

## DIVERSIFYING THE DENTAL WORKFORCE AND MAXIMIZING COMMUNITY CARE:

## Summer Health Professions Education Program (SHPEP) 2006–2015

ADEA Office of Policy, Research and Diversity

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DENTAL EDUCATION

## RACIAL/ETHNIC MINORITIES AND THE DENTAL EDUCATION PIPELINE

Increasing the racial and ethnic composition of the dental workforce through preprofessional and student pipeline programs is critically important. A more diverse dental profession ties to improved patient satisfaction, increased access to quality oral health care, reduced oral health disparities, and elevated responsiveness to the needs of a society with rapidly changing demographics.<sup>1</sup>

Additionally, research points to the benefits of diversity for all higher education students, particularly in terms of contributions made to the learning environment, improvement of compositional diversity, better intercultural interactions, and shaping opportunities and experiences for all students engaged in a democratic society.<sup>2</sup> Increasing racial/ethnic student matriculation and graduation rates at dental schools fosters students' development of better social and cognitive skills and ethical dynamics associated with successful participation in a global society.<sup>3</sup>

This policy report provides a brief discussion of dental school applicant and enrollment trends by race/ethnicity. Dental provider shortages in underserved geographic areas are also explored, along with historically underrepresented (HUR) dentists and U.S. racial/ethnic population parity data. The report also highlights the Summer Medical and Dental Education Program (SMDEP), a program that is positively impacting the number of students interested in serving underserved communities and HUR dentists entering dental school and graduating.

## DENTAL SCHOOL ENROLLMENT TRENDS AND DENTAL SHORTAGES

During the 2015–16 application cycle, 12,058 individuals applied to dental school.<sup>4</sup> Applications to dental schools by underrepresented students (i.e., American Indian/Alaska Native, Black/African American, and Hispanic or Latino) for the most part have continued to rise.<sup>5</sup> After a low in 2013–14, applications by most racial/ethnic categories increased during the last two years.<sup>6</sup> In the past decade, Black/African American applicants alone, or in combination with another

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SMDEP Class of 2008 and University of California, San Francisco, School of Dentistry Class of 2012

race, wavered, but reached a high during the 2015–16 application cycle.<sup>7</sup> Individuals identifying as Black/African American in 2016 accounted for 694 applicants, and 308 Black/African American were first-time enrollees, or 5.8% of all applicants and 5.0% of all first-time enrollees. Black/African American applicants to dental school had a 44.4% enrollment rate in 2016. (See Table 1.)

In the 2015–16 application cycle, White applicants represented the largest group. Whites accounted

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for twice as many applicants as Asians, the next largest group.<sup>8</sup> American Indian/Alaska Native applicants and enrollees have nearly doubled when viewed in combination with other groups. During the last five years, more than 50% of White applicants ultimately enrolled in dental school.<sup>9</sup> The upward trend continued in 2016 for Whites, Asians, and Hispanic or Latino accepted applicants. In 2016, Asian applicants had a dental school enrollment rate of 49.8%, and the Hispanic or Latino applicants had an enrollment rate of 50.7%, nearly equaling the 54.5% enrollment rate of accepted White applicants. However, the number of Latino applicants (1,098) was significantly lower than White applicants (5,752). (See Table 1.)

As we explore ways to improve access for underserved areas and provide culturally competent oral health care, it is helpful to examine provider access in these locations. The Bureau of Health Workforce of the Health Resources and Services Administration (HRSA) tracks the characteristics of dental underserved geographic areas and locations designated as Health Professional Shortage Areas (HPSAs). HPSAs are associated with “shortages of primary medical care, dental or mental health providers. A HPSA may be a geographic area such as a county or service area; represent a specific demographic, such as a low-income population; or are a designated institution such as a federally qualified health center.”<sup>10</sup> Dental HPSAs

also have slightly higher percentages of younger individuals (26.9%), older persons (14.8%) and under-represented minorities (36.6%).<sup>11</sup> As of December 2017, there were 5,866 Dental HPSAs and almost 63 million persons living in these dental underserved areas.<sup>12</sup> (See Figure 1.) Based on HRSA data, only 35.28% of residents’ dental needs were met in these areas, with an additional 10,802 dental practitioners required to meet the total oral health care demands of Dental HPSA populations. Similar shortages have been noted for medicine and mental health.<sup>13</sup>

