Executive Summary

The dental faculty landscape is undergoing significant change. With 2015-16 data indicating that over 40% of faculty at academic dental institutions are over 60 years old, creating opportunities and interest in academic dentistry careers has taken on elevated importance. The time to address the future shortage of dental educators is now. The American Dental Education Association (ADEA) is helping its member institutions address this issue by promoting awareness among predoctoral and allied dental students and advanced education residents and fellows of the value and importance of academic careers. ADEA achieves this in several ways, including participation in an ADEA Chapter, faculty-student mentorship and by sharing resources on financial assistance and loan repayment programs.

Context of the Problem

The August 2017 Journal of Dental Education report, “Dental Schools Vacant Budgeted Faculty Positions,” revealed several reasons that faculty vacancies persist, including competitiveness of salaries, candidates not meeting position requirements, new positions open due to new schools or expansions of class size, and faculty separations (retired, left for private practice, left for position at another school) (Figure 1). The report’s authors state, “Overall, among full-time faculty members, retirement was a far larger problem for vacancies than competition with the private sector in 2015-16. These retirement rates suggest a need for an infusion of younger faculty members to replenish schools after the retirement of aging faculty members.”

While 2015-16 data show that over 40% of full-time faculty are over 60 years old, data from the 2017 ADEA Survey of Dental School Seniors show that, upon graduation, only 0.4% of dental school seniors planned to enter academia at a dental school, even though 58% expressed an interest in teaching at some point in their careers (Figure 2). Faculty diversity shows changing trends with women currently outnumbering men in the cohort under 40 years of age. While racial and ethnic diversity among the faculty has improved, there is still much work to do.

These statistics reflect the need to promote interest in faculty positions among predoctoral and allied dental students as well as advanced dental education residents and fellows. Predoctoral and allied dental students, as well as residents, must be made aware of the benefits of academic dentistry and the specific initiatives that will help them explore careers in dental education. Data indicate that the time to address the future shortage of dental educators is now.

Rationale for Policy

Benefits of pursuing academic dental careers

Dental faculty engagement is a critical part of the solution—their efforts to inspire and mentor students to become future educators can provide students with a first-hand understanding of the value and rewards of academic dentistry. Students and residents may be exposed to an academic career path through various means, including partnerships, teaching assistantships, clinical and didactic teaching opportunities and mentorship to other students.

Figure 1: Number of Vacant Budgeted Faculty Positions in U.S. Dental Schools, 2005-06 through 2015-16

<table>
<thead>
<tr>
<th>Year</th>
<th>Full-Time</th>
<th>Part-Time</th>
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<tbody>
<tr>
<td>2005-06</td>
<td>374</td>
<td>43</td>
</tr>
<tr>
<td>2006-07</td>
<td>365</td>
<td>41</td>
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<td>2007-08</td>
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<td>2008-09</td>
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<td>2013-14</td>
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<tr>
<td>2014-15</td>
<td>252</td>
<td>96</td>
</tr>
<tr>
<td>2015-16</td>
<td>271</td>
<td>64</td>
</tr>
</tbody>
</table>

Furthermore, faculty-student interactions are important to pique students’ interest in teaching. For example, the UT Health San Antonio School of Dentistry allows its students to enroll in the Teaching Honors Program, which tailors its curriculum to academic administration, teaching and scholarship. Upon completion of this academic pipeline program, students graduate with the designation of “Distinction in Dental Education” on their diplomas and official transcripts. Other programs, such as the Intramural Electives Program at the Indiana University School of Dentistry (IUSD), help students serve as teaching assistants and/or conduct research. In 2008, IUSD also implemented a plan emphasizing the importance of role models and mentors to promote the value of pursuing careers in dental education. With funding from the ADEAGies Foundation, the Rutgers School of Dental Medicine designed a program aimed at encouraging underrepresented students, including LGBTQ students, to pursue careers in academic dentistry and administrative roles in dental and allied dental schools.

ADEA Chapters

In 2016, the ADEA Board of Directors approved an initiative to encourage and expand the establishment of ADEA Chapters as a commitment to increasing the number of dental students pursuing academic dental careers. The mission of ADEA Chapters is to:

- Promote knowledge of and interest in academic careers.
- Advance ADEA’s mission, strategic directions, key priorities and initiatives.
- Promote membership in ADEA.
- Prepare students, residents and fellows for local and national leadership positions.

In 2017, ADEA launched the online ADEA Chapter Toolkit as a “go-to” resource for chapter development, organization and student engagement. The toolkit’s target audiences are ADEA Chapter members, students and residents who are curious about academic dental careers, and faculty and others who mentor and advise students.

The ADEA Chapter Toolkit is a compendium of ADEA and ADEA Chapter programs and offerings that promote and foster interest in academic dental careers. The ADEA Chapter Toolkit also profiles programs and activities that promote greater exposure to and engagement in dental education, such as ADEA’s Academic Dental Careers Fellowship Program (ADEA ADCFP), ADEA CareerCon and the ADEA Curriculum Hack-a-Thons (a competitive regional activity across dental schools to create the best dental school curriculum).

Faculty and student leaders may refer to the toolkit for advice on facilitating chapter development, establishing an ADEA Chapter and inspiring student engagement. ADEA Chapters also are vital in promoting scholarships and financial assistance for students pursuing academic careers. ADEA proudly offers the ADEA/Crest Oral-B Scholarships for dental hygiene and predoctoral students seeking to become dental educators.

