



2017-2018 Workforce Survey of Dental Hygienists

August 2020



Acknowledgements

Author:

Robert Traul, DDS

Oral Health Epidemiologist:

Louiza Saint-Hillien, MPH

Contributors:

Edward Zapert, DMD



The Florida Department of Health's Public Health Dental Program would like to thank the Department's Division of Community Health Promotion and Division of Medical Quality Assurance, as well our partners at the Florida Dental Association, the Florida Dental Hygiene Association, and the Florida Department of Health in Leon County (Molar Express).

A special thank you to the dental hygienists who took time to participate in the survey for their efforts to help build a better understanding of the dental workforce in Florida.

Suggested Citation: Florida Department of Health. (2019). 2017-2018 Workforce Survey of Dental Hygienists.

The Public Health Dental Program: dental@flhealth.gov or 850-245-4333

Table of Contents

Executive Summary	1
Key Findings.....	2
List of Figures and Tables	2
Figures	4
Tables	5
Findings	7
Licensed Dental Hygienists Practicing in Florida – Demographics.....	7
Licensed Dental Hygienists Practicing in Florida – Professional Education	10
Licensed Dental Hygienists Practicing in Florida – Practice Characteristics	12
Licensed Dental Hygienists Practicing in Florida – Retention and Attrition.....	20
Conclusions	24
References	24
Appendix A: 2017-2018 Dental Hygienist Workforce Survey	25
Appendix B: Survey Methodology and Analysis	31

Executive Summary

In day-to-day clinical practice, dentists typically work collaboratively with dental hygienists and dental assistants. Dental hygienists provide a number of services for patients including assessing their oral health condition, taking and developing dental radiographs (x-rays), removing deposits from tooth surfaces, applying topical fluorides and dental sealants to the teeth, teaching patients proper oral hygiene techniques, and counseling patients about nutrition and its impact on oral health.

Dental hygienists may work in private dental offices, clinics, or in publicly supported health access settings. Florida statutes authorize licensed dental hygienists to provide educational, preventive, and therapeutic dental services and related procedures. Some services may be provided without supervision of a dentist, while others require direct, indirect, or general supervision. A dental hygienist licensed in Florida may perform many remediable tasks in a *health access setting* without the physical presence, prior examination, or authorization of a dentist. Such tasks include dental charting, recording of a patient's health history, application of topically-applied fluorides and dental sealants, and removal of calculus deposits, accretions, and stains from tooth surfaces.¹ A *health access setting* is defined as: "...a program or an institution of the Department of Children and Family Services, the Department of Health, the Department of Juvenile Justice, a nonprofit community health center, a Head Start center, a federally qualified health center or look-alike as defined by federal law, a school-based prevention program, a clinic operated by an accredited college of dentistry, or an accredited dental hygiene program in this state...."²

Florida statutes and administrative code rules require renewal of dental hygienist licenses every two years, including the biennial period which ended on February 28, 2018. Since 2009, the Florida Department of Health (Department) has developed a workforce survey for dental hygienists. The fifth administration of this survey coincided with the licensure renewal deadline of February 28, 2018. All responses are self-reported. Approximately 88.3% of dental hygienists with an active Florida license responded to the 2017-2018 survey.

This report will assist the Workforce Advisory Committee (Committee) in its efforts to provide evidence-based recommendations to the State Surgeon General and the Department on matters concerning dental workforce needs. The Committee is composed of representatives from the Department's Public Health Dental Program, the Florida Dental Association, and the Florida Dental Hygiene Association. The report identifies the supply of workforce professionals practicing in Florida and examines factors related to dental practice location and career plans. The report assists those in the oral health career industry and other decision makers to better prepare strategic efforts for enhancing the oral health care delivery system in Florida.

To better assist the Workforce Advisory Committee and those in the oral health career industry, this fifth report includes graphs comparing current findings with findings from the four previous Workforce Survey of Dental Hygienists Reports, which can help identify trends within the changing workforce over a 10-year period.

¹ Section 466.023, Florida Statutes, *Dental hygienists; scope and area of practice*.

² Section 466.003, Florida Statutes, *Definitions*.

Key Findings

Key findings from this report include the following:

Demographics

- Of 15,140 dental hygienists who applied for licensure renewal in 2018, 14,156 (93.5%) dental hygienists were designated having “Active” license status; a total of 12,505 (88.3%) active dental hygienists responded to the 2017-2018 workforce survey.
- Of the 12,505 actively practicing dental hygienists who responded to the 2017-2018 survey, 9,980 (79.8%) practiced in Florida.
- The gender distribution of the respondents has remained mostly constant since the 2009-2010 survey. For the 2017-2018 survey, 95.3% of respondents were female and 4.1% were males.
- The proportion of respondents within the 30-39 years and 40-49 years age groups has declined over the last 10 years while proportion of respondents within the 50-59 years and 60-69 years age groups has increased.
- The mean age of dental hygienists for the 2017-2018 survey was 46.3% years for females, and 43.3% years for males, an increase from 43.4 years and 41.3 years, respectively, in the 2009-2010 survey.
- White respondents declined from 76.0% in 2009-2010 to 68.4% in 2017-2018, while Hispanic, Black, and Asian respondents increased.
- The language with the highest percentage of respondents actively practicing in Florida who spoke a language in addition to English in 2017-2018 was Spanish at 79.2% and the next highest was Portuguese at 4.3%.
- The percentage of respondents actively practicing in Florida who spoke one or more languages other than English in 2017-2018 was highest among Hispanic/Latino (86.3%) and Asian respondents (59.1%).

Professional Education

- The majority (73.5%) of dental hygienists actively practicing in Florida reported to have graduated from an in-state Florida dental hygiene program in the 2017-2018 survey.
- The percentage of graduates from Florida dental hygienist programs increased by 3.1% over the past 10 years while the percentage of graduates from out-of-state programs declined by 21%.
- The dental hygiene programs in Florida graduating the largest number of dental hygienists at the time of the 2017-2018 survey were: Miami Dade College, St. Petersburg College, and Palm Beach State College.
- The majority of respondents (78.5%) reported to have an associate degree as their highest dental hygiene degree on the 2017-2018 survey.
- About 44.8% of dental hygienist respondents were not credentialed to provide local anesthesia and 41.5% were credentialed according to the 2017-2018 survey.

Practice Characteristics

- The counties with the greatest number of practicing dental hygienist respondents during the 2017-2018 survey were Broward, Miami-Dade, and Palm Beach. The counties with the least respondents were Lafayette, Jefferson, and Liberty.
- The majority of dental hygienists actively practicing in Florida (93.1%) reported working in a private office setting in the 2017-2018 survey.

- Most respondents to the 2017-2018 survey (86.8%) reported their primary practice as general and 8.2% reported their practice type as specialty.
- Of the dental hygienists who reported their practice type as specialty in the 2017-2018 survey, the majority of them were in Dental Public Health (64.0%).
- The majority of dental hygienist respondents actively practicing in Florida (73.1%) reported working for one employer or in one practice setting only in 2017-2018.
- Among dental providers who reported to providing services in a health access setting in 2017-2018, most were in school settings: School-Based Sealant Programs (38.7%) and School-Based Dental Programs (32.3%).
- While the majority of respondents reported they did not have a Medicaid provider number for health access settings (97.2%) during the 2017-2018 survey, about 16.6% of respondents who provided services to health access settings had a Medicaid number.
- Approximately 69.3% of respondents in the 2017-2018 survey did not provide volunteer hygiene services in the last 24 months.
- A majority of dental hygienist respondents actively practicing in Florida (71.6%) reported that they practiced solely in the county in which they reside.
- Approximately 61.7% of dental hygienist respondents actively practicing in Florida reported no difficulty in finding employment as a dental hygienist during the 2017-2018 survey; 14.3% dental hygienists actively practicing in Florida reported they were not able to obtain full-time employment.

Productivity

- About a third of dental hygienists (33.8%) reported to have more than 20 years of practice during the 2017-2018 survey.
- Of the dental hygienist respondents actively practicing in Florida, 83.3% practice between 11 and 12 months of the year.
- Over the last 10 years, the percentage of respondents who worked 21-30 hours per week decreased by 13.6% while the percentage of respondents who worked 40 or more hours per week increased by 84.6%.
- The majority of dental hygienist respondents actively practicing in Florida (87.2%) reported that they were not seeking any additional employment at this time.
- Of those dental hygienists who reported seeking further employment in the 2017-2018 survey, 42.8% were seeking an additional 5 to 8 hours a week; about 13.9% were seeking 17 or more additional work hours per week.
- The percentage of dental hygienists who reported having 26-50 patient encounters decreased from 84.6% in 2009-2010 to 61.8% in 2017-2018.

Retention and Attrition

- Overall, 14.9% of dental hygienist respondents actively practicing in Florida reported they plan to end their practice of dental hygiene in Florida within the next five years during the 2017-2018 survey, an increase from 9.8% in the 2009-2010 survey.
- The majority of survey respondents with active licenses (79.8%) practiced in Florida and the remaining 20.2% did not practice in this state during the 2017-2018 survey.
- About 38.6% of dental hygienist respondents with an active license not practicing in Florida reported they practiced in another state, while 8.3% indicated they were unemployed and seeking employment related to dentistry during the 2017-2018 survey.
- Of dental hygienist respondents with an active license not practicing in Florida, 83.0% stated they plan to relocate to Florida sometime in the future.

List of Figures and Tables

Figures

Figure 1. Gender Distribution of Dental Hygienists Practicing in Florida by Survey Year	7
Figure 2. Age Distribution of Dental Hygienists Practicing in Florida by Survey Year	7
Figure 3. Average Age by Gender of Dental Hygienists Practicing in Florida by Survey Year.....	8
Figure 4. Race/Ethnicity of Dental Hygienists Practicing in Florida by Survey Year	8
Figure 5. Percentage of Florida Dental Hygienists with Additional Language Speaking Ability by Race/Ethnicity, 2017-2018.....	10
Figure 6. Program of Graduation among Dental Hygienists Practicing in Florida by Survey Year	10
Figure 7. Distribution of Dental Hygienists by Dental Hygiene School of Graduation in Florida, 2017-2018	11
Figure 8. Distribution of Highest Dental Hygiene Degree among Florida's Dental Hygienists, 2017-2018	11
Figure 9. Number of Dental Hygienists Practicing in Florida by County, 2017-2018	12
Figure 10. Dental Practice Specialties among Dental Hygienists Practicing in Florida, 2017-2018	13
Figure 11. Dental Hygienists' Years in Current Practice by Practice Setting, 2017-2018	14
Figure 12. Distribution of Dental Services Provided in Health Access Settings among Dental Hygienists Practicing in Florida, 2017-2018.....	14
Figure 13. Medicaid Number Distribution among Dental Hygienists Practicing in Florida by Health Access Settings, 2017-2018	15
Figure 14. Settings for the Provision of Volunteer Services by Practice Type, 2017-2018	16
Figure 15. Difficulties Dental Hygienists Practicing in Florida Experience in Finding a Position as a Dental Hygienist, 2017-2018.....	17
Figure 16. Number of Years of Practice among Florida's Dental Hygienists, 2017-2018.....	17
Figure 17. Number of Practice Months in the Past Year among Dental Hygienists Practicing in Florida, 2017-2018.....	18
Figure 18. Distribution of Dental Hygienists Practicing in Florida by Hours of Practice per Week by Survey Year	18
Figure 19. Distribution of Additional Hours of Work per Week Sought by Dental Hygienists Practicing in Florida, 2017-2018	19
Figure 20. Average Number of Patient Encounters per Week among Dental Hygienists Practicing in Florida by Survey Year	19
Figure 21. Percentage of Dental Hygienists Practicing in Florida who Plan to End Their Practice in Florida over the Next Five Years by Survey Year.....	20
Figure 22. Career Plans of Dental Hygienists Practicing in Florida over the Next Five Years by Age Group, 2017-2018.....	20
Figure 23. Number and Percentage of Dental Hygienists Practicing in Florida Who Plan to Retire in the Next Five Years by Dental Practice Type, 2017-2018.....	21

Figure 24. Reasons Dental Hygienists with an Active Florida License Do Not Use Florida License to Practice in the State, 2017-2018 23

Figure 25. Future Plans to Practice in Florida among Dental Hygienists Not Currently Working in the State, 2017-2018 24

Tables

Table 1. Additional Languages Spoken by Dental Hygienists Practicing in Florida by Race/Ethnicity, 2017-2018..... 9

Table 2. Career Plans of Florida's Dental Hygienists over the Next Five Years by Age Group and Race/Ethnicity, 2017-2018 21

Table 3. Profile of Dental Hygienists with an Active Florida License by Practice Status, 2017-2018..... 22

Introduction

Florida statutes and administrative code rules require renewal of dental licenses biennially by the end of February of even-numbered years. The most recent renewal period ended on February 28, 2018. The Florida Department of Health (Department) prepared and administered a workforce survey of dental hygienists to coincide with the license renewal process. (See Appendix A for accompanying survey). As part of their online renewal, dental hygienists were asked to voluntarily complete the survey. All responses are self-reported.