In comparing the percentage of HUR dentists with the percentage of U.S. racial/ethnic minorities, 2015 American Dental Association (ADA) data showed that Blacks/African Americans accounted for 12.4% of the U.S. population but only 3.8% of U.S. dentists. Similarly, Hispanics or Latinos comprised only 5.2% of dentists but 17.7% of the population, compared with Whites, who represented 74.2% of dentists and 61.7% of the U.S. population.<sup>14</sup> Asians composed 5.3% of the population in 2015 and 15.7% of dentists.<sup>15</sup> (See Figure 2.) Additionally, the U.S. Census Bureau projects that by 2044, more than half of all Americans will belong to a minority group (any group other than non-Hispanic White alone). Projections by the Bureau indicate that by 2060, nearly one in five of the nation’s total population will be foreign born.<sup>16</sup>

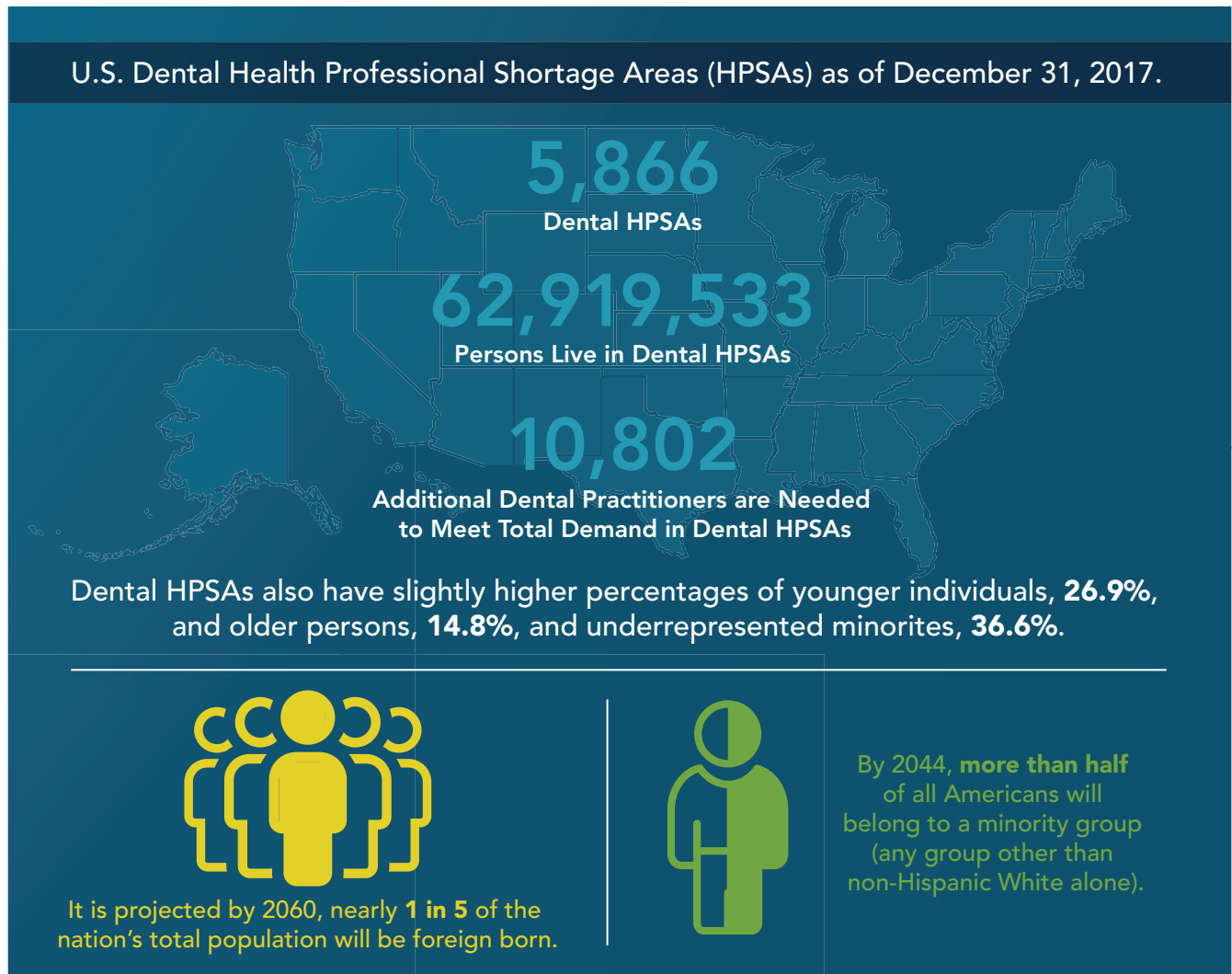
**Table 1: Applicants and First-time Enrollees by Race and Ethnicity, 2016**

