ADEA Trends in Dental Education 2020-21
Introduction

The American Dental Education Association (ADEA) is The Voice of Dental Education.

Its members include all 78 U.S. and Canadian dental schools, more than 800 allied and advanced dental education programs, more than 50 corporations and approximately 18,000 individuals. The mission of ADEA is to lead and support the health professions community in preparing future-ready oral health professionals.

ADEA is committed to conducting research into contemporary and emerging issues that impact decisions in the dental education and policy-making communities. Each year, ADEA collects data on topics of particular interest to dental school deans, program directors, faculty, students, residents and fellows. The resulting ADEA Trends in Dental Education presents findings on discrete subject areas to help the ADEA membership and other stakeholders better understand the academic dental profession and its role in health and health care.

The information in this report is taken from data compiled by ADEA, the American Dental Association and other sources. Electronic versions of this publication are available for download at: adea.org/DentEdTrends

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ADEA Is The Voice of Dental Education

The Impact of a Global Pandemic on Dental Students’ Professional Plans

More Students Decide Before College to Pursue Careers in Dentistry

First-year Enrollments Vary by Dental Profession

First-year Enrollments in Predoctoral Dental Programs Increase While Number of Applicants Declines

Top Five Reasons to Choose a Dental School

Women Make up Majority of First-year Predoctoral and Allied Dental Students

The Share of Women Faculty in Academic Dentistry Grows Slightly

Diversity Increases Among Applicants and First-year Enrollments

Graduation Trends Vary Across Accredited Dental Education Programs

More Dental School Graduates Are Pursuing Advanced Education

Diversity in Academic Dental Faculty Progressing Slowly

Dental Students Are Using More Grants and Scholarships to Fund Dental School

A Career in the Dental Professions Is Rewarding

Applications to Accredited Advanced Dental Education Programs Are Increasing
ADEA Is The Voice of Dental Education

ADEA’s vision is a well-prepared and diverse oral health workforce improving the health of all individuals and communities. We lead and support the health professions community in preparing future-ready oral health professionals.
The Impact of a Global Pandemic on Dental Students’ Professional Plans

2020 was an unusual year. On March 11, 2020, the World Health Organization declared the novel coronavirus disease, COVID-19, a pandemic. Two days later, the United States declared a national emergency. In these uncertain times, dental education institutions stood steady in their mission to prepare the next generation of oral health professionals. When questioned about whether the pandemic influenced their plans, almost two thirds of seniors in the Class of 2020 who reported changes to their immediate post-graduation plans intended to go into private practice (changes could be within a category or to another category).

### Percent of 2020 Respondents by Plans Upon Graduation and Changes to Professional Plans due to the COVID-19 Pandemic

<table>
<thead>
<tr>
<th>Category</th>
<th>Changes</th>
<th>No Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Practice</td>
<td>64%</td>
<td>44%</td>
</tr>
<tr>
<td>Advanced education or fellowship or postdoctoral program</td>
<td>16%</td>
<td>47%</td>
</tr>
<tr>
<td>Practice in non-profit</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Unsure</td>
<td>12%</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Note: “Other” category includes plans to teach in a dental program, other position in dentistry or a position not related to dentistry.

Source: American Dental Education Association, Survey of U.S. Dental School Seniors, 2020 Graduating Class.
More Students Decide Before College to Pursue Careers in Dentistry

Almost half of the predoctoral senior students in the Class of 2020 who responded to the ADEA Survey of U.S. Dental School Seniors decided to become a dentist before going to college, more than in 2015. Historically underrepresented and marginalized (HURM) graduating students are even more likely to decide early to go to dental school. College was decision time for a future career in dentistry for a smaller proportion of students than those deciding before college.

Percent of Respondents by Timing of Decision to Pursue a Career in Dentistry, Total and HURM, 2015 and 2020

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Total 2015</th>
<th>Total 2020</th>
<th>HURM 2015</th>
<th>HURM 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>16%</td>
<td>17%</td>
<td>20%</td>
<td>23%</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>28%</td>
<td>28%</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First/Second Years of Undergraduate Studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>25%</td>
<td>21%</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third/Fourth Years of Undergraduate Studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>18%</td>
<td>17%</td>
<td>18%</td>
<td>16%</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After Graduating College</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>13%</td>
<td></td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: HURM students include the following four race and ethnicity categories: African American, Hispanic or Latino, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander. These four race and ethnicity categories are defined by the U.S. Department of Education for reporting data from higher education institutions. Source: American Dental Education Association, Surveys of U.S. Dental School Seniors, 2015 and 2020 Graduating Classes.
Top Five Reasons to Choose a Dental School

Either being close to family and friends or in a place with good weather, good transit and cultural/recreational opportunities, dental school location features prominently among the top three reasons predoctoral students choose a specific institution. Academic reputation is cited as a choice factor more often by historically underrepresented and marginalized (HURM) predoctoral senior students.

