



# THE UTAH MEDICAL EDUCATION COUNCIL



## UTAH'S DENTIST WORKFORCE, 2017:

*A Study on the Supply and Distribution of Dentists in Utah*



# **UTAH'S DENTIST WORKFORCE, 2017:**

***A STUDY ON THE SUPPLY AND DISTRIBUTION OF DENTISTS IN UTAH***



**The Utah Medical Education Council**

**State of Utah**

**[www.utahmec.org](http://www.utahmec.org)**

**2017**

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Utah's Dentist Workforce, 2017: *A Study of the Supply and Distribution Dentists in Utah*

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## **THE UTAH MEDICAL EDUCATION COUNCIL**

The Utah Medical Education Council (UMEC) was created in 1997 out of a need to secure and stabilize the state's supply of health care clinicians. The enabling legislation authorized the UMEC to conduct health care workforce research, to advise on Utah's health care training needs, and to influence graduate medical education financing policies. In addition, UMEC facilitates the training of healthcare professionals in rural areas of the state. The state legislature expanded UMEC's research responsibilities in 2013 to include nursing and UMEC has accepted the designation as the Nursing Workforce Information Center. The UMEC is presided over by an eight-member board appointed by the Governor to bridge the gap between the public and private health care workforce industry and educational interests.

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## EXECUTIVE SUMMARY

- The Utah dentist workforce has grown by about 31.6% since UMEC started tracking the workforce in 2002. Much of that growth (27.1%) took place after 2006 with the workforce increasing from 1,467 active practitioners to 1,865 in 2017. The Bureau of Labor Statistics (BLS) estimates that the national dentist workforce will grow faster than average at about 18.0% between 2014 and 2024 (Bureau of Labor Statistics, 2015).
- The dentist to 100,000 population ratio has increased from 58.4 to 59.7 since 2012. This is just below the national ratio of 61.7. When adjusting for hours worked, the Utah ratio falls slightly to 58.6.
- The average age of the Utah dentist workforce is 51.3, up from 48 in 2012. This is keeping with the national mean of 50.
- The Utah workforce falls far short of the national workforce in gender distribution with 4.1% of the Utah workforce made up of female dentists compared to 28.9% of the national workforce.
- Both the Utah workforce and the national workforce are unevenly distributed when it comes to race and ethnicity. The minority group with the largest population to dentist gap is Hispanics, only comprising 1.9% of Utah dentists but 13.7% of the Utah population.
- About half (49.8%) of all dentists report spending the majority of their upbringing in Utah with only 13.9% reporting growing up outside of the state, though this question did have a high non-response rate.
- Nebraska was cited as the single largest training source of Utah dentists with 15.4% of the workforce attending dental school there. California was close behind at 10.5%. Most dentists (53.6%) attended a public university while 44.9% attended a private university.
- Most dentists (57.3%) currently have no dental school debt, likely a result of age, although the median amount of total dental school debt at the time of graduation is \$117,000. Among those who currently still have some educational debt, graduates of public institutions graduated with a median of \$232,000 while private institution graduates had a median of \$249,000 at the time of graduation.
- Only 15.3% of dentists currently participate or previously participated in a loan reimbursement program. Rural dentists reported a higher rate than urban dentists (20.0% and 14.9%, respectively).
- The share of the workforce in general dentistry has remained unchanged since 2012 at 77.8%. Rural dentists go into general dentistry at a rate of 85.7%. After general dentistry, the most popular specialty is orthodontics at 6.3% of the workforce followed by pediatric dentistry with 5.2% of the workforce.

- The share of dentists in group practice settings has grown rapidly since 2012 from 18.4% to 30.1%. Solo private practices have shrunk from 76.9% to 60.8%. While the American Dental Association doesn't collect data on practice settings, other research suggests that the trend towards group settings is a national phenomenon.
- The vast majority (82.0%) of dentists report being an owner or partial owner of their primary practice setting. There is some variation based on race, ethnicity, and particularly gender, with only 48.7% of female dentists reporting being owners or partial owners.
- The geographic distribution of the dentist workforce is skewed towards urban areas, with 11.1% of the workforce practicing in rural counties and 15.4% of the general population living in rural counties.
- Dentists work an average of 35.3 hours per week, including both primary and secondary practices. Variation stands out when breaking those numbers down by specialty, setting, and gender.
- Dentists see an average of 79.2 patients per week and have a mean wait time of 5.0 days for new patients and 5.6 days for established patients. Wait time variances are found between settings as well as county.
- The median gross production for all dentists is \$594,000. Adjusted for full time equivalent (1 FTE = 36 hours per week), gross production increases to \$604,000. Rural and urban gross production differs by close to \$100,000.
- Median income for all dentists is \$155,000. Adjusted for FTE, median income rises slightly to \$158,000. Rural dentists on average make \$17,000 less than urban dentists when adjusting for FTE.
- There is a statistically significant difference between the FTE adjusted incomes of male dentists and female dentists. However, some of that difference may be explained by setting, specialty, and years of experience. These numbers were not able to be analyzed because of the lack of female dentists in the workforce.
- Patients with private insurance and those who pay out of pocket make up about 93.6% of gross production for all dentists, with slight variation between urban and rural practices. Only 28.1% of dentists take Medicaid and 22.8% report accepting new Medicaid patients.
- With two new dental schools in Utah, the state has a capacity to train and graduate up to 134 new dentists per year. With retirement, hour reductions, and population growth, these two programs will likely provide the majority of needed dentists in the state, estimated to be between 89 and 101 new FTEs per year for the next 10 years.

## POLICY RECOMMENDATIONS

- 1. Improve Access to Dental Care.** Although the dentist-to-population ratio in Utah is similar to that of the nation, 24 of the state's 29 counties are designated as full or partial Health Professional Shortage Areas (HPSAs), likely resulting in skewed access to oral health care.
  - a. Strengthen and promote loan reimbursement programs for dentists who practice in rural areas and treat underserved populations.
  - b. Increase provider access through improved Medicaid reimbursement rates and inclusion of preventative and restorative oral health services for adults enrolled in Medicaid and Medicare programs.
  - c. Encourage and provide incentives to dentists participating in portable and mobile service programs like the Family Dental Plan, student and resident subsidized rotations, and other charity care drives.
  - d. Foster partnerships among Utah Area Health Education Centers (AHEC), Utah Center for Rural Health, State Board of Education, pre-dental programs, and dental programs to strengthen the dental education pipeline for rural and dental students who are considering practices among underserved populations and in rural areas.
- 2. Support the existing Oral Health Public Awareness through the Utah Department of Health Oral Health Program.** Promoting a public awareness campaign led by the Utah Oral Health Coalition and the Utah State Department of Health Oral Health Program in partnership with the two dental schools, the Utah Dental Association, the Utah Dental Hygiene Association, and the various other oral health champions in Utah is crucial to addressing the oral health access and policy concerns in Utah.
- 3. Support Oral Health Integration.** Oral health has an impact on the overall health of an individual, yet largely remains separate from primary care. Early intervention through integration is increasingly necessary in preventing and treating oral health issues.
  - a. Encourage more dentists and primary care providers to participate in primary care-dentistry referral networks.
  - b. Encourage the various primary care and dental training programs in the state to engage in interprofessional training.
  - c. Engage with organizations such as the National Interprofessional Initiative on Oral Health in order to facilitate oral health integration in the state.
- 4. Promote a More Diverse Workforce.** Only 4.6% of the Utah dentist workforce identifies as a racial or ethnic minority, compared to 21.0% of the population in the state. Increasing diversity can help ensure that the oral health needs of an increasingly diverse state are being met.
  - a. Develop and/or strengthen the admissions criteria for minority applicants and cultural competency training for students in the two dental schools in Utah.

- b. Encourage the two dental schools and the Utah Legislature to develop scholarships and loan reimbursement programs for minority students.
  - c. Foster partnerships among the Area Health Education Centers (AHEC), the State Board of Education, the Utah Board of Regents, high schools, pre-dental programs, dental programs, and non-profit organizations such as the Boys and Girls club and United Way to strengthen the dental education pipeline for minority students.
- 5. Address the Gender Imbalance in the Utah Dentist Workforce.** While the national workforce has seen a major shift towards more female dentists, the Utah workforce has yet to catch up. Although young dentists are made up of more women than older dentists, there is still much to be done before Utah catches up with the nation.
- a. Increase efforts to recruit and retain more female dentists in Utah and at the two dental schools in the state.
  - b. Partner with women’s organizations in the state such as the Utah Women and Leadership Project (UWLP) in order to understand and address the causes of the lack of female dentists in the state.
  - c. Foster partnerships among the Area Health Education Centers (AHEC), the State Board of Education, the Utah Board of Regents, high schools, pre-dental programs, dental programs, and non-profit organizations such as the Boys and Girls club and United Way to strengthen the dental education pipeline for female students.
- 6. Enhance Data Collection in Order to Assess and Meet Changing Workforce Needs.** The UMEC has tracked the supply of dentists for many years, however additional data is needed in order to make an accurate prediction of the demand for dentists in the future.
- a. Develop a system that periodically assesses demand and need for dental services in Utah. This system could include need for services, service availability and its utilization, quality outcomes, and sustainability in the state.
  - b. Retention rates of the dental school graduates in Utah should be closely monitored along with practice location choices to measure their impact on Utah’s workforce supply and distribution.
  - c. Create and support a partnership between the UMEC, the Utah Dental Association, and the Professional Insurance Exchange to collect and utilize retirement data in order to form a more robust workforce projection model.

## METHODOLOGY

### License Data

The Utah Division of Occupational and Professional Licensing (DOPL) provided the UMEC with information for every licensed dentist in the state. As of January 2017, there were 2,914 dentists holding a license in Utah.

### Design of Survey Instrument

In the design of the 2017 Dentist Workforce Survey, the previous UMEC dentist survey from 2012 was analyzed and revised based on the UMEC Dentist Workforce Advisory Committee recommendations as well as streamlining questions to more easily compare to other healthcare workforces in the state. The UMEC utilized Snap Surveys software for the design of the survey instrument.

### Data Collection

The first mailing was done in February of 2017. Respondents were tracked and a second mailing was sent to those who had not returned the survey in April 2017. A third mailing was sent in June 2017 to those who had not responded. Data collection was completed on July 10, 2017. A total of 1,480 surveys were returned for a 50.8% response rate. With such a high response, the analysis has a confidence interval of 95% +/- 1.8%. Survey responses were given a weight of 1.969 to account for non-respondents.

### Data Entry and Analysis

The 2017 Dentist Workforce Survey was processed in house using Snap Surveys software. Data entry was completed by the software and in-house by UMEC staff. Once the data entry was complete, the information was imported into SPSS for statistical analysis. Analysis began in July 2017.

### Survey Limitations

The survey asked dentists how much of their gross production was made up by different insurance types. This did not allow analysis to be done on the patient insurance breakdown itself. For example, one dentist wrote on his/her survey that 35% of patients had Medicaid but only accounted for 10% of gross production.

When asked how many days a patient must wait for an appointment, a handful of dentists distinguished between hygiene, restorative, and/or emergency patients. It is unclear if the differences between these groups affected the overall mean. Similarly, when asked how many patients were seen per week, some dentists distinguished between hygiene and oral exams.

Dentists were asked the number of dental assistants, dental hygienists, and office/admin staff at their primary practice setting as well as the total hours per week for all staff in those categories. It was clear that while many dentists totaled the hours per week, many also averaged each employee. Because of the amount of reporting errors, this data was unable to be analyzed.

## INTRODUCTION AND BACKGROUND

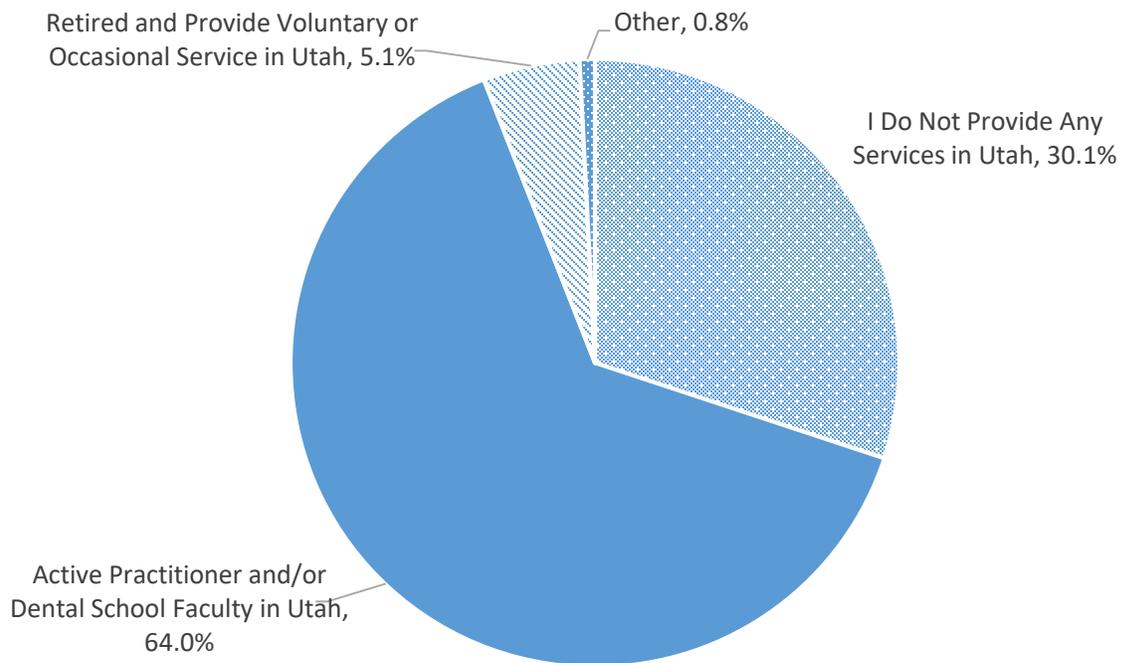
The Utah Medical Education Council has been charged with conducting periodic analyses of the medical professions in the state of Utah in order to assess workforce supply and demand. In 2002, UMEC published its first dentist workforce profile. The UMEC has subsequently published two more dentist workforce reports based on surveys conducted in 2006 and 2012.

