | 0% | 0 | 0% | 0 | 0% |
| Franklin* | 13 | 28% | 7 | 16% | 41 | 87% |
| Fulton* | 0 | 0% | 0 | 0% | - | - |
| Greene* | - | - | - | - | 9 | 75% |
| Huntingdon* | - | - | - | - | 14 | 78% |
| Indiana* | 6 | 21% | - | - | 27 | 93% |
| Jefferson* | - | - | - | - | 11 | 92% |
| Juniata* | - | - | 0 | 0% | - | - |

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 4:
ACCEPTED DENTAL COVERAGE
BY COUNTY OF PRIMARY PRACTICE, CONTINUED

| County | Medicaid | | Medicare | | Private Insurance | |
|-----------------|----------|---------|----------|---------|-------------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Lackawanna | 30 | 26% | 17 | 15% | 108 | 92% |
| Lancaster | 45 | 21% | 29 | 14% | 171 | 80% |
| Lawrence* | 12 | 27% | 13 | 30% | 40 | 89% |
| Lebanon | - | - | - | - | 32 | 71% |
| Lehigh | 42 | 20% | 35 | 17% | 184 | 87% |
| Luzerne | 45 | 31% | 28 | 19% | 139 | 93% |
| Lycoming* | - | - | - | - | 30 | 70% |
| McKean* | - | - | - | - | 12 | 80% |
| Mercer* | 15 | 28% | 12 | 23% | 52 | 95% |
| Mifflin* | - | - | - | - | 10 | 83% |
| Monroe* | - | - | - | - | 42 | 89% |
| Montgomery | 62 | 11% | 64 | 11% | 468 | 79% |
| Montour* | 7 | 54% | - | - | 10 | 77% |
| Northampton | 23 | 17% | 14 | 10% | 117 | 83% |
| Northumberland* | 8 | 29% | 7 | 25% | 26 | 90% |
| Perry* | 0 | 0% | 0 | 0% | - | - |
| Philadelphia | 342 | 44% | 270 | 34% | 725 | 91% |
| Pike* | - | - | 0 | 0% | 11 | 79% |
| Potter* | - | - | 0 | 0% | - | - |
| Schuylkill* | - | - | 7 | 16% | 41 | 91% |
| Snyder* | - | - | - | - | 13 | 87% |
| Somerset* | 12 | 48% | 8 | 32% | 25 | 100% |
| Sullivan* | - | - | - | - | - | - |
| Susquehanna* | - | - | - | - | 8 | 89% |
| Tioga* | - | - | - | - | 15 | 83% |
| Union* | - | - | - | - | 14 | 70% |
| Venango* | - | - | - | - | 15 | 94% |
| Warren* | - | - | - | - | 7 | 88% |
| Washington* | 15 | 18% | 14 | 16% | 90 | 99% |
| Wayne* | - | - | - | - | 20 | 95% |
| Westmoreland | 50 | 28% | 48 | 27% | 172 | 93% |
| Wyoming* | - | - | - | - | 7 | 88% |
| York | 30 | 18% | 22 | 13% | 146 | 84% |

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

- Numbers less than six are withheld for privacy purposes and are not displayed in the county results, although they are included in the total Pennsylvania numbers and total rural/urban numbers.

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 5:
YEARS ANTICIPATED PRACTICING DENTISTRY IN PENNSYLVANIA
BY COUNTY OF PRIMARY PRACTICE

| County | Total | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | |
|----------------|-------|-----------|---------|------------|---------|-------------|---------|-----------|---------|
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Pennsylvania | 6,290 | 1358 | 22% | 1,418 | 23% | 1,299 | 21% | 2,215 | 35% |
| Rural Counties | 1,225 | 275 | 22% | 309 | 25% | 241 | 20% | 400 | 33% |
| Urban Counties | 5,065 | 1083 | 21% | 1,109 | 22% | 1,058 | 21% | 1,815 | 36% |
| Adams* | 31 | 7 | 23% | - | - | - | - | 12 | 39% |
| Allegheny | 830 | 175 | 21% | 209 | 25% | 173 | 21% | 273 | 33% |
| Armstrong* | 22 | 7 | 32% | - | - | 7 | 32% | - | - |
| Beaver | 64 | 11 | 17% | 13 | 20% | 16 | 24% | 24 | 36% |
| Bedford* | 16 | - | - | 6 | 38% | - | - | - | - |
| Berks | 158 | 36 | 23% | 27 | 17% | 40 | 25% | 55 | 35% |
| Blair* | 50 | 15 | 30% | 11 | 22% | 6 | 12% | 18 | 36% |
| Bradford* | 19 | 8 | 42% | - | - | - | - | 6 | 32% |
| Bucks | 391 | 77 | 20% | 70 | 18% | 78 | 20% | 166 | 42% |
| Butler* | 92 | 14 | 15% | 18 | 20% | 19 | 21% | 41 | 45% |
| Cambria* | 58 | 14 | 24% | 18 | 31% | 6 | 10% | 20 | 34% |
| Cameron* | - | 0 | 0% | - | - | 0 | 0% | 0 | 0% |
| Carbon* | 18 | - | - | - | - | - | - | 8 | 44% |
| Centre* | 62 | - | - | 19 | 30% | - | - | 22 | 35% |
| Chester | 252 | 52 | 21% | 51 | 20% | 53 | 21% | 96 | 38% |
| Clarion* | 12 | - | - | - | - | - | - | - | - |
| Clearfield* | 18 | - | - | 6 | 33% | - | - | 6 | 33% |
| Clinton* | 11 | - | - | - | - | - | - | - | - |
| Columbia* | 25 | - | - | 7 | 28% | 8 | 32% | - | - |
| Crawford* | 33 | 9 | 27% | 10 | 30% | 6 | 18% | 8 | 24% |
| Cumberland | 130 | 26 | 20% | 42 | 32% | 29 | 22% | 33 | 25% |
| Dauphin | 137 | 30 | 22% | 30 | 22% | 38 | 28% | 39 | 28% |
| Delaware | 334 | 66 | 20% | 73 | 22% | 77 | 23% | 118 | 35% |
| Elk* | 9 | - | - | - | - | - | - | - | - |
| Erie | 131 | 24 | 18% | 32 | 24% | 29 | 22% | 46 | 35% |
| Fayette* | 59 | 10 | 17% | 19 | 32% | 12 | 20% | 18 | 31% |
| Forest* | - | - | - | 0 | 0% | - | - | 0 | 0% |
| Franklin* | 47 | 13 | 28% | - | - | - | - | 18 | 38% |
| Fulton* | - | 0 | 0% | - | - | - | - | 0 | 0% |
| Greene* | 13 | - | - | - | - | 0 | 0% | 6 | 46% |
| Huntingdon* | 18 | 6 | 33% | 6 | 33% | - | - | - | - |
| Indiana* | 29 | 10 | 34% | - | - | - | - | 9 | 31% |
| Jefferson* | 12 | - | - | - | - | - | - | - | - |
| Juniata* | - | 0 | 0% | - | - | - | - | 0 | 0% |