This report presents data from the 2017-2018 workforce survey of dental hygienists and historical data from the past four surveys. The survey was designed to obtain information concerning Florida's dental workforce that would better inform health care policymakers and shape oral health care policy development. Analysis of responses is guided by those objectives. In order to address the dental workforce as a whole, it is recommended that the results of this report be considered alongside the 2017-2018 Workforce Survey of Dentists results.

The survey consisted of questions soliciting responses regarding demographics, professional education, practice characteristics, productivity, and retention and attrition. The survey is designed to obtain an understanding of the changing landscape of the dental hygienist workforce. The survey is not designed to address population growth and maintenance of the current level of service and does not address portions of the population not currently served.

Licensure data, maintained by the Department's Division of Medical Quality Assurance, provided additional data for this report. A more detailed statement of survey methods and data analysis is included in Appendix B. Any changes in dental practice status occurring between survey completion and the report reference date are not reflected in the data. Therefore, counts or estimates of dental hygienists actively practicing or not practicing in Florida are approximate with respect to the report's reference date. It should be noted the number of responses for individual questions varied greatly since the workforce survey contained skip patterns and respondents may not have completed all questions. Thus, the number of responses per question is provided for each applicable figure in the report.

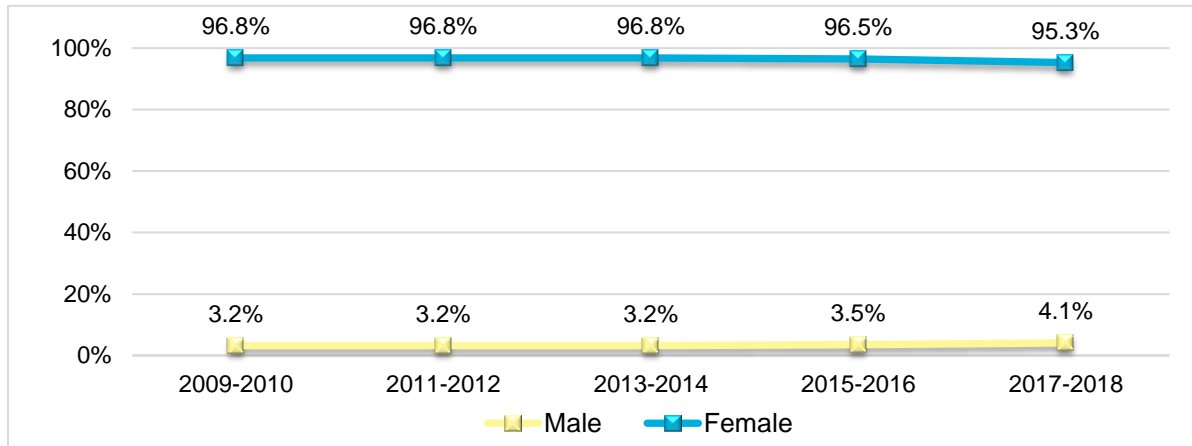
For the purposes of data analysis and reporting for this report, survey responses were restricted to those dental hygienists with an active license status; it does not include those with an inactive status which may include some retired dental hygienists. The response rate for the 2017-2018 Workforce Survey of Dental Hygienists among this population was 88.3%. Most of the report was restricted to those who indicated they are currently practicing within the state of Florida.

Findings

Licensed Dental Hygienists Practicing in Florida – Demographics

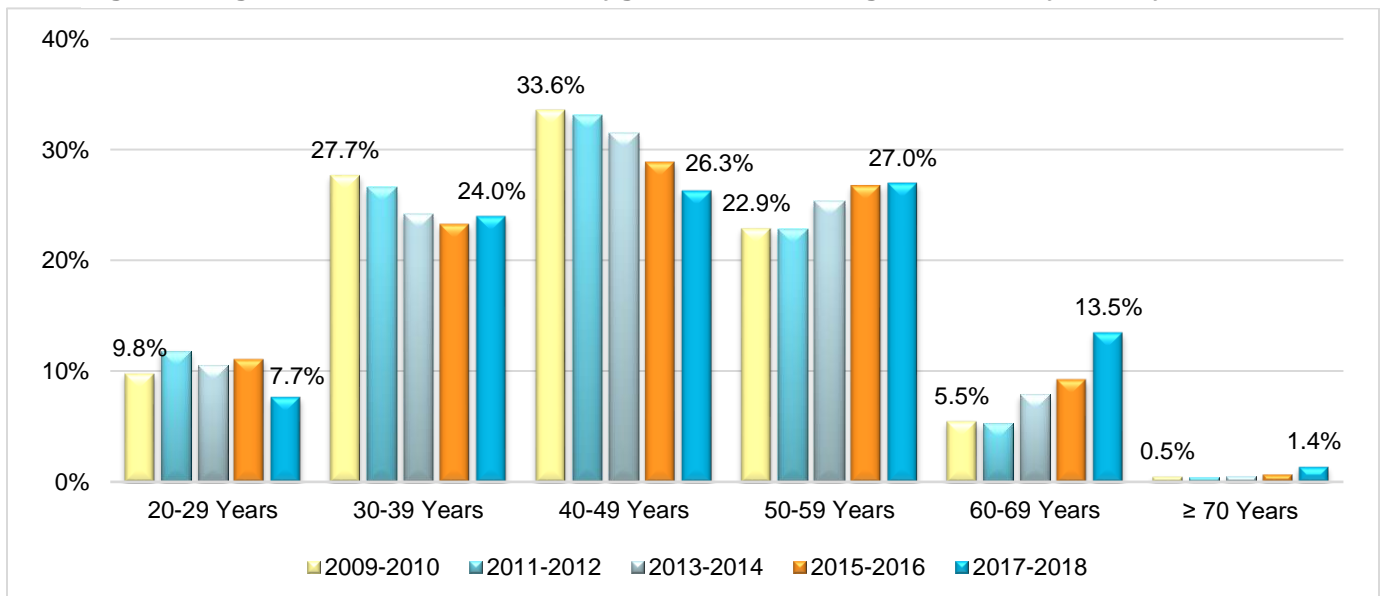
Of the 9,980 dental hygienists with active licenses practicing in Florida who responded to the 2017-2018 survey, females represented 95.3% of the respondents and the remaining 4.1% were males (Figure 1). While the male respondents slightly increased over 10 years, the gender distribution has remained mostly constant for 10 years.

Figure 1. Gender Distribution of Dental Hygienists Practicing in Florida by Survey Year



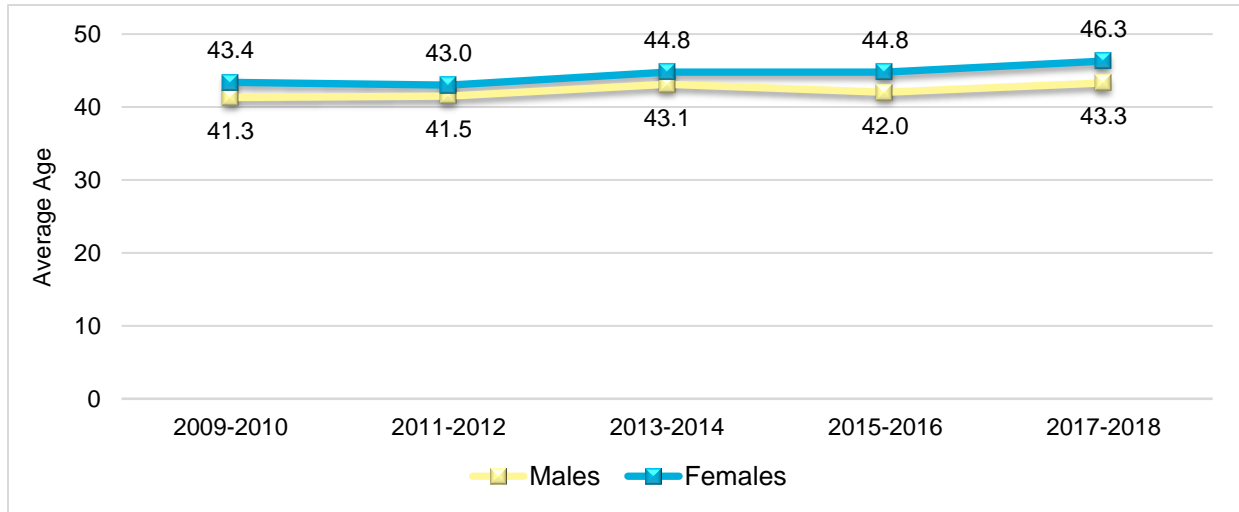
As shown in Figure 2, the age group with the largest percentage of respondents practicing in Florida changed from those ages 40-49 years to those ages 50-59 years over the last 10 years, although there was a very small difference (0.7 percentage points) between these two age groups in 2017-2018. There has been a substantial increase (145%) in those ages 60-69 years old during the same time frame from 5.5% to 13.5%

Figure 2. Age Distribution of Dental Hygienists Practicing in Florida by Survey Year



The mean age for respondents practicing in Florida during 2017-2018 was 46.3 years for females and 43.3 years for males (Figure 3). The average age increased by 6.7% for males and 4.8% for females over the 10-year period.

Figure 3. Average Age by Gender of Dental Hygienists Practicing in Florida by Survey Year



Respondents in the 2017-2018 survey were predominantly White (68.4%) or Hispanic/Latino (21.8%). Black and Asian dental hygienists practicing in Florida comprised approximately 3.7% and 2.9%, respectively, of dental hygiene workforce respondents (Figure 4). From 2009-2010 to 2017-2018, the percentage of White respondents decreased by 10% from 76.0% to 68.4% while Black, Asian, and Hispanic respondents increased by 85%, 45%, and 21.1% respectively.

Figure 4. Race/Ethnicity of Dental Hygienists Practicing in Florida by Survey Year

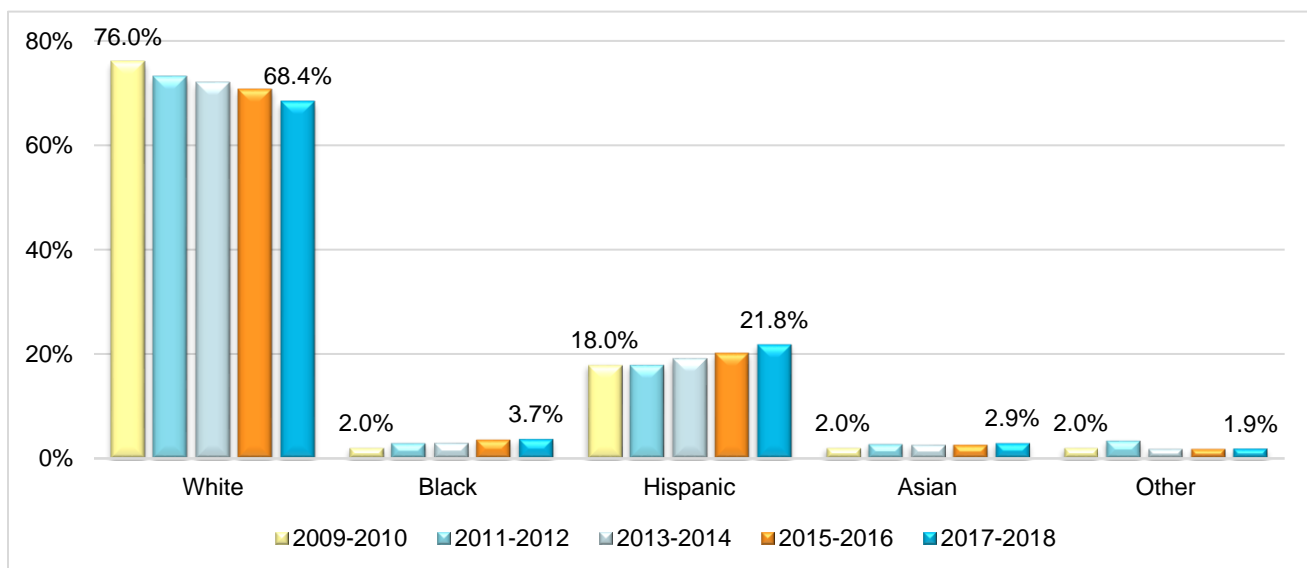


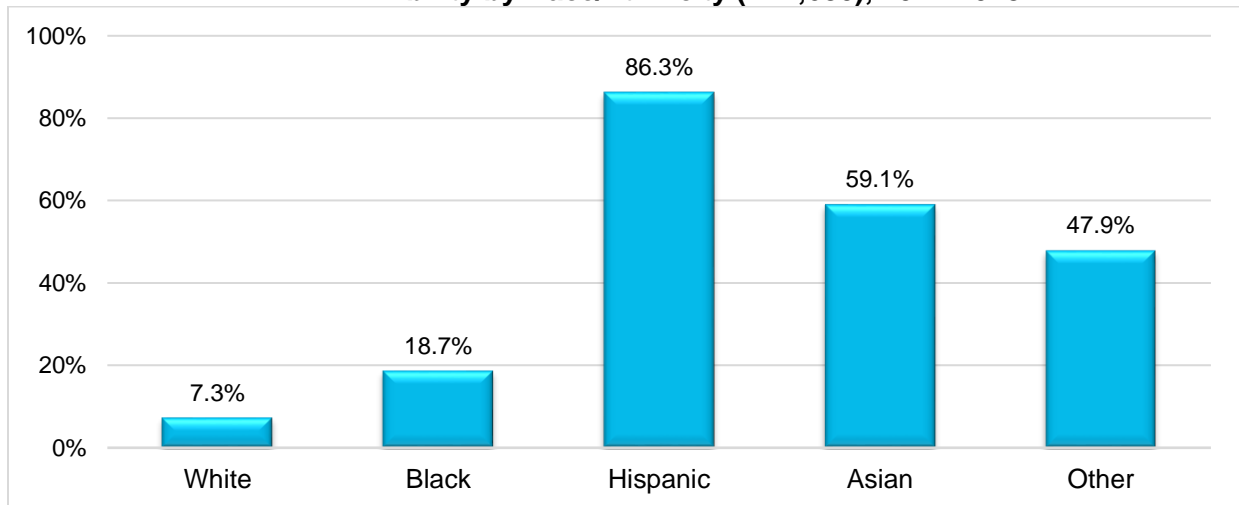
Table 1 identifies the additional languages spoken by respondents with active licenses practicing in Florida who reported speaking a language in addition to English during the 2017-2018 survey. Overall, 27.4% of respondents spoke another language in addition to English. Spanish was the most frequently spoken non-English language (79.3%). The second most common non-English language spoken was Portuguese (4.3%).