The dental workforce continues to grow across the state. While the dentist-to-population ratio has been increasing since the UMEC published its findings in the 2006 report, the dentist workforce itself continues to be distributed unevenly, particularly among rural and underserved communities. This, combined with the lack of dental coverage among the general Medicaid population, has led to uneven access to dental services across the state, despite the robust growth.

## LICENSED IN UTAH

As of January 2017, there were 2,914 dentists licensed in Utah. Of those, 1,865 (64.0%) provide services in the state, a net growth of 11.9% since 2012. Of the remaining 1,049, 30.1% (876) provide no services in Utah, 5.1% (150) are retired and provide voluntary or occasional services in Utah, and 0.8% (24) responded as “other” status. Unless otherwise noted, this report refers to the 1,865 dentists who provide services in the state.

**Figure 1: Practice Status of Licensed Dentists in Utah**



The survey asked the 876 dentists who did not provide any services in Utah what factors influenced their decision to practice elsewhere. About half (50.1%, 429) cited low wages or other issues having to do with market saturation while over 20% cited family (26.7%, 234), lifestyle (21.3%, 187), and dental school debt load (20.4%, 179). Only 2.9% (26) said they plan on moving into the state in the future.

When asked what factors contributed to the decision to practice in Utah, 87.6% (1,634) of dentists working in the state cited family reasons and 78.4% (1,461) cited lifestyle. Only 4.5% (85) cited wages/pay scale as a reason to work in Utah.

**Table 1: Factors Influencing Decision to Practice in Utah**

Rank	Factor
1	Family
2	Lifestyle
3	Climate
4	Cost of Living
5	Pay Scale/Wages
6	Other

### Dentist-to-100,000 Population Ratio

Utah has an active dentist-to-100,000 population ratio of 59.7 with an estimated 1,865 dentists in the state and a population count of 3,123,607 as of 2016 (Kem C. Gardner Policy Institute, 2015). When breaking that number down by full time equivalent (1 FTE = 36 hours per week), that number decreases slightly to 58.6 FTEs per 100,000. These ratios are fairly consistent with the American Dental Association’s estimate of 61.7 dentists in Utah as well as the national ratio of 60.8 dentists per 100,000. Adjusted for hours worked, the American Dental Association estimates there are approximately 55.1 dentists per 100,000 (Munson & Vujicic, 2016). As for regional comparisons, Utah ranks 5<sup>th</sup> out of 11 Western states, possibly creating a market in neighboring states for dentists trained in Utah.<sup>1</sup> (Health Policy Institute & American Dental Association, 2017).

## DEMOGRAPHIC CHARACTERISTICS

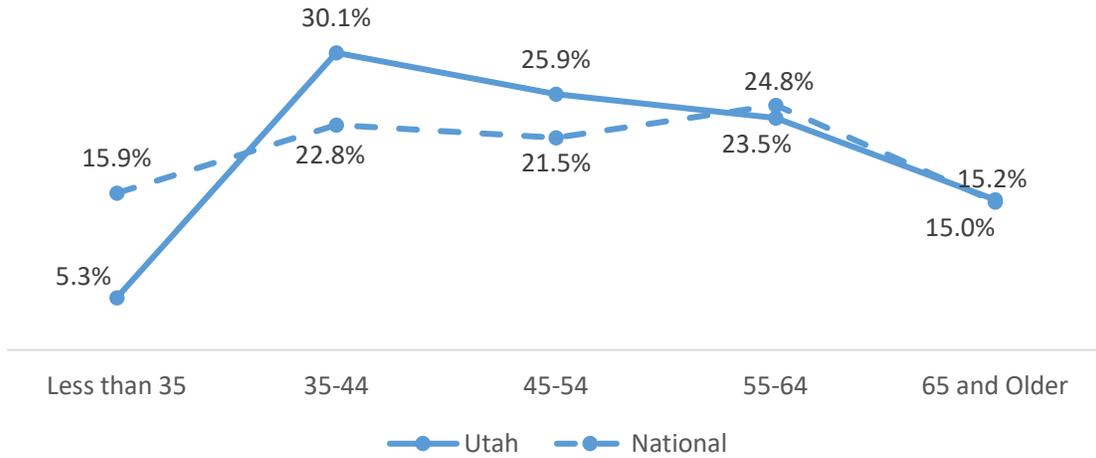
### Age

The average age for all dentists working in Utah is 51.3 years with a median age of 50. Rural dentists tend to be somewhat younger at 49.7 years. Overall age has increased slightly since 2012 with a mean of 48 years and median of 46 years (Utah Medical Education Council, 2015), and consistent with the national workforce, which has an average age 50 years (Health Policy Institute & American Dental Association, 2016). Likewise, the breakdown of age is fairly consistent with national data as shown in the chart below.

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<sup>1</sup> American Dental Association dentist to 100,000 population estimates for Western states are as follows: Arizona 53.9, California 76.8, Colorado 69.7, Idaho 55.9, Montana 60.5, Nevada 52.9, New Mexico 51.4, Oregon 67.9, Utah 61.7, Washington 71.6, Wyoming 53.1.

**Figure 2: Dentist Age Distribution**

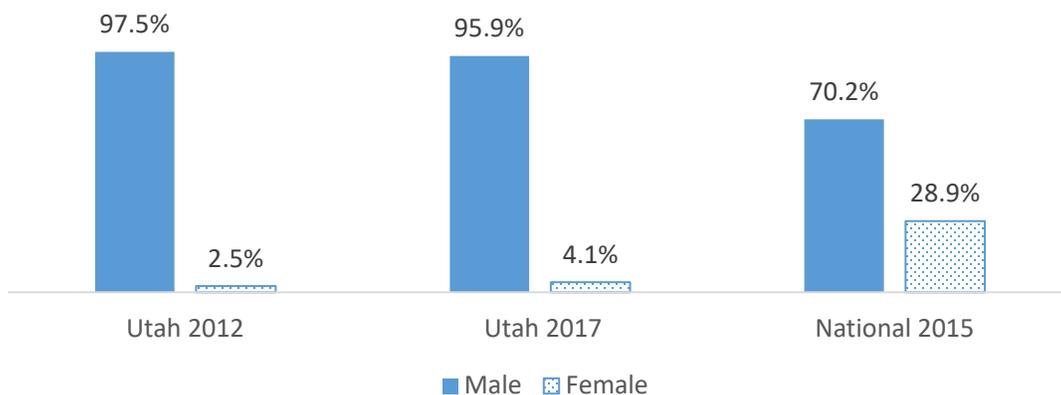


Although the age breakdown of the Utah dentist workforce is largely spread out, 38.8% (723) are aged 55 and over, which may have implications when those individuals begin to reduce their hours and retire. However, another 35.4% (660) are under the age of 44.

### Gender

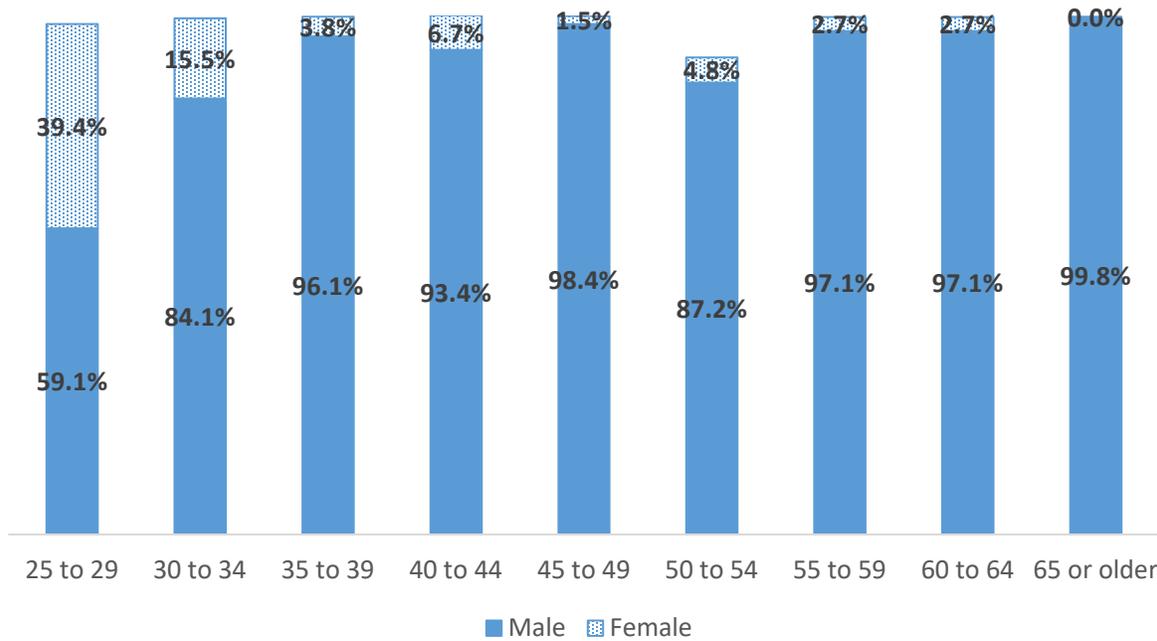
The Utah dentist workforce continues to be overwhelmingly male. As of 2017, an estimated 4.1% (77) of the workforce is female, up from 2.5% in 2012 compared to 28.9% of the national workforce. Additionally, 48.0% of all dental graduates in 2015 were women (Health Policy Institute & American Dental Association, 2016). Locally, 28.6% of prospective graduates between 2018 and 2020 at the University of Utah and 45.2% at Roseman University are women. A majority (64.1%, 49) of female dentists are under age 45, compared to 34.1% (610) of male dentists.

**Figure 3: Gender Breakdown**



When breaking gender down by age, it is clear that the demographics are shifting among the younger age groups, however compared to national graduation data, Utah is still behind national numbers (Health Policy Institute & American Dental Association, 2016).

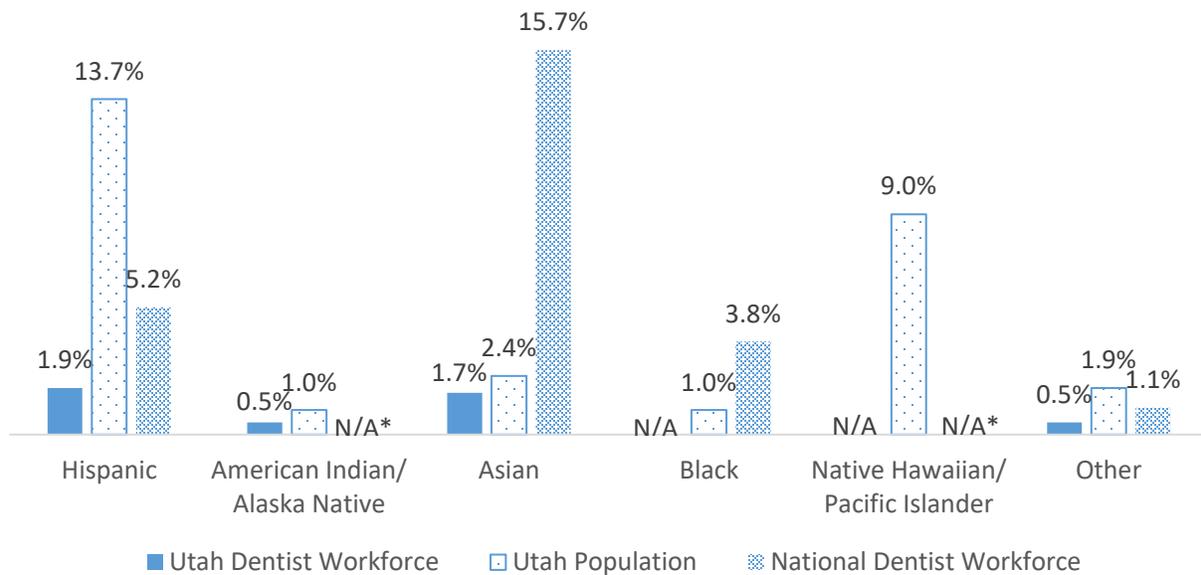
**Figure 4: Gender by Age Group**



### Race and Ethnicity

The dentist workforce in Utah is predominantly White/Caucasian, with an estimated 95.5% of the workforce reporting as such. Every major racial and ethnic minority group is underrepresented based on the composition of the state population, with the biggest gap among Hispanics who account for 1.9% (35) of the dentist workforce and 13.7% of the population in Utah (Kem C. Gardner Policy Institute, 2016). There were no dentists who reported being Black/African American or Native American/Pacific Islander, however this simply means that no dentists belonging to those racial groups responded to either that particular question or the survey. While our data cannot estimate the breakdown of these two racial groups within the workforce, they are likely underrepresented as well.

**Figure 5: Racial Composition of Utah Dentist Workforce, Utah Population, and National Dentist Workforce**



\*National dentist workforce data did not specify the breakdown of American Indian/Alaska Native and Native Hawaiian/Pacific Islander populations.

## Upbringing

A total of 49.8% (929) of Utah dentists reported spending the majority of their upbringing in the state.<sup>2</sup> Other common states include California (4.5%, 85) and Idaho (2.3%, 43). An estimated 9.9% (185) spent their upbringing in one of the ten states in the Western region of the U.S.<sup>3</sup> other than Utah. Only 13.9% (260) indicated growing up outside of Utah.

Respondents were also asked whether they spent the majority of their upbringing in a rural, suburban, or urban setting. Overall, 25.3% (473) grew up in a rural setting, 60.8% (1,134) grew up in a suburban setting, and 12.4% (230) grew up in an urban setting.

