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It's About Communities: the Commitment to Promoting a Culturally Competent Environmental Health Workforce.

Clint Pinion Jr.
Eastern Kentucky University, clint.pinion@eku.edu

Leslie D. Mitchell
Environmental Health Science & Protection Accreditation Council, executive.director@nehspac.org

Jason W. Marion
Eastern Kentucky University, jason.marion@eku.edu

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Clint Pinion, Jr., DrPH, RS
Eastern Kentucky University

Leslie D. Mitchell
National Environmental Health Science & Protection Accreditation Council

Jason W. Marion, PhD
Eastern Kentucky University

It's About Communities: The Commitment to Promoting a Culturally Competent Environmental Health Workforce

Editor's Note: In an effort to promote the growth of the environmental health profession and the academic programs that fuel that growth, NEHA has teamed up with the Association of Environmental Health Academic Programs (AEHAP) to publish two columns a year in the *Journal*. AEHAP's mission is to support environmental health education to ensure the optimal health of people and the environment. The organization works hand in hand with the National Environmental Health Science & Protection Accreditation Council (EHAC) to accredit, market, and promote EHAC-accredited environmental health degree programs.

This column will provide AEHAP with the opportunity to share current trends within undergraduate and graduate environmental health programs, as well as their efforts to further the environmental health field and available resources and information.

Clinton Pinion is the current president of AEHAP and an assistant professor of environmental health at Eastern Kentucky University. Leslie Mitchell is the executive director of EHAC. Jason Marion is an associate professor of environmental health at Eastern Kentucky University.

"Environmental health and public health are profoundly local." This expression is frequently spoken by Dr. David Dyjack, executive director of the National Environmental Health Association. The Association of Environmental Health Academic Programs (AEHAP) firmly agrees and for this reason, it is important to have local environmental health experts who know the pulse of their communities. AEHAP believes in supporting the advanced scientific education of environmental health in these communities through people from these communities. Accordingly, AEHAP has sought to promote and support accredited environmental health programs among a diverse cross-section of the U.S. higher education landscape. AEHAP's students are diverse in many ways, including socioeconomically, racially, ethnically, and culturally. We still have further to go to enhance diversity within our member programs. We remain proud, however, of our people, our programs, and the communities our programs serve.

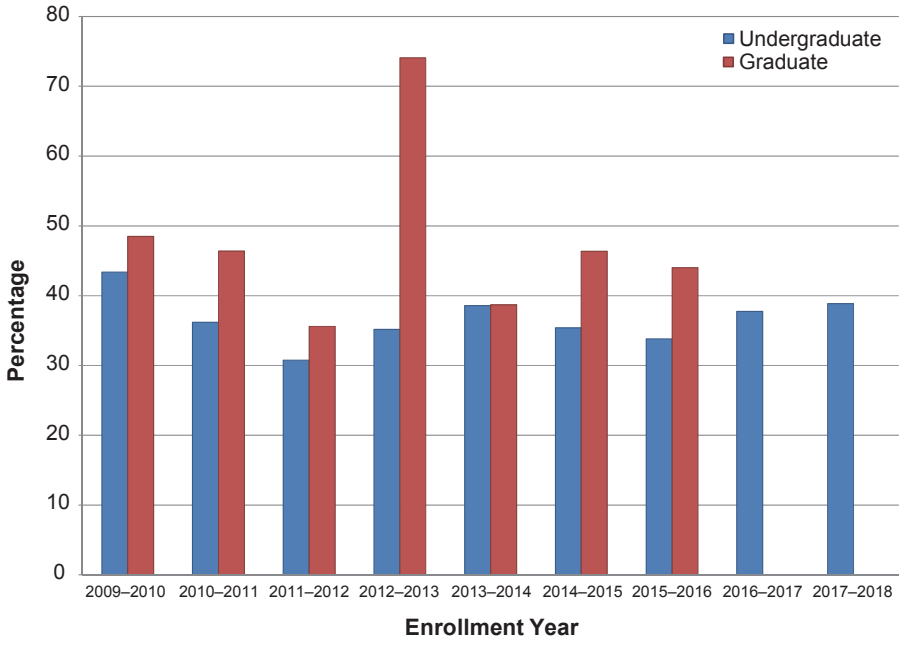
Summarizing the annual undergraduate and 3-year graduate program survey data provided by the National Environmental Health Science & Protection Accreditation Council (EHAC), racially and/or ethnically diverse students represent 37% and 48% of enrolled undergraduate and graduate students, respectively. For the 2017–2018 enrollment year, 39% of undergraduates were described as contributing to diversity (Figure 1). A more detailed description of student racial and ethnic groups is provided in Tables 1 and 2. In addition, 56% of the student population from the undergraduate and graduate programs is female. Female students have been the majority since 2008.