Percent of Respondents Indicating the Reason as One of Their Top Three Selection Criteria, Total and HURM Students, 2020

- **Proximity to Family/Friends**: 42% Total, 36% HURM
- **Academic Reputation**: 37% Total, 43% HURM
- **Location** (e.g., Good Weather, Good Transit, Cultural/Recreational Opportunities): 30% Total, 26% HURM
- **Less Expensive Than Other Schools** (e.g., Due to In-state Tuition, Financial Aid, etc.): 33% Total, 26% HURM
- **Culture at the School/Program** (e.g., Size and Social Opportunities): 31% Total, 34% HURM

Note: HURM students include the following four race and ethnicity categories: African American, Hispanic or Latino, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander. These four race and ethnicity categories are defined by the U.S. Department of Education for reporting data from higher education institutions. Percentages add to more than 100% because respondents could select more than one answer choice.

Source: American Dental Education Association, Survey of U.S. Dental School Seniors, 2020 Graduating Class.
First-year Enrollments Vary by Dental Profession

Accredited predoctoral dental programs and advanced dental education programs have seen an increase in their first-year classes between 2014 and 2019. During the same period, the number of first-time enrollees at accredited allied dental education programs declined during the same period, mainly because of the drop in the number of accredited dental assisting programs and dental laboratory technology programs.

Number of First-year Enrollees by Type of Dental Education

<table>
<thead>
<tr>
<th>Type of Dental Education</th>
<th>2014-19 Entering Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predoctoral Dental Education</td>
<td>8,322 (2014-19)</td>
</tr>
<tr>
<td>Advanced Dental Education</td>
<td>6,308 (2014-19)</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>8,472 (2014-19)</td>
</tr>
<tr>
<td>Dental Assisting</td>
<td>5,967 (2014-19)</td>
</tr>
<tr>
<td>Dental Laboratory Technology</td>
<td>5,484 (2014-19)</td>
</tr>
</tbody>
</table>

5-year enrollment trend, 2014-2019

- Predoctoral: 6%
- Accredited advanced dental education programs: 4%
- Accredited allied dental education programs: -14%
- Accredited dental hygiene programs: 2%
- Accredited dental assisting programs: 11%
- Accredited dental laboratory technology programs: 26%

Notes: First-year enrollment for predoctoral students does not include repeaters. The American Dental Association does not specify if the first-year enrollment in allied dental education programs and advanced dental education programs represents only first-time enrollees or includes repeaters. A dental therapy program was accredited in October 2020.

First-time, first-year enrollment increased steadily between 2014 and 2019. Meanwhile, the number of applicants to predoctoral dental schools declined by 5% during the same period. As a result, the applicant to first-time, first-year enrollee ratio reached 1.79 in 2019, a level not seen since the 2000s.

*between 2014-2019.*

Diversity Increases Among Applicants and First-year Enrollments

Between 2014 and 2019, a larger share of the predoctoral applicant pool and first-year class was comprised of Hispanic, African American, two or more races and nonresident alien individuals. Historically underrepresented and marginalized (HURM) students are increasingly represented among applicants and in predoctoral first-year classes.

Note: HURM students include the following four race and ethnicity categories: African American, Hispanic or Latino, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander. These four race and ethnicity categories are defined by the U.S. Department of Education for reporting data from higher education institutions. Note: Percentages may not add up to 100% due to rounding.

Women Make up Majority of First-year Predoctoral and Allied Dental Students

Women comprise the majority of the first-year class at predoctoral and accredited allied dental education programs. The proportion of women predoctoral dental students surpassed 50% of the entering class in 2018-19. Allied dental education programs continued to enroll mainly women in the first-year class over the past five years.

Notes: First-year enrollment for predoctoral students does not include repeaters. The American Dental Association (ADA) does not specify if the first-year enrollment in allied dental education programs represents only first-time enrollees or includes repeaters. In 2015-16 ADA introduced an "Other" gender category for predoctoral students who prefer not to report gender, do not identify as either male or female, or whose gender is not available. ADA reports only “male” and “female” for gender categories for first-year enrollment in allied dental education programs. At the time of the analysis, first-year class by gender for allied dental education programs was not available.

Women are increasingly a larger proportion of faculty in dental schools and accredited allied dental education programs. At dental schools, the trend has been toward more women and a persistent share of faculty not wishing to report their gender or not identifying as either male or female. The faculty at accredited allied dental programs is overwhelmingly comprised of women and the proportion increased slightly in five years.