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 5:
YEARS ANTICIPATED PRACTICING DENTISTRY IN PENNSYLVANIA
BY COUNTY OF PRIMARY PRACTICE, CONTINUED

| County | Total | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | |
|-----------------|-------|-----------|---------|------------|---------|-------------|---------|-----------|---------|
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Lackawanna | 118 | 19 | 16% | 26 | 22% | 24 | 20% | 49 | 42% |
| Lancaster | 215 | 40 | 19% | 44 | 20% | 46 | 21% | 85 | 40% |
| Lawrence* | 45 | 6 | 13% | 12 | 27% | 7 | 16% | 20 | 44% |
| Lebanon | 46 | 12 | 26% | 14 | 30% | 8 | 17% | 12 | 26% |
| Lehigh | 213 | 42 | 20% | 44 | 21% | 41 | 19% | 86 | 40% |
| Luzerne | 148 | 44 | 30% | 26 | 18% | 29 | 20% | 49 | 33% |
| Lycoming* | 44 | 11 | 25% | 14 | 32% | 7 | 16% | 12 | 27% |
| McKean* | 15 | - | - | - | - | - | - | - | - |
| Mercer* | 55 | 15 | 27% | 12 | 22% | 11 | 20% | 17 | 31% |
| Mifflin* | 12 | - | - | - | - | - | - | - | - |
| Monroe* | 47 | 15 | 32% | - | - | - | - | 14 | 30% |
| Montgomery | 592 | 112 | 19% | 115 | 19% | 142 | 24% | 223 | 38% |
| Montour* | 13 | - | - | - | - | - | - | - | - |
| Northampton | 141 | 28 | 20% | 27 | 19% | 29 | 21% | 57 | 40% |
| Northumberland* | 29 | - | - | 10 | 34% | - | - | 8 | 28% |
| Perry* | 7 | - | - | - | - | 0 | 0% | - | - |
| Philadelphia | 811 | 207 | 26% | 188 | 23% | 136 | 17% | 280 | 35% |
| Pike* | 14 | - | - | - | - | - | - | 6 | 43% |
| Potter* | 6 | - | - | - | - | 0 | 0% | - | - |
| Schuylkill* | 45 | 9 | 20% | 15 | 33% | 11 | 24% | 10 | 22% |
| Snyder* | 15 | 0 | 0% | 8 | 53% | - | - | - | - |
| Somerset* | 25 | - | - | 9 | 36% | - | - | 7 | 28% |
| Sullivan* | - | 0 | 0% | 0 | 0% | - | - | 0 | 0% |
| Susquehanna* | 8 | - | - | - | - | - | - | - | - |
| Tioga* | 18 | - | - | - | - | - | - | - | - |
| Union* | 20 | - | - | - | - | - | - | 8 | 40% |
| Venango* | 16 | 6 | 38% | - | - | - | - | - | - |
| Warren* | 8 | - | - | - | - | - | - | 6 | 75% |
| Washington* | 92 | 18 | 20% | 22 | 24% | 22 | 24% | 30 | 33% |
| Wayne* | 21 | - | - | - | - | - | - | 9 | 43% |
| Westmoreland | 180 | 45 | 25% | 39 | 22% | 43 | 24% | 53 | 29% |
| Wyoming* | 8 | - | - | - | - | 0 | 0% | - | - |
| York | 174 | 37 | 21% | 39 | 22% | 27 | 16% | 71 | 41% |

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

- Numbers less than six are withheld for privacy purposes and are not displayed in the county results, although they are included in the total Pennsylvania numbers and total rural/urban numbers.

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 6:
**ACCEPTED DENTAL COVERAGE FOR NEW PATIENTS
BY COUNTY OF PRIMARY PRACTICE**

| County | Medicaid | | Medicare | | Private Insurance | | Uninsured | |
|----------------|----------|---------|----------|---------|-------------------|---------|-----------|---------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Pennsylvania | 1,236 | 21% | 1,022 | 17% | 5,740 | 96% | 5,284 | 88% |
| Rural Counties | 238 | 21% | 191 | 17% | 1,088 | 95% | 1,038 | 90% |
| Urban Counties | 998 | 21% | 831 | 17% | 4,652 | 96% | 4,246 | 87% |
| Adams* | - | - | 6 | 19% | 30 | 97% | 28 | 90% |
| Allegheny | 182 | 23% | 170 | 21% | 764 | 96% | 698 | 88% |
| Armstrong* | - | - | 7 | 33% | 20 | 95% | 18 | 86% |
| Beaver | 9 | 14% | 11 | 17% | 64 | 100% | 58 | 91% |
| Bedford* | - | - | - | - | 10 | 83% | 10 | 83% |
| Berks | 29 | 19% | 23 | 15% | 143 | 95% | 127 | 84% |
| Blair* | 9 | 20% | - | - | 38 | 86% | 38 | 86% |
| Bradford* | - | - | - | - | 14 | 82% | 15 | 88% |
| Bucks | 43 | 11% | 50 | 13% | 362 | 96% | 328 | 87% |
| Butler* | 21 | 23% | 20 | 22% | 88 | 97% | 86 | 95% |
| Cambria* | 14 | 26% | 10 | 19% | 52 | 96% | 48 | 89% |
| Cameron* | 0 | 0% | 0 | 0% | - | - | - | - |
| Carbon* | - | - | - | - | 16 | 100% | 14 | 88% |
| Centre* | 8 | 13% | 6 | 10% | 57 | 92% | 56 | 90% |
| Chester | 16 | 7% | 16 | 7% | 241 | 98% | 217 | 88% |
| Clarion* | - | - | - | - | 10 | 91% | 11 | 100% |
| Clearfield* | - | - | - | - | 17 | 100% | 16 | 94% |
| Clinton* | - | - | 0 | 0% | 10 | 100% | 10 | 100% |
| Columbia* | 8 | 36% | - | - | 19 | 86% | 21 | 95% |
| Crawford* | 7 | 22% | - | - | 30 | 94% | 29 | 91% |
| Cumberland | 11 | 9% | 13 | 11% | 117 | 95% | 105 | 85% |
| Dauphin | 15 | 11% | 16 | 12% | 127 | 96% | 117 | 89% |
| Delaware | 48 | 15% | 33 | 10% | 318 | 98% | 288 | 89% |
| Elk* | - | - | - | - | 7 | 100% | 6 | 86% |
| Erie | 30 | 24% | 25 | 20% | 119 | 94% | 109 | 87% |
| Fayette* | 15 | 26% | 11 | 19% | 54 | 95% | 54 | 95% |
| Forest* | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Franklin* | 12 | 26% | 6 | 13% | 44 | 96% | 41 | 89% |
| Fulton* | 0 | 0% | 0 | 0% | - | - | - | - |
| Greene* | - | - | - | - | 10 | 91% | 11 | 100% |
| Huntingdon* | - | - | - | - | 15 | 88% | 16 | 94% |
| Indiana* | 6 | 23% | - | - | 25 | 96% | 26 | 100% |
| Jefferson* | - | - | - | - | 10 | 91% | 10 | 91% |
| Juniata* | - | - | 0 | 0% | - | - | - | - |

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 6:
ACCEPTED DENTAL COVERAGE FOR NEW PATIENTS
BY COUNTY OF PRIMARY PRACTICE, CONTINUED

| County | Medicaid | | Medicare | | Private Insurance | | Uninsured | |
|-----------------|----------|---------|----------|---------|-------------------|---------|-----------|---------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Lackawanna | 26 | 22% | 13 | 11% | 114 | 98% | 111 | 96% |
| Lancaster | 32 | 16% | 24 | 12% | 191 | 95% | 174 | 86% |
| Lawrence* | 11 | 26% | 11 | 26% | 43 | 100% | 40 | 93% |
| Lebanon | - | - | - | - | 34 | 89% | 33 | 87% |
| Lehigh | 35 | 17% | 28 | 13% | 198 | 94% | 183 | 87% |
| Luzerne | 42 | 30% | 24 | 17% | 134 | 94% | 130 | 92% |
| Lycoming* | - | - | - | - | 36 | 92% | 34 | 87% |
| McKean* | - | - | - | - | 12 | 100% | 10 | 83% |
| Mercer* | 12 | 22% | 13 | 24% | 53 | 96% | 48 | 87% |
| Mifflin* | - | - | 0 | 0% | 10 | 100% | 10 | 100% |
| Monroe* | - | - | - | - | 45 | 98% | 39 | 85% |
| Montgomery | 59 | 10% | 55 | 10% | 526 | 93% | 486 | 86% |
| Montour* | 6 | 50% | - | - | 11 | 92% | 11 | 92% |
| Northampton | 21 | 15% | 11 | 8% | 134 | 97% | 123 | 89% |
| Northumberland* | - | - | - | - | 24 | 92% | 26 | 100% |
| Perry* | 0 | 0% | 0 | 0% | - | - | 6 | 100% |
| Philadelphia | 325 | 42% | 260 | 34% | 732 | 96% | 652 | 85% |
| Pike* | - | - | 0 | 0% | 12 | 92% | 9 | 69% |
| Potter* | 0 | 0% | 0 | 0% | - | - | - | - |
| Schuylkill* | - | - | - | - | 38 | 97% | 34 | 87% |
| Snyder* | - | - | - | - | 13 | 87% | 9 | 60% |
| Somerset* | 11 | 44% | 6 | 24% | 24 | 96% | 24 | 96% |
| Sullivan* | - | - | - | - | - | - | - | - |
| Susquehanna* | - | - | - | - | 8 | 89% | 9 | 100% |
| Tioga* | - | - | - | - | 12 | 86% | 14 | 100% |
| Union* | - | - | - | - | 18 | 100% | 18 | 100% |
| Venango* | - | - | - | - | 16 | 100% | 15 | 94% |
| Warren* | - | - | - | - | 7 | 100% | 7 | 100% |
| Washington* | 14 | 15% | 13 | 14% | 88 | 97% | 76 | 84% |
| Wayne* | - | - | - | - | 19 | 95% | 18 | 90% |
| Westmoreland | 46 | 26% | 38 | 21% | 176 | 99% | 169 | 95% |
| Wyoming* | - | - | - | - | 8 | 100% | 7 | 88% |
| York | 28 | 17% | 20 | 12% | 158 | 96% | 138 | 84% |