Table 1. Additional Languages Spoken by Dental Hygienists Practicing in Florida by Race/Ethnicity (n=2,702), 2017-2018

Languages	Count	Percent
Arabic	56	2.1%
Chinese (Mandarin or Cantonese)	12	0.4%
Creole	79	2.9%
French	108	4.0%
German	38	1.4%
Hebrew	14	0.5%
Italian	40	1.5%
Japanese	9	0.3%
Korean	5	0.2%
Other African Language	3	0.1%
Other Asian Language	47	1.7%
Other European Language	72	2.7%
Other Middle Eastern Language	17	0.6%
Other Language (unspecified)	50	1.9%
Polish	22	0.8%
Portuguese	115	4.3%
Russian	97	3.6%
Spanish	2,140	79.2%
Tagalog	77	2.9%
Vietnamese	29	1.7%

As shown in Figure 5, the percentage of respondents practicing in Florida who spoke one or more languages other than English during 2017-2018 was highest among Hispanics/Latinos (86.3%). Additional language proficiency was also high among Asian respondents (59.1%) but was relatively low among White respondents (7.3%). About 18.7% of Black respondents spoke one or more languages other than English.

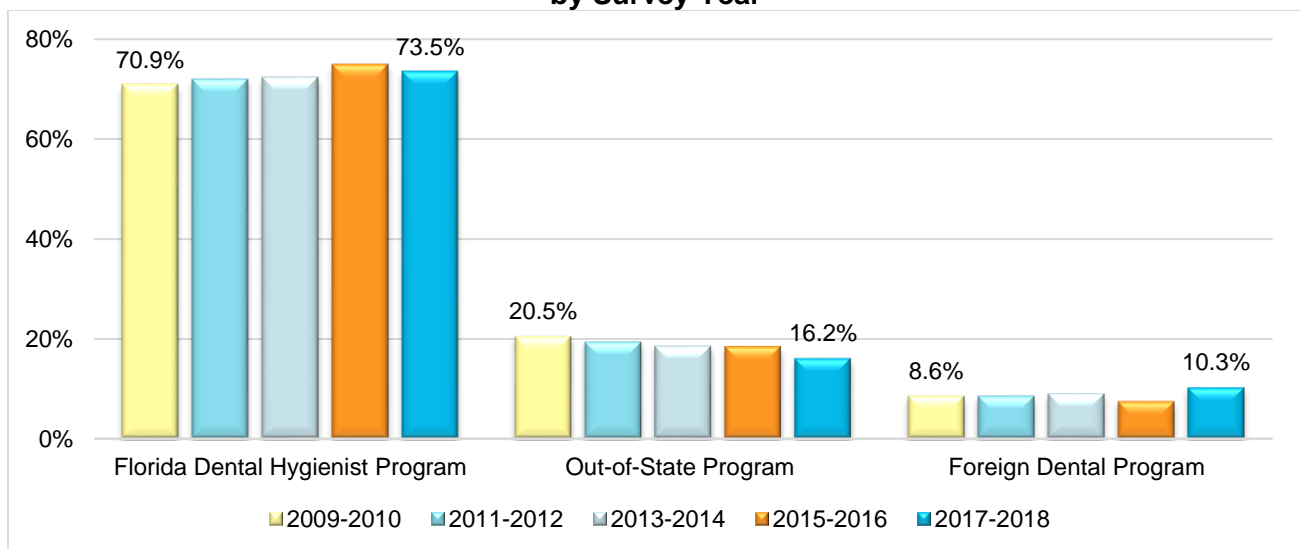
Figure 5. Percentage of Florida Dental Hygienists with Additional Language Speaking Ability by Race/Ethnicity (n=2,680), 2017-2018



Licensed Dental Hygienists Practicing in Florida – Professional Education

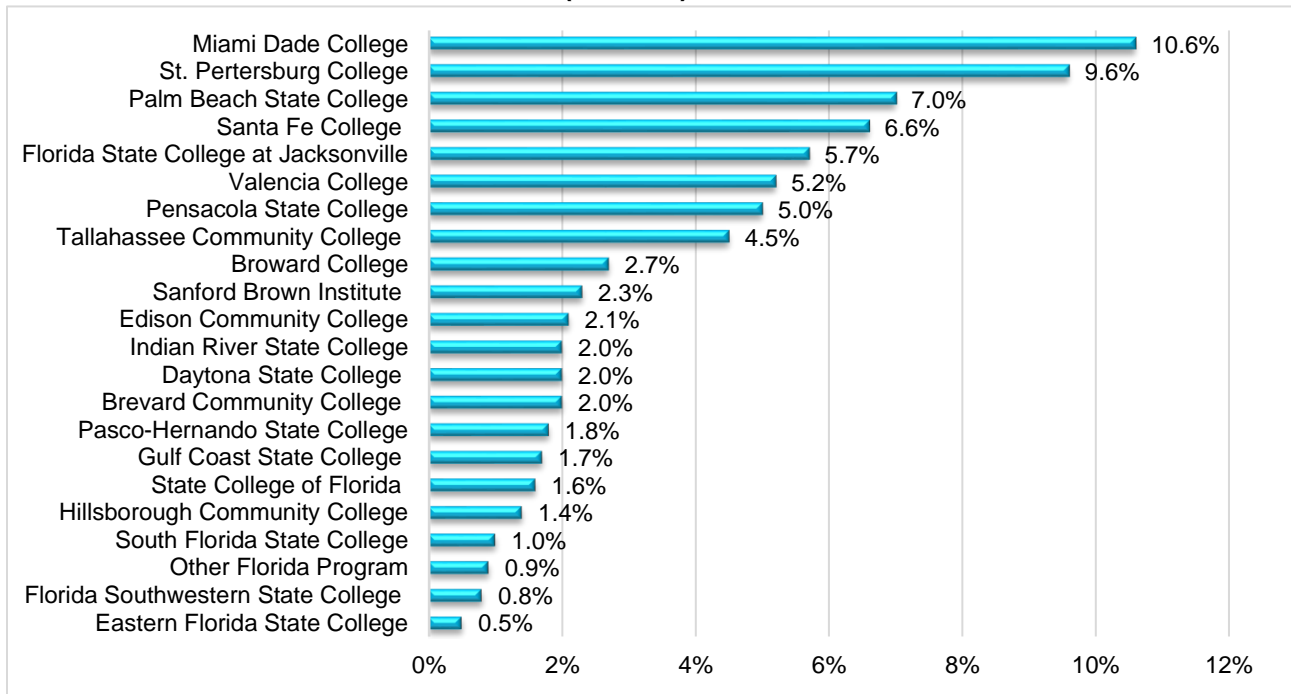
Most practicing dental hygienists indicated they received their dental hygiene training in Florida. Figure 6 portrays the type of dental hygiene program among survey respondents who practice in Florida. Among the respondents in 2017-2018, 73.5% trained at a Florida dental hygiene school, 16.2% trained at an out-of-state program, and 10.3% trained at a foreign dental program. The percentage of graduates from Florida and foreign dental hygienist programs rose over the past 10 years by 3.7% and 19.8% respectively, while graduates from out-of-state programs declined by 21%.

Figure 6. Program of Graduation among Dental Hygienists Practicing in Florida by Survey Year



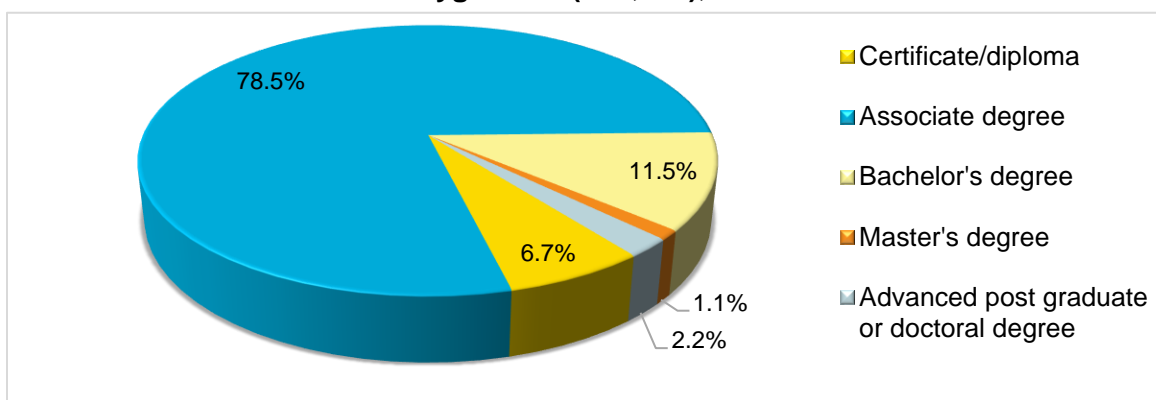
Respondents reported graduating from more than 21 Florida dental hygiene programs in the 2017-2018 survey. Graduates of Miami-Dade College, St. Petersburg College, and Palm Beach State College constituted more than a quarter (27.2%) of respondents (Figure 7). These schools were followed by Santa Fe College and Florida State College at Jacksonville (both located in North Florida) which graduated nearly one out of eight respondents (12.3%).

Figure 7. Distribution of Dental Hygienists by Dental Hygiene School of Graduation in Florida (n=8,077), 2017-2018



The majority of respondents, 78.5%, reported to have an associate degree as their highest dental hygiene degree during 2017-2018 (Figure 8). The second and third most common degrees were bachelor's degrees (11.5%) and certificates/diplomas (6.7%). Approximately 44.8% of Florida's dental hygienists were not credentialed in Florida to provide local anesthesia; 13.7% were planning on getting credentialed and 41.5% were credentialed (data not shown).

Figure 8. Distribution of Highest Dental Hygiene Degree among Florida's Dental Hygienists (n=9,785), 2017-2018



Most respondents who reported practicing in Florida during 2017-2018 (93.1%) worked in a private office setting which consists of solo practice, group practice as a single specialty, or group practice as a multi-specialty (data not shown). Five practice settings — academic institutions, community health centers, county health departments, federally qualified health centers, and other state government clinical settings — constitute safety net practices for individuals who otherwise lack access to dental care. About 4.0% of dental hygienists who reported practicing in Florida worked in safety net practice settings. The remaining 2.9% represented dental hygienists at facilities such as correctional facilities, military facilities, Veterans Affairs clinics, Indian Health Services, and “Other.”

A large majority (86.8%) of dental hygienists actively practicing in Florida reported their primary practice as general, while 8.2% reported their practice type as specialty. The remaining 5.0% reported as neither general nor specialty practice. Among respondents who reported their practice type as specialty, Figure 10 portrays the distribution of dental hygiene practice specialties. Specialties with the three highest percentage of hygienists were dental public health, pediatric dentistry, and prosthodontics.