## Education Background

Only 1.5% (28) of Utah dentists attended a dental program in the state. This number will likely increase over time as the state’s two dental schools age. Utah dentists cited Nebraska as the location of their training program more than any other with 15.4% (287) of the workforce followed by California with 10.5% (195) of the workforce. Ohio (7.5%, 140), Virginia (6.9%, 128), Oregon (6.4%, 120) and Kentucky (6.4%, 120) were also common training states. A majority

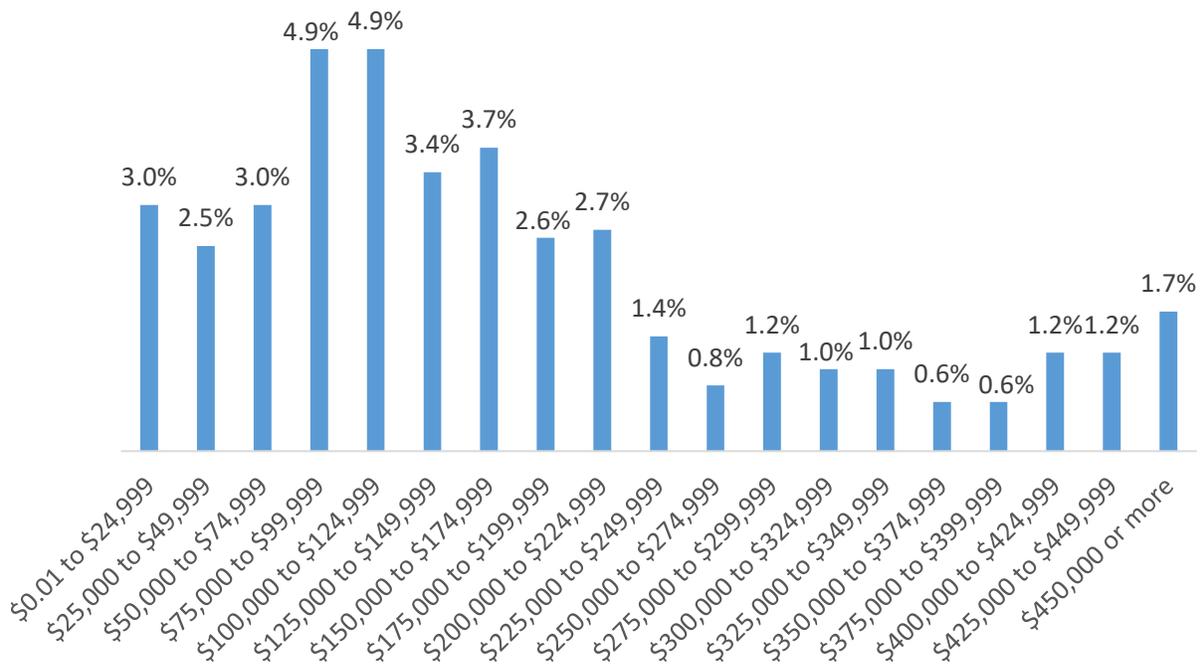
<sup>2</sup> This question had a non-response rate of 36.2%. The numbers reported include non-responses.

<sup>3</sup> Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington, and Wyoming.

(53.6%, 1,000) attended a state university for their dental training while 44.9% (837) attended a private university.

The median amount of educational debt for dental school was \$117,000 at the time of graduation. Over half (57.3%, 1,069) of all dentists indicated they currently have no dental school debt, in large part due to the average age of the workforce. The current debt of the remaining 41.2%<sup>4</sup> is vastly spread out.

**Figure 6: Current Dental School Debt (Current Debt > \$0)**



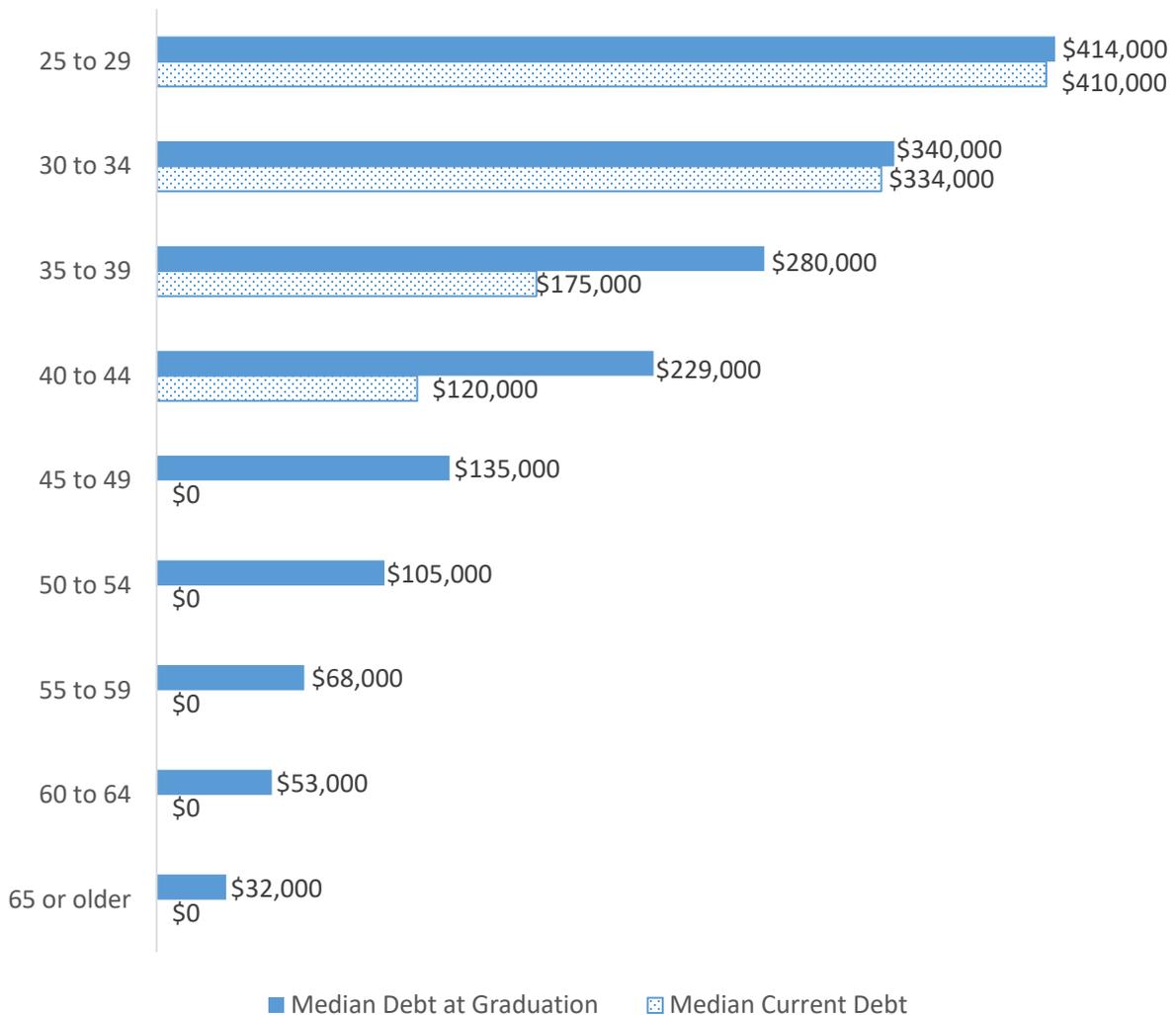
Overall, those attending private universities graduated with more debt than those attending state universities. Of all dentists, those with degrees from state universities graduated with a median of \$114,000 of dental school debt while those from private universities graduated with a median of \$127,000. When looking only at dentists who currently have dental school debt, the amount of debt at the time of graduation rises to \$232,000 and \$249,000 for public and private universities, respectively. The median amount of debt at graduation for dentists who graduated since 2010 has risen drastically and is currently an estimated \$365,000.

The mean age at the time of graduation is 29. Those aged 45 to 49 are the youngest age group to have a median current debt of \$0, suggesting it took those dentists between 16 and 20 years to pay off dental school debt. However, it is unclear whether that estimate can be generalized to

<sup>4</sup> This question had a 1.5% non-response rate.

younger age groups due to the differences in the median amount of debt at the time of graduation.

**Figure 7: Median Debt at Graduation and Median Current Debt by Age Group**



An estimated 15.3% (286) of dentists participate(d) in a loan reimbursement program. Military and U.S. HHS National Health Service Corps programs were cited most often (5.5% and 2.1%, respectively). When asked about willingness to work in an underserved area of Utah if dental school debt load could be reduced, 27.0% (504) responded affirmatively.

Rural practitioners participate(d) in loan reimbursement programs at a slightly higher rate of 20.0% (41) compared to 14.9% (234) of urban dentists. Additionally, 36.2% (75) of rural dentists stated they would be willing to serve in underserved areas if their dental school debt could be reduced as opposed to 25.8% of urban practitioners.

## PRACTICE CHARACTERISTICS

### Specialty

An estimated 77.8% (1,451) of all dentists in Utah practice general dentistry, a percentage which is unchanged from 2012. There is variation in general practice among rural and urban dentists with 85.7% of rural dentists and 77.0% of urban dentists in general dentistry.

While most specialties remained relatively unchanged in terms of numbers from 2012, general dentistry increase by an estimated 155 dentists and oral and maxillofacial surgery increased by an estimated 25 dentists.

**Table 2: Specialty Breakdown, 2012 and 2017<sup>5</sup>**

	<b>2012</b>	<b>2017</b>	<b>U.S. Workforce</b>
<b>General Dentistry</b>	77.8% (1,296)	77.8% (1,451)	79.0%
<b>Endodontics</b>	3.0% (50)	3.2% (59)	2.8%
<b>Oral and Maxillofacial Surgery</b>	2.4% (40)	3.5% (65)	3.9%
<b>Orthodontics</b>	7.1% (119)	6.3% (118)	5.4%
<b>Periodontics</b>	1.6% (26)	1.6% (30)	2.9%
<b>Pediatric Dentistry</b>	5.8% (97)	5.2% (96)	3.7%
<b>Prosthodontics</b>	0.8% (13)	0.4% (8)	1.8%
<b>Other Specialty</b>	1.1% (19)	1.7% (32)	0.3%

Differences are found in specialty selection by gender. With so few women in the workforce it is difficult to compare the gender breakdown specialty by specialty, however it is clear that women go into general dentistry (84.6%, 65) at a higher rate than men (77.5%, 1,386).

### Practice Setting

A majority of Utah dentists (60.8%, 1,134) work in a solo private practice. This is a decrease in both the share of the workforce and actual numbers from 2012 with 76.9% and 1,328 dentists working in solo private practices. Group private practices have seen the highest increase in share of the workforce since 2012 from 18.4% to 30.1%. Nationally, the trend towards group practices is stark as well (Decisions in Dentistry, 2016). The percentage of dentists who reported having a secondary setting went up slightly from 19.5% (294) in 2012 to 21.1% in 2017 (394).

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<sup>5</sup> Dental Public Health was listed as a specialty option, but with so few respondents, analysis regarding that specialty has been excluded from this report.

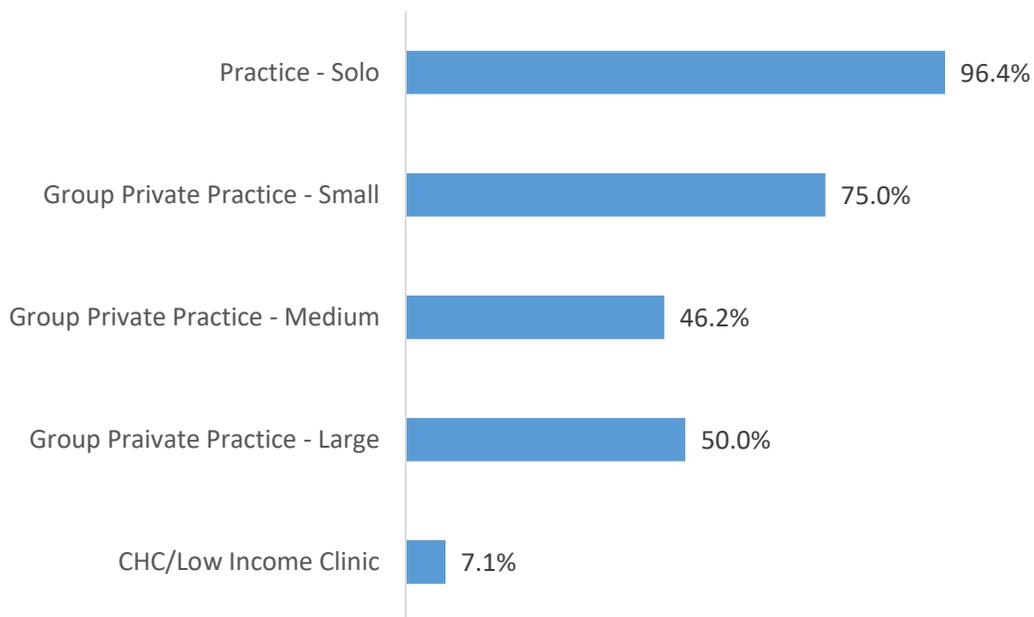
**Table 3: Practice Setting, 2012 and 2017**

	2012 Primary	2012 Secondary	2017 Primary	2017 Secondary
<b>Solo Private Practice</b>	76.9%	7.7%	60.8%	5.7%
<b>Group Private Practice – Small</b>	18.4%	6.6%	26.8%	8.3%
<b>Group Private Practice – Medium</b>			2.9%	0.8%
<b>Group Private Practice – Large</b>			0.4%	0.6%
<b>School Faculty</b>	0.1%	1.0%	3.7%	3.2%
<b>Govt. Agency/Armed Forces</b>	0.3%	1.0%	0.7%	0.7%
<b>CHC/Low Income Clinic</b>	0.9%	1.6%	1.5%	1.0%
<b>Other</b>	0.7%	1.6%	0.6%	0.7%

Community health centers and low income clinics continue to account for a very small percentage of both primary and secondary practices. However, while only 1.1% of urban dentists report CHCs as their primary setting, 4.8% of rural dentists report the same.