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

- Numbers less than six are withheld for privacy purposes and are not displayed in the county results, although they are included in the total Pennsylvania numbers and total rural/urban numbers.

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA

APPENDIX 7:

COMPARISON OF RESPONSES TO THE PENNSYLVANIA SURVEY OF DENTISTS, 2003 - 2011*

| Measure | 2003 | 2005 | 2007 | 2009 | 2011 |
|---|------|------|------|------|------|
| Gender | | | | | |
| Male | 86% | 83% | 82% | 81% | 79% |
| Female | 14% | 17% | 18% | 19% | 21% |
| Race | | | | | |
| White | 93% | 90% | 89% | 88% | 86% |
| Black | 2% | 2% | 2% | 2% | 2% |
| Asian | 4% | 5% | 6% | 7% | 8% |
| Other | 1% | 2% | 2% | 2% | 3% |
| Native Hawaiian/ Pacific Islander | < 1% | < 1% | < 1% | < 1% | < 1% |
| American Indian/ Alaska Native | 0% | 0% | 0% | < 1% | < 1% |
| Ethnicity | | | | | |
| Hispanic | 1% | 1% | 1% | 2% | 1% |
| Average age | | | | | |
| | 50.5 | 50.3 | 51.3 | 51.6 | 51.9 |
| Age | | | | | |
| 20-34 | 7% | 9% | 8% | 9% | 11% |
| 35-49 | 40% | 38% | 34% | 31% | 29% |
| 50-64 | 42% | 43% | 46% | 47% | 46% |
| 65+ | 11% | 10% | 12% | 12% | 14% |
| Urban/rural county of practice[^] | | | | | |
| Urban | 78% | 79% | 80% | 79% | 81% |
| Rural | 22% | 21% | 20% | 21% | 19% |
| Majority of practice time spent performing | | | | | |
| General dentistry | 80% | 78% | 79% | 77% | 76% |
| Pediatric dentistry | 2% | 3% | 2% | 3% | 3% |
| Geriatric dentistry | 1% | < 1% | < 1% | 1% | 1% |
| Endodontics | 2% | 3% | 3% | 3% | 3% |
| Oral surgery | 4% | 4% | 4% | 4% | 5% |
| Orthodontics | 5% | 5% | 6% | 6% | 6% |
| Prosthodontics | 2% | 2% | 2% | 2% | 2% |
| Primary employment situation?[#] | | | | | |
| Direct patient care | 91% | 90% | 90% | 90% | 91% |
| Administrative | 1% | 1% | 1% | 1% | 1% |
| Education | 2% | 3% | 3% | 5% | 4% |
| Research | < 1% | < 1% | < 1% | < 1% | < 1% |
| Other non-patient care | < 1% | < 1% | < 1% | < 1% | < 1% |
| How long do you anticipate practicing dentistry? | | | | | |
| 0-5 years | 13% | 14% | 14% | 13% | 18% |
| 6-10 years | 21% | 21% | 21% | 23% | 22% |
| 11-15 years | 26% | 23% | 23% | 23% | 21% |
| 16+ years | 40% | 42% | 42% | 41% | 40% |

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 7:
COMPARISON OF RESPONSES TO THE PENNSYLVANIA SURVEY OF DENTISTS 2003-2011*,
CONTINUED

| Measure | 2003 | 2005 | 2007 | 2009 | 2011 |
|--|------|------|------|------|------|
| How long do you anticipate practicing dentistry in PA? | | | | | |
| 0-5 years | 15% | 17% | 17% | 16% | 22% |
| 6-10 years | 22% | 22% | 23% | 24% | 23% |
| 11-15 years | 25% | 23% | 24% | 23% | 21% |
| 16+ years | 37% | 39% | 37% | 37% | 35% |

* Prior to 2009, respondents who provided direct patient care in Pennsylvania were those who reported being employed in direct patient care in Pennsylvania. Beginning in 2009, respondents who provided direct patient care in Pennsylvania were those who reported being employed in health care and provided direct patient care in Pennsylvania.

^ Urban and rural counties were defined by Center for Rural Pennsylvania's definition and U.S. Census population estimates from the survey year, except for 2011, which used 2010 U.S. Census population information.

Includes all respondents

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

APPENDIX 8: 2011 DENTIST SURVEY



**Commonwealth of Pennsylvania
Department of Health
2011 Survey of Dentists**

License Number: D _____

- License # required to avoid duplication
- Anonymous & aggregate reporting only

****IF YOU COMPLETED THIS SURVEY ONLINE, please do NOT submit a paper survey.****

The Department of Health, with the support of the Department of State, requests that you complete this survey to assist in understanding trends in the dental workforce. **Individual information from this survey is confidential and will not be shared or distributed. Responses are reported in aggregate form only.** To view Dental workforce reports, visit www.health.state.pa.us/workforce. Thank you for your cooperation.

1. Year of Birth 2. Sex: Male Female 3. Ethnicity: Hispanic/Latino Origin Yes No
4. Race (*Check ONE best fit based on race, not nationality or ethnicity*)

| | | |
|--|--|--------------------------------------|
| <input type="checkbox"/> American Indian/Alaska Native | <input type="checkbox"/> Black | <input type="checkbox"/> White |
| <input type="checkbox"/> Asian | <input type="checkbox"/> Native Hawaiian/ Other Pacific Islander | <input type="checkbox"/> Other _____ |
5. State of Residence (*State abbreviation*) Non-US Resident (*Check*) (*If not PA resident, skip to question 6*)

| | |
|--|---|
| 5a. County of Residence (<i>County Codes page 3</i>) <input type="text"/> <input type="text"/> | 5b. Zip Code of Residence <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
|--|---|
6. In which state did you graduate from dental school? (*State abbreviation*) Non-US Graduate (*Check*)

| |
|---|
| 6a. What year did you obtain this degree? <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
|---|
7. In which state were you first licensed as a dentist? (*State abbreviation*) 7a. What year?
8. Have you completed a postdoctoral certificate program in general dentistry? Yes No
9. Specialty Board Certification (*Check all that apply*)

| | |
|---|--|
| <input type="checkbox"/> American Board of Dental Public Health | <input type="checkbox"/> American Board of Orthodontics |
| <input type="checkbox"/> American Board of Endodontics | <input type="checkbox"/> American Board of Pediatric Dentistry |
| <input type="checkbox"/> American Board of Oral and Maxillofacial Pathology | <input type="checkbox"/> American Board of Periodontology |
| <input type="checkbox"/> American Board of Oral and Maxillofacial Radiology | <input type="checkbox"/> American Board of Prosthodontics |
| <input type="checkbox"/> American Board of Oral and Maxillofacial Surgery | <input type="checkbox"/> None |
10. Current Training Status (*Check one*)

| | | |
|-----------------------------------|---------------------------------|----------------------------------|
| <input type="checkbox"/> Resident | <input type="checkbox"/> Fellow | <input type="checkbox"/> Neither |
|-----------------------------------|---------------------------------|----------------------------------|
11. In the last year, have you volunteered your services (unpaid) as a dentist in Pennsylvania? Yes No (*If no, skip to question 12*)