Race and Ethnicity	Applicants		First-time Enrollees		Enrollment Rate
	Number	Percent	Number	Percent	
American Indian or Alaska Native	29	0.2%	7	0.1%	24.1%
Asian	2,951	24.5%	1,470	24.1%	49.8%
Black or African American	694	5.8%	308	5.0%	44.4%
White	5,752	47.7%	3,136	51.4%	54.5%
Hispanic or Latino	1,098	9.1%	557	9.1%	50.7%
Native Hawaiian or Other Pacific Islander	16	0.1%	10	0.2%	62.5%
Two or More Races	411	3.4%	199	3.3%	48.4%
Do Not Wish to Report or Unknown	327	2.7%	162	2.7%	49.5%
Nonresident Alien	780	6.5%	251	4.1%	32.2%
Total	12,058	100.0%	6,100	100.0%	50.6%

Source: American Dental Education Association, U.S. Dental School Applicants and Enrollees, 2016 Entering Class

Note: ADEA adheres to revised federal guidelines for collecting and reporting race and ethnicity data.

Figure 1: Dental Health Professional Shortage Areas and Dental Needs



Source: Colby S, Ortman JM. Projections of the size and composition of the U.S. population: 2014 to 2060, current population reports, P25-1143. Washington, DC: U.S. Census Bureau, 2014; U.S. Department of Health and Human Services, Health Resources and Services Administration. First quarter of fiscal year 2018 designated HPSA quarterly summary. Washington, DC: HRSA Bureau of Health Workforce, January 2018.

As Figure 2 demonstrates, HUR dentists are in short supply, with the HUR dentists' workforce disproportionately smaller and more unevenly distributed in comparison to U.S. minority populations.<sup>17</sup> To bring the share of HUR dentists into parity with their share of the U.S. population would require an additional 19,714 Black/African American dentists, 31,214 Hispanic or Latino dentists, and 2,825 American Indian/Alaska Native dentists.<sup>18</sup> Research also shows that minority dentists and health care providers are more likely to serve underserved communities and have a strong interest in reducing health disparities.<sup>19</sup>

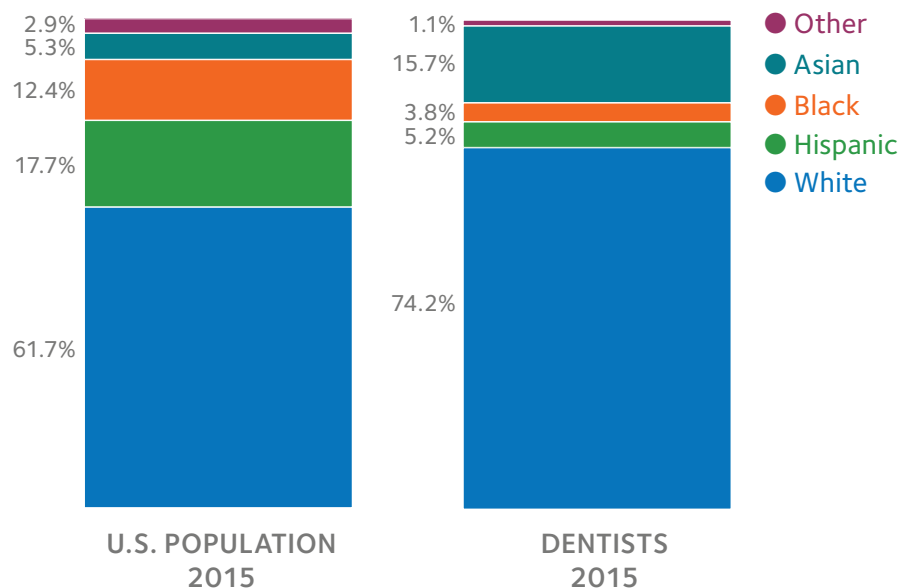
Therefore, the lack of parity between underrepresented minority dentists and underrepresented minority groups in the United States makes the need to remedy these disparities even more crucial.