Figure 10. Dental Practice Specialties among Dental Hygienists Practicing in Florida (n=788), 2017-2018

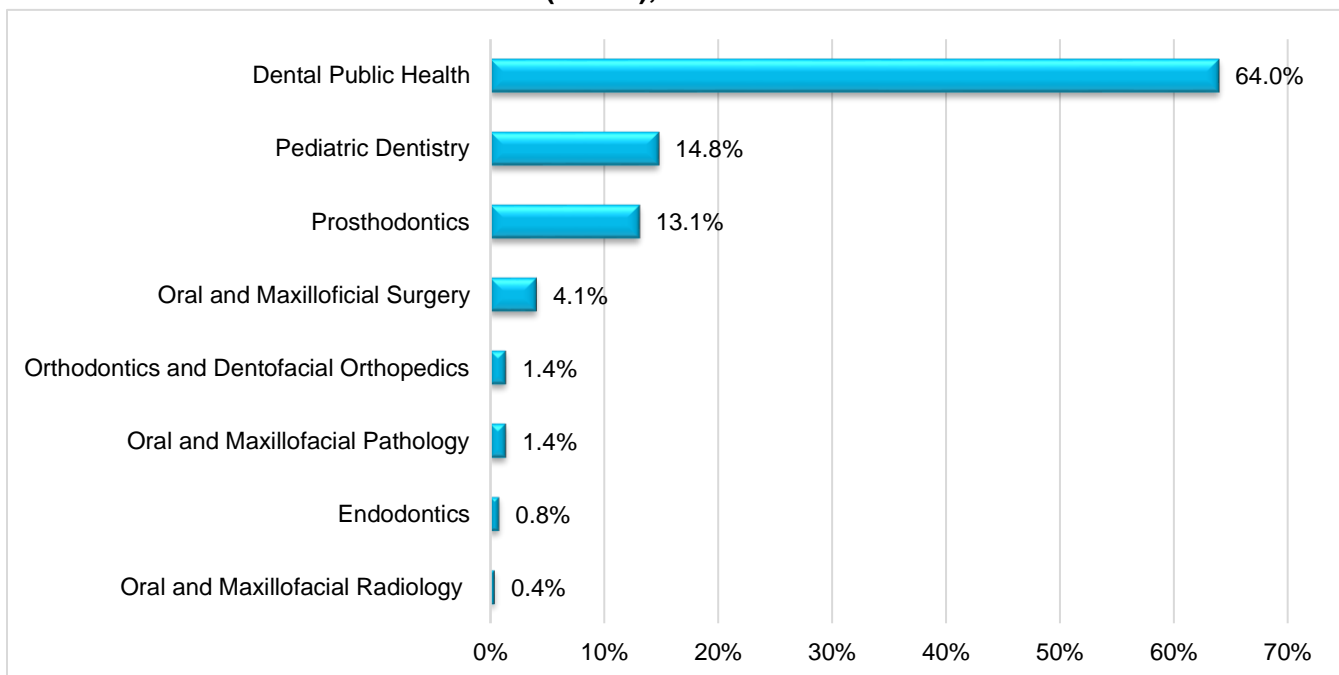
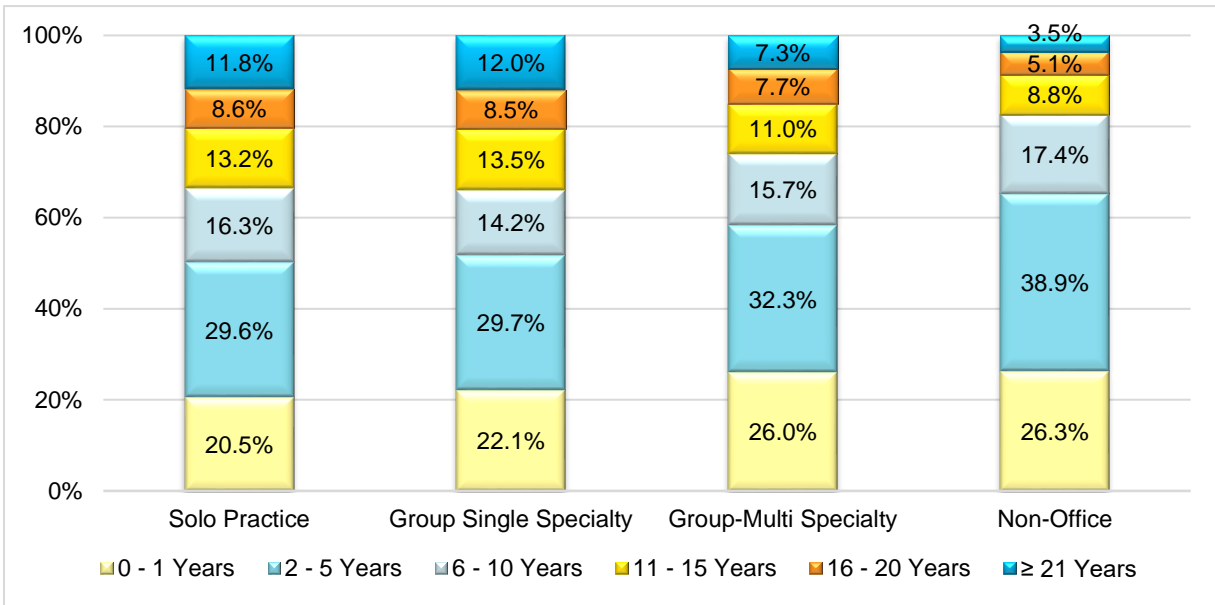


Figure 11 illustrates the number of years respondents practiced in their current practice arrangement by practice type during 2017-2018. The percentage of survey respondents who reported having between two and five years of experience was the largest group across all practice settings. Among respondents practicing in private office settings (solo, group single specialty, or group multi-specialty practice), the percentage who have worked six or more years was slightly higher for those who work in solo office practices and single specialty group office practices than for those who work in multi-specialty group office settings. For dental hygienists working six or more years, the percentage for those practicing in private office settings was higher than in the non-office group.

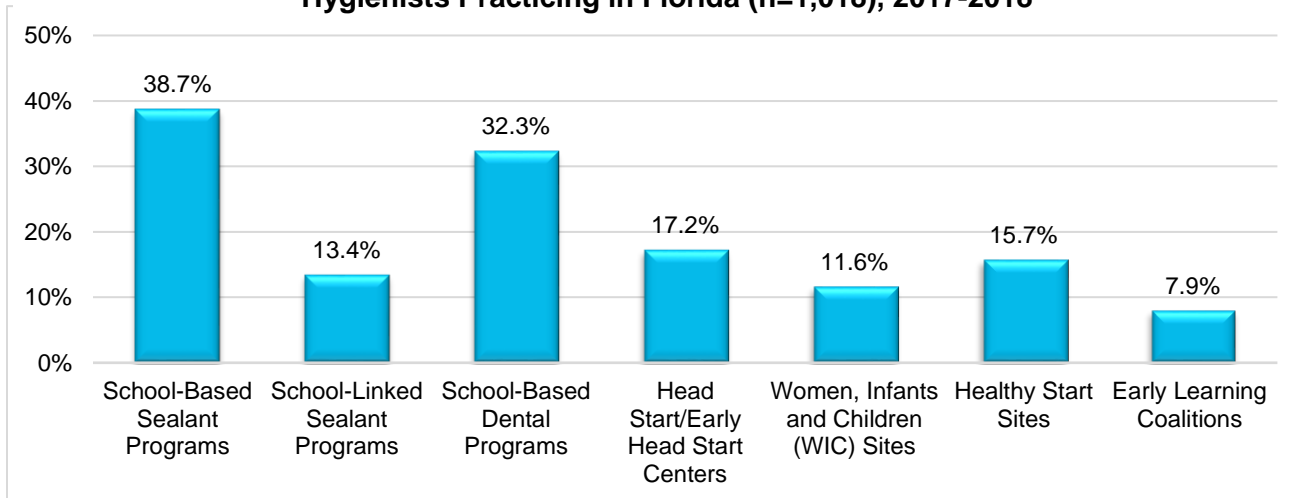
Figure 11. Dental Hygienists' Years in Current Practice by Practice Setting (n=9,502), 2017-2018



The majority (73.1%) of dental hygienists actively practicing in Florida worked for one employer or in one practice setting during 2017-2018; 2.9% worked for more than one employer or in more than one practice setting (data not shown).

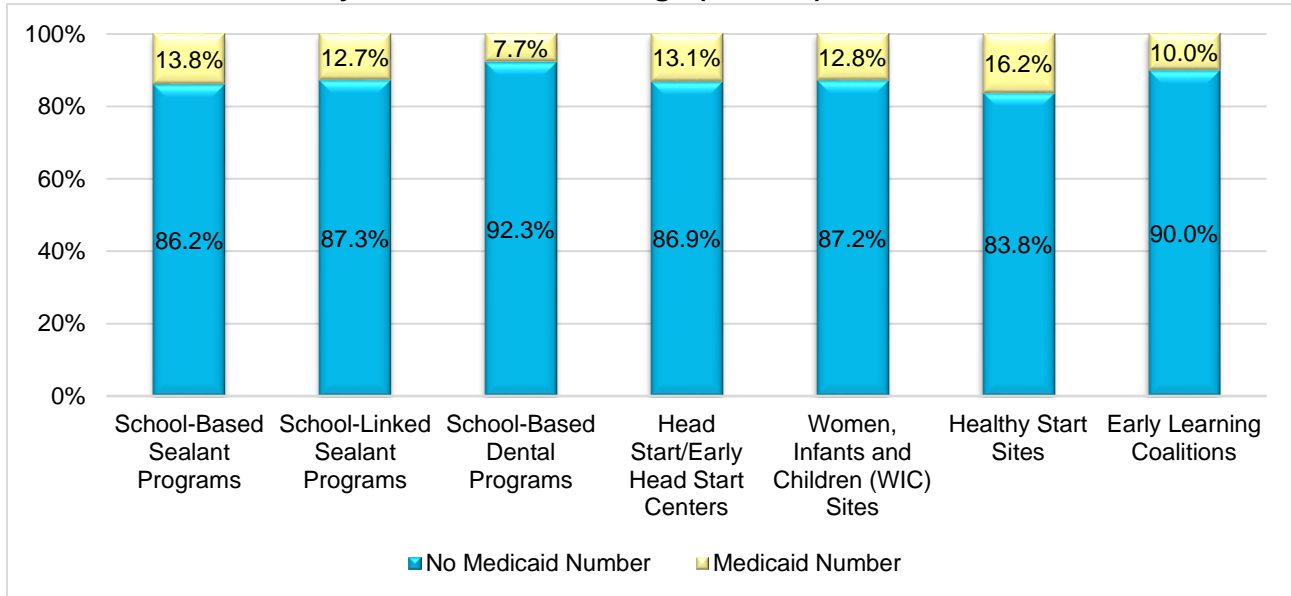
Among dental hygienists practicing in Florida during 2017-2018 who responded to providing services in a health access setting, most were in school settings: 38.7% in school-based sealant programs (services provided in the school) and 32.3% in school-based dental programs (services provided in the school, not including sealants) (Figure 12). About 17.2% of respondents provided services in Head Start/Early Head Start Centers, 15.7% in Healthy Start Sites, and 13.4% in school-linked sealant programs (services provided in conjunction with the school but at another site).

Figure 12. Distribution of Dental Services Provided in Health Access Settings among Dental Hygienists Practicing in Florida (n=1,018), 2017-2018



When asked if they currently have a Medicaid provider number for health access settings, the vast majority (97.2%) of respondents reported they did not. Among dental hygienists who provide services at a health access setting, approximately 16.6% had a Medicaid provider number. Figure 13 below showcases the distribution of having a Medicaid number by health access settings in 2017-2018. Dental hygienists working in Healthy Start Sites had the highest percentage of those having a Medicaid provider number (16.2%) followed by those working in School-Based Sealant Programs (13.8%) and Head Start/Early Head Start Centers (13.1%).

Figure 13. Medicaid Number Distribution among Dental Hygienists Practicing in Florida by Health Access Settings (n=1,011), 2017-2018



As shown in Figure 14, dental hygienists who responded to the question about volunteer services and who worked in a safety net practice during the 2017-2018 survey most typically performed volunteer work in outside events such as school events (22.7%), health fairs (23.1%), and at other settings (14.5%). Dental hygienists who responded to the question and were employed in private practice settings reported providing volunteer services most frequently at school events (11.3%), an organized event in a private office setting (11.2%), and an individual service in private office setting (10.7%). Overall 69.3% responded that they did not provide any volunteer hygiene services. This percentage was lower for dental hygienists who practiced in private office settings (54.6%) and in safety net settings (33.8%).