| | | |
|--|--|--|
| 11a. Identify location(s) where you provided these unpaid dental services in Pennsylvania. (<i>Check all that apply</i>) | | |
| <input type="checkbox"/> Dental School Clinic | <input type="checkbox"/> FQHC or Health Center | <input type="checkbox"/> School (Elementary or H.S.) |
| <input type="checkbox"/> Dental Van | <input type="checkbox"/> Private Office Practice | <input type="checkbox"/> Other _____ |
12. Select the employment status that *most closely* resembles your current employment status. (*Check one*)

| | |
|--|---|
| <input type="checkbox"/> Employed in healthcare (direct, indirect) | <input type="checkbox"/> Unemployed, seeking health care employment |
| <input type="checkbox"/> Employed (not in health care) | <input type="checkbox"/> Unemployed, not seeking health care employment |
| <input type="checkbox"/> Retired | <input type="checkbox"/> Unemployed, disabled |
| <input type="checkbox"/> Student, Leave of Absence, or Sabbatical | |
13. Check **one** option that best describes your primary employment situation. (*Check one*)

| | | |
|--|---|-----------------------------------|
| <input type="checkbox"/> Administrative | <input type="checkbox"/> Education | <input type="checkbox"/> Research |
| <input type="checkbox"/> Direct Patient Care | <input type="checkbox"/> Other Non-patient Care | <input type="checkbox"/> N/A |

13a. If not in direct patient care, do you plan to return to direct patient care in the next 5 years? Yes No N/A
14. Indicate the approximate number of hours you spent providing **direct patient care each week in Pennsylvania** during the last year (including volunteer hours). Note: For the purpose of this report, direct patient care includes the amount of time a dentist spends directly with patients in a dental practice setting or patient-specific office work. This would also include "on call" hours if the dentist is required to remain in a medical/dental practice setting.

| | | | | | |
|---|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|
| <input type="checkbox"/> Zero (<i>If Zero, end survey here</i>) | <input type="checkbox"/> 1-10 hours | <input type="checkbox"/> 11-19 hours | <input type="checkbox"/> 20-30 hours | <input type="checkbox"/> 31-40 hours | <input type="checkbox"/> More than 40 hours |
|---|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|

If your answer to question 14 was "Zero" (do not provide direct patient care in Pennsylvania), END survey here.

APPENDIX 8: 2011 DENTIST SURVEY, Continued

License Number: D _____

15. Indicate the category that most closely represents the specialty in which the majority of your dental practice time is spent. *(Check one)*
- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Endodontics | <input type="checkbox"/> Geriatric Dentistry | <input type="checkbox"/> Orthodontics | <input type="checkbox"/> Periodontics |
| <input type="checkbox"/> General Dentistry | <input type="checkbox"/> Oral Surgery | <input type="checkbox"/> Pediatric Dentistry | <input type="checkbox"/> Prosthodontics |
- 15a. Identify the county where you primarily practice this specialty. *(County Codes page 3)*
16. Identify the setting(s) where you provide general dentistry for patients with severe developmental or physical handicaps using general anesthesia or deep sedation. *(Check all that apply)*
- Ambulatory Surgical Facility Hospital Office None Other _____
17. Identify the setting that most closely represents where the majority of your direct patient care hours are spent. *(Check one best fit)*
- | | |
|--|---|
| <input type="checkbox"/> Clinic or Center | <input type="checkbox"/> Private Office Practice (excluding Retail Site) |
| <input type="checkbox"/> Dental School Setting | <input type="checkbox"/> School Health (Elementary/High/College/University) |
| <input type="checkbox"/> Industry/Business (i.e., Industrial, Retail Site) | <input type="checkbox"/> Other _____ |
18. Identify the sector in which you spend the majority of your primary practice time. *(Check one best fit)*
- Private Practice Partnership (full/part owner) Employee of another dentist/facility Other _____
- Private Practice Solo (full/part owner) None/Volunteer *(If "None/Volunteer," skip to question 23)*
19. Do you accept any of the following coverage plans?
- 19a. Medicaid Yes No
- 19b. Medicare Yes No
- 19c. Private insurance Yes No
- 19d. Does your practice submit claims to insurance companies on behalf of patients? Yes No
20. Are you currently accepting new patients? Yes No *(If no, skip to question 21)*
- 20a. Check the coverage plans where you are accepting new patients *(Check all that apply)*
- Medicaid Medicare Private Insurance Uninsured
21. 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. Identify the positions in your practice you have had difficulty filling in the last 12 months due to an inability to find qualified staff.
- Dental Assistant Dental Hygienist Expanded Function Dental Assistant N/A
23. How satisfied have you been with your dental career in the last 12 months? *(Check one best fit)*
- Very Satisfied Satisfied Dissatisfied Very Dissatisfied
24. How satisfied are you with your dental career overall? *(Check one best fit)*
- Very Satisfied Satisfied Dissatisfied Very Dissatisfied
25. What is the greatest source of your professional satisfaction? *(Check one best fit)*
- | | |
|---|--|
| <input type="checkbox"/> Intellectual Challenge | <input type="checkbox"/> Practice Environment |
| <input type="checkbox"/> Decision-making Autonomy | <input type="checkbox"/> Patient Relationships |
| <input type="checkbox"/> Financial Reasons-Salary/Income | <input type="checkbox"/> Staff Relationships |
| <input type="checkbox"/> Financial Reasons-Other, including Insurance | <input type="checkbox"/> Other _____ |
26. What is the greatest source of your professional dissatisfaction? *(Check one best fit)*
- | | | |
|---|---|--------------------------------------|
| <input type="checkbox"/> Availability of Leisure Time | <input type="checkbox"/> Practice Environment | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Decision-making Autonomy | <input type="checkbox"/> Patient Relationships | |
| <input type="checkbox"/> Financial Reasons-Salary/Income | <input type="checkbox"/> Staff Relationships | |
| <input type="checkbox"/> Financial Reasons-Other, including Insurance | <input type="checkbox"/> Time spent with Patients | |
27. How long have you practiced dentistry in Pennsylvania?
- 0 – 2 years 3 – 5 years 6 – 10 years 11 – 15 years 16+ years
28. How long do you anticipate you will continue practicing dentistry?
- 0 – 2 years 3 – 5 years 6 – 10 years 11 – 15 years 16+ years Retired/Currently not in practice
29. How long do you anticipate you will continue practicing dentistry in Pennsylvania?
- 0 – 2 years 3 – 5 years 6 – 10 years 11 – 15 years 16+ years Retired/Currently not in practice

APPENDIX 8: 2011 DENTIST SURVEY, Continued

License Number: D _____

30. If you plan to leave direct patient care within the next 5 years, indicate your principal reason below. *(Check one best fit)*
- | | | |
|---|---|---|
| <input type="checkbox"/> Career Change | <input type="checkbox"/> Physical Demands | <input type="checkbox"/> Stress/Burnout |
| <input type="checkbox"/> Family Reasons | <input type="checkbox"/> Practice Demands | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Financial reasons-Salary/Income | <input type="checkbox"/> Retirement | <input type="checkbox"/> N/A |
| <input type="checkbox"/> Financial Reasons-Other, including Insurance | <input type="checkbox"/> Return to school | |
31. Do you personally provide dental/medical translation to patients? Yes No *(If "No," end survey here)*
- 31a. In addition to English, in which language(s) can you communicate effectively for most clinical purposes? *(Check all that apply)*
- | | | | | |
|----------------------------------|-----------------------------------|----------------------------------|--|--------------------------------------|
| <input type="checkbox"/> Arabic | <input type="checkbox"/> Italian | <input type="checkbox"/> Polish | <input type="checkbox"/> Sign Language | <input type="checkbox"/> Vietnamese |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> PA Dutch | <input type="checkbox"/> Russian | <input type="checkbox"/> Spanish | <input type="checkbox"/> Other _____ |

THANK YOU!

If you are interested in emergency disaster response volunteer opportunities in Pennsylvania, see SERVPA (State Emergency Registry of Volunteers in PA) at www.serv.pa.gov for more information.