Although the number of underrepresented applicants and enrollees in the 2015–16 application cycle increased at dental schools, their numbers fall short of U.S. population parity.<sup>20</sup> Developing strategies to create a more diverse dental school pipeline and increase the number of HUR dentists to better serve the oral health care needs of underserved

Figure 2: Underrepresented Minority Dentists and Population Parity

## ETHNIC AND RACIAL DIVERSITY AMONG DENTISTS DOES NOT MIRROR THAT OF THE U.S. POPULATION

In terms of race and ethnicity, white and Asian dentists are proportionally more represented in the profession when compared to the U.S. population. Hispanic and black dentists, as well as dentists who identify themselves as another race or ethnicity, are proportionally less represented in the profession when compared to the U.S. population.



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populations is a complex, multidimensional issue. As shifting demographics impact market forces and dental care demands, the need to provide culturally competent and accessible oral care to racial/ethnic communities is not solely an issue for HURs but is a business imperative and a social justice necessity. Therefore, it is essential that dental educators, policymakers, health care organizations, and the dental profession continue to invest in pipeline/preprofessional programs to recruit and graduate more culturally competent and racially and ethnically diverse students. One such program, which increases the number of underrepresented dental students entering and graduating from dental school and promotes interests in serving underresourced communities, is the Summer Health Professions Education Program (SHPEP).

## SHPEP HISTORY AND MISSION

SHPEP is a free, six-week academic enrichment program for rising college sophomores and juniors interested in the health professions. SHPEP focuses on strengthening the academic proficiency and career development of students underrepresented in the health professions to prepare them for successful application and matriculation to health professions schools.

Students in the SHPEP program include, but are not limited to, individuals who identify as Black/African American, American Indian/Alaska Native, and Hispanic or Latino, and who are from communities of socioeconomic and educational disadvantage.<sup>21</sup> To be eligible for SHPEP, a student must:

- Be a college freshman or sophomore at the time of application.
- Have a minimum overall college GPA of 2.5.
- Be a U.S. citizen, a permanent resident, or an individual granted Deferred Action for Childhood Arrivals (DACA) status by the U.S. Citizenship and Immigration Services.
- Not have previously participated in the program.

Other factors include:

- Identifies with a group that is racially/ethnically underrepresented in the health professions.
- Comes from an economically or educationally disadvantaged background.
- Has demonstrated an interest in issues affecting underserved populations.
- Submits a compelling personal statement and a strong letter of recommendation.<sup>22</sup>

SHPEP is the evolution of three predecessor programs, all funded by the Robert Wood Johnson Foundation (RWJF). The first program was the Minority Medical Education Program (MMEP), launched in 1989 as the result of a RWJF internal study to address the challenges, opportunities and solutions associated with increasing diversity in medicine.<sup>23</sup> MMEP began with six program sites and a cohort of 684 undergraduate students. In 2003, the MMEP was changed to the Summer Medical Education Program (SMEP), and the scope was broadened to include students from low socioeconomic backgrounds, regardless of race/ethnicity. The American Dental Education Association (ADEA) became a partner in 2005, and the name was changed to the Summer Medical and Dental Education Program (SMDEP). SMDEP enrolled its first pre dental participants in 2006, with 12 program sites enrolling 80 students each.

As part of the RWJF Advancing Change Leadership, an initiative to strengthen and diversify the health care workforce and develop leaders as part of their Culture of Health, RWJF announced a call for proposals to expand the summer enrichment program. The goal of the expansion was to increase the number of health professions programs beyond medicine and dentistry. To recognize the broadened

health care focus, the program's name changed to the Summer Health Professions Education Program (SHPEP). The Association of American Medical Colleges and ADEA provide direction and technical assistance to the program sites and staff the National Program Office. Figure 3 lists the 13 SHPEP sites and their career pathways.<sup>24</sup>

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Chelsea Brockway, D.D.S., M.S.