Additionally, the ADEA Chapter Toolkit houses testimonials from students who are on the pathway to becoming faculty and appointed faculty who were active in ADEA Chapters or the ADEA Council of Students, Residents and Fellows (ADEA COSRF). For example, Brandon Lynch, a fourth-year student at the Herman Ostrow School of Dentistry of USC (OSD USC), is a student leader in ADEA COSRF. Brandon joined ADEA COSRF during his first year and credits early involvement in ADEA as a catalyst for his change in career plans. Brandon began dental school believing he would practice dentistry in a private or community setting. Through his engagement in ADEA COSRF and the ADEA Chapter at OSD USC, he has since decided to take on a full-time dental school faculty role upon graduation.

Irina Dragan, D.D.S., M.S., Assistant Professor at Tufts University School of Dental Medicine (TUSDM), was a member of ADEA COSRF and the ADEA Chapter at TUSDM, and now is a faculty member and advisor to the school’s ADEA Chapter. Asked how best to advise a student considering whether to join an ADEA Chapter, Dr. Dragan says, “By engaging in ADEA early in your career, you will unveil a diverse set of opportunities, [and] work closely with key stakeholders. You will learn how to incorporate collaborative creativity, redesign models of education and spark innovation. The sooner you engage, the more you will feel invested.”

ADEA Academic Dental Careers Fellowship Program (ADEA ADCFP)

Through the ADEA Academic Dental Careers Fellowship Program (ADEA ADCFP), students and residents become directly involved in academia through a “hands on” structured mentorship program in teaching and research. ADEA encourages faculty members from academic dental institutions to serve as ADEA ADCFP mentors and liaisons. Since 2015, 33 dental institutions have participated in the ADEA ADCFP, with approximately 300 student fellows completing the program. The faculty-student mentorship component of the ADEA ADCFP centers on:

- Understanding the daily experiences of dental school faculty members.
Hearing the personal reflections of faculty members via one-on-one interviews.

Understanding and applying best practices in learning, teaching and research.

Planning an academic career and navigating the education landscape.

ADEA supports dental schools and programs seeking to establish and expand this program with the goal of enhancing students’ knowledge of academic careers.

**Faculty Loan Repayment and Scholarship Programs**

Dental students may face more than $200,000 in total educational debt upon graduation (total educational debt includes debt incurred before and during dental school). In 2017, the average educational debt for dental school graduates with debt was $287,331. Due to this debt burden, graduates are often drawn to careers in private practice to begin the process of loan repayment.

Loan payment assistance programs, such as the Health Resources and Services Administration (HRSA) Faculty Loan Repayment Program (FLRP), HRSA Dental Faculty Loan Repayment Program (DFLRP) and the NIH Loan Repayment Programs (NIH LRP) incentivize graduates to pursue careers as faculty members in health professions schools as well as biomedical and behavioral research careers. Targeted toward students from disadvantaged backgrounds, the HRSA FLRP program aims to prepare and support the next generation of dental school educators. HRSA FLRP participants can receive up to $40,000 for a full-time or part-time two-year commitment. The HRSA DFLRP, authorized by Title VII of the Public Health Service Act, funds public or private nonprofit dental or dental hygiene schools, advanced education and residency programs to increase the number of dental and dental hygiene faculty in the workforce. Qualified graduates for the NIH LRP can receive up to $35,000 in loan repayments annually for advanced education and training in NIH-mission driven research careers. Other opportunities to support students entering an academic career include the American Association of Endodontists Foundation, Endodontic Educator Fellowship Award and the American Academy of Periodontology Foundation Educator Scholarships. Links to these and to state and federal loan forgiveness programs may be found on the ADEA website.

**Policy Considerations**

Addressing the dental faculty vacancy challenge is crucial to the future of dental education. It is critical that administration, department leadership and current faculty at academic dental institutions work collectively to mitigate this issue. The following policy considerations guard against a shortage of faculty in dental education:

- Create and/or expand academic career pipeline programs in dental and allied dental schools to create a pathway for students into faculty careers.
- Use resources such as the ADEA Faculty Diversity Toolkit to recruit and sustain a diverse faculty body.
- Increase the number of ADEA Chapters at dental and allied dental schools.
- Elevate the importance of academic dental institutions’ participation in the ADEA ADCFP as a vehicle for increasing the number of students entering careers in dental education.
- Promote the continuation of federal funding and expansion of financial assistance programs, such as the HRSA FLRP and DFLRP, as well as the NIH LRP, for dental school graduates seeking to pursue careers in dental education and biomedical/behavioral research.

ADEA will continue to raise awareness among dental, allied dental, and advanced dental education residents and fellows about the option of careers in academic dentistry. Additionally, ADEA will support dental education institutions in building capacity and infrastructure on academic pipeline programs to recruit a cadre of dental school graduates to academic dental careers.

“My interest in becoming a dental educator started as an idea. It was largely due to the influences and the mentorship that was given to me by dental faculty prior to me starting my dental career. This idea grew once I became involved with the ADEA COSRF.”

—Brandon Lynch, Fourth-year Dental Student
References


4. Ibid.

5. American Dental Education Association, op. cit., p. 5.