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 | 00=NOT in PA |

**RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 9:
DENTAL HYGIENISTS BY COUNTY OF PRIMARY JOB**

| County | Total | Percent |
|--------------|-------|---------|
| Pennsylvania | 6,058 | 100% |
| | | |
| Adams* | 37 | 1% |
| Allegheny | 662 | 11% |
| Armstrong* | 21 | < 1% |
| Beaver | 67 | 1% |
| Bedford* | 23 | < 1% |
| Berks | 186 | 3% |
| Blair* | 57 | 1% |
| Bradford* | 27 | < 1% |
| Bucks | 368 | 6% |
| Butler* | 115 | 2% |
| Cambria* | 47 | 1% |
| Cameron* | 0 | 0% |
| Carbon* | 22 | < 1% |
| Centre* | 83 | 1% |
| Chester | 273 | 5% |
| Clarion* | 13 | 0% |
| Clearfield* | 31 | 1% |
| Clinton* | 17 | < 1% |
| Columbia* | 32 | 1% |
| Crawford* | 39 | 1% |
| Cumberland | 169 | 3% |
| Dauphin | 182 | 3% |
| Delaware | 243 | 4% |
| Elk* | 13 | < 1% |
| Erie | 148 | 2% |
| Fayette* | 55 | 1% |
| Forest* | - | - |
| Franklin* | 61 | 1% |
| Fulton* | - | - |
| Greene* | 11 | < 1% |
| Huntingdon* | 18 | < 1% |
| Indiana* | 27 | < 1% |
| Jefferson* | 15 | < 1% |
| Juniata* | 6 | < 1% |

| County | Total | Percent |
|-----------------|-------|---------|
| Rural Counties | 1,401 | 23% |
| Urban Counties | 4,657 | 77% |
| | | |
| Lackawanna | 126 | 2% |
| Lancaster | 303 | 5% |
| Lawrence* | 27 | < 1% |
| Lebanon | 60 | 1% |
| Lehigh | 190 | 3% |
| Luzerne | 190 | 3% |
| Lycoming* | 72 | 1% |
| McKean* | 13 | < 1% |
| Mercer* | 43 | 1% |
| Mifflin* | 18 | < 1% |
| Monroe* | 60 | 1% |
| Montgomery | 547 | 9% |
| Montour* | 14 | < 1% |
| Northampton | 181 | 3% |
| Northumberland* | 37 | 1% |
| Perry* | 6 | < 1% |
| Philadelphia | 358 | 6% |
| Pike* | 17 | < 1% |
| Potter* | - | - |
| Schuylkill* | 59 | 1% |
| Snyder* | 19 | < 1% |
| Somerset* | 24 | < 1% |
| Sullivan* | 0 | 0% |
| Susquehanna* | 7 | < 1% |
| Tioga* | 10 | < 1% |
| Union* | 29 | < 1% |
| Venango* | 14 | < 1% |
| Warren* | 24 | < 1% |
| Washington* | 94 | 2% |
| Wayne* | 21 | < 1% |
| Westmoreland | 199 | 3% |
| Wyoming* | 12 | < 1% |
| York | 205 | 3% |

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

- Numbers less than six are withheld for privacy purposes and are not displayed in the county results, although they are included in the total Pennsylvania numbers and total rural/urban numbers.

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 10:
**DENTAL HYGIENIST AGE AND AVERAGE AGE
BY COUNTY OF PRIMARY JOB**

| County | Total | 20-34 | | 35-49 | | 50-64 | | 65+ | | Average Age |
|----------------|-------|--------|---------|--------|---------|--------|---------|--------|---------|-------------|
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent | |
| Pennsylvania | 6,058 | 1,554 | 26% | 2,581 | 43% | 1,815 | 30% | 108 | 2% | 43.2 |
| Rural Counties | 1,401 | 398 | 28% | 612 | 44% | 380 | 27% | 11 | 1% | 42.1 |
| Urban Counties | 4,657 | 1,156 | 25% | 1,969 | 42% | 1,435 | 31% | 97 | 2% | 43.5 |
| Adams* | 37 | - | - | 16 | 43% | 10 | 27% | - | - | 42.7 |
| Allegheny | 662 | 193 | 29% | 234 | 35% | 218 | 33% | 17 | 3% | 43.3 |
| Armstrong* | 21 | - | - | 10 | 48% | 8 | 38% | - | - | 44.7 |
| Beaver | 67 | - | - | 24 | 36% | 25 | 37% | - | - | 44.3 |
| Bedford* | 23 | 7 | 30% | 8 | 35% | 8 | 35% | 0 | 0% | 43.1 |
| Berks | 186 | - | - | 86 | 46% | 57 | 31% | - | - | 43.5 |
| Blair* | 57 | 15 | 26% | 30 | 53% | 12 | 21% | 0 | 0% | 41.9 |
| Bradford* | 27 | - | - | 9 | 33% | 12 | 44% | - | - | 48.0 |
| Bucks | 368 | 78 | 21% | 175 | 48% | 108 | 29% | 7 | 2% | 43.9 |
| Butler* | 115 | 44 | 38% | 47 | 41% | - | - | - | - | 39.7 |
| Cambria* | 47 | 20 | 43% | 18 | 38% | 9 | 19% | 0 | 0% | 38.9 |
| Cameron* | 0 | 0 | - | 0 | - | 0 | - | 0 | - | - |
| Carbon* | 22 | - | - | 14 | 64% | - | - | - | - | 44.0 |
| Centre* | 83 | 32 | 39% | 33 | 40% | - | - | - | - | 40.5 |
| Chester | 273 | 64 | 23% | 117 | 43% | 86 | 32% | 6 | 2% | 44.2 |
| Clarion* | 13 | - | - | - | - | - | - | 0 | 0% | 40.8 |
| Clearfield* | 31 | 10 | 32% | 12 | 39% | 9 | 29% | 0 | 0% | 41.4 |
| Clinton* | 17 | - | - | - | - | 7 | 41% | 0 | 0% | 41.3 |
| Columbia* | 32 | - | - | 22 | 69% | - | - | 0 | 0% | 40.2 |
| Crawford* | 39 | 10 | 26% | 14 | 36% | 15 | 38% | 0 | 0% | 43.5 |
| Cumberland | 169 | - | - | 83 | 49% | 59 | 35% | - | - | 44.4 |
| Dauphin | 182 | 54 | 30% | 68 | 37% | 54 | 30% | 6 | 3% | 43.1 |
| Delaware | 243 | 61 | 25% | 100 | 41% | 73 | 30% | 9 | 4% | 44.2 |
| Elk* | 13 | - | - | - | - | - | - | - | - | 46.2 |
| Erie | 148 | 49 | 33% | 60 | 41% | 39 | 26% | 0 | 0% | 41.6 |
| Fayette* | 55 | 18 | 33% | 28 | 51% | 9 | 16% | 0 | 0% | 40.9 |
| Forest* | - | 0 | 0% | - | - | - | - | 0 | 0% | 52.0 |
| Franklin* | 61 | 17 | 28% | 29 | 48% | 15 | 25% | 0 | 0% | 42.1 |
| Fulton* | - | - | - | - | - | - | - | 0 | 0% | 42.2 |
| Greene* | 11 | - | - | - | - | - | - | 0 | 0% | 43.7 |
| Huntingdon* | 18 | - | - | 6 | 33% | 7 | 39% | - | - | 42.4 |
| Indiana* | 27 | 9 | 33% | 14 | 52% | - | - | - | - | 38.3 |
| Jefferson* | 15 | 6 | 40% | - | - | - | - | - | - | 40.1 |
| Juniata* | 6 | - | - | - | - | - | - | 0 | 0% | 46.8 |