SMDEP Class of 2007 and Columbia University  
College of Dental Medicine Class of 2013

During the six-week summer program, SHPEP students participate in a variety of academic and career experiences, such as:

- Academic enrichment in the basic sciences and quantitative topics.
- Learning and study skills development, including methods of individual and group learning.
- Clinical exposure through small-group rotations in health care settings, simulation experiences and seminars. This is limited to 5% of program time for all the sites.
- Career development sessions directed toward exploration of the health professions, the admissions process and the development of an individualized education plan.
- A financial literacy and planning workshop that informs students of financial concepts and strategies.
- A health policy seminar series to expose scholars to a larger view of health care, health systems and the social determinants of health.
- An introduction to interprofessional education that addresses effective collaboration across the health professions.<sup>25</sup>

## IMPACT

A 2015 impact study by Mathematica Policy Research showed that SMDEP increases the likelihood of

Figure 3: Participating SHPEP Sites and Career Pathways, 2017–2018



SMDEP Participants at the University of California, Los Angeles.

**Columbia University**

**Career Pathways:** Medicine, Dentistry, Nursing and Physical Therapy

**Howard University**

**Career Pathways:** Medicine, Dentistry, Nursing and Pharmacy

**Louisiana State University Health Sciences Center–New Orleans**

**Career Pathways:** Medicine, Dentistry, Nursing and Public Health

**Rutgers University**

**Career Pathways:** Medicine, Nursing, Dentistry and Pharmacy

**University of Alabama at Birmingham**

**Career Pathways:** Medicine, Dentistry, Optometry and Physician Assistant

**University of California, Los Angeles**

**Career Pathways:** Medicine, Dentistry and Nursing and Charles R. Drew University School of Nursing

**University of Florida**

**Career Pathways:** Medicine, Dentistry, Pharmacy and Public Health

**University of Iowa**

**Career Pathways:** Medicine, Dentistry, Pharmacy and Public Health

**University of Louisville**

**Career Pathways:** Dentistry, Medicine, Nursing and Pharmacy

**University of Nebraska**

**Career Pathways:** Medicine, Dentistry, Nursing, Public Health and Physical Therapy

**University of Texas Health Science Center at Houston**

**Career Pathways:** Medicine, Dentistry, Nursing and Public Health

**University of Washington**

**Career Pathways:** Medicine, Dentistry and Public Health

**Western University Health Science Center**

**Career Pathways:** Medicine, Dentistry, Physical Therapy and Optometry

Source: SHPEP NPO, January 17, 2018

students applying and matriculating to medical and dental school. The data show that SMDEP participants are about 8 percentage points more likely to apply to medical or dental school and 10 percentage points more likely to matriculate than nonparticipants.<sup>26</sup> Program sites with both medical and dental components have an impact on dental outcomes and are effective in increasing dental school applications and enrollment. Participants from medical-only sites are 12 percentage points more likely to apply to medical school than comparison students.<sup>27</sup> Additionally, an earlier MMEP and SMEP study showed a significant impact on the diversity of the medical school applicant and matriculant pools.<sup>28</sup>

According to the Mathematica research, SMDEP participants from sites with a dental component are 14 percentage points more likely to apply to dental school than comparison students and participants from sites that focus solely on medicine.<sup>29</sup> The estimated matriculation for SMDEP students to dental school for sites with a dental component are 10.5 percentage points and 9 percentage points (for medical school) for sites with and without dental programs.<sup>30</sup> (See Table 2.)

Data trends demonstrate the positive impact that SMDEP is having on diversifying the dentistry pipeline and increasing the number of dentists interested in helping underserved communities. From 2006 to 2015, 65.3% of SMDEP pre-dental participants applied to dental school. One hundred percent of the 865 SMDEP scholars who were accepted matriculated to a dental school and 72.2% were accepted.<sup>31</sup> (See Table 3.) As of 2015, 589 SMDEP participants have graduated from dental school.<sup>32</sup> In terms of HUR graduates:

- 162 (27.5%) were Blacks/African Americans.
- 97 (16.5%) were Hispanics or Latinos.
- 2 (0.3%) were American Indians/Alaska Natives.
- 1 (0.2%) were Native Hawaiian or Other Pacific Islander.