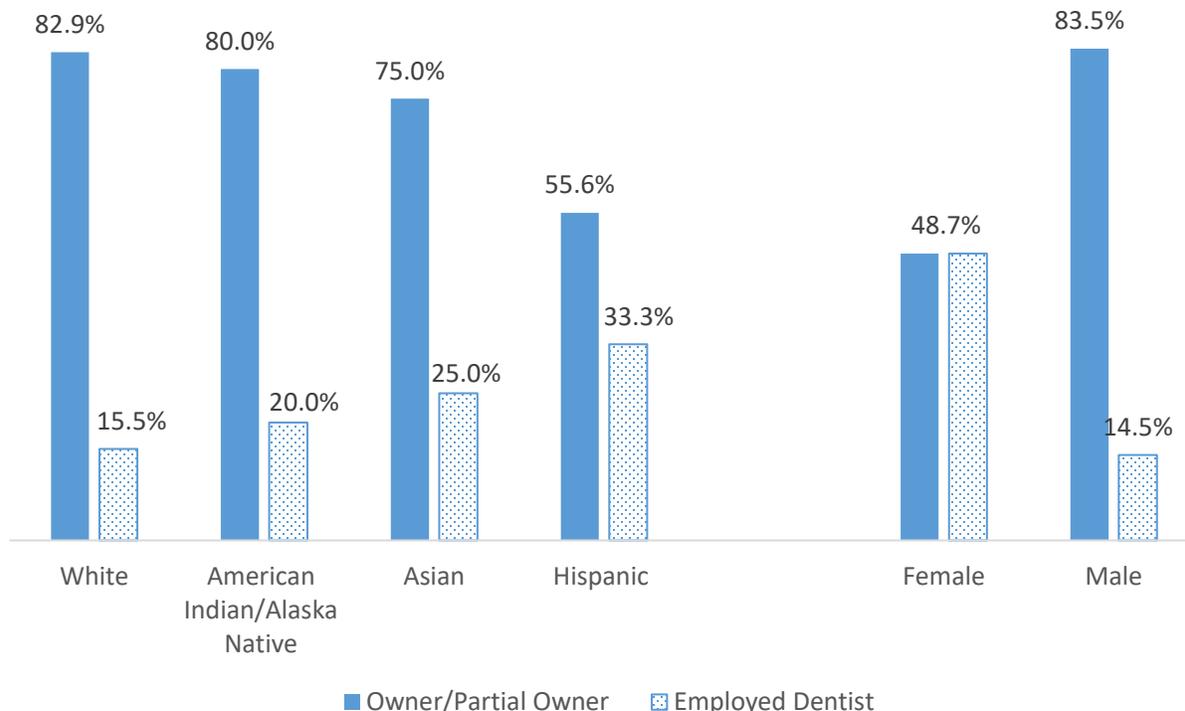
An estimated 82.0% (1,530) of dentists reported being an owner or partial owner at their primary practice with only 15.9% (297) reporting being an employed dentist. This number varies a great deal by setting from 96.4% of dentists in solo private practices to 7.1% of dentists in Community Health Centers/Low Income Clinics.

**Figure 8: Percent of Practice Ownership/Partial Ownership by Setting**



Practice settings and employment status vary widely when looking specifically at female and minority dentists. For example, 48.7% (37) of female dentists reported being an owner or partial owner of their primary practice setting, while 83.5% (1,493) of male dentists reported the same. Similarly, every reporting minority had a smaller percentage of ownership than white dentists.

**Figure 9: Practice Ownership Status by Race, Ethnicity, and Gender**



Small group practices are most common among women (43.6%, 33) while solo practices dominate among men (62.1%, 1,111). Because there are so few minority dentists, most numbers breaking down practice setting by race and ethnicity are not reportable, however Community Health Centers/Low Income Clinics and Group Practices are more common among minority dentists than white dentists. These findings are consistent with the national workforce (Decisions in Dentistry, 2016).

### Geographic Distribution

Utah dentists report having primary practices in every county other than Daggett, Morgan, Piute, Rich, and Wayne. However, a number of dentists reported a secondary practice in Daggett, Rich, and Wayne, leaving only Morgan and Piute with no reporting dentists working in the county. Twenty-four of Utah’s 29 counties are designated as a Dental Health Professional Shortage Area (HPSA), including 4 geographic area HPSA counties and 21 low-income HPSAs.

The table below outlines dentists working in each county in both primary and secondary settings.

**Table 4: Workforce and Population Distribution by County**

	Number of Dentists	Percent of Workforce	Percent of Population	HPSA Designation
Beaver			0.2%	Low-Income Population
Box Elder	41	2.2%	1.8%	None
Cache	97	5.1%	4.1%	Low-Income Population
Carbon	32	1.7%	0.7%	Low-Income Population
Daggett*			0.04%	High Needs Geographic Area
Davis	210	11.3%	11.2%	Low-Income Population (Partial)
Duchesne	16	0.8%	0.7%	Low-Income Population
Emery	6	0.3%	0.3%	Low-Income Population
Garfield			0.2%	Low-Income Population
Grand			0.3%	High Needs Geographic Area (Partial)
Iron	14	0.7%	1.7%	Low-Income Population
Juab			0.4%	Low-Income Population
Kane			0.2%	Low-Income Population
Millard	12	0.3%	0.4%	Low-Income Population
Morgan <sup>6</sup>	---	---	0.4%	None
Piute	---	---	0.05%	High Needs Geographic Area
Rich*			0.08%	Low-Income Population
Salt Lake	815	43.7%	36.3%	Low-Income Population (Partial)
San Juan	16	0.8%	0.5%	Low-Income Population
Sanpete	26	1.4%	1.0%	Low-Income Population
Sevier	22	1.2%	0.7%	Low-Income Population
Summit	24	1.3%	1.3%	None
Tooele	36	1.9%	2.1%	None
Uintah	20	1.1%	1.2%	Low-Income Population (Partial)
Utah	346	18.6%	19.8%	Low-Income Population
Wasatch	24	1.3%	1.0%	None
Washington	108	5.8%	5.2%	Low-Income Population
Wayne*			0.09%	High Needs Geographic Area (Partial)
Weber	195	10.5%	8.0%	Low-Income Population

Fewer than 5 dentists    --- Zero dentists    \*Secondary practices only

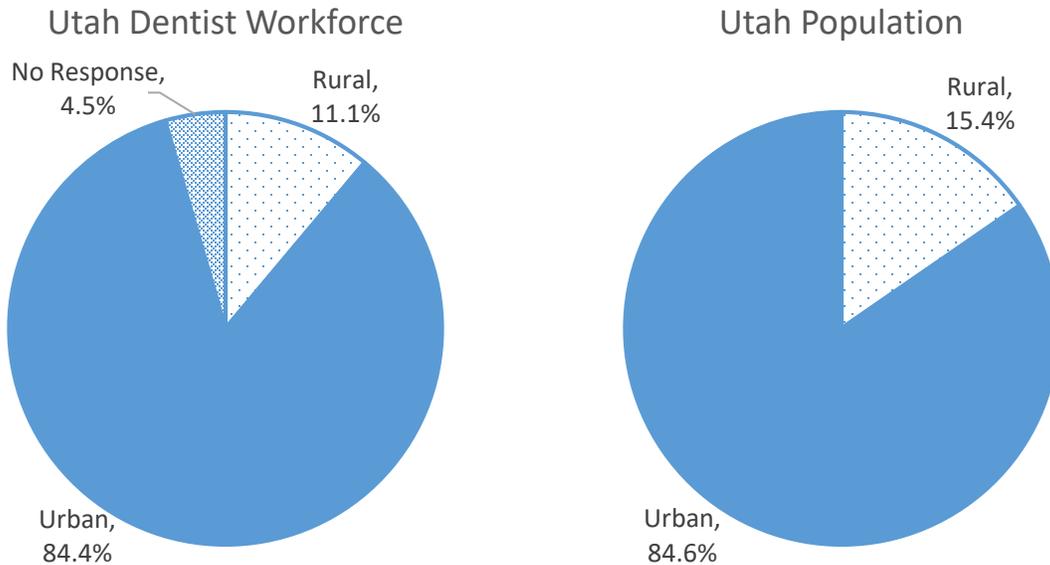
As outlined in the table above, the dentist workforce is fairly evenly distributed among Utah’s counties, despite the prevalence of HPSA designations. Iron, Morgan, Piute, and Utah counties

<sup>6</sup> Although no dentist from Morgan County responded to our survey, an Internet search revealed 5 practices in the county. It is unclear exactly how many dentists there are and which practices are primary vs. secondary practices.

all have a small dentist distribution shortage while Salt Lake County has a distribution surplus of dentists.

When breaking down primary practice location by rural and urban county, it is clear that there is a disproportionate number of dentists working in urban counties versus rural counties with 15.4% of the population in rural counties but only 11.1% of dentists in those same counties.<sup>7</sup>

**Figure 10: Rural/Urban Breakdown of Dentist Workforce and Utah Population**



## Practice Hours

The average dentist in Utah works approximately 35.3 hours per week. That number includes hours worked at secondary settings as well, which consists of 17.3% (323) of the workforce. An estimated 46.4% of dentists work full time, defined as 36 hours per week, while 49.2% work part time, or less than 36 hours per week. Of those that work full time, the mean hours worked per week jumps to 41.3 while part time dentist mean hours falls to 29.7 per week.

There is variation in hours worked when broken down by a number of variables. Looking at the numbers by specialty, hours worked jumps from a mean of 27.3 hours per week among Prosthodontics to just under 40 hours per week among Oral and Maxillofacial Surgery. These variations tend to partially explain the variation in income as well.

<sup>7</sup> Urban counties include Cache, Davis, Salt Lake, Utah, Washington, and Weber.

**Table 5: Hours per Week by Specialty**

	Mean Patient Hours/Week	Mean Total Hours/Week
<b>General Dentistry</b>	33.3	35.4
<b>Endodontics</b>	35.0	36.1
<b>Oral and Maxillofacial Surgery</b>	38.6	39.7
<b>Orthodontics</b>	31.5	33.3
<b>Periodontics</b>	29.8	33.1
<b>Pediatric Dentistry</b>	33.4	35.8
<b>Prosthodontics</b>	26.0	27.3
<b>Other</b>	30.9	35.3

Variation also occurs when breaking hours worked down by age and gender. Younger dentists tend to work more per week. For those under the age of 35, mean hours per week jumps to about 38 and slowly decreases to 31.6 among dentists aged 65 or older. Similarly, female dentists work less on average than male dentists (32.9 and 35.5, respectively). However, that gap shrinks when comparing full-time and part-time dentists.

**Table 6: Mean Hours per Week by Gender and Full-Time/Part-Time Status**

	Male	Male Count	Female	Female Count	Total
<b>Full Time</b>	41.4	831 (46.5%)	40.3	33 (43.6)	41.3
<b>Part Time</b>	29.8	874 (48.9%)	27.1	43 (56.4%)	29.7
<b>Total</b>	35.5		32.9		35.3

## Provider Accessibility

Utah dentists see an average of 79.2 patients per week. This number is up from about 68.5 patients per week in 2012<sup>8</sup>. Patients seen per week can vary widely based both on specialty and setting.

**Table 7: Mean Patients per Week by Specialty**

<b>Specialty</b>	<b>Mean Patients per Week</b>
General Dentistry	71.3
Endodontics	27.8
Oral and Maxillofacial Surgery	64.4
Orthodontics	171.6
Periodontics	60.5
Pediatric Dentistry	132.8
Prosthodontics	45.0
Total	79.2

**Table 8: Mean Patients per Week by Setting**

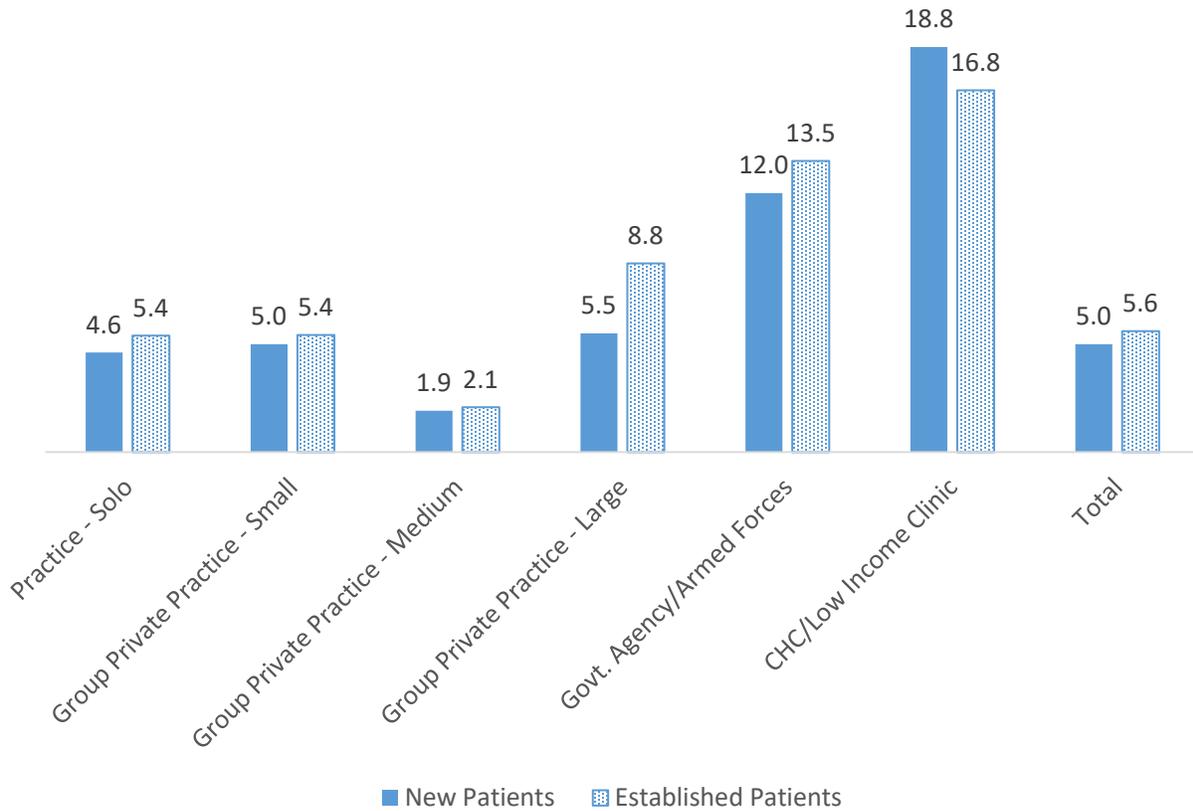
<b>Setting</b>	<b>Mean Patients per Week</b>
Solo Practice	69.6
Group Private Practice – Small	80.1
Group Private Practice – Medium	108.9
Group Private Practice – Large	145.0
Govt. Agency/Armed Forces	49.1
CHC/Low Income Clinic	56.2
Other	97.0
Total	79.2

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<sup>8</sup> In 2012, this question was asked on a patients per month basis while 2017 asked patients per week.