Figure 14. Settings for the Provision of Volunteer Services by Practice Type (n=6,270), 2017-2018

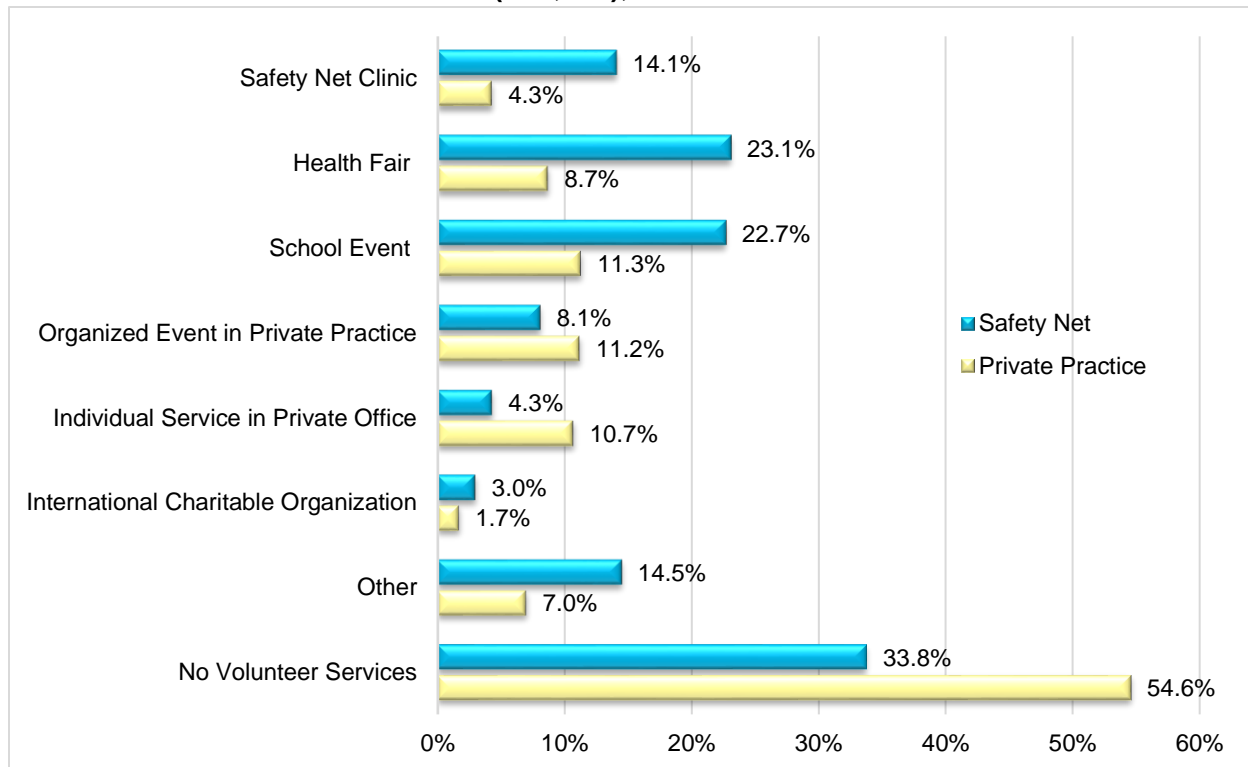
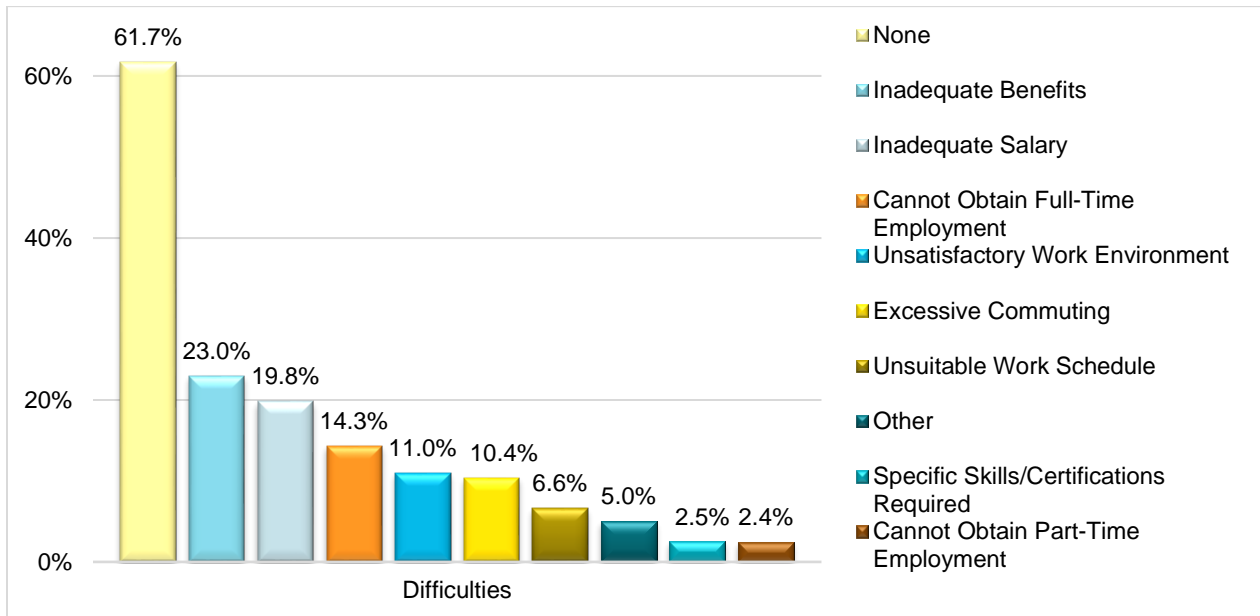


Figure 15 displays the difficulties respondents experienced when searching for a dental hygienist position during 2017-2018. Although 61.7% of respondents who actively practice in Florida reported experiencing no difficulty in finding a dental hygienist position, dental hygienists experienced difficulties that included inadequate benefits (23.0%) and salary (19.8%). About 14.3% indicated they cannot obtain full-time work in the field. Other reported difficulties with employment included unsatisfactory work environment (11.0%), excessive commuting distance (10.4%), and an unsuitable work schedule (6.6%). Only 2.4% of dental hygienists reported they were unable to obtain part-time employment in their profession.

Figure 15. Difficulties Dental Hygienists Practicing in Florida Experience in Finding a Position as a Dental Hygienist (n=9,660), 2017-2018

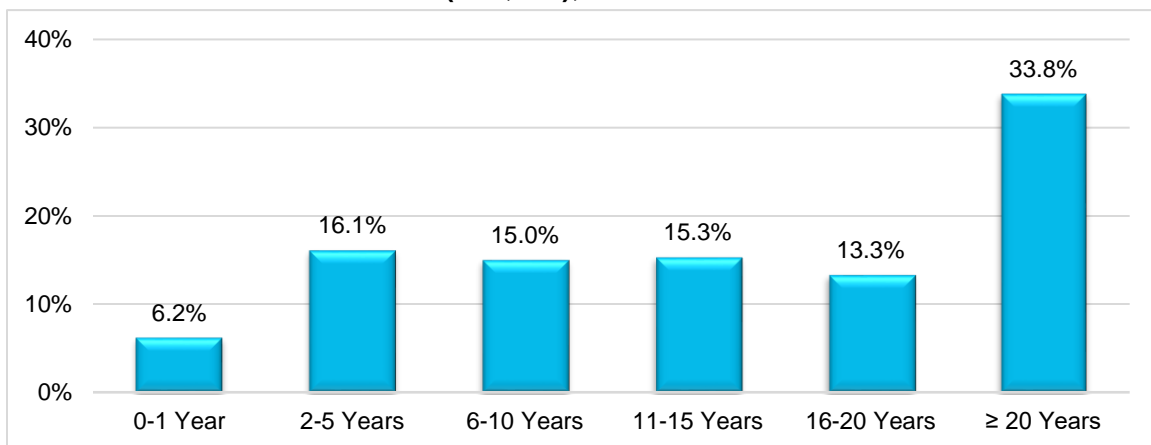


A majority (71.6%) of respondents with an active license working in Florida reported always practicing in the county in which they reside during 2017-2018. About 17.5% of respondents reported they did not practice dental hygiene in their county of residence and 11.0% indicated they practiced in their county of residence less than 100% of the time (data not shown).

Licensed Dental Hygienists Practicing in Florida – Productivity

About a third of Florida’s dental hygienists reported they have more than 20 years of practice in the 2017-2018 survey and 22.3% of respondents had less than 6 years of practice (Figure 16).

Figure 16. Number of Years of Practice among Florida's Dental Hygienists (n=9,963), 2017-2018



Approximately 83.3% of the respondents who practice in Florida worked between 11 and 12 months in the year prior to completing the survey (Figure 17).

Figure 17. Number of Practice Months in the Past Year among Dental Hygienists Practicing in Florida (n=9,956), 2017-2018

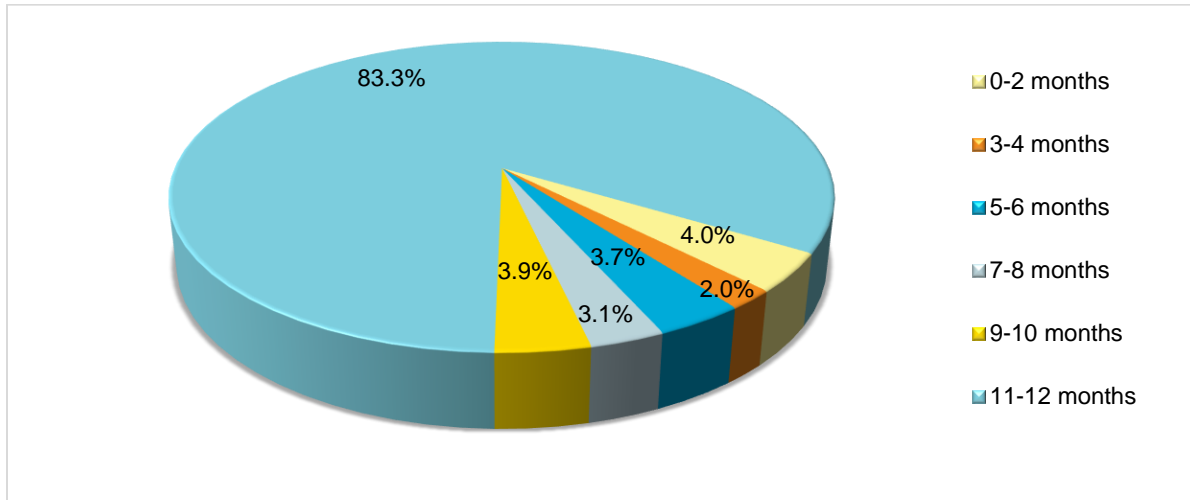
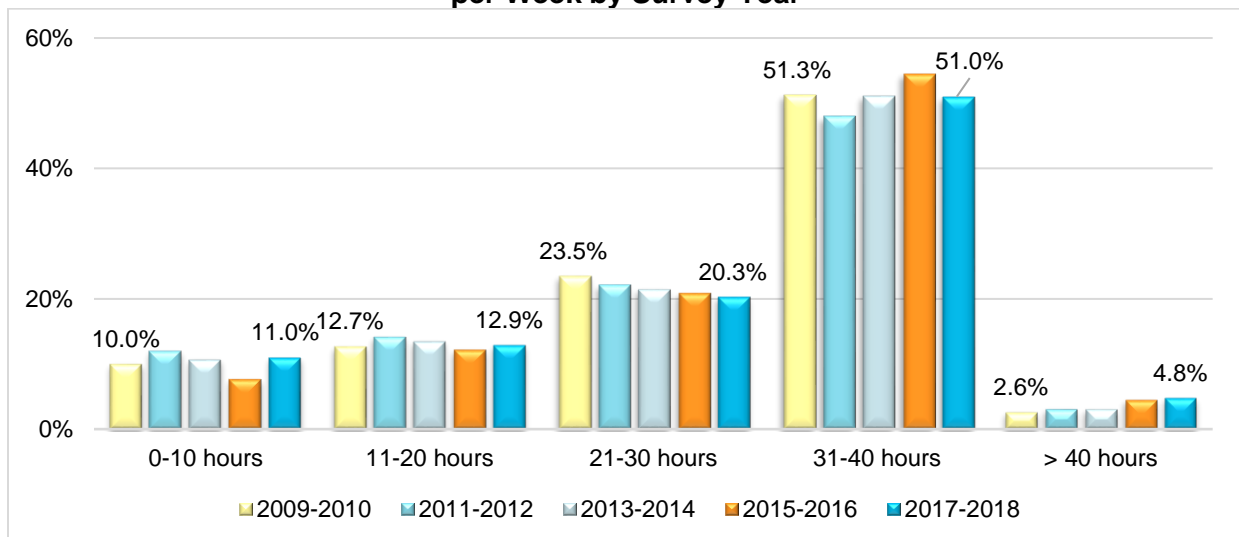


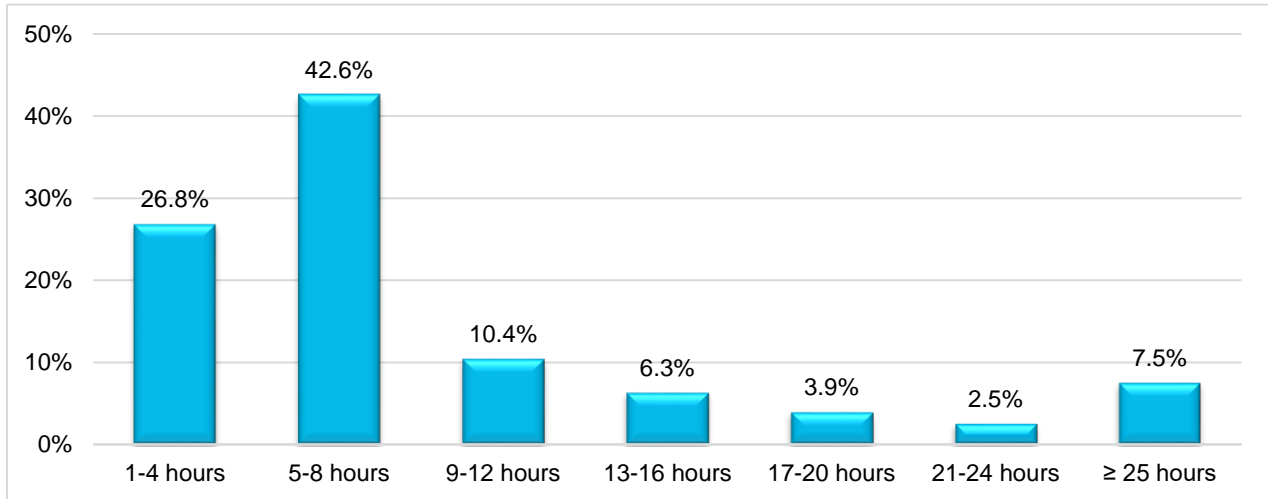
Figure 18 displays the distribution of respondents who actively practiced in Florida by the number of hours they work in a given week by survey year during 2017-2018. Approximately 51.0% of respondents worked 31-40 hours weekly during 2017-2018, while only 4.8% worked more than 40 hours. The percentage of respondents who worked 21-30 hours decreased by 13.6% from 23.5% to 20.3% over the last 10 years while the percentage increased for respondents who worked for 40 or more hours by 84.6%.