From 2006–2015, there were also 103 (17.5%) White, 151 (25.6%) Asian, 50 (8.5%) Two or More Races, and 23 (3.9%) Unknown race/ethnicity SMDEP dental school graduates. (See Table 4.) These data demonstrate SMDEP’s positive impact on the number of HUR students entering and graduating from dental school. In terms of gender, 402 (68.3%) of the SMDEP dental school graduates were women, and 187 (31.7%) were men. (See Table 4.)

**Table 2: SMDEP Impacts (Sites Offering a Dental Program), 2006–2008**

Impact on Career Path	Medical and Dental Program Sites					Medical Program Only Sites					Difference between Subgroups
	Participant Group	Comparison Group	Difference	p-Value	Sample Size	Participant Group	Comparison Group	Difference	p-Value	Sample Size	
Applied to Medical or Dental School	55.1	44.5	10.6**	0.00	2,124	55.8	44.5	11.2**	0.00	1,634	-0.7
Applied to Dental	18.0	4.2	13.8**	0.00	2,124	2.3	4.2	-2.0**	0.01	1,634	15.7**
Applied to Medical	37.6	40.8	-3.2	0.16	2,124	53.1	40.8	12.3**	0.00	1,634	-15.5**
Matriculated in Medical or Dental	38.3	28.2	10.1**	0.00	2,124	36.8	28.2	8.6**	0.00	1,634	1.5
Matriculated in Dental	13.2	2.7	10.5**	0.00	2,124	1.4	2.7	-1.3	0.11	1,634	11.8**
Matriculated in Medical	25.4	25.7	-0.4	0.84	2,124	34.7	25.7	9.0**	0.00	1,634	-9.3**
Matriculated in Medical SMDEP Site	6.0	3.2	2.8**	0.01	2,124	5.6	3.2	2.4*	0.03	1,634	0.4

Source: NPO program data, AAMC warehouse data, ADEA warehouse data, and NSC data. All data were withdrawn between fall 2012 and summer 2013.

Note: Outcomes for each cohort are for the period up to 2012. Sample sizes vary by outcome due to missing data on outcome.

\*Difference between SMDEP participant and comparison group is statistically significant at 5 percent, two-tailed test.

\*\*Difference between SMDEP participant and comparison group is statistically significant at 1 percent, two-tailed test.

Source: Adapted from Cosentino C, Speroni C, Sullivan M, Torres R. Impact evaluation of the RWJF Summer Medical and Dental Education Program (SMDEP) [document on the internet] Mathematica Policy Research; 2015.

SMDEP is also generating a more diverse group of dental practitioners prepared to address a myriad oral health care needs in rural, urban, and other geographical areas. Richard W. Valachovic, D.M.D.,

M.P.H., ADEA President and CEO and SHPEP Co-Project Director, stated, “The demonstrable, data-driven success of our ADEA Summer Health Professions Education Program is a sign of the power

Table 3: SMDEP Participants, Applicants, Acceptants, Matriculants and Graduates, 2006–2015

SMDEP Program Year	# of Predental Students	# of Program Participants	Dental School Applicants		Dental School Acceptants		Dental School Matriculants		Dental School Graduates*	
			#	%*	#	%**	#	%	#	% <sup>§§</sup>
2006	154	954	129	83.8%	108	83.7%	108	91.7%	99	91.7%
2007	179	962	141	78.8%	100	70.9%	100	100.0%	94	94.0%
2008	184	965	142	77.2%	111	78.2%	111	100.0%	104	93.7%
2009	183	952	137	74.9%	104	75.9%	104	100.0%	96	92.3%
2010	186	949	131	70.4%	109	83.2%	109	100.0%	92	84.4%
2011	188	949	125	66.5%	100	80.0%	100	100.0%	69	69.0%
2012	198	952	123	62.1%	85	69.1%	85	100.0%	33	38.8%
2013	189	951	112	59.3%	70	62.5%	70	100.0%	2	2.9%
2014	185	949	101	54.6%	38	37.6%	38	100.0%		
2015	190	962	57	30.0%	40	70.2%	40	100.0%		
Grand Total	1,836	9,545	1,198	65.3%	865	72.2%	865	100.0%	589	68.1%