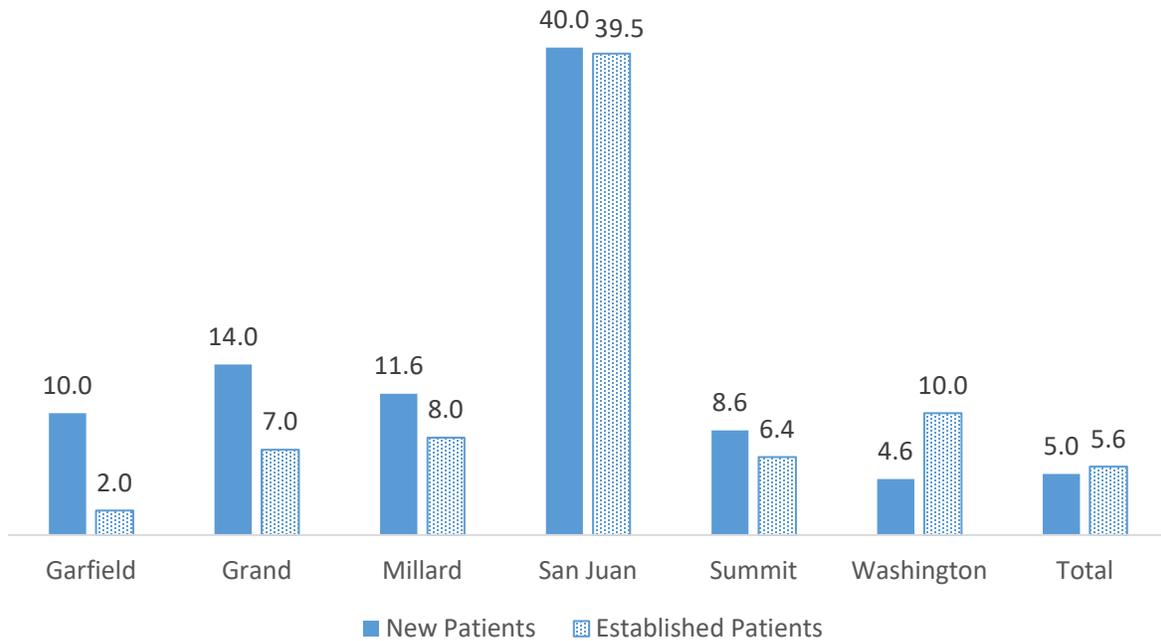
The mean wait time is 5.0 days for new patients and 5.6 days for established patients. This number varies by practice setting and county. Among practice setting, CHC/Low Income Clinics have the highest wait times for both new and established patients while medium-sized group practices have the lowest wait time for both new and established patients.

**Figure 11: Wait Time in Days by Practice Setting**



There is more variation when breaking wait time down by county. Six counties had mean wait times for either new or established patients that were at least two days higher than the mean for the state. San Juan had several clinics respond with wait times that were close to the mean and several that responded much higher, thereby raising the mean significantly.

**Figure 12: Wait Time in Days by Counties with Highest Means**

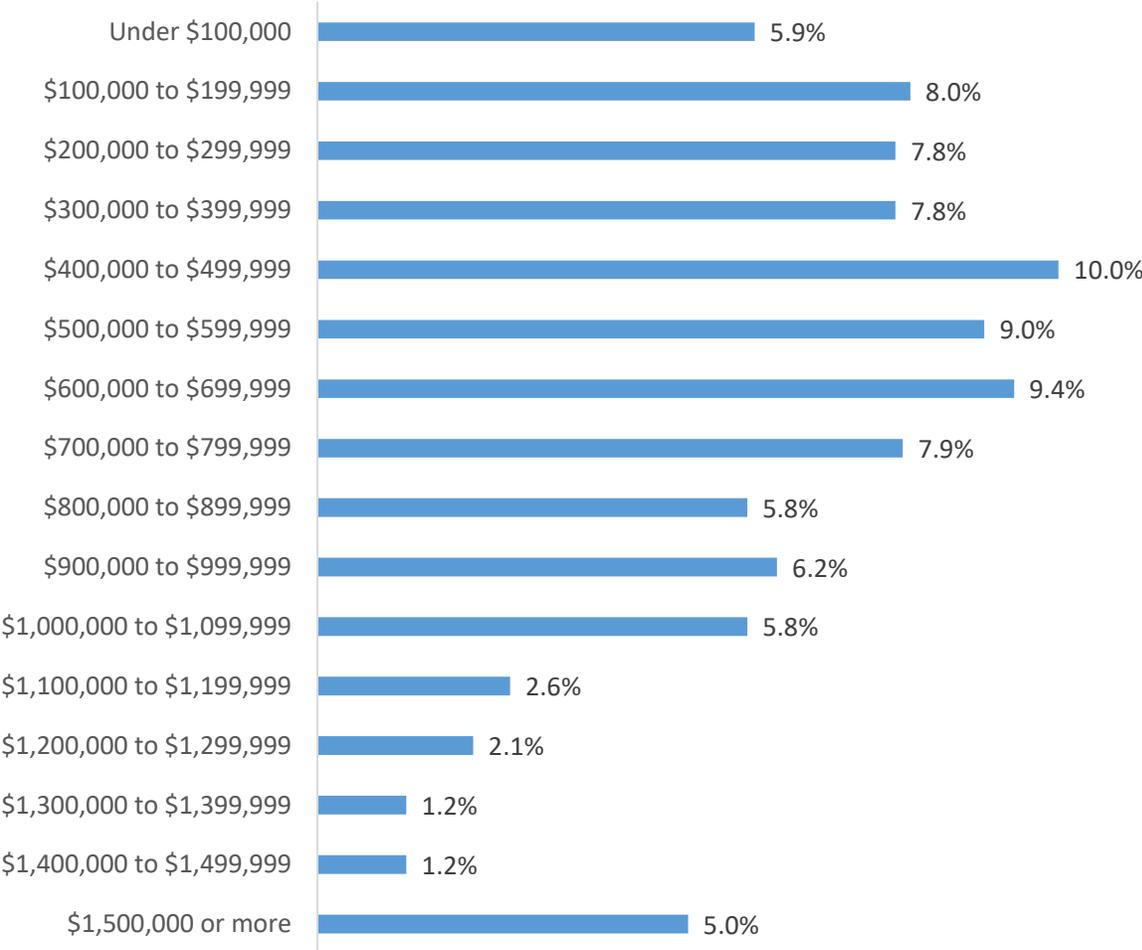


When asked about providing services in a language other than English, 59.6% (1,111) of dentists responded that they could provide non-English services. A majority of all providers (52.2%, 973) cited Spanish as one of the languages they could accommodate. Overall, minority dentists reported being able to provide services in other languages more often than white, non-Hispanic dentists.

### Gross Production and Net Income

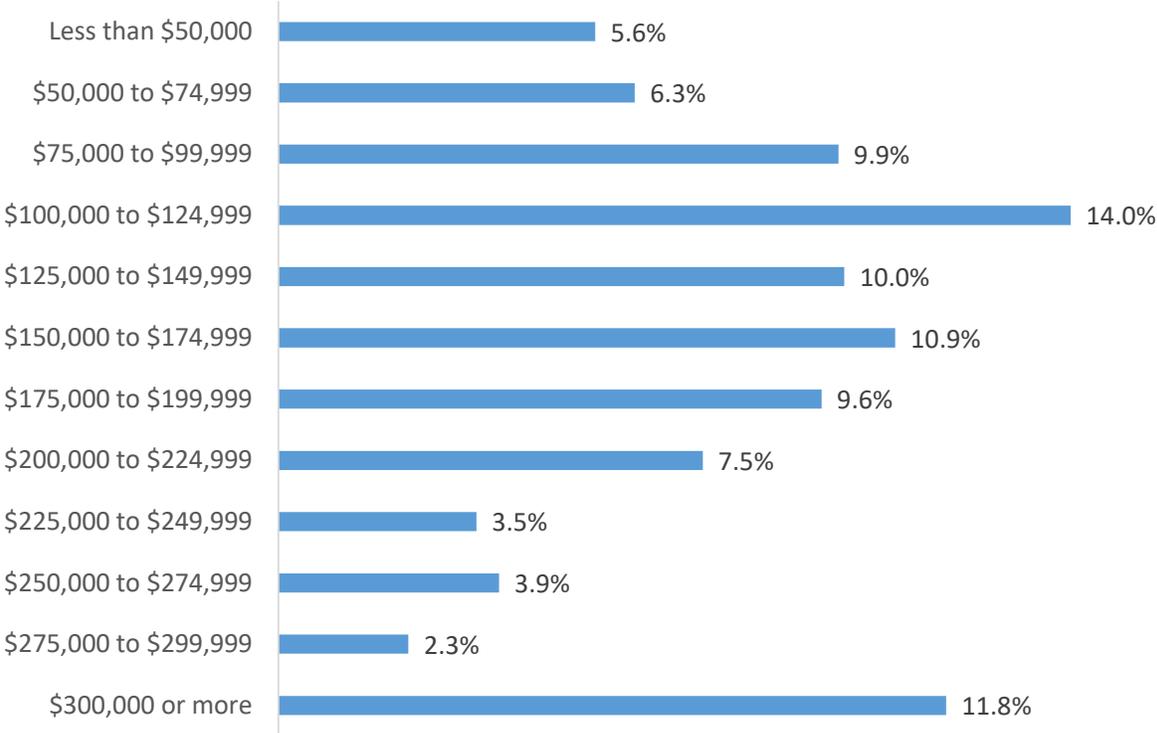
The median gross production for all dentists in 2017 is \$594,000. This has increased from \$534,000 in 2012. When adjusting for FTE, median gross production increases to \$604,000. Differences in FTE-adjusted gross production between rural and urban dentists is stark at \$524,000 and \$621,000, respectively. While gross production among all dentists is spread out, the bulk of dentists fall into the middle to low-middle range, with the exception of 5.0% (93) falling above \$1.5 million.

**Figure 13: Breakdown of Gross Production for All Dentists**



The median net income for all dentists is \$155,000. Net income has decreased from \$159,000 in 2012. FTE-adjusted net income for 2017 is \$158,000. Again, the difference in FTE-adjusted net income between rural and urban dentists is stark at \$144,000 for rural dentists and \$161,000 for urban dentists. The pattern of net income distribution for all dentists mirrors that of gross production distribution, with income concentrated towards the middle range and 11.8% of dentists making \$300,000 or more.

**Figure 14: Breakdown of Net Income for All Dentists**



When looking at gross production and net income by specialty, several things stand out. The only specialties to decrease in gross production overall are prosthodontics and other specialties not listed. The overall net income decreased by about \$3,000, although the only specialties to see a decrease in net income are general dentistry and endodontics.

**Table 9: Median Gross Production and Net Income by Specialty, 2012 and 2017**

	2012		2017	
	Median Gross Production	Median Net Income	Median Gross Production	Median Net Income
<b>General Dentistry</b>	NA	\$145,000	\$550,000	\$140,000
<b>Endodontics</b>	\$536,000	\$234,000	\$657,000	\$192,000
<b>Oral and Maxillofacial Surgery</b>	\$982,000	\$259,000	\$1,119,000	\$341,000
<b>Orthodontics</b>	\$704,000	\$201,000	\$784,000	\$211,000
<b>Periodontics</b>	\$694,000	\$195,000	\$871,000	\$195,000
<b>Pediatric Dentistry</b>	NA	NA	\$696,000	\$219,000
<b>Prosthodontics</b>	\$609,000	\$153,000	\$507,000	\$239,000
<b>Other</b>	\$532,000	\$145,000	\$342,000	\$168,000
<b>Total</b>	\$592,000	\$158,000	\$594,000	\$155,000

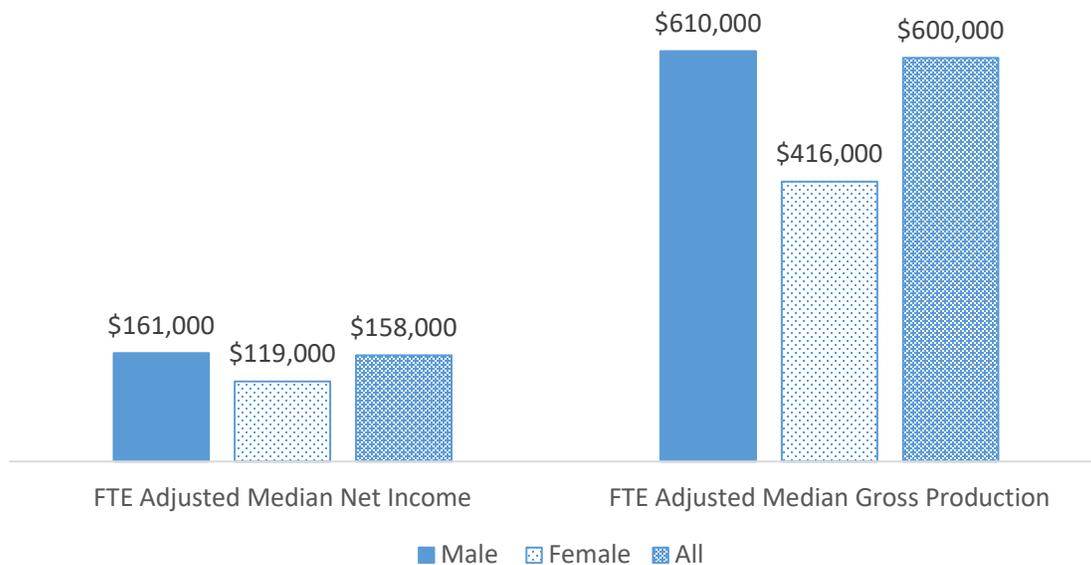
When adjusting for FTE, median gross production goes up for all specialties other than oral and maxillofacial surgery, periodontics, and pediatrics. FTE-adjusted median income similarly increases for every specialty other than oral and maxillofacial surgery and prosthodontics.

**Table 10: FTE Adjusted Median Gross Production and Median Net Income**

	FTE Adjusted Median Gross Production	FTE Adjusted Median Net Income
<b>General Dentistry</b>	\$571,000	\$144,000
<b>Endodontics</b>	\$689,000	\$207,000
<b>Oral and Maxillofacial Surgery</b>	\$1,056,000	\$291,000
<b>Orthodontics</b>	\$801,000	\$227,000
<b>Periodontics</b>	\$815,000	\$276,000
<b>Pediatric Dentistry</b>	\$673,000	\$222,000
<b>Prosthodontics</b>	\$606,000	\$268,000
<b>Other</b>	\$309,000	\$153,000
<b>Total</b>	\$604,000	\$157,000

Breaking income down by gender shows a stark difference between men and women, even after adjusting for FTE. While the ratio of gross production to net income is similar, the actual numbers are stark, as detailed in the graph below. There is a statistical significance in income by gender when controlling only for hours worked per week<sup>9</sup>, however, specialty choice may be able to explain at least a portion of the gap, as women go into general dentistry, a lower paying specialty, at a higher rate than men (84.6% vs. 77.5%, respectively). That being said, the FTE-adjusted median income for female dentists is still well below the FTE-adjusted median income for all general dentists. The designation of being an owner or partial owner as opposed to an employed dentist is also a possible explanation for the difference in income.