Figure 18. Distribution of Dental Hygienists Practicing in Florida by Hours of Practice per Week by Survey Year



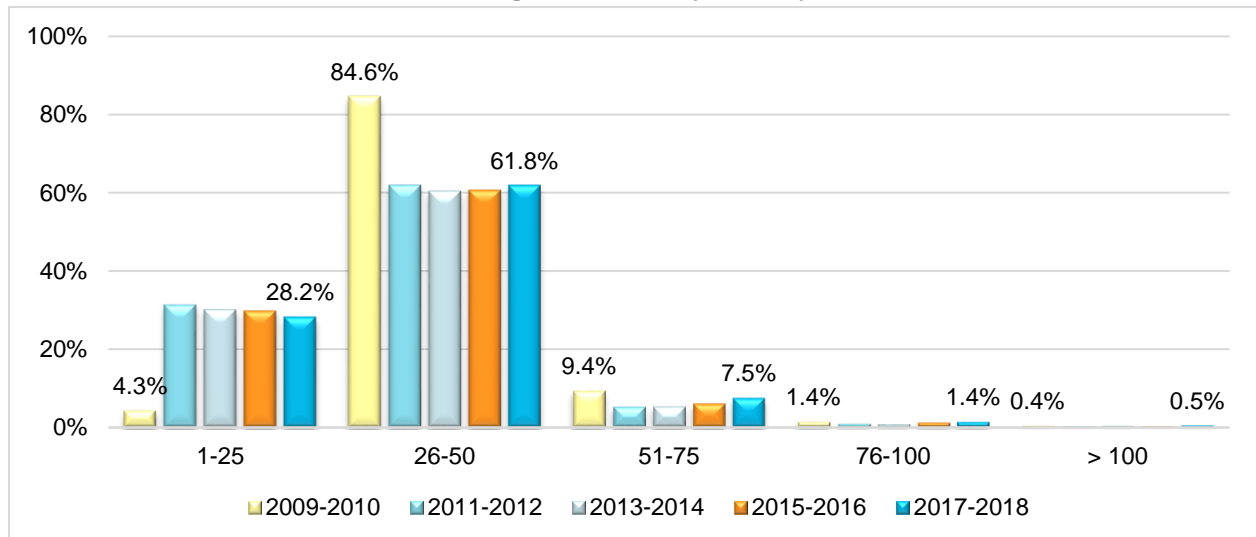
Of the percentage of dental hygienist respondents actively practicing in Florida during 2017-2018, 87.2% reported they were not seeking additional employment. Of the survey respondents actively practicing in Florida who indicated they were seeking additional work hours, 42.6% were seeking 5 to 8 additional hours per week and 10.4% were seeking 9 to 12 hours per week. Approximately 13.9% were seeking 17 or more additional work hours per week (Figure 19).

Figure 19. Distribution of Additional Hours of Work per Week Sought by Dental Hygienists Practicing in Florida (n=1,250), 2017-2018



Less than 30% of dental hygienist respondents had under 26 encounters per week in 2017-2018. The majority of respondents indicated, on average, they had 26-50 patient encounters per week in 2017-2018, a 27% decrease from 84.6% in 2009-2010 (Figure 20). Respondents who had 1-25 patient encounters increased from 4.3% to 28.2% during the same period

Figure 20. Average Number of Patient Encounters per Week among Dental Hygienists Practicing in Florida by Survey Year



Licensed Dental Hygienists Practicing in Florida – Retention and Attrition

Overall, 14.2% of respondents reported that they plan to end their practice of dental hygiene in Florida within the next five years during the 2017-2018 survey. This percentage has increased by 45% from 9.8% in 2009-2010 to 14.2% in 2017-2018 (Figure 21).

Figure 21. Percentage of Dental Hygienists Practicing in Florida who Plan to End Their Practice in Florida over the Next Five Years by Survey Year

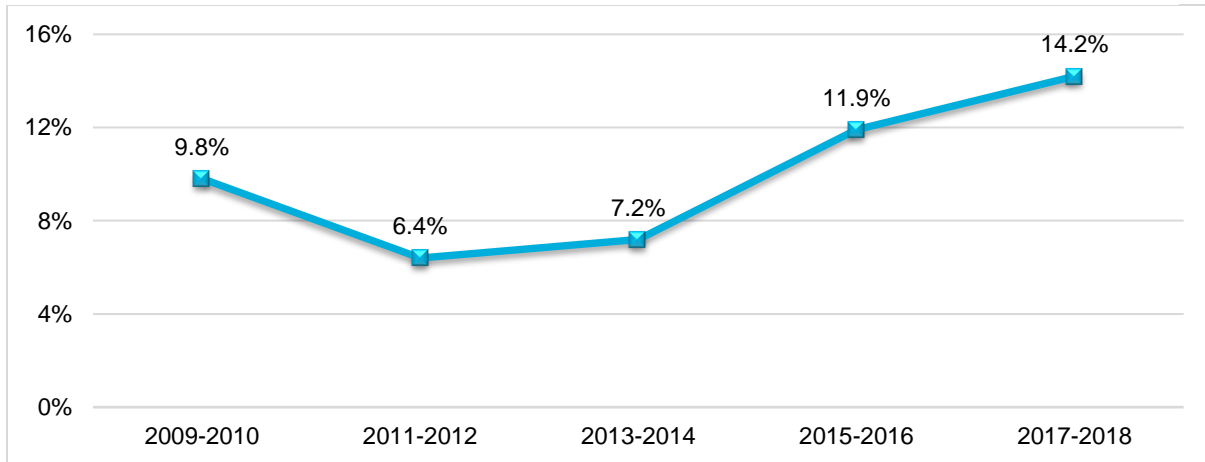


Figure 22 shows career plans of dental hygienist respondents actively practicing in Florida over the next five years by age group during 2017-2018. Overall, 74.8% of respondents do not plan to end or reduce their practice in Florida over the next five years, as compared with those who reported they plan to reduce their practice in the state (11.0%) or end their practice (14.2%) during the same time period. The age groups with the largest percentage of respondents who reported they are planning to end their dental practice in Florida within five years were 70 years and older (52.1%) and 60-69 years (37.9%).

Figure 22. Career Plans of Dental Hygienists Practicing in Florida over the Next Five Years by Age Group (n=9,819), 2017-2018

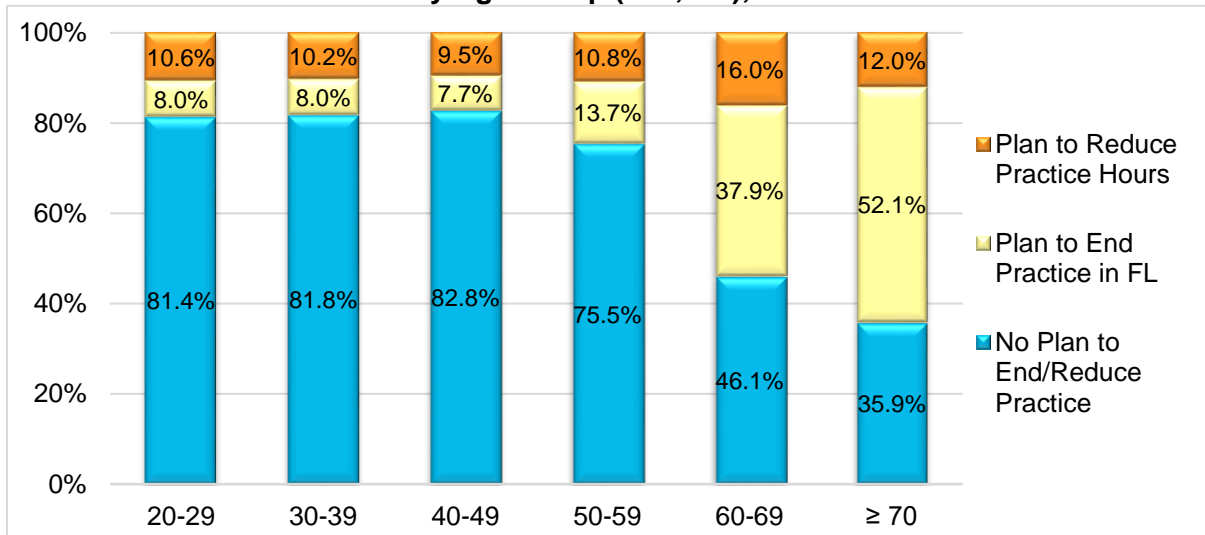


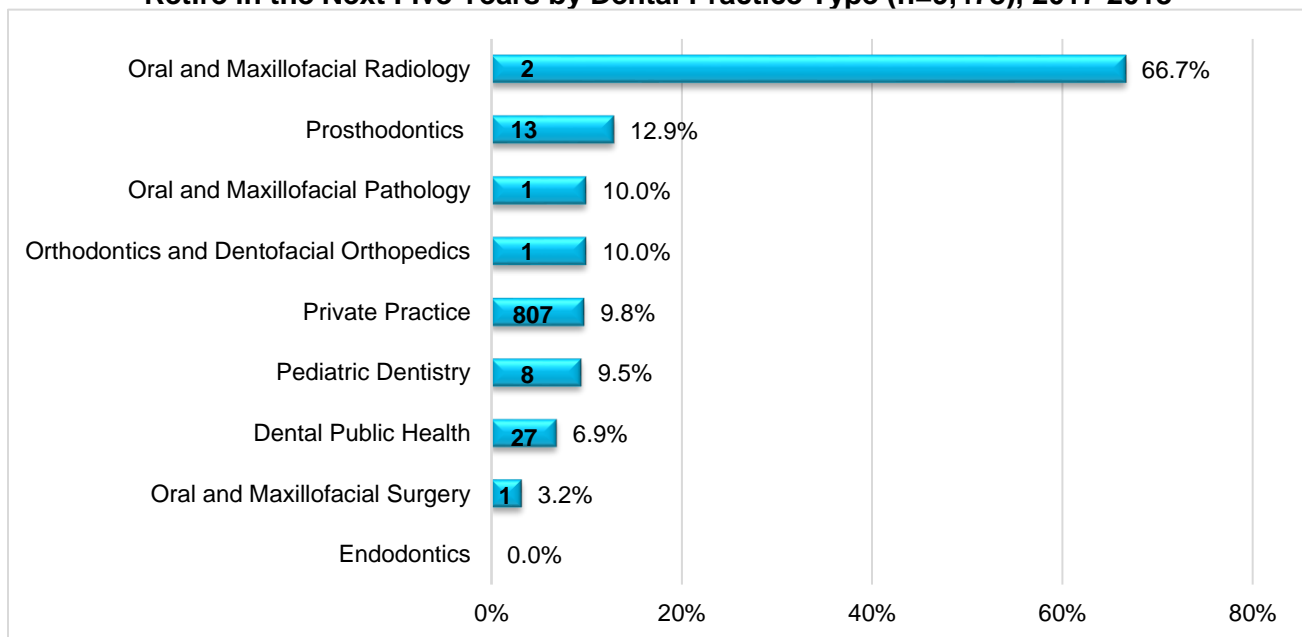
Table 2, which shows the respondents' career plans broken down by other characteristics, a higher percentage of male dental hygienists reported they will end their practice over the next five years compared to female dental hygienists (20.0% vs 13.9%) during 2017-2018. White respondents reported they will end their practice at a greater rate than other race/ethnicity groups (15.0%) followed by Asian respondents (13.8%).