\* Dental school applicants/predental SMDEP participants

\*\* Dental school acceptants/dental school applicants

§§ Dental school graduates/dental school matriculants

± Graduation data as of 2018

Source: Application and Matriculation data as of August 23, 2018

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Table 4: SMDEP Dental School Graduates by Race and Ethnicity, 2006–2015

Race and Ethnicity	Total	Percent	Female	Male	Percent Female	Percent Male
American Indian or Alaska Native	2	0.3	2	0	100	0
Asian	151	25.6	97	54	64.2	35.8
Black or African American	162	27.5	124	38	76.5	23.5
Hispanic or Latino	97	16.5	69	28	71.1	28.9
Native Hawaiian or Other Pacific Islander	1	0.2	1	0	100	0
White	103	17.5	65	38	63.1	36.9
Two or More Races	50	8.5	33	17	66	34
Unknown	23	3.9	11	12	47.8	52.2
Nonresident Alien	0	0	0	0		
Total	589	100	402	187	68.3	31.7

Source: American Dental Education Association

## HIGHLIGHTING SMDEP SCHOLAR IMPACT



**Chelsea Brockway,  
D.D.S., M.S.**

SMDEP Class of 2007  
and Columbia University  
College of Dental  
Medicine Class of 2013

SMDEP graduates are using their knowledge and dental skills in underserved communities. Dr. Chelsea Brockway was not only a SMDEP Class of 2007 participant at Columbia University, but also attended the Columbia University College of Dental Medicine, graduating in the top one-third of her class. Dr. Brockway, whose father is from New England and mother is from Honduras, saw the effect that language barriers can have on treatment and approaches to patient care. Dr. Brockway's SMDEP experience reinforced her desire to practice in her native Florida. "I don't want a career that serves only the most privileged people," she stated.<sup>33</sup>

Dr. Brockway completed a residency at the University of Florida and received a certificate in Orthodontics and an M.S. in Advanced Dental Sciences. She is currently practicing at Blue Wave Orthodontics in Pinellas County, Florida. Dr. Brockway is part of the Johns Hopkins All Children's Hospital Craniofacial Cleft Lip and Palate Team. As part of her commitment to giving back to others, she has participated in dental mission trips to the Dominican Republic through Somos Amigos Medical Missions and in the United States through Florida Missions of Mercy, Remote Area Medical Services, and Give Kids A Smile. Reflecting on her experience, Dr. Brockway said, "I love what I do and that I am able to see patients with the means to afford orthodontic care at least with the assistance of Medicaid or a private insurance company, but I know not all patients have that opportunity. I want to give back to those patients as well in whatever way possible. There is a great need for many quality and experienced dentists in our field to give back to communities that are unable to afford proper dental care. I have been so honored to volunteer at some of the efforts that are being made in our country and in other countries to help serve these communities."



**Eric Brown, D.D.S.**

SMDEP Class of 2008  
and University of  
California, San Francisco,  
School of Dentistry Class  
of 2012

"For me, everything stemmed from SMDEP. It's where I gained the skills and the confidence to become a leader," said Eric Brown, D.D.S., and SMDEP University of California, Los Angeles 2008 participant.<sup>34</sup> Dr. Brown graduated from the University of California, San Francisco, School of Dentistry in 2012. During his last two years of study, he received a scholarship from the National Health Services Corp (NHSC). The scholarship pays tuition, fees, other educational costs, and provides a living stipend in return for a commitment to work for least two years at an NHSC-approved site in a medically underserved community.

As part of his service commitment, Dr. Brown is working as a General Dentist for Borrego Health in Desert Hot Springs, California, where he serves at a Federally Qualified Health Center. At least 85% of his patients are low income or on Medicaid. Dr. Brown said, "Access to medical and dental care is crucial in underserved communities. I am grateful to be in a position to provide competent and quality care to those that cannot afford it. I get to bridge the health disparity gap and help patients achieve their oral health goals. Improving access to care has been a mission of mine since I participated in SMDEP. This drove me to apply for the NHSC Scholarship program to fulfill my own personal goal of giving back to those in need on a daily basis."

and potential of this effort to bridge the oral health care gap in America's underserved communities."