**Figure 15: FTE Adjusted Income and Production by Gender**



## PATIENT DEMOGRAPHICS

### Patient Age

On average, dentists see patients who are aged 18 to 44 more than any other age group, accounting for 30.4% of total patients. Those aged 5 to 64 account for an average of 81.3% of the patients seen. Patients aged 65 or older account for an average of 16.9% of patient panels and 10.8% of the population (Perlich, et al., 2017).

The American Association of Pediatric Dentists (AAPD) and the Utah Department of Health recommend that a child be taken for his or her first dental visit before the age of one.

<sup>9</sup> P=.039

Approximately 22.1% (412) of dentists report seeing any child under the age of one. Of the dentists who do see children under the age of one, 71.3% (301) report children that age account for less than 5.0% of their patient panel.

## Insurance

On average, the majority of a dentist’s gross production comes from private insurance (64.5%). Self-pay follows at 29.1%, Medicaid at 6.9%, and CHIP at 2.8%<sup>10</sup>. Medicaid and CHIP account for more gross production among rural dentists than urban dentists.

**Table 11: Insurance Type Mean of Gross Production by Rural/Urban Practice**

	Rural	Urban	Total
<b>Medicaid</b>	10.2%	6.1%	6.9%
<b>CHIP</b>	4.0%	2.6%	2.8%
<b>Self-Pay</b>	29.4%	29.0%	29.1%
<b>Private Insurance</b>	60.1%	64.3%	64.5%

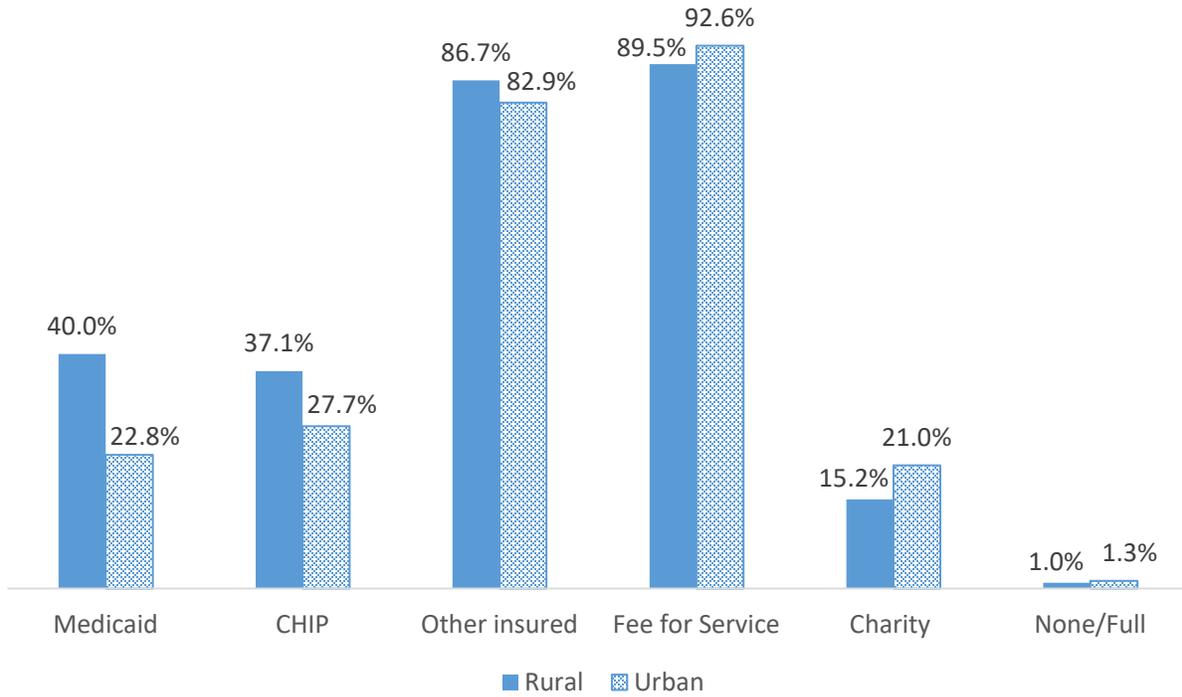
Less than a third of dentists (28.1%, 524) report accepting Medicaid at all, which only covers adult dental care for pregnant women and those who are disabled. CHIP covers an estimated 1.7% of children in the state and 30.0% of dentists report CHIP accounting for at least 1.0% of their gross production.

The vast majority of dentists report taking new fee-for-service and privately-insured patients (91.1% and 82.5% respectively). Only 24.5% of dentists said they are accepting new Medicaid patients and 28.3% said they are accepting new CHIP patients. Rural dentists reported accepting new Medicaid and CHIP patients at higher rates than urban dentists.

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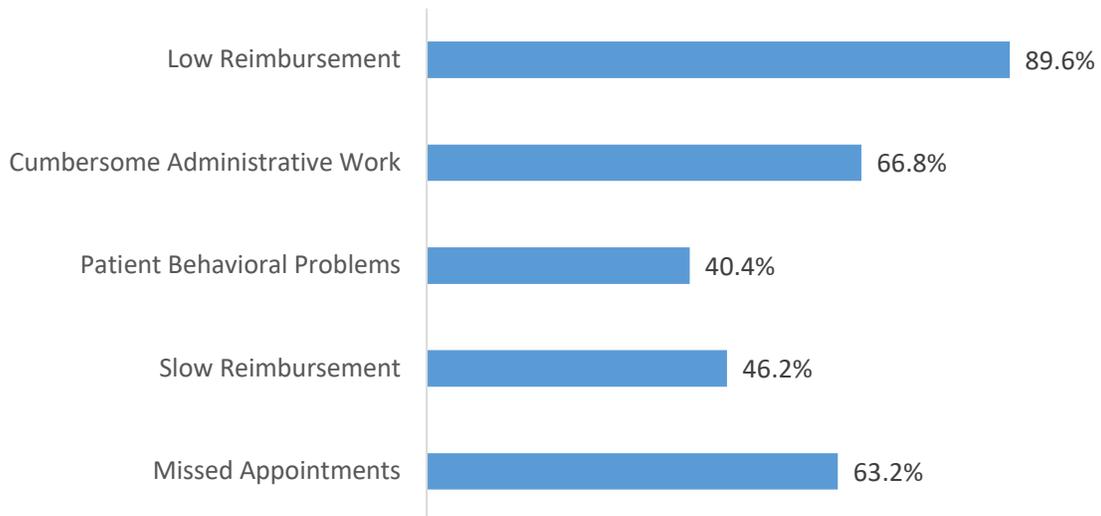
<sup>10</sup> The numbers listed are means for each category and therefore do not add up to 100%.

**Figure 16: Dentists Accepting New Insurance by Rural/Urban Practice**



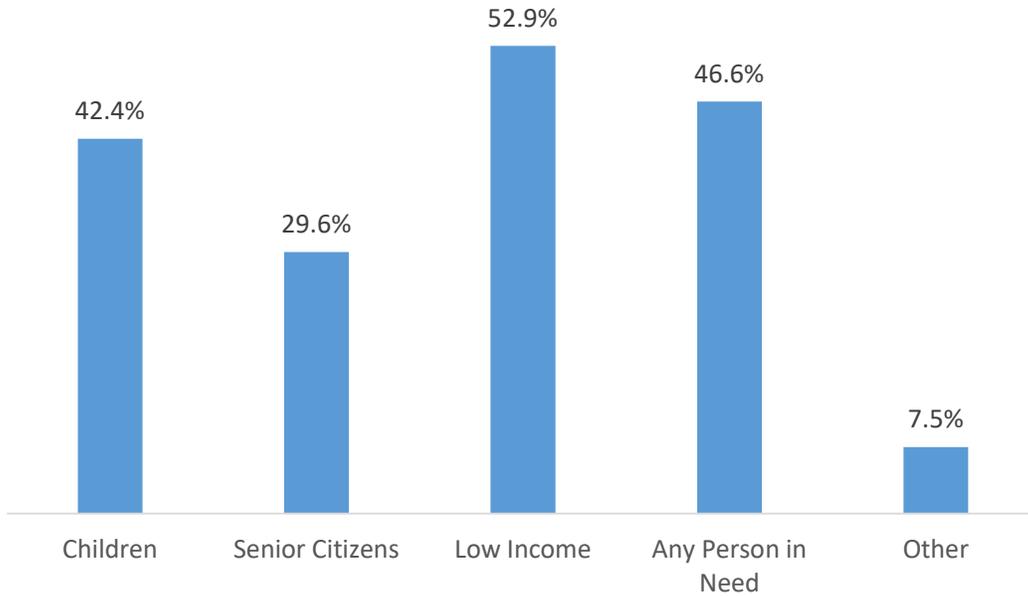
When asked reasons behind not accepting new Medicaid patients, low reimbursement was cited as influential more than any other reason, followed by cumbersome administrative work and missed appointments.

**Figure 17: Reasons for Not Accepting New Medicaid Patients (n=1,408)**



A majority of dentists (80.9%, 1,508) provide charity care other than insurance write-offs. Most of that charity care is done in Utah with 69.6% (1,298) of dentists providing a median of \$10,000 worth of charity care. Only 6.5% of dentists provide charity care outside the state. Most dentists (52.9%, 986) provide charity care specifically to low income individuals, which may help offset the lack of coverage and accessibility with Medicaid and CHIP.

**Figure 18: Groups Receiving Charity Care**

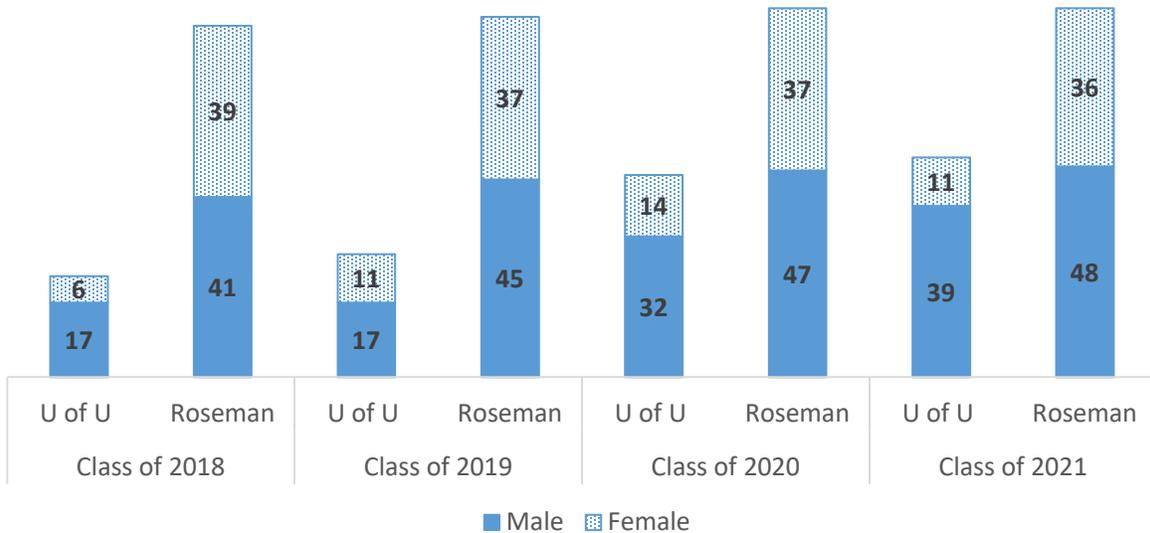


## TRAINING CAPACITY

Between the state’s two dental schools, Utah will soon be graduating approximately 134 students per year, 84 from Roseman University of Health Sciences and 50 from the University of Utah. The University of Utah inaugural class of 2017 consisted of 20 students. The number of students set to graduate in 2018 is 23, 28 in 2019, 46 in 2020, and 50 in 2021 and presumably thereafter. Roseman graduated its first cohort in 2015 and increased its capacity from 80 to 84 for the class of 2020. The retention rate of these two programs is still unclear and it will be important to monitor as 134 new dentists graduating per year has the potential to have a large impact on workforce projections.

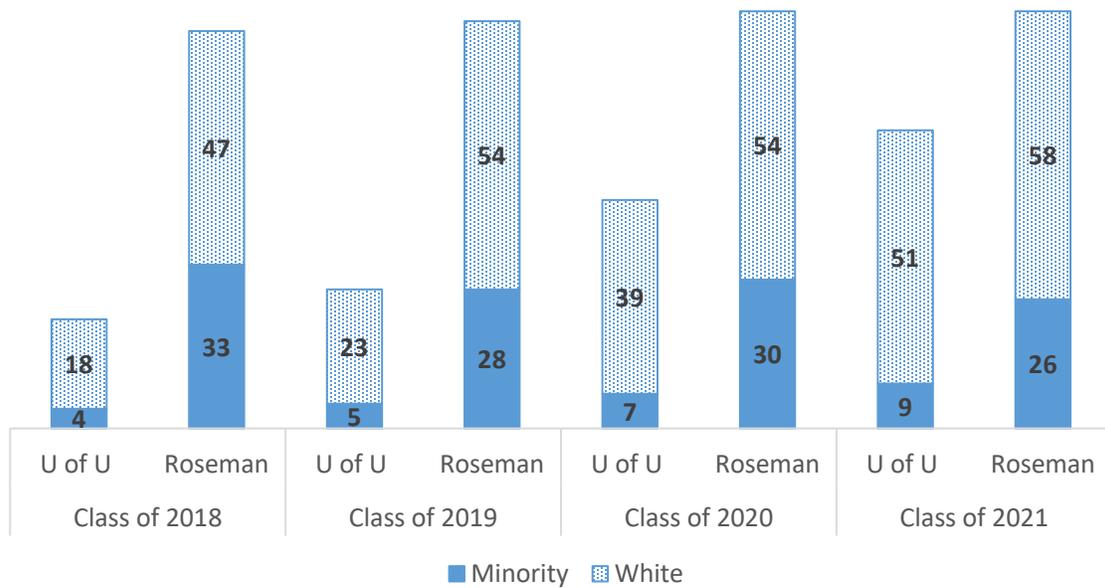
Although 48.0% of all dental school graduates nationwide in 2015 were women (Health Policy Institute & American Dental Association, 2016), 28.6% of the University of Utah’s students are women, which will likely affect the gender imbalance in the Utah workforce in the future. The gender split at Roseman University over the next four graduating classes is much closer to the national average at 45.2%, however with a much lower rate of in-state students (discussed below), it is unclear how much this will affect the Utah workforce.