Table 2. Career Plans of Florida's Dental Hygienists over the Next Five Years by Age Group and Race/Ethnicity, 2017-2018

Characteristic	No Plan to End/Reduce Practice	Plan to End Practice in FL	Plan to Reduce Practice Hours
Male	71.3%	20.0%	8.8%
Female	74.9%	13.9%	11.2%
White	73.5%	15.0%	11.5%
Black	72.0%	12.9%	15.1%
Hispanic	79.3%	11.9%	8.8%
Asian	72.3%	13.8%	13.8%
Other	78.3%	12.2%	9.5%

Figure 23 shows the number and percentage of respondents in Florida by dental practice type who reported they plan to retire within the next five years during 2017-2018. For all practice types, a large majority of actively practicing dental hygienists indicated they plan to continue practicing their profession. The practice types with the highest percentages of respondents planning to retire within five years were oral and maxillofacial radiology (66.7%), prosthodontics (12.9%), oral and maxillofacial pathology (10.0%), and oral orthodontics and dentofacial orthopedics (10.0%).

Figure 23. Number and Percentage of Dental Hygienists Practicing in Florida Who Plan to Retire in the Next Five Years by Dental Practice Type (n=9,478), 2017-2018



Licensed Dental Hygienists Not Practicing in Florida

Percentages of respondents with an active Florida license who reported practicing in Florida or out-of-state during 2017-2018 indicate although the majority (79.8%) practiced in Florida, one out of five (20.2%) did not practice in this state.

Differences between respondents who practiced in Florida and those who did not are presented in Table 3. Almost half (48.2%) of respondents who did not practice in Florida reported holding an out-of-state license compared to 8.4% of respondents who practiced in Florida. Nearly three-quarters of respondents (73.5%) who received their dental hygiene degree from a Florida school practiced in the state, as compared with 59.6% who reported they practiced outside of Florida. As compared with respondents who practiced in Florida, a lower percentage of respondents not practicing in Florida identified themselves as Hispanic (12.2% vs 21.8%) and a higher percentage spoke one of more languages other than English (32.7% vs 27.4%).

Table 3. Profile of Dental Hygienists with an Active Florida License by Practice Status, 2017-2018

Characteristic	Practice in Florida	Does Not Practice in Florida
Average Age	46.4%	46.4%
White	68.4%	77.3%
Hispanic	21.8%	12.2%
Additional Language Spoken	27.4%	32.7%
Licensed in another state	8.4%	48.2%
Received dental hygiene degree from Florida school	73.5%	59.7%

Figure 24 presents the primary reasons for not practicing in Florida as reported by survey respondents with an active Florida license in 2017-2018. Each respondent was asked to choose her/his main reason for not using their Florida license to practice in Florida and the most frequently cited reason was they practiced in another state (38.6%), followed by the response "Other" (19.2%). The next two most common reasons were employed/self-employed in Florida in a job unrelated to dental hygiene (11.6%) and they were retired (6.2%). Only 7.0% of respondents indicated they were unemployed and seeking employment in dental hygiene; 4.8% for part-time and 2.2% for full-time.

Figure 24. Reasons Dental Hygienists with an Active Florida License Do Not Use Florida License to Practice in the State (n=2,078), 2017-2018

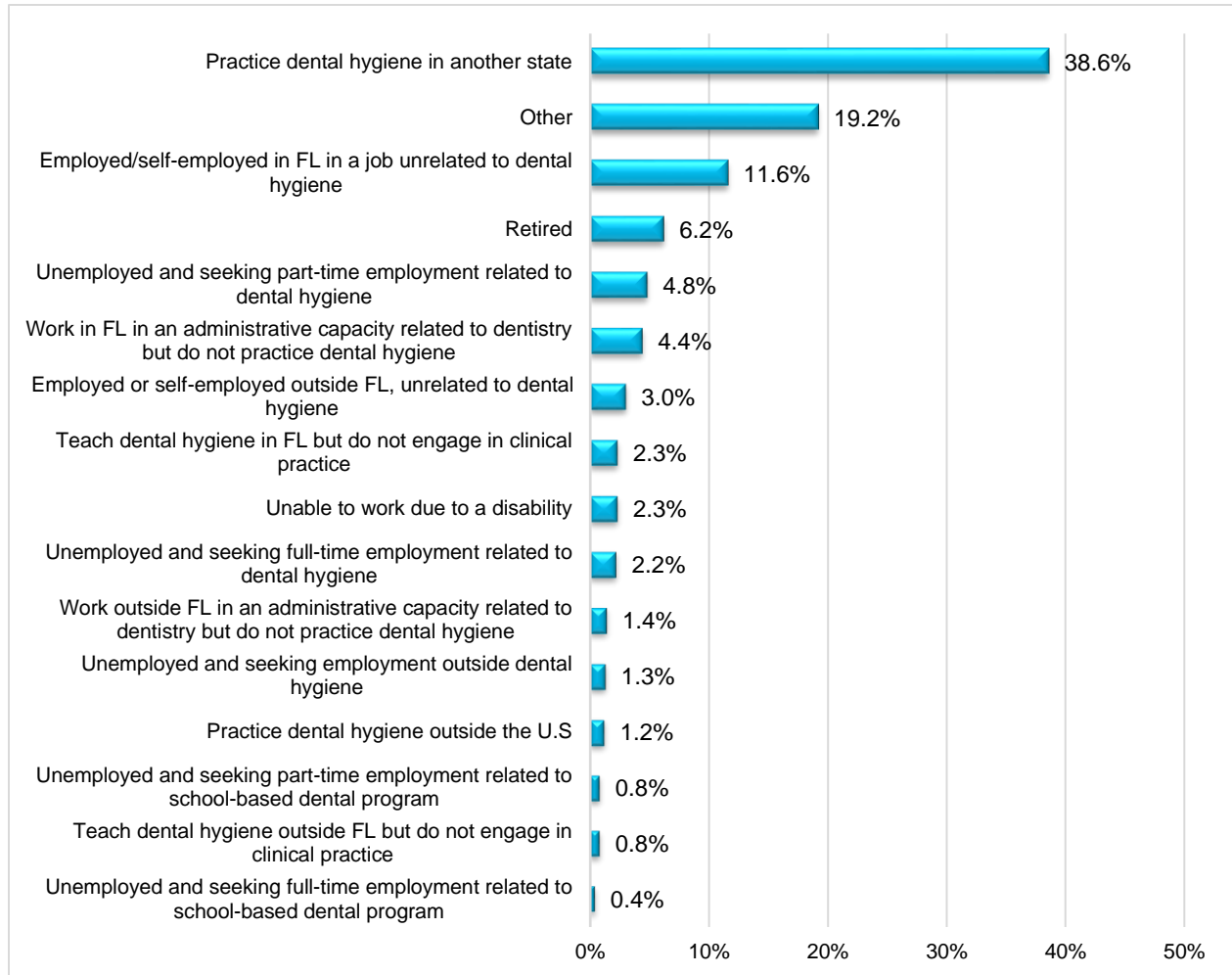
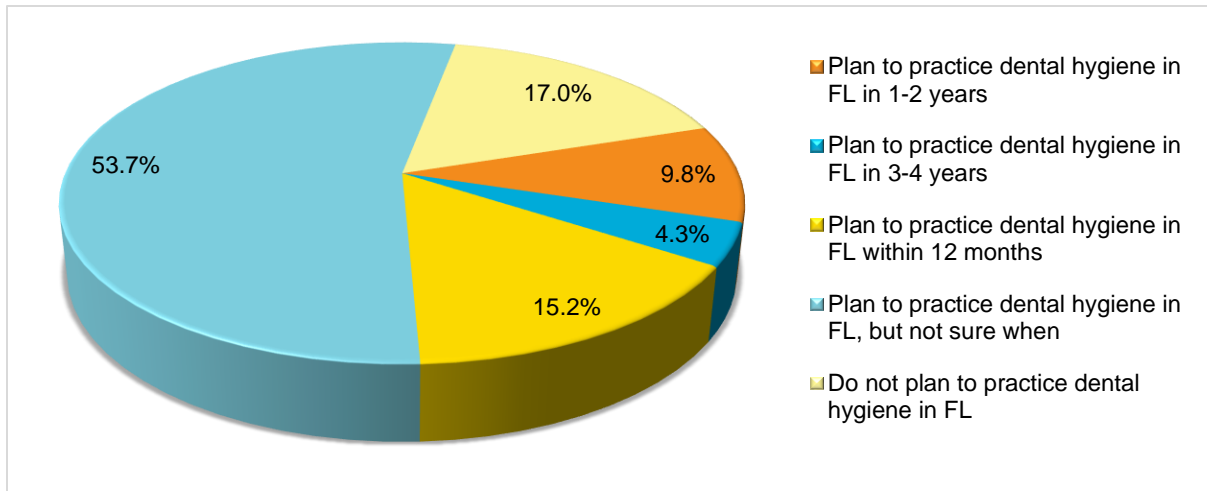


Figure 25 depicts future plans to practice in Florida among dental hygienists not currently practicing in the state during 2017-2018. About 53.7% of respondents with an active Florida license who did not currently practice in the state reported they intend to practice here at some time in the future, with almost 10% planning to do so within next two years. Approximately 17.0% of survey respondents indicated no future plans to practice dental hygiene in Florida.

Figure 25. Future Plans to Practice in Florida among Dental Hygienists Not Currently Working in the State (n=2,446), 2017-2018



Conclusions

The Florida Department of Health is constantly committed to the measure, review, and evaluation of dental workforce attributes and needs in Florida. The Department makes every effort to collaborate with all state and national oral health partners to ensure the recruitment and retention of highly trained and diverse dental hygiene workforce professionals, especially in underserved communities.

The successful implementation of workforce survey assessments has the potential to provide policymakers with information regarding the clinical practice, geographic location, and scope of practice for Florida dentists. Continued refinement, evaluation, and reporting of these data will assist in the state's efforts to meet current and future dental hygiene workforce needs. The Department continues to work with all professional health organizations to develop innovative, patient-centered, oral health care delivery systems.

References

Section 466.023, Florida Statutes. *Dental hygienists; scope and area of practice*. Available at: http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0400-0499/0466/Sections/0466.023.html. Accessed February 3th, 2019.

Section 466.003, Florida Statutes. *Definitions*. Available at: http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0400-0499/0466/Sections/0466.003.html. Accessed March 12th, 2019.

Appendix A: 2017-2018 Dental Hygienist Workforce Survey

Dental Hygienist Workforce Survey 2017/2018

24 Questions Total

Assessing Florida's current and future dental workforce is critical in shaping Florida's health care policies. Your responses, which constitute a public record, will be summarized in a Florida Dental Hygienist Workforce Report. Previous reports are available online at the Florida Department of Health's Public Health Dental Program website: www.flhealth.gov/dental/reports. We appreciate your time and effort in completing the survey questions.

Part 1: Demographics

1. Indicate the Florida dental hygiene college program attended. (Select all that apply).
 - Brevard Community College
 - Broward College
 - Daytona State College (Daytona Beach Community College)
 - Eastern Florida State College
 - Edison Community College
 - Florida State College at Jacksonville (Florida Community College at Jacksonville)
 - Florida Southwestern State College
 - Gulf Coast State College (Gulf Coast Community College)
 - Hillsborough Community College
 - Indian River State College (Indian River Community College)
 - State College of Florida (Manatee-Sarasota Community College)
 - Miami Dade College (Miami-Dade Community College)
 - Palm Beach State College (Palm Beach Community College, Palm Beach Junior College)
 - Pasco-Hernando State College (Pasco-Hernando Community College)
 - Pensacola State College (Pensacola Junior College)
 - Sanford Brown Institute (Jacksonville or Ft. Lauderdale locations)
 - Santa Fe College (Santa Fe Community College)
 - South Florida State College
 - St. Petersburg College (St. Petersburg Junior College)
 - Tallahassee Community College
 - Valencia College (Valencia Community College)
 - A Florida program that is not listed
 - None – I attended a U.S. dental hygiene college program in another state
 - None – I attended a dental hygiene college program in Puerto Rico or another U.S. territory
 - None – I attended an out-of-country (foreign) dental hygiene college program
 - None – I attended an out of the country (foreign) dental school

2. Indicate your highest dental hygiene degree. (Select one).
 1. Certificate/diploma
 2. Associate degree
 3. Bachelor's degree
 4. Master's degree
 5. Advanced post graduate or doctoral degree

3. Indicate your highest non-dental hygiene degree. (Select one).
 - a. Certificate/diploma
 - b. Associate degree
 - c. Bachelor's degree
 - d. Master's degree
 - e. Advanced post graduate or doctoral degree
 - f. None

4. Are you credentialed in Florida to provide local anesthesia? (Select one).
 - a. Yes
 - b. No
 - c. No – but I am planning to get credentialed.