## CONSIDERATIONS

More preprofessional, summer enrichment and health career pipeline programs are needed to increase the number of underrepresented minority and socioeconomically disadvantaged students in dental schools.<sup>35</sup> These programs offer institutions an opportunity to engage diverse talent while supporting their career development. Such programs not only address academic disparities among racial/ethnic groups, but also the social complexities often associated with being underrepresented, such as isolation and overcoming stereotyping.<sup>36</sup>

As dental educators and state and national organizations compete for funds to support educational enrichment programs, it is vital that these programs demonstrate the impact of initiatives such as SHPEP. The 2015 Mathematica Research Policy Study exemplifies the necessary evaluation and assessment protocols.<sup>37</sup> Additionally, longitudinal participant research is essential for determining additional impact on HURs and underserved communities. This research incorporates periodic surveys and tracking of SHPEP scholars, in combination with other agencies and associations, to determine the dental practice characteristics of SMDEP participants.

The 2015 Mathematica SMDEP study found no single component contributed to SMDEP outcomes; instead, impact stemmed from a combination of program components. However, it would be beneficial to conduct additional critical analysis and review of individualized program components to gauge the degree to which student outcomes are impacted. Components proposed for further examination include curriculum, academic support, staff and faculty engagement, clinical exposure, career development, health policy, interprofessional education and collaboration, and other program characteristics. Measuring these components and outcomes will help to detect and develop best practices for health professions academic enrichment programs and allow such best practices to be applied to other programs.

*"The demonstrable, data-driven success of our ADEA Summer Health Professions Education Program is a sign of the power and potential of this effort to bridge the oral health care gap in America's underserved communities."*

Richard W. Valachovic, D.M.D., M.P.H.  
ADEA President and CEO

## CONCLUSION

SHPEP continues to support institutional efforts to increase the diversity of dental students and impact the dental career pathway for HUR students and others interested in serving disadvantaged communities. SHPEP is an excellent program model for other preprofessional and pipeline initiatives. Key stakeholders must continue to study the educational characteristics of HURs in terms of high school graduation rates, college recruitment, undergraduate and graduate/professional persistence and graduation rates, and the participation of HURs in the STEM (science, technology, engineering and mathematics) fields. These efforts are necessary to develop purposeful pipeline initiatives that increase the number of students interested in providing culturally competent dental care to underrepresented communities and reduce educational barriers for HUR students. Creating more diverse applicant pools and increasing the number of HURs entering and graduating from dental schools strengthens not only the workforce, but also dental care for generations of Americans and our global community.

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*The Access, Diversity and Inclusion portfolio of the ADEA Office of Policy, Research and Diversity promotes information about innovative programs and practices aimed at diversity and inclusion strategies in dental education that advance a robust and diverse learning environment. These efforts focus on increasing the diversity of students, faculty and administrators in allied, predoctoral and advanced dental education programs.*

## Additional Resources

Summer Health Professions Education Program—National Program Office:  
[www.shpep.org](http://www.shpep.org)

Robert Wood Johnson Foundation,  
Building a Culture of Health:  
[www.rwjf.org/en/how-we-work/building-a-culture-of-health.html](http://www.rwjf.org/en/how-we-work/building-a-culture-of-health.html)

American Dental Education Association, GoDental:  
[adea.org/GoDental](http://adea.org/GoDental)

ExploreHealthCareers:  
[explorehealthcareers.org](http://explorehealthcareers.org)

American Association of Women Dentists:  
[www.aawd.org](http://www.aawd.org)

Hispanic Dental Association:  
[hdassoc.org](http://hdassoc.org)

National Dental Association:  
[www.ndaonline.org](http://www.ndaonline.org)

Society of American Indian Dentists  
[www.thesaidonline.org](http://www.thesaidonline.org)

Student National Dental Association  
[sndaonline.net](http://sndaonline.net)

American Student Dental Association  
[www.asdanet.org](http://www.asdanet.org)

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