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 10:
**DENTAL HYGIENIST AGE AND AVERAGE AGE
BY COUNTY OF PRIMARY JOB, CONTINUED**

| County | Total | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | | Average Age |
|-----------------|-------|-----------|---------|------------|---------|-------------|---------|-----------|---------|-------------|
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent | |
| Lackawanna | 126 | - | - | 61 | 48% | 34 | 27% | - | - | 42.7 |
| Lancaster | 303 | 92 | 30% | 122 | 40% | 85 | 28% | - | - | 42.0 |
| Lawrence* | 27 | 6 | 22% | 11 | 41% | 10 | 37% | 0 | 0% | 44.5 |
| Lebanon | 60 | 24 | 40% | 21 | 35% | - | - | - | - | 41.5 |
| Lehigh | 190 | - | - | 84 | 44% | 61 | 32% | - | - | 44.4 |
| Luzerne | 190 | - | - | 113 | 59% | 39 | 21% | - | - | 41.8 |
| Lycoming* | 72 | 10 | 14% | 35 | 49% | 27 | 38% | 0 | 0% | 44.8 |
| McKean* | 13 | 6 | 46% | - | - | - | - | 0 | 0% | 39.2 |
| Mercer* | 43 | 9 | 21% | 20 | 47% | 14 | 33% | 0 | 0% | 42.1 |
| Mifflin* | 18 | - | - | 9 | 50% | - | - | 0 | 0% | 43.0 |
| Monroe* | 60 | - | - | 23 | 38% | 21 | 35% | - | - | 44.5 |
| Montgomery | 547 | 104 | 19% | 223 | 41% | 199 | 36% | 21 | 4% | 45.8 |
| Montour* | 14 | 8 | 57% | - | - | - | - | 0 | 0% | 38.7 |
| Northampton | 181 | - | - | 64 | 35% | 81 | 45% | - | - | 45.7 |
| Northumberland* | 37 | 11 | 30% | 17 | 46% | 9 | 24% | 0 | 0% | 41.0 |
| Perry* | 6 | 0 | 0% | - | - | - | - | 0 | 0% | 46.5 |
| Philadelphia | 358 | 120 | 34% | 142 | 40% | - | - | - | - | 41.2 |
| Pike* | 17 | - | - | 8 | 47% | 6 | 35% | - | - | 43.8 |
| Potter* | - | 0 | 0% | - | - | - | - | 0 | 0% | 51.0 |
| Schuylkill* | 59 | 16 | 27% | 32 | 54% | 11 | 19% | 0 | 0% | 41.2 |
| Snyder* | 19 | - | - | 10 | 53% | - | - | 0 | 0% | 41.6 |
| Somerset* | 24 | - | - | 8 | 33% | 12 | 50% | - | - | 48.0 |
| Sullivan* | 0 | 0 | - | 0 | - | 0 | - | 0 | - | - |
| Susquehanna* | 7 | - | - | - | - | - | - | 0 | 0% | 44.0 |
| Tioga* | 10 | - | - | - | - | - | - | - | - | 42.4 |
| Union* | 29 | 10 | 34% | 14 | 48% | - | - | - | - | 39.5 |
| Venango* | 14 | - | - | 7 | 50% | - | - | 0 | 0% | 43.7 |
| Warren* | 24 | 8 | 33% | 11 | 46% | - | - | - | - | 40.1 |
| Washington* | 94 | 34 | 36% | 31 | 33% | 29 | 31% | 0 | 0% | 41.2 |
| Wayne* | 21 | - | - | 11 | 52% | 6 | 29% | - | - | 44.8 |
| Westmoreland | 199 | 49 | 25% | 102 | 51% | - | - | - | - | 42.4 |
| Wyoming* | 12 | - | - | 6 | 50% | - | - | 0 | 0% | 43.6 |
| York | 205 | - | - | 90 | 44% | 67 | 33% | - | - | 44.5 |

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

- Numbers less than six are withheld for privacy purposes and are not displayed in the county results, although they are included in the total Pennsylvania numbers and total rural/urban numbers.

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA

**APPENDIX 11:
YEARS ANTICIPATED REMAINING IN DENTAL HYGIENE IN PENNSYLVANIA
BY COUNTY OF PRIMARY JOB**

| County | Total | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | |
|----------------|-------|-----------|---------|------------|---------|-------------|---------|-----------|---------|
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Pennsylvania | 6,044 | 816 | 14% | 1,364 | 23% | 1,352 | 22% | 2,512 | 42% |
| Rural Counties | 1,398 | 190 | 14% | 291 | 21% | 318 | 23% | 599 | 43% |
| Urban Counties | 4,646 | 626 | 13% | 1,073 | 23% | 1,034 | 22% | 1,913 | 41% |
| Adams* | 37 | - | - | - | - | 10 | 27% | 14 | 38% |
| Allegheny | 661 | 104 | 16% | 184 | 28% | 125 | 19% | 248 | 38% |
| Armstrong* | 21 | - | - | - | - | 8 | 38% | 6 | 29% |
| Beaver | 67 | 14 | 21% | 11 | 16% | 18 | 27% | 24 | 36% |
| Bedford* | 23 | - | - | 6 | 26% | - | - | 9 | 39% |
| Berks | 186 | 22 | 12% | 41 | 22% | 37 | 20% | 86 | 46% |
| Blair* | 57 | - | - | - | - | 18 | 32% | 25 | 44% |
| Bradford* | 27 | 9 | 33% | - | - | - | - | 7 | 26% |
| Bucks | 368 | 45 | 12% | 81 | 22% | 84 | 23% | 158 | 43% |
| Butler* | 115 | 12 | 10% | 28 | 24% | 19 | 17% | 56 | 49% |
| Cambria* | 47 | - | - | 11 | 23% | - | - | 24 | 51% |
| Cameron* | 0 | 0 | - | 0 | - | 0 | - | 0 | - |
| Carbon* | 22 | - | - | - | - | 6 | 27% | 8 | 36% |
| Centre* | 83 | 14 | 17% | 14 | 17% | 15 | 18% | 40 | 48% |
| Chester | 273 | 33 | 12% | 66 | 24% | 79 | 29% | 95 | 35% |
| Clarion* | 13 | - | - | - | - | 6 | 46% | - | - |
| Clearfield* | 31 | 6 | 19% | - | - | - | - | 16 | 52% |
| Clinton* | 16 | - | - | - | - | - | - | 9 | 56% |
| Columbia* | 32 | - | - | - | - | 12 | 38% | 12 | 38% |
| Crawford* | 39 | 7 | 18% | 11 | 28% | 8 | 21% | 13 | 33% |
| Cumberland | 168 | 29 | 17% | 42 | 25% | 36 | 21% | 61 | 36% |
| Dauphin | 179 | 25 | 14% | 37 | 21% | 33 | 18% | 84 | 47% |
| Delaware | 243 | 26 | 11% | 54 | 22% | 58 | 24% | 105 | 43% |
| Elk* | 13 | - | - | - | - | - | - | 6 | 46% |
| Erie | 148 | 13 | 9% | 34 | 23% | 28 | 19% | 73 | 49% |
| Fayette* | 55 | 8 | 15% | 12 | 22% | 15 | 27% | 20 | 36% |
| Forest* | - | - | - | 0 | 0% | 0 | 0% | - | - |
| Franklin* | 61 | 8 | 13% | 14 | 23% | 15 | 25% | 24 | 39% |
| Fulton* | - | 0 | 0% | - | - | - | - | - | - |
| Greene* | 11 | - | - | - | - | - | - | - | - |
| Huntingdon* | 18 | - | - | - | - | - | - | 10 | 56% |
| Indiana* | 27 | - | - | 7 | 26% | - | - | 15 | 56% |
| Jefferson* | 15 | - | - | - | - | - | - | 9 | 60% |
| Juniata* | 6 | 0 | 0% | - | - | 0 | 0% | - | - |