Notes: Dental school faculty includes faculty teaching predoctoral, allied dental and advanced dental education students at accredited U.S. dental schools. Therefore, there might be an overlap between the counts of dental school and allied dental education faculty. ADA reports only "male" and "female" gender categories for faculty at allied dental education programs. In 2015-16, ADEA introduced an "other" gender category for faculty at dental schools who prefer not to report gender, do not identify as either male or female, or whose gender is not available.
Diversity in Academic Dental Faculty Progressing Slowly

Between 2015 and 2019, the share of historically underrepresented and marginalized (HURM) faculty stayed relatively steady at dental schools, while it increased at accredited allied dental education programs. The number of Hispanics and African Americans increased in accredited allied dental school faculty. Dental schools saw an increase in the percentage of faculty not wishing to report race and ethnicity.

**Dental School Faculty:**
Percent of full-time and part-time by race and ethnicity

**2015**
- White: 67%
- Asian: 11%
- Hispanic or Latino: 7%
- Black or African American: 4%
- Nonresident Alien: 4%
- Two or More Races: 0.4%
- Do Not Wish to Report or Unknown: 7%

**2019**
- White: 62%
- Asian: 12%
- Hispanic or Latino: 7%
- Black or African American: 4%
- Nonresident Alien: 4%
- Two or More Races: 0.4%
- Do Not Wish to Report or Unknown: 11%

**Accredited Allied Dental Education Faculty:**
Percent of full-time and part-time by race and ethnicity

**2015**
- White: 84%
- Asian: 3%
- Hispanic or Latino: 5%
- Black or African American: 4%
- Nonresident Alien: 0.1%
- Two or More Races: 0.4%
- Do Not Wish to Report or Unknown: 3%

**2019**
- White: 81%
- Asian: 4%
- Hispanic or Latino: 6%
- Black or African American: 5%
- Nonresident Alien: 0.2%
- Two or More Races: 0.8%
- Do Not Wish to Report or Unknown: 2%

Notes: Dental school faculty includes faculty teaching predoctoral, allied dental and advanced dental education students at accredited dental schools in the United States. Therefore, there might be an overlap between the counts of dental school faculty and allied dental education faculty. HURM includes the following four race and ethnicity categories: African American, Hispanic or Latino, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander. These four race and ethnicity categories are defined by the U.S. Department of Education for reporting data from higher education institutions.

Sources: American Dental Education Association (ADEA) Survey of U.S. Dental School Faculty, 2014 and 2019; Analysis of American Dental Association (ADA), Health Policy Institute, Surveys of Dental Hygiene Education Programs, Surveys of Dental Assisting Education Programs, Survey of Dental Laboratory Technology Education Programs, 2014-15 to 2018-19.
Graduation Trends Vary Across Accredited Dental Education Programs

Accredited predoctoral dental education programs and advanced dental education programs saw rises in the number of graduates between 2014 and 2019. Meanwhile, the number of graduates at accredited allied dental education programs declined significantly between 2014 and 2019, mirroring the drop in the number of accredited dental assisting programs.

Number of Graduates by Type of Dental Education, 2014-2019 Graduating Classes

More Dental School Graduates Are Pursuing Advanced Education

More dental schools seniors are planning to attend an advanced dental education program upon graduation, even though entering private practice remained the top professional choice in 2020. Historically underrepresented and marginalized (HURM) students are even more likely to attend advanced education, with private practice as the second most popular choice. Meanwhile, over the past five years, serving in the federal government has declined in popularity for predoctoral graduates.

Notes: “Dentist in a federal service” includes serving as a dentist in the military, U.S. Public Health Service Commissioned Corps, Federally Qualified Health Centers, U.S. Veteran Affairs and other federal institutions. “Other” includes Dentist in Other Not-for-profit clinic, Other position in dentistry, Dentist in state/local government, Teach in a dental program, and Other position not related to dentistry. HURM students include the following four race and ethnicity categories: African American, Hispanic or Latino, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander. These four race and ethnicity categories are defined by the U.S. Department of Education for reporting data from higher education institutions.

Source: American Dental Education Association, Surveys of U.S. Dental School Seniors, 2015 and 2020 Graduating Classes.
Applications to Accredited Advanced Dental Education Programs Are Increasing

Oral and maxillofacial surgery continued to receive the largest number of applications per number of first-year enrollees between 2014 and 2019. Endodontics rounded the top three in 2019, an increase from five years before. Overall, the application to first-year enrollee ratio for accredited advanced dental education programs declined over the five-year period due to the number of first-year enrollees growing faster than the number of applications.