AEHAP's mission is to advance a 21st century science-based educational model that develops culturally competent environmental health scientists. The mission is aligned with current efforts by higher learning institutions to ensure college graduates are competent members of local, national, and global communities. College students are now expected to not only traverse a rigorous curriculum to gain foundational knowledge but also acquire practical skills to enable them to identify and address current and emerging issues.

Graduates from environmental and public health programs often will work in communities that are culturally different from the cities and towns in which they were raised (Galea, 2015). Working with diverse populations is essential as environmental and public health practitioners aim to tackle issues of social injustice and work toward health equity for all

FIGURE **1**

Racial and Ethnic Diversity Enrollment Among Programs Accredited by the National Environmental Health Science & Protection Accreditation Council



community members, regardless of disposition. Ensuring college graduate preparedness, according to the Association of American Colleges & Universities (AAC&U), requires colleges and universities to implement four learning outcomes in all majors: 1) cultural and global awareness (i.e., cultural competency), 2) mastery of knowledge-based and applied skills, 3) integrative learning, and 4) personal and social responsibility (Kilgo, Ezell Sheets, & Pascarella, 2015). The aforementioned learning outcomes, especially cultural competency, are crucial if graduates are expected to thrive in the current workforce, which is evolving and becoming increasingly global.

Many colleges and universities have adopted high-impact educational practices (HIPs) in an attempt to infuse AAC&U-recommended learning outcomes into their curricula. Implementation of HIPs increases student engagement and assists colleges and universities in retaining students through graduation. Kilgo and coauthors (2015) highlight 10 HIPs that can positively benefit college students if implemented by institutions of higher education:

1. first year seminars,
2. learning communities,
3. collaborative assignments and projects,
4. diversity and global learning,
5. common intellectual experiences,
6. writing-intensive courses,
7. undergraduate research,
8. service and community-based learning,
9. capstone courses and projects, and
10. internships.

Through implementation of HIPs, more U.S. college students are being instructed on the importance of diversity and cultural competency. One could question if college graduates are, however, culturally competent through classroom instruction alone.

The U.S. population is becoming more ethnically and racially diverse (Duffus et al., 2014; Galea, 2015; Valentine, Wynn, & McLean, 2016). As such, the U.S. will ultimately be considered a plurality nation (i.e., no race or ethnicity exceeds 50% of a nation's total population) (Galea, 2015). In fact, more than 39% of the U.S. population in 2018 identifies as non-White (Kaiser Family Foundation, 2018). The diversity of the U.S. population is expected to increase to 57% by 2060, with the Hispanic population alone expected to grow from 18% of the total U.S. population in 2016 to 31% by 2060 (Duffus et al., 2014). Smaller, but notable, increases will occur in the African-American, Asian, and American Indian populations. Why does this population increase among the aforementioned groups matter?

Compared to individuals of the populous majority, minority and low socioeconomic groups have higher rates of not being insured, infant mortality, negative public health outcomes from preventable diseases, and inadequate access to healthcare (Jackson & Gracia, 2014). In fact, African-Americans typically have higher age-adjusted death rates for HIV/AIDS, cancer, heart disease, and diabetes (Duffus et al., 2014; Jackson & Gracia, 2014). Additionally, life expectancy is shorter for marginalized populations. The average life expectancy for African-Americans in 2009 was 74.6 years compared to 78.9 years among White Americans. Environmental and public health issues faced by marginalized populations are often attributed to health disparities associated with housing quality, access to clean food and water, and education (Jackson & Gracia, 2014).

Public health practitioners have made great strides over the past century to address emerging and existing preventative health issues (Jackson et al., 2014). Unfortunately, public health issues among marginalized populations are not only persistent but also continue to rise in prevalence. AEHAP and EHAC have actively explored the collaborative role they will play in addressing the public health issues of marginalized populations. Keeping in mind the localized nature of environmental and public health, our role is to not only continue the promotion of cultural competent practitioners but also help our accredited institutions graduate classes similar to the populations and communities they serve.