**Figure 19: Gender Breakdown of Classes of 2018-2021 at Utah Dental Schools**



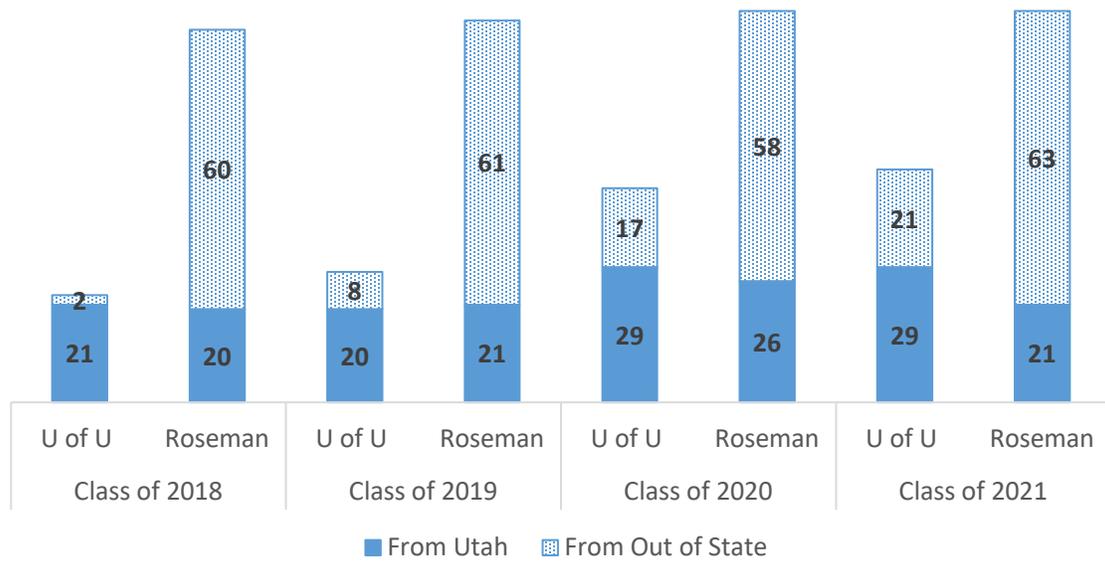
Both the Utah workforce and the national workforce are underrepresented when it comes to minority dentists. Nationally, only Asian dentists account for a higher workforce share than the general population, while every minority in Utah is underrepresented. Minorities at both schools are underrepresented in their student body, but minorities at Roseman University account for 35.5% of future dental graduates while minorities at the University of Utah account for 16.0%.

**Figure 20: Racial/Ethnic Breakdown of Classes of 2018-2021 at Utah Dental Schools**



Whether these schools choose to accept more students from Utah or from out of state will also have an impact on the state’s workforce, as Utah students may be more inclined to stay in the state. The University of Utah dental student body is much more skewed towards Utah students while Roseman skews towards out of state students. This will likely have an impact on retention rates, and therefore gender and minority breakdowns in the workforce, at both universities.

**Figure 21: In-State vs. Out-of-State Status of Classes of 2018-2021 at Utah Dental Schools**



## WORKFORCE PROJECTIONS

Utah's dentist to 100,000 population ratio of 59.7 is just short of the national ratio of 60.9. The FTE-adjusted ratio of 58.5 is slightly over the national adjusted ratio of 55.1. The following projection makes the assumption that the Utah ratios are adequate and should be kept over the next ten years.

An estimated 57.8% (1,077) of the Utah dentist workforce plans on reducing their hours within the next 10 years from an average of 35.3 hours per week to an average of 21.8. Additionally, 33.8% (630) of the workforce plans on retiring completely within the next ten years, with an estimated 50.0% having already reduced their hours. The reduction in hours will account for an estimated 24 FTE loss per year, while full retirement, comprised of both those who have previously reduced their hours and those who haven't, will account for an estimated 42 FTEs lost per year.

While the UMEC survey collects data on dentist retirement intentions, the Professional Insurance Exchange (PIE), which insures about 90% of dentists in Utah (excluding oral surgeons), collects retirement data when dentists leave the workforce. Between 2014 and 2016, an average of 36 dentists per year canceled their policies due to retirement<sup>11</sup>. If we assume PIE insures 90% of the workforce, this leads to an average yearly retirement of 38. Using the same assumptions that half of the workforce has reduced their hours from an average of 35.3 hours per week to 21.8 hours per week, this equates to an average of 30 FTE losses per year due to retirement.

The population of Utah is projected to steadily increase over the next ten years from an estimated 3.1 million in 2017 to 3.7 million in 2027. In order to accommodate this increase, the average number of net FTEs needed each year is 35, bringing the total average number of FTEs needed per year to replace FTE loss through hour reduction (24) and retirement (30 to 42) and account for a growing population (35) to between 89 and 101.

Between Utah's two dental schools, the state has the capacity to train and graduate 134 dental students per year. However, not all graduates will remain in the state. Because both schools are new and retention rates cannot be calculated as of yet, the UMEC has included four different supply scenarios based on retention rates ranging from 50.0% to 65.0%. Depending on which of the four retention scenarios matches closely with actual retention rates, Utah will have to import between 1 and 34 FTEs into the state in order to meet the estimated need of 89 to 101 FTEs per year.

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<sup>11</sup> This included simple retirement as well as retirement due to mission service, disability, and leaving practice to teach.

Figure 22: Total Average FTEs Needed per Year

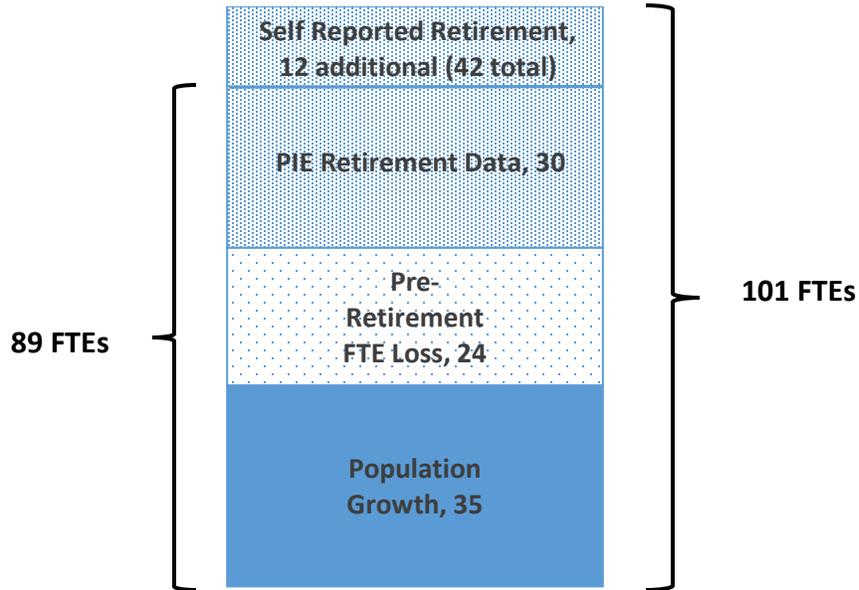
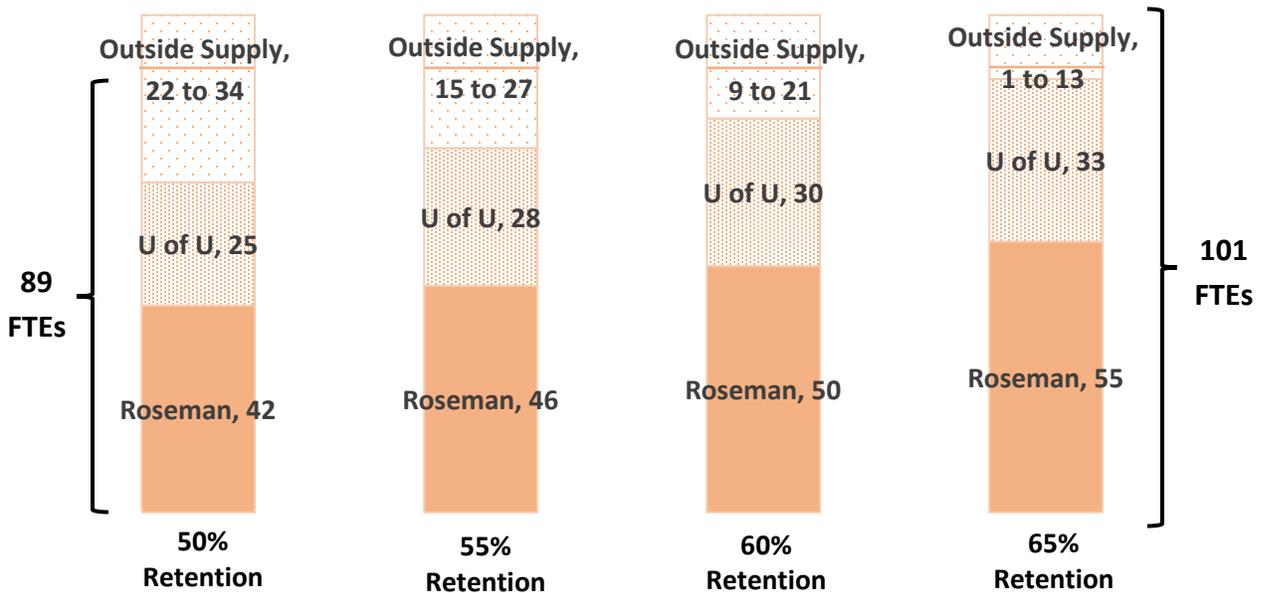


Figure 23: Average Supply per Year



## CONCLUSION

The Utah dentist workforce has grown in both numbers and in the dentist-to-population ratio. The recent growth of the two dental school programs, as well as the continued growth of the University of Utah's program over the next few years, will likely be a major source of Utah dentists in the future. However, retention rates need to be closely monitored in order to integrate these future dentists into a more accurate projection model. Although the dentist-to-population ratio is similar to national numbers and wait times are short, access to dental care continues to be skewed, with few options for Medicaid, CHIP, and low-income patients, both in terms of policies and providers.

## POLICY RECOMMENDATIONS

- 1. Improve Access to Dental Care.** Although the dentist-to-population ratio in Utah is similar to that of the nation, 24 of the state's 29 counties are designated as full or partial Health Professional Shortage Areas (HPSAs), likely resulting in skewed access to oral health care.
  - a. Strengthen and promote loan reimbursement programs for dentists who practice in rural areas and treat underserved populations.
  - b. Increase provider access through improved Medicaid reimbursement rates and inclusion of preventative and restorative oral health services for adults enrolled in Medicaid and Medicare programs.
  - c. Encourage and provide incentives to dentists participating in portable and mobile service programs like the Family Dental Plan, student and resident subsidized rotations, and other charity care drives.
  - d. Foster partnerships among Utah Area Health Education Centers (AHEC), Utah Center for Rural Health, State Board of Education, pre-dental programs, and dental programs to strengthen the dental education pipeline for rural and dental students who are considering practices among underserved populations and in rural areas.
- 2. Support the existing Oral Health Public Awareness through the Utah Department of Health Oral Health Program.** Promoting a public awareness campaign led by the Utah Oral Health Coalition and the Utah State Department of Health Oral Health Program in partnership with the two dental schools, the Utah Dental Association, the Utah Dental Hygiene Association, and the various other oral health champions in Utah is crucial to addressing the oral health access and policy concerns in Utah.
- 3. Support Oral Health Integration.** Oral health has an impact on the overall health of an individual, yet largely remains separate from primary care. Early intervention through integration is increasingly necessary in preventing and treating oral health issues.
  - a. Encourage more dentists and primary care providers to participate in primary care-dentistry referral networks.
  - b. Encourage the various primary care and dental training programs in the state to engage in interprofessional training.
  - c. Engage with organizations such as the National Interprofessional Initiative on Oral Health in order to facilitate oral health integration in the state.
- 4. Promote a More Diverse Workforce.** Only 4.6% of the Utah dentist workforce identifies as a racial or ethnic minority, compared to 21.0% of the population in the state. Increasing diversity can help ensure that the oral health needs of an increasingly diverse state are being met.
  - a. Develop and/or strengthen the admissions criteria for minority applicants and cultural competency training for students in the two dental schools in Utah.

- b. Encourage the two dental schools and the Utah Legislature to develop scholarships and loan reimbursement programs for minority students.
  - c. Foster partnerships among the Area Health Education Centers (AHEC), the State Board of Education, the Utah Board of Regents, high schools, pre-dental programs, dental programs, and non-profit organizations such as the Boys and Girls club and United Way to strengthen the dental education pipeline for minority students.
- 5. Address the Gender Imbalance in the Utah Dentist Workforce.** While the national workforce has seen a major shift towards more female dentists, the Utah workforce has yet to catch up. Although young dentists are made up of more women than older dentists, there is still much to be done before Utah catches up with the nation.
- a. Increase efforts to recruit and retain more female dentists in Utah and at the two dental schools in the state.
  - b. Partner with women’s organizations in the state such as the Utah Women and Leadership Project (UWLP) in order to understand and address the causes of the lack of female dentists in the state.
  - c. Foster partnerships among the Area Health Education Centers (AHEC), the State Board of Education, the Utah Board of Regents, high schools, pre-dental programs, dental programs, and non-profit organizations such as the Boys and Girls club and United Way to strengthen the dental education pipeline for female students.
- 6. Enhance Data Collection in Order to Assess and Meet Changing Workforce Needs.** The UMEC has tracked the supply of dentists for many years, however additional data is needed in order to make an accurate prediction of the demand for dentists in the future.
- a. Develop a system that periodically assesses demand and need for dental services in Utah. This system could include need for services, service availability and its utilization, quality outcomes, and sustainability in the state.
  - b. Retention rates of the dental school graduates in Utah should be closely monitored along with practice location choices to measure their impact on Utah’s workforce supply and distribution.
  - c. Create and support a partnership between the UMEC, the Utah Dental Association, and the Professional Insurance Exchange to collect and utilize retirement data in order to form a more robust workforce projection model.