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA

**APPENDIX 11:
YEARS ANTICIPATED REMAINING IN DENTAL HYGIENE IN PENNSYLVANIA
BY COUNTY OF PRIMARY JOB, CONTINUED**

| County | Total | 0-5 Years | | 6-10 Years | | 11-15 Years | | 16+ Years | |
|-----------------|-------|-----------|---------|------------|---------|-------------|---------|-----------|---------|
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Lackawanna | 125 | 15 | 12% | 26 | 21% | 28 | 22% | 56 | 45% |
| Lancaster | 303 | 42 | 14% | 66 | 22% | 60 | 20% | 135 | 45% |
| Lawrence* | 27 | - | - | 8 | 30% | - | - | 12 | 44% |
| Lebanon | 60 | 7 | 12% | 10 | 17% | 10 | 17% | 33 | 55% |
| Lehigh | 189 | 23 | 12% | 47 | 25% | 44 | 23% | 75 | 40% |
| Luzerne | 189 | 18 | 10% | 33 | 17% | 52 | 28% | 86 | 46% |
| Lycoming* | 72 | 6 | 8% | 18 | 25% | 23 | 32% | 25 | 35% |
| McKean* | 13 | - | - | - | - | - | - | 6 | 46% |
| Mercer* | 42 | 6 | 14% | 9 | 21% | 12 | 29% | 15 | 36% |
| Mifflin* | 18 | - | - | - | - | 6 | 33% | 10 | 56% |
| Monroe* | 60 | 9 | 15% | 13 | 22% | 14 | 23% | 24 | 40% |
| Montgomery | 547 | 76 | 14% | 125 | 23% | 121 | 22% | 225 | 41% |
| Montour* | 14 | - | - | - | - | - | - | 8 | 57% |
| Northampton | 181 | 26 | 14% | 47 | 26% | 49 | 27% | 59 | 33% |
| Northumberland* | 36 | - | - | - | - | 12 | 33% | 15 | 42% |
| Perry* | 6 | - | - | - | - | - | - | - | - |
| Philadelphia | 357 | 55 | 15% | 74 | 21% | 76 | 21% | 152 | 43% |
| Pike* | 17 | - | - | - | - | - | - | 7 | 41% |
| Potter* | - | - | - | - | - | - | - | - | - |
| Schuylkill* | 59 | - | - | - | - | 11 | 19% | 33 | 56% |
| Snyder* | 19 | - | - | 7 | 37% | - | - | 9 | 47% |
| Somerset* | 24 | - | - | 10 | 42% | 7 | 29% | - | - |
| Sullivan* | 0 | 0 | - | 0 | - | 0 | - | 0 | - |
| Susquehanna* | 7 | - | - | - | - | - | - | - | - |
| Tioga* | 10 | - | - | - | - | - | - | - | - |
| Union* | 29 | - | - | - | - | 9 | 31% | 12 | 41% |
| Venango* | 14 | - | - | - | - | 6 | 43% | - | - |
| Warren* | 24 | - | - | - | - | - | - | 15 | 63% |
| Washington* | 94 | 17 | 18% | 19 | 20% | 22 | 23% | 36 | 38% |
| Wayne* | 21 | - | - | - | - | - | - | 11 | 52% |
| Westmoreland | 199 | 26 | 13% | 47 | 24% | 48 | 24% | 78 | 39% |
| Wyoming* | 12 | - | - | - | - | - | - | 6 | 50% |
| York | 203 | 27 | 13% | 48 | 24% | 48 | 24% | 80 | 39% |

* Rural counties were identified using the Center for Rural Pennsylvania's definition and 2010 Census data.

- Numbers less than six are withheld for privacy purposes and are not displayed in the county results, although they are included in the total Pennsylvania numbers and total rural/urban numbers.

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 12:
**COMPARISON OF RESPONSES TO THE PENNSYLVANIA SURVEY OF
DENTAL HYGIENISTS, 2003-2011***

| Measure | 2003 | 2005 | 2007 | 2009 | 2011 |
|--|------|------|------|------|------|
| Gender | | | | | |
| Male | 1% | 1% | 1% | 1% | 1% |
| Female | 99% | 99% | 99% | 99% | 99% |
| Race | | | | | |
| White | 98% | 97% | 97% | 97% | 96% |
| Black | 1% | 1% | 1% | 1% | 1% |
| Asian | < 1% | < 1% | 1% | 1% | 1% |
| Other | < 1% | 1% | 1% | 1% | 1% |
| Native Hawaiian/Pacific Islander | < 1% | < 1% | < 1% | < 1% | < 1% |
| American Indian/Alaska Native | 0% | < 1% | < 1% | 1% | < 1% |
| Ethnicity | | | | | |
| Hispanic | 1% | 1% | 1% | 1% | 1% |
| Average age | 39.6 | 40.8 | 41.4 | 42.3 | 43.2 |
| Age | | | | | |
| 20-34 | 33% | 29% | 28% | 27% | 26% |
| 35-49 | 52% | 52% | 49% | 46% | 43% |
| 50-64 | 14% | 18% | 22% | 26% | 30% |
| 65+ | 1% | 1% | 1% | 1% | 2% |
| Urban/rural county of practice [^] | | | | | |
| Urban | 77% | 77% | 77% | 77% | 77% |
| Rural | 23% | 23% | 23% | 23% | 23% |
| Employment status [#] | | | | | |
| Employed in dental hygiene | 91% | 90% | 91% | 90% | 89% |
| Employed, not in dental hygiene | 3% | 3% | 3% | 3% | 4% |
| Unemployed, seeking dental hygiene employment | 1% | 2% | 2% | 3% | 4% |
| Unemployed, not seeking dental hygiene employment | 4% | 4% | 3% | 3% | 2% |
| Retired | 1% | 1% | 1% | 1% | 1% |
| Student | < 1% | < 1% | < 1% | < 1% | 1% |
| Primary employment situation? [#] | | | | | |
| Direct patient care | 97% | 89% | 96% | 93% | 95% |
| Administration/management | 1% | 1% | 1% | 2% | 1% |
| Educator (includes in-service) | 2% | 2% | 2% | 3% | 2% |
| Research/consultant | < 1% | < 1% | < 1% | < 1% | < 1% |
| Other | < 1% | < 1% | < 1% | 2% | 2% |
| How satisfied are you with dental hygiene as a career? | | | | | |
| Very dissatisfied | 6% | 8% | 9% | 7% | < 1% |
| Dissatisfied | 2% | 3% | 3% | 3% | 4% |
| Satisfied | 30% | 40% | 39% | 41% | 39% |
| Very satisfied | 32% | 49% | 49% | 50% | 57% |

RESPONDENTS EMPLOYED IN HEALTH CARE
AND PROVIDED DIRECT PATIENT CARE IN PENNSYLVANIA
APPENDIX 12:
**COMPARISON OF RESPONSES TO THE PENNSYLVANIA SURVEY OF
DENTAL HYGIENISTS, 2003-2011*, CONTINUED**

| Measure | 2003 | 2005 | 2007 | 2009 | 2011 |
|--|------|------|------|------|------|
| How satisfied are you with your current primary job? | | | | | |
| Very dissatisfied | 6% | 7% | 8% | 6% | 1% |
| Dissatisfied | 3% | 5% | 5% | 5% | 4% |
| Satisfied | 36% | 44% | 44% | 46% | 45% |
| Very satisfied | 55% | 45% | 43% | 44% | 49% |
| How long do you plan to remain in dental hygiene? | | | | | |
| 0-5 years | 11% | 12% | 11% | 8% | 11% |
| 6-10 years | 26% | 25% | 25% | 21% | 21% |
| 11-15 years | 27% | 24% | 25% | 25% | 23% |
| 16+ years | 36% | 40% | 40% | 46% | 45% |

* Prior to 2009, respondents who provided direct patient care in Pennsylvania were those who reported being employed in direct patient care in Pennsylvania. Beginning in 2009, respondents who provided direct patient care in Pennsylvania were those who reported being employed in health care and provided direct patient care in Pennsylvania.

^ Urban and rural counties were defined by Center for Rural Pennsylvania's definition and U.S. Census population estimates from the survey year, except for 2011, which used 2010 U.S. Census population information.

Includes all respondents

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

APPENDIX 13: 2011 DENTAL HYGIENIST SURVEY



License Number DH _____

- License # required to avoid duplication
- Anonymous & aggregate reporting only

**Commonwealth of Pennsylvania
Department of Health
2011 Survey of Dental Hygienists**

****IF YOU COMPLETED THIS SURVEY ONLINE, please do NOT submit a paper survey.****

The Department of Health, with the support of the Department of State, requests that you complete this survey to assist in understanding trends in the dental hygienist workforce. **Individual information from this survey is confidential and will not be shared or distributed. Responses are reported in aggregate form only.** To view Dental workforce reports, visit www.health.state.pa.us/workforce. Thank you for your cooperation.