5. Do you hold an active dental hygiene license in a location other than Florida? (Select all that apply).
- No
 - Yes– Another U.S. State *(include a drop down of all states with question: Select states where you hold an active dental hygiene license:*
 - Yes– Puerto Rico or another U.S. territory
 - Yes– out of country
6. At present, do you practice clinical dental hygiene in Florida or have you accepted employment to practice dental hygiene in Florida?
- a. Yes (continue to question 7). **Note: These respondents will complete the rest of survey).**
 - b. No (continue to questions 6a and 6b). **Note: These respondents will be directed out of survey after they answer 6a and 6b.**
- 6a. The primary reason you are not using your Florida license to practice clinical dental hygiene in Florida is: (Select one).
- a. I currently practice clinical dental hygiene in another state.
 - b. I currently practice clinical dental hygiene outside the U.S.
 - c. I teach dental hygiene in Florida but do not engage in clinical practice.
 - d. I teach dental hygiene outside Florida but do not engage in clinical practice.
 - e. I work in Florida in an administrative capacity related to dentistry but do not practice clinical dental hygiene.
 - f. I work outside Florida in an administrative capacity related to dentistry but do not practice clinical dental hygiene.
 - g. I am employed or self-employed in Florida in a job unrelated to dental hygiene.
 - h. I am employed or self-employed outside Florida in a job unrelated to dental hygiene.
 - i. I am currently unemployed and seeking full-time employment related to dental hygiene.
 - j. I am currently unemployed and seeking part-time employment related to dental hygiene.
 - k. I am currently unemployed and seeking full-time employment related to a school-based dental program.
 - l. I am currently unemployed and seeking part-time employment related to a school-based dental program.
 - m. I am currently unemployed and seeking employment outside dental hygiene.
 - n. I am currently retired.
 - o. I am unable to work due to a disability.
 - p. Other (unspecified)
- 6b. If you do not currently practice dental hygiene in Florida, do you plan to practice dental hygiene in Florida in the near future? (Select one).
- a. I plan to practice clinical dental hygiene in Florida within the next 12 months.
 - b. I plan to practice clinical dental hygiene in Florida in 1-2 years.
 - c. I plan to practice clinical dental hygiene in Florida in 3-4 years.
 - d. I plan to practice clinical dental hygiene in Florida, but I am not sure when.
 - e. No, I do not plan to practice clinical dental hygiene in Florida.

If you do NOT practice dental hygiene in Florida, or have NOT accepted employment for practicing in the state, you are now finished with the survey. Thank you for your participation.

7. Which languages do you speak? (Select all that apply.)
- English
 - Arabic
 - Chinese (Mandarin or Cantonese)
 - Creole
 - French
 - German
 - Hebrew
 - Italian
 - Japanese
 - Korean
 - Polish
 - Portuguese

- Russian
- Spanish
- Tagalog
- Vietnamese
- Other African language
- Other Asian language
- Other European language
- Other Middle Eastern language
- Other language (unspecified)

Part 2: Practice Characteristics

8. How many months did you practice clinical dental hygiene in Florida in the last 12 months? (Select one).
- a. 0 – 2 months
 - b. 3 – 4 months
 - c. 5 – 6 months
 - d. 7 – 8 months
 - e. 9 – 10 months
 - f. 11 – 12 months

9. How many years have you practiced clinical dental hygiene? (Select one).
- a. 0 – 1 years
 - b. 2 – 5 years
 - c. 6 – 10 years
 - d. 11 – 15 years
 - e. 16 – 20 years
 - f. More than 20 years
 - g. Not applicable

10. In a typical week, approximately how many hours and in which Florida county(ies) do you practice clinical dental hygiene? You may select up to three counties. If you are employed to practice but have not yet started, select "Not applicable."

- 10a. County 1: (select county from drop down menu with all 67 Florida counties)

10aa. Hours for County 1:

- a. 1 – 10 hours
- b. 11 – 20 hours
- c. 21 – 30 hours
- d. 31 – 40 hours
- e. 41 – 50 hours
- f. More than 50 hours

- 10b. County 2: (select county from drop down menu with all 67 Florida counties)

10bb. Hours for County 2:

- a. 1 – 10 hours
- b. 11 – 20 hours
- c. 21 – 30 hours
- d. 31 – 40 hours
- e. 41 – 50 hours
- f. More than 50 hours

- 10c. County 3: (select county from drop down menu with all 67 Florida counties)

10cc. Hours for County 3:

- a. 1 – 10 hours
- b. 11 – 20 hours
- c. 21 – 30 hours
- d. 31 – 40 hours
- e. 41 – 50 hours
- f. More than 50 hours

Or

- Not applicable– I have not started employment yet.

11. How many hours of clinical volunteer dental hygiene services did you provide in the last 24 months? (Select one).
- None
 - 1 – 8 hours
 - 9 – 16 hours
 - 17 – 24 hours
 - 25 – 30 hours
 - 31 – 60 hours
 - 61 – 120 hours
 - More than 120 hours
12. Where did you provide clinical volunteer dental hygiene services in the last 24 months? (Select all that apply.)
- I did not provide any clinical volunteer dental hygiene services
 - In a private office(s), on my own
 - In a private office(s), as part of an organized event (e.g. Give Kids a Smile Day)
 - At a safety net clinic (e.g. county health department, community health center, Federally Qualified Health Center (FQHC), Mission of Mercy)
 - As part of a health fair
 - As part of a school-based or school-linked event
 - International charitable organization (mission trips outside of U.S.)
 - Other (unspecified)
13. Indicate your primary type of practice. (Select one).
- General Private Practice (basic preventive, restorative, surgical)
 - General Public Health Practice (basic preventive, restorative, surgical)
 - Specialty Practice: Endodontics
 - Specialty Practice: Oral and Maxillofacial Pathology
 - Specialty Practice: Oral and Maxillofacial Radiology
 - Specialty Practice: Oral and Maxillofacial Surgery
 - Specialty Practice: Orthodontics and Dentofacial Orthopedics
 - Specialty Practice: Pediatric Dentistry
 - Specialty Practice: Prosthodontics
 - Private Practice Administrative Services
 - Public Health Administrative Services
 - Other (unspecified).
14. Indicate your primary practice setting. (Select one).
- Solo Office Practice
 - Group Office Practice: Single Specialty
 - Group Office Practice: Multi Specialty
 - County Health Department
 - Community Health Center
 - Federally Qualified Health Center
 - State or Federal Correctional Facility Clinic
 - Other State Government Clinical Setting
 - Military Facility Clinic
 - U.S. Department of Veterans Affairs (VA) Clinic
 - Academic Institution
 - Indian Health Service
 - Long-Term Care Facility (Nursing Home)
 - Volunteer Program (501(c)3 non-profit health organization)
 - Temporary Employment or Staffing Agency
 - Other (unspecified)
15. Do you provide dental hygiene services in any of the following health access settings (include paid and volunteer work)? (Select all that apply).
- School-based sealant program (services provided in the school)
 - School-linked sealant program (services provided in conjunction with the school but at a site other than the school)

- School-based dental program (services provided in the school, not including sealants)
 - Head Start/Early Head Start centers
 - Early Learning Coalitions
 - Women, Infants and Children (WIC) sites
 - Healthy Start sites
16. Do you practice clinical dental hygiene in the county where you reside? (Select one).
- a. Yes– all the time (100%)
 - b. Yes– some of the time (1 – 99%)
 - c. No– none of the time (0%)
17. On average, how many patient encounters do you have in a typical work week? (Select one).
- a. 1 – 25 encounters
 - b. 26 – 50 encounters
 - c. 51 – 75 encounters
 - d. 76 – 100 encounters
 - e. 101 – 125 encounters
 - f. More than 125 encounters
 - g. Not applicable– I have accepted employment but have not yet started.
18. How many years have you been in your current primary practice position? (Select one).
- a. 0 – 1 years
 - b. 2 – 5 years
 - c. 6 – 10 years
 - d. 11 – 15 years
 - e. 16 – 20 years
 - f. More than 20 years
19. Do you work for more than one employer or in more than one practice setting? (Select one).
- a. Yes
 - b. No
20. If you routinely practice clinical dental hygiene fewer than 40 hours per week, please select the reason(s) from the list below. (Select all that apply).
- Limited work hours are my personal preference.
 - Limited work hours allow time for volunteer (uncompensated) work.
 - Limited hours allow time for other compensated work.
 - Health-related issues limit my work hours.
 - I am phasing into retirement.
 - I adjust my hours to fit the patient workload.
 - My position is part-time.
 - Other (unspecified)
21. Are you currently seeking additional dental hygiene employment? (Select one).
- a. Yes, 1 – 4 additional hours per week.
 - b. Yes, 5 – 8 additional hours per week.
 - c. Yes, 9 – 12 additional hours per week.
 - d. Yes, 13 – 16 additional hours per week.
 - e. Yes, 17 – 20 additional hours per week.
 - f. Yes, 21 – 24 additional hours per week.
 - g. Yes, 25 or more additional hours per week.
 - h. No.
22. What kind(s) of difficulty (if any) have you experienced in finding a position as a registered dental hygienist? (Select all that apply.)
- None
 - Cannot obtain full-time employment
 - Cannot obtain part-time employment
 - Unsuitable work schedule

- Inadequate salary
- Inadequate benefits
- Unsatisfactory work environment
- Specific certifications required for the position (e.g. local anesthesia certification)
- Specific skills required for the position (e.g. electronic health records or digital radiography)
- Excessive commuting distance
- Other (unspecified)

23. Regarding your practice of clinical dental hygiene in Florida within the next five years, which of the following apply? (Select one.)

- a. I plan to end my practice of clinical dental hygiene in Florida due to retirement.
- b. I plan to end my practice of clinical dental hygiene in Florida due to non-dental hygiene employment.
- c. I plan to end my practice of clinical dental hygiene in Florida due to employment as a dental hygienist in another state or country.
- d. I plan to end my practice of clinical dental hygiene in Florida due to another reason.
- e. I plan to reduce my clinical dental hygiene practice hours but continue practicing in Florida.
- f. I have no plans to end or reduce my Florida clinical dental hygiene practice within the next five years.

24. Do you currently have a Medicaid provider number for health-access settings? (Select one).

- a. Yes
- b. No
- c. No – but I am planning to apply for one.

Attestation Statement:

I confirm that the information provided is true and accurate to the best of my knowledge and the submission does not contain any knowingly false information or statements.

- a. Yes

Thank you for completing the Dental Hygienist Workforce Survey.

Appendix B: Survey Methodology and Analysis

Florida statutes and administrative code rules require renewal of dental licenses biennially by the end of February of even-numbered years. The most recent renewal period ended on February 28, 2018. The Florida Department of Health (Department) prepared and administered a workforce survey of dental hygienists to coincide with the license renewal process. As part of their on-line renewal, dental hygienists were asked to voluntarily complete the survey.

The survey was designed to serve as an assessment of Florida's current dental hygiene workforce to better inform and shape public health care policy and plan for future workforce needs. Licensure status is relative to the date the survey was closed. In contrast to licensure information, practice status as summarized in this report is not linked to a single, specific reference date. Information concerning practice status was obtained from the workforce survey. Changes in practice status occurring between survey completion and the report reference date are not reflected in the data. Thus, counts or estimates of dental hygienists actively practicing or not practicing in Florida are approximate with respect to the report's completion date.

Given that practicing dental hygienists are a subset of dental hygienists with active licenses, licensure information maintained by the Department helps to screen respondents by identifying dental hygienists who are ineligible to practice. At the time of this survey, there were 14,156 dental hygienists with active license status. For purposes of analysis, respondents with non-active licenses are of limited interest and are excluded from the analysis. The survey respondents with active licenses who practice in Florida (n=9,980) represent 79.8% of dental hygienists with active licenses who responded to the survey.

Variations in the number of responses for each question are due in part to the actual number of questions asked of the respondent based on answers to specific prior questions (skip pattern within the survey). In addition, respondents do not always answer all the questions asked of them. The reason why a respondent may choose not to respond to a specific question or questions varies greatly. This is not uncommon for many state and national surveys whether voluntary or required. The information gathered provides insight into the practice characteristics of the profession and serves to better address the oral health needs of Florida's residents.

While the survey was offered to all dental hygienists with a Florida license, the analysis centered on Florida active licensees practicing in the state. Non-response items are excluded from the analysis because all items were not completed by or applicable to all survey takers. The survey consisted of 24 items regarding the demographics, education and practice characteristics, productivity, retention and attrition of respondents. Additional demographic information was obtained from the Department's Division of Medical Quality Assurance. Descriptive statistical techniques were used to provide the characteristic profiles of respondents using SAS 9.4. Marginal tabulations are reported for the summary descriptions and relationships presented throughout the report.