Our approach is aligned with the U.S. Department of Health and Human Services' strategy for health disparity reduction among marginalized populations. This strategy includes supporting initiatives that increase diversity of healthcare workers and increasing cultural competency of the healthcare workforce to ensure better service is provided to individuals with linguistic, cultural, and social backgrounds (Jackson & Gracia, 2014).

TABLE **1**

Total Enrollment Among Undergraduates in Programs Accredited by the National Environmental Health Science & Protection Accreditation Council and Percent Representation by Various Racial and Ethnic Groups

Year	Total Enrollment (*N*)	Native American[a] (%)	Asian (%)	Black or African-American (%)	Hispanic or Latino (%)	Pacific Islander[b] (%)	Other[c] (%)	Overall Diversity (%)
2010	1,423	1.6	13.2	14.5	10.8	0.4	3.0	43.4
2011	1,561	0.8	10.8	11.9	7.8	0.9	4.0	36.2
2012	1,365	1.0	8.6	11.5	7.5	0.3	1.8	30.8
2013	1,401	1.4	8.1	13.5	7.1	0.4	4.7	35.2
2014	1,415	1.2	7.7	13.1	8.7	0.4	7.5	38.0
2015	1,458	0.5	7.8	13.0	9.1	0.5	4.5	35.4
2016	1,506	0.5	7.7	9.7	11.1	0.6	4.1	33.8
2017	1,428	0.8	7.6	11.1	12.1	0.4	5.9	37.7
2018	1,338	1.0	8.4	11.2	11.7	0.4	6.1	38.9

[a]Group includes Native Alaskan.
[b]Group includes Native Hawaiian.
[c]Other is the term used on the survey for people not described by the previous terms or White/non-Hispanic.

TABLE **2**

Total Enrollment Among Graduates in Programs Accredited by the National Environmental Health Science & Protection Accreditation Council and Percent Representation by Various Racial and Ethnic Groups

Year	Total Enrollment (*N*)	Native American[a] (%)	Asian (%)	Black or African-American (%)	Hispanic or Latino (%)	Pacific Islander[b] (%)	Other[c] (%)	Overall Diversity (%)
2010	255	0.2	16.1	17.6	13.3	0	1.2	48.5
2011	244	0.5	16.0	16.8	4.9	4.5	3.7	46.4
2012	245	0.5	14.3	14.3	5.7	0	0.8	35.6
2013	231	0.5	19.5	18.6	4.3	2.6	28.6	74.1
2014	260	0.2	7.7	14.6	3.1	0	13.1	38.7
2015	289	0	7.2	15.6	3.8	0	19.7	46.4
2016	409	1.5	5.4	28.6	2.7	0.2	5.6	44.0

[a]Group includes Native Alaskan.
[b]Group includes Native Hawaiian.
[c]Other is the term used on the survey for people not described by the previous terms or White/non-Hispanic.

Public health issues of marginalized populations are more likely to be addressed by practitioners who are from underrepresented groups (Duffus et al., 2014; Valentine et al., 2016). Valentine and coauthors (2016) note a strategic push by health agencies to have a workforce reflective of the population and community served. The socioeconomic background, race, ethnicity, and linguistic abilities of healthcare workers are cited as being important in bridging the public health gap between marginalized and nonmarginalized populations in the U.S. (Harper, 2007; Valentine et al., 2016). Having a diverse public health workforce enables local health departments to better educate community members, increases preventative healthcare access for marginalized

populations, and bolsters research activities that explore the health disparities that lead to chronic public health issues (Duffus et al., 2014).

In closing, the demographics of EHAC-accredited program graduates are closely aligned with the current U.S. population; however, demographics will change as our nation becomes pluralistic. AEHAP and EHAC will continue to promote cultural competency of graduates and assist accredited environmental health programs in producing cohorts reflective of the needs of their local communities.

Corresponding Author: Clint Pinion, Jr., Assistant Professor, Department of Environmental Health, College of Health Sciences, Eastern Kentucky University, 521 Lancaster Avenue, 220 Dizney Building, Richmond, KY 40475. E-mail: clint.pinion@eku.edu.

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Did You Know?

September is National Preparedness Month. This year's theme is "Disasters Happen. Prepare Now. Learn How." Make a plan to participate in this year's events and visit www.ready.gov/september for more information and resources.