1. Year of Birth 2. Sex Male Female 3. Ethnicity: Hispanic/Latino Origin Yes No
4. Race (*Check ONE best fit based on race, not nationality or ethnicity*)

| | | |
|--|--|--------------------------------------|
| <input type="checkbox"/> American Indian/Alaska Native | <input type="checkbox"/> Black | <input type="checkbox"/> White |
| <input type="checkbox"/> Asian | <input type="checkbox"/> Native Hawaiian/ Other Pacific Islander | <input type="checkbox"/> Other _____ |
5. State of Residence (*State abbreviation*) Non-US Resident (*Check*) (*If not PA resident, skip to question 6*)

| | |
|--|---|
| 5a. County of Residence (<i>County codes page 2</i>) <input type="text"/> <input type="text"/> | 5b. Zip Code of Residence <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
|--|---|
6. In which state did you graduate from dental hygiene school? (*State abbreviation*) 6a. What year?
7. Dental Hygiene Education/Training (*Check highest degree*)

| | | | |
|--------------------------------------|---|--|--|
| <input type="checkbox"/> Certificate | <input type="checkbox"/> Associate Degree | <input type="checkbox"/> Bachelor's Degree | <input type="checkbox"/> Master's Degree |
|--------------------------------------|---|--|--|
8. Are you currently enrolled in any of the following higher education programs? (*Check one*)

| | | | |
|---|---|--|-------------------------------|
| <input type="checkbox"/> Dental Hygiene Associate Degree | <input type="checkbox"/> Dental Hygiene Master's Degree | <input type="checkbox"/> Other Master's Degree | <input type="checkbox"/> None |
| <input type="checkbox"/> Dental Hygiene Bachelor's Degree | <input type="checkbox"/> Other Bachelor's Degree | <input type="checkbox"/> Other Non-Degree | |
9. Certifications (*Check all that apply*):

| | |
|---|--------------------------------------|
| <input type="checkbox"/> Expanded Function Dental Assistant Permit | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> School teaching certificate-PA school hygienist position | <input type="checkbox"/> None |
10. Do you intend to apply for a Public Health Dental Hygiene Practitioner (PHDHP) license? Yes No (*If no, skip to question 11*)

| | | |
|---|--|--|
| 10a. At which of the following practice sites do you intend to practice as a PHDHP? (<i>Choose all that apply</i>). | | |
| <input type="checkbox"/> Correctional facility | <input type="checkbox"/> Healthcare Facility | <input type="checkbox"/> Older Adult Daily Living Center |
| <input type="checkbox"/> Domiciliary Care | <input type="checkbox"/> Personal Care Home | <input type="checkbox"/> School |
| <input type="checkbox"/> Federally-Qualified Health Center | <input type="checkbox"/> Public/Private, Federal/State Institution | <input type="checkbox"/> Other _____ |
| 10b. What county will you practice as a PHDHP? (<i>County codes page 2</i>) <input type="text"/> <input type="text"/> | | |
11. Aside from your primary job, identify the locations where you provide dental care to uninsured or underinsured individuals in Pennsylvania. (*Check all that apply*)

| | | |
|---|---|---|
| <input type="checkbox"/> Dental School Clinic | <input type="checkbox"/> FQHC or Health Center | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Dental Van | <input type="checkbox"/> School (Elementary/ High/ Other) | <input type="checkbox"/> None (<i>If None, skip to question 12</i>) |

 11a. Is this outreach unpaid volunteer work? Yes No N/A
12. Select the employment status that *most closely* resembles your current employment status. (*Check one*)

| | |
|--|--|
| <input type="checkbox"/> Employed (<i>in dental hygiene</i>) | <input type="checkbox"/> Unemployed, seeking dental hygiene employment |
| <input type="checkbox"/> Employed (<i>not in dental hygiene</i>) | <input type="checkbox"/> Unemployed, not seeking dental hygiene employment |
| <input type="checkbox"/> Retired | <input type="checkbox"/> Unemployed, disabled |
| <input type="checkbox"/> Student, Leave of Absence, or Sabbatical | |
13. Type of position (*Primary job only – check one*)

| | | | |
|--|--|---|------------------------------|
| <input type="checkbox"/> Administration/Management | <input type="checkbox"/> Educator | <input type="checkbox"/> Other Non-Patient Care | <input type="checkbox"/> N/A |
| <input type="checkbox"/> Direct Patient Care | <input type="checkbox"/> Researcher/Consultant | <input type="checkbox"/> Other _____ | |

 13a. 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
14. Indicate the approximate number of hours you spent providing **direct patient care each week in Pennsylvania during the last year** (including volunteer hours). Note: For the purpose of this report, direct patient care includes the amount of time a dental hygienist spends directly with patients in a dental practice setting and includes patient-specific office work.

| | | | | | |
|---|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|
| <input type="checkbox"/> Zero (<i>If Zero, end survey here</i>) | <input type="checkbox"/> 1-10 hours | <input type="checkbox"/> 11-19 hours | <input type="checkbox"/> 20-30 hours | <input type="checkbox"/> 31-40 hours | <input type="checkbox"/> More than 40 hours |
|---|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|

If your answer to question 14 was "Zero" (do not provide direct patient care in Pennsylvania), END survey here.
(Otherwise, resume survey)

APPENDIX 13: 2011 DENTAL HYGIENIST SURVEY, Continued

License Number: DH _____

15. Are you employed in more than one dental office?
 Yes No N/A – Volunteer/ Retired/ Not Employed in dental hygiene (If N/A, skip to question 19)
16. Identify the employment sector which best describes your primary job setting (Check one)
 Clinic or Center Retail/Industry/Business Site
 Private Practice Partnership (excluding Retail Site) School Health (Elementary/High/Other)
 Private Practice, Solo Dentist (excluding Retail Site) Other _____
- 16a. In which county is your primary job located: (Refer to county code list; if not PA, enter 00) County Code
- 16b. Indicate the number of hours you work in your primary job per week:
 1-10 hours 11-19 hours 20-30 hours 31-40 hours More than 40 hours
17. Identify the level(s) of work performed at your primary job. (Check all that apply):
 Dental Hygienist School Teaching Certificate-School Hygienist Position
 Expanded Function Dental Assistant Other _____
 Public Health Dental Hygiene Practitioner
18. How satisfied are you with your current primary job? (Check one best fit)
 Very Satisfied Satisfied Dissatisfied Very Dissatisfied
19. How satisfied are you with dental hygiene as a career? (Check one best fit)
 Very Satisfied Satisfied Dissatisfied Very Dissatisfied
20. How long have you been a dental hygienist in Pennsylvania?
 0 – 2 years 3 – 5 years 6 – 10 years 11 – 15 years 16+ years
21. How much longer do you plan to remain in dental hygiene in Pennsylvania? (Check one best fit)
 0 – 2 years 3 – 5 years 6 – 10 years 11 – 15 years 16+ years Currently not in practice
22. How much longer do you plan to remain in dental hygiene? (Check one best fit)
 0 – 2 years 3 – 5 years 6 – 10 years 11 – 15 years 16+ years Currently not in practice
23. If you plan to leave direct patient care within the next 5 years, indicate your principal reason below (Check one best fit).
 Career Change Physical Reasons Stress/Burnout
 Family Reasons Retirement Other _____
 Financial Reasons-Salary/Benefits Return to School N/A
 Financial Reasons- Other
24. Do you personally provide dental/medical translation to patients? Yes No (If "No," end survey here)
 24a. In addition to English, in which language(s) can you communicate effectively for most clinical purposes? (Check all that apply)
 Arabic Italian Polish Sign Language Vietnamese
 Chinese PA Dutch Russian Spanish Other _____

THANK YOU!!

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 | 00=NOT in PA |

Sources

¹ Academy of General Dentistry, Student Resources: Postdoctoral Programs, on the internet at <http://www.agd.org/students/education/postdoctoral.asp> (last accessed June 27, 2012).

²Chen, Pauline W., M.D., *When the Patient Gets Lost in Translation* (April 23, 2009) New York Times, on the internet at <http://www.nytimes.com/2009/04/23/health/23chen.html> (last accessed December 22, 2011).

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