## APPENDIX A – BIBLIOGRAPHY

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APPENDIX B – SURVEY INSTRUMENT



«FULL\_NAME»  
«ADDR\_LINE\_1» «ADDR\_LINE\_2»  
«CITY», «STATE», «ZIP»

**Council Members**

Chair

Vivian Lee, M.D.

Acting Chair

Wayne M. Samuelson, M.D.

Members:

John Berneike, M.D.

Mark Hiatt, M.D.

Sue Wilkey, D.N.P.

Larry Reimer, M.D.

Mary Williams, Ph.D.

Gar Elison

Dear Dr. «LAST\_NAME»,

The Utah Medical Education Council, in conjunction with the Utah Division of Occupational and Professional Licensing and the Utah Dental Association requests your continued support and partnership in updating the status of Utah's dentist workforce by completing the attached survey. Your participation in previous surveys has generated critical data for dentist workforce development and planning to meet the healthcare needs of Utah. For a free copy of the report, please visit our website at [www.utahmec.org](http://www.utahmec.org).

We are committed to maintaining your privacy. Only de-identified, aggregate data will be published.

For any questions regarding this survey, please contact UMEC at (801) 526-4567 or [jennac@utah.gov](mailto:jennac@utah.gov). Please return the completed survey to the UMEC within 30 days in the enclosed postage paid envelope.

Sincerely,

Richard Campbell  
Executive Director  
Utah Medical Education Council

Brent Larson, D.D.S.  
President  
Utah Dental Association

**Dentist Workforce Advisory Committee Members**

Members:

Richard Engar, D.D.S.

Wyatt Rory Hume, D.D.S.

Frank Licari, D.D.S.

Kim Michaelson, D.D.S.

Monte Thompson, J.D.

# Utah Dentist Workforce Survey 2017

Q1 What is your primary practice status? (Please check ONE of the following):

- I Do Not Provide Any Services in Utah                       Retired and Provide Voluntary or Occasional Service in Utah  
 Active Practitioner and/or Dental School Faculty in Utah                       Other (specify)

Other (please specify):

Q2 If you DO NOT PROVIDE services in Utah, on a scale of 1-5 (1 being the most influential and 5 being the least influential), please rank the following factors that have influenced your choice:

	1 - Influential	2	3	4	5 - Least influential
Climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wages/Pay scale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dental School Debt Load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifestyle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify):	<input style="width: 480px; height: 15px;" type="text"/>				

**IF YOU DO NOT PROVIDE SERVICES IN UTAH STOP HERE AND RETURN THE SURVEY. THANK YOU.**

Q3 If you PROVIDE services in Utah, on a scale of 1-5 (1 being the most influential and 5 being the least influential), please rank the following factors that have influenced your choice:

	1 - Influential	2	3	4	5 - Least influential
Climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pay scale/Wages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of Living	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifestyle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify):	<input style="width: 480px; height: 15px;" type="text"/>				

## **Demographics**

Q4 Are you of Hispanic ethnicity?

- Yes                       No

Q5 What is your race?

- American Indian/Alaska Native                       African American                       Asian  
 Native Hawaiian/Pacific Islander                       White/Caucasian                       Other (specify)

Other (please specify):

Q6 Please describe the area where you spent the majority of your upbringing (when you lived there):

- Rural                       Suburban                       Urban

State:

## **Education**

Q7 Please provide the following information about the institution from which you received a *doctorate (DDS or DMD) degree*:

- State School                       Private School

State:

Year of Degree:

Q8 If you specialized in a field of dentistry, in what field did you obtain a specialist degree?

- |   |   |  |   |
|---|---|--|---|
| <input type="checkbox"/> Dental Public Health             | <input type="checkbox"/> Oral and Maxillofacial Radiology | <input type="checkbox"/> Orthodontics        | <input type="checkbox"/> Prosthodontics |
| <input type="checkbox"/> Endodontics                      | <input type="checkbox"/> Oral and Maxillofacial Surgery   | <input type="checkbox"/> Periodontics        | <input type="checkbox"/> Other          |
| <input type="checkbox"/> Oral and Maxillofacial Pathology |   | <input type="checkbox"/> Pediatric Dentistry |   |

Q9 Please mark the amount of educational debt you CURRENTLY have (exclude pre dental and non-educational debt)

- |   |   |   |   |
|---|---|---|---|
| <input type="checkbox"/> \$0.00               | <input type="checkbox"/> \$100,000 to \$124,999 | <input type="checkbox"/> \$225,000 to \$249,999 | <input type="checkbox"/> \$350,000 to \$374,999 |
| <input type="checkbox"/> \$0.01 to \$24,999   | <input type="checkbox"/> \$125,000 to \$149,999 | <input type="checkbox"/> \$250,000 to \$274,999 | <input type="checkbox"/> \$375,000 to \$399,999 |
| <input type="checkbox"/> \$25,000 to \$49,999 | <input type="checkbox"/> \$150,000 to \$174,999 | <input type="checkbox"/> \$275,000 to \$299,999 | <input type="checkbox"/> \$400,000 to \$424,999 |
| <input type="checkbox"/> \$50,000 to \$74,999 | <input type="checkbox"/> \$175,000 to \$199,999 | <input type="checkbox"/> \$300,000 to \$324,999 | <input type="checkbox"/> \$425,000 to \$449,999 |
| <input type="checkbox"/> \$75,000 to \$99,999 | <input type="checkbox"/> \$200,000 to \$224,999 | <input type="checkbox"/> \$325,000 to \$349,999 | <input type="checkbox"/> \$450,000 or more      |

Q10 Please mark the amount of educational debt you had AT THE TIME OF GRADUATION from dental school (exclude pre dental and non-educational debt)

- |   |   |   |   |
|---|---|---|---|
| <input type="checkbox"/> \$0.00               | <input type="checkbox"/> \$100,000 to \$124,999 | <input type="checkbox"/> \$225,000 to \$249,999 | <input type="checkbox"/> \$350,000 to \$374,999 |
| <input type="checkbox"/> \$0.01 to \$24,999   | <input type="checkbox"/> \$125,000 to \$149,999 | <input type="checkbox"/> \$250,000 to \$274,999 | <input type="checkbox"/> \$375,000 to \$399,999 |
| <input type="checkbox"/> \$25,000 to \$49,999 | <input type="checkbox"/> \$150,000 to \$174,999 | <input type="checkbox"/> \$275,000 to \$299,999 | <input type="checkbox"/> \$400,000 to \$424,999 |
| <input type="checkbox"/> \$50,000 to \$74,999 | <input type="checkbox"/> \$175,000 to \$199,999 | <input type="checkbox"/> \$300,000 to \$324,999 | <input type="checkbox"/> \$425,000 to \$449,999 |
| <input type="checkbox"/> \$75,000 to \$99,999 | <input type="checkbox"/> \$200,000 to \$224,999 | <input type="checkbox"/> \$325,000 to \$349,999 | <input type="checkbox"/> \$450,000 or more      |

Q11 Did/do you receive loan reimbursement or other form of loan payment help?  Yes  No

Q11a If Yes, from which program or agency?

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Army, Navy, Air Force Program | <input type="checkbox"/> U.S. Public Health Service Commissioned Corps | <input type="checkbox"/> U.S. HHS National Health Service Corps |
| <input type="checkbox"/> Veteran Affairs Program       | <input type="checkbox"/> Indian Health Service                         | <input type="checkbox"/> Other                                  |

Q11b Would you be willing to practice in the underserved areas of Utah if your debt load could be reduced?  Yes  No

**Practice Settings and Characteristics**

Q12 What was your Individual Annual Gross Production for the year 2016?

- |   |   |   |   |
|---|---|---|---|
| <input type="checkbox"/> Under \$100,000        | <input type="checkbox"/> \$400,000 to \$499,999 | <input type="checkbox"/> \$800,000 to \$899,999     | <input type="checkbox"/> \$1,200,000 to \$1,299,999 |
| <input type="checkbox"/> \$100,000 to \$199,999 | <input type="checkbox"/> \$500,000 to \$599,999 | <input type="checkbox"/> \$900,000 to \$999,999     | <input type="checkbox"/> \$1,300,000 to \$1,399,999 |
| <input type="checkbox"/> \$200,000 to \$299,999 | <input type="checkbox"/> \$600,000 to \$699,999 | <input type="checkbox"/> \$1,000,000 to \$1,099,999 | <input type="checkbox"/> \$1,400,000 to \$1,499,999 |
| <input type="checkbox"/> \$300,000 to \$399,999 | <input type="checkbox"/> \$700,000 to \$799,999 | <input type="checkbox"/> \$1,100,000 to \$1,199,999 | <input type="checkbox"/> \$1,500,000 or more        |

Q13 Please select the response indicating your average annual NET compensation (after tax deductions)

- |   |   |   |   |
|---|---|---|---|
| <input type="checkbox"/> Less than \$50,000   | <input type="checkbox"/> \$100,000 to \$124,999 | <input type="checkbox"/> \$175,000 to \$199,999 | <input type="checkbox"/> \$275,000 to \$299,999 |
| <input type="checkbox"/> \$50,000 to \$74,999 | <input type="checkbox"/> \$125,000 to \$149,999 | <input type="checkbox"/> \$200,000 to \$249,999 | <input type="checkbox"/> \$300,000 to \$324,999 |
| <input type="checkbox"/> \$75,000 to \$99,999 | <input type="checkbox"/> \$150,000 to \$174,999 | <input type="checkbox"/> \$250,000 to \$274,999 | <input type="checkbox"/> \$325,000 or more      |

Q14 Please indicate the practice CITY, ZIP CODE, HOURS WORKED per week, and VACATION WEEKS per year of your PRIMARY and SECONDARY practice settings

Primary City:

Primary Zip Code:

Primary Hours/week:

Primary vacation weeks/year:

Secondary City:

Secondary Zip Code:

Secondary Hours/week:

Secondary vacations weeks/year:

Q15 Please describe your PRIMARY and SECONDARY practice settings

	Primary Setting	Secondary Setting
Private Practice - Solo	<input type="checkbox"/>	<input type="checkbox"/>
Group Private Practice - Small (less than 5 dentists)	<input type="checkbox"/>	<input type="checkbox"/>
Group Private Practice - Medium (5 to 20 dentists)	<input type="checkbox"/>	<input type="checkbox"/>
Group Private Practice - Large (more than 20 dentists)	<input type="checkbox"/>	<input type="checkbox"/>
School Faculty	<input type="checkbox"/>	<input type="checkbox"/>
Govt. Agency/Armed Forces/Other Federal	<input type="checkbox"/>	<input type="checkbox"/>
Community Health Center/Low Income Clinic	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify):	<input type="text"/>	

Q16 At your primary dental practice setting, are you

An employed dentist       An owner/partial owner

Q17. In a typical work week, how many of the following staff members work at your PRIMARY practice setting?

	Total Number of Staff	Total Hours/Week (for all staff in this category)
Dental Assistants	<input type="text"/>	<input type="text"/>
Dental Hygienists	<input type="text"/>	<input type="text"/>
Office/Admin Staff	<input type="text"/>	<input type="text"/>

Q18 Mark all of the services that you provide under the scope of your primary practice:

Endodontics       Pediatric Dentistry       Geriatrics       Periodontics  
 Oral/Maxillofacial Surgery       Public Health       Oral Pathology       Prosthodontics  
 General Dentistry       Orthodontics       Other (specify)

Other (please specify):

Q19 How many hours per week do you spend in each of the following categories?

Patient Care:       Research:   
 Teaching:       Administration:

Q20 Is your PRIMARY practice setting...

Full (cannot accept new patients)       Nearly Full (can accept a limited number of new patients)       Unfilled (can accept many new patients)

Q21 At what age are you planning to retire completely from dentistry?

Q22 Are you planning to reduce hours before retirement?  Yes  No

Q22a If YES, in how many years do you plan to reduce your hours?

Less than 5 years       11-15 years       21-25 years       31 to 35 years  
 5-10 years       16-20 years       26-30 years       More than 35 years

Q22b If YES, how many hours per week will you practice after this reduction?

Less than 5 hours       11-15 hours       21-25 hours       31-35 hours       More than 40 hours  
 5-10 hours       16-20 hours       26-30 hours       36-40 hours

Q23 On average, what is the number of patients you see per week?

Q24 On average, how many days must patients wait for an appointment?

New patients:

Established patients:

Q25 Do you or your staff members provide services in any language other than English (including ESL)?

Yes  No

If yes, please list the language(s):

### Patient Demographics

Q26 What approximate percentage of your patients belong to the following age groups:

≤ 1 year  %

2-4 years  %

5-17 years  %

18-44 years  %

45-64 years  %

≥ 65 years  %

Q27 Do you provide charity care (not including insurance write offs, cash discounts, or other discounts)?

Yes  No

Q27a If YES, how much charity care did you provide last year...

In Utah: \$

Outside Utah: \$

Q27b If YES, in Utah, for whom do you provide charity care?

Children

Low Income

Other (specify)

Senior Citizens

Any person in need

Other (please specify):

Q28 What percent of your gross production comes from the care you provide to the following patients per month:

Medicaid:  %

CHIP:  %

Self-Pay:  %

Privately Insured:  %

Q29 Are you taking new patients in any of these categories? (Check all that apply)

Fee for service

CHIP

Charity

Medicaid

Other insured

None/practice is full

Q30 If you DID NOT check the MEDICAID category above, on a scale of 1 to 5 (1 being the most influential and 5 being the least influential), please rank the reasons you do not accept new Medicaid patients (please check one box per column):

	1-Influential	2	3	4	5-Least Influential
Missed appointments	<input type="checkbox"/>				
Slow reimbursement	<input type="checkbox"/>				
Patient behavioral problems	<input type="checkbox"/>				
Cumbersome administrative work	<input type="checkbox"/>				
Low reimbursement	<input type="checkbox"/>				

Q31 Are you as busy treating patients as you wish to be?

Yes  No

**Thank you for your participation. Please return the survey in the enclosed envelope.**

Utah Medical Education Council • 230 S. 500 E. Ste. 210, Salt Lake City, Utah, 84102

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