<table>
<thead>
<tr>
<th>Type of Program</th>
<th>Number of Programs</th>
<th>Applications</th>
<th>First-Year Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>All General Dentistry*</td>
<td>299 / 297</td>
<td>17,491</td>
<td>1,912</td>
</tr>
<tr>
<td>Oral and Maxillofacial Surgery</td>
<td>101 / 101</td>
<td>10,656</td>
<td>254</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>66 / 67</td>
<td>10,275</td>
<td>363</td>
</tr>
<tr>
<td>Pediatric Dentistry</td>
<td>77 / 82</td>
<td>10,663</td>
<td>436</td>
</tr>
<tr>
<td>Endodontics</td>
<td>56 / 55</td>
<td>3,358</td>
<td>221</td>
</tr>
<tr>
<td>Periodontics</td>
<td>56 / 57</td>
<td>2,215</td>
<td>185</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>47 / 47</td>
<td>2153</td>
<td>153</td>
</tr>
<tr>
<td>Oral and Maxillofacial Radiology</td>
<td>8 / 9</td>
<td>155</td>
<td>17</td>
</tr>
<tr>
<td>Dental Public Health</td>
<td>15 / 15</td>
<td>168</td>
<td>37</td>
</tr>
<tr>
<td>Oral and Maxillofacial Pathology</td>
<td>16 / 14</td>
<td>78</td>
<td>14</td>
</tr>
</tbody>
</table>

*All General Dentistry includes General Practice Residency, Advanced Education in General Dentistry, Dental Anesthesiology, Oral Medicine, and Orofacial Pain.

Source: American Dental Association, Health Policy Institute, 2014-15 and 2019-20 Surveys of Advanced Dental Education

Note: Application figures represent the total number of applications examined by all programs, and counts applicants more than once if they applied to multiple programs.
Dental Students Are Using More Grants and Scholarships to Fund Dental School

Graduating dental school seniors in the Class of 2020 are funding their dental education with fewer/less loans and using more grants and scholarships than did the Class of 2015. Federal loans persisted as the top source of financing dental school. The average educational debt (dental school plus predental education) has increased slowly over the past five years. However, a higher proportion of dental school seniors in the Class of 2020 graduated with no dental school debt or educational debt when compared with the Class of 2015.

Funding Sources for Doctoral Dental Education, Average Percentage of Funding, 2015 and 2020

- **Loans**: 68% (2015) vs. 58% (2020)
- **Financial Support From Family or Friends**: 16% (2015) vs. 15% (2020)
- **Grants and/or Scholarships**: 9% (2015) vs. 18% (2020)
- **Savings Self/Spouse**: 6% (2015) vs. 3% (2020)
- **Part-time Employment**: 1% (2015) vs. 4% (2020)
- **Other**: 1% (2015) vs. 1% (2020)

% with no dental school debt:
- 2015: 14% vs. 2020: 18%

% with no educational debt:
- 2015: 12% vs. 2020: 17%

Note: Educational debt is the sum of dental school debt and predental school debt, including loans for college. This indicator, also called “graduating debt,” shows the amount a dental school doctoral graduate must repay. Percentages may add up to more than 100% due to rounding.

Assumptions: Sample payments based on $304,824 total debt on a Standard 10-year repayment plan (120 level payments) and a 25-year time-driven plan • $162,000 direct unsubsidized, remainder direct PLUS (Grad PLUS) • Repayment begins six months after graduation • No voluntary or aggressive payments, and loans “held to term” (entire repayment period used) • Appropriate interest rates used based on disbursement dates • Repayment numbers run with AAMC/ADEA Dental Loan Organizer and Calculator.

Source: American Dental Education Association, Surveys of U.S. Dental School Seniors, 2015 and 2020 Graduating Classes.

$304,824 = 2020 average education debt for students with debt (dental school plus predental education)
Sample monthly payments: $3,899 (Standard 10-year)* $2,315 (Extended 25-year)*
A Career in the Dental Professions Is Rewarding

There’s a reason the dental professions have consistently ranked at or near the top of the U.S. News & World Report 100 Best Jobs list for the past several years.

Dental careers offer:

- Professional autonomy
- Flexible work hours
- Financial and job security
- Opportunities to work as part of a health care team

The U.S. Bureau of Labor Statistics predicts:

- Employment growth of 7.6%, equating to 10,400 new dentist jobs through the year 2028
- Employment of dental hygienists is projected to grow 6% from 2019 to 2029, faster than the average for all occupations

Best of all: Dentists and dental hygienists make a difference in the lives of their patients and in their communities

ADEA Connect:
ADEA’s user-friendly online platform where ADEA members collaborate and share resources

- **Search for colleagues.**
  Find members by name, location, SIG affiliation, area of expertise, institution and more.

- **Start a discussion.**
  Join a community and start a conversation with your colleagues.

- **Share resources.**
  All attachments posted to discussions are archived in a dedicated Resource Library. You can add documents to share any time you want.

- **Update your profile.**
  Add a profile photo, bio, social media links, education history and more.

- **Set your privacy controls.**
  Determine what information is shared with members of the community and your contacts.

Log in to ADEA Connect and take advantage of this valuable ADEA member resource.

Connect.ADEA.org