

REVIEW

The Racial and Ethnic Representation of Faculty in US Pharmacy Schools and Colleges

Angela M. Hagan, PhD,^a Hope E. Campbell, PharmD,^a Caroline A. Gaither, PhD^b

^a Belmont University College of Pharmacy, Nashville, Tennessee

^b University of Minnesota College of Pharmacy, Minneapolis, Minnesota

Submitted May 18, 2015; accepted October 31, 2015; published August 25, 2016.

Objective. To describe the representation of racial and ethnic minorities among faculty members (faculty) in schools and colleges of pharmacy (COP) compared to US Census Bureau data; to evaluate the representation of racial and ethnic minorities in historically black colleges and universities (HBCUs), newer doctor of pharmacy (PharmD) programs, and PharmD programs with a religious affiliation compared with all pharmacy programs; and to compare racial and ethnic pharmacy faculty data to trends in medical and dental schools, and all higher education.

Methods. Information was obtained from national databases and published reports; data was comparatively evaluated.

Results. Compared to the general population, Asians are overrepresented in pharmacy, while all other minority groups are underrepresented. The HBCUs, newer schools, and religious-affiliated institutions have greater numbers of African American/Black faculty. Newer schools also have better representation of Hispanic faculty. Pharmacy has been more successful than medicine and dentistry in recruiting African American/Black faculty, but lag behind dental schools in their representation of Hispanic faculty.

Conclusion. To meet the health care needs of the population, we recommend the implementation of short-term and long-term diversity and inclusion strategies that address minority representation in COP.

Keywords: faculty, ethnicity, race, diversity, census

INTRODUCTION

The American Association of Colleges of Pharmacy (AACP) has addressed diversity and inclusion for the past two decades. In 2000, The Committee on Affirmative Action and Diversity reported that diversity in faculty and staff members and curriculum helps foster a culturally competent and diverse student population, which in turn impacts the quality of care provided to patients.¹ Since that time, AACP has committed to advocating for diversity through collaboration with the American Association of Medical Colleges (AAMC) and the Health Professions for Diversity Coalition. In 2013-2014, AACP charged the Argus Commission to examine the current definition and impact of diversity in pharmacy education today and in the future.²

Consistently defining and addressing diversity in higher education is challenging. The definition changes in concert with evolving society demographics. Diversity

among higher education faculty members (hereafter, “faculty”) has been reviewed across various disciplines, including business, psychology, nursing, medicine and dentistry, public health, and pharmacy.³⁻¹⁵ Studies of faculty in higher education examine group differences by demographic variables including gender, race, and/or ethnicity.^{4,11,16-19} While these studies define representation in terms of gender and/or race, there are numerous other factors contributing to diversity, such as physical ability, sexual orientation, marital status, parental or family status, discipline, personality, communication, management, and professional or research experiences.³⁻²¹

In the past 30 years, the composition of the United States has shifted tremendously—the White population has declined, both Hispanic and Asian populations have increased, and the African American/Black population has remained relatively stable. The United States Census Bureau (USCB) projects that by 2020 more than half of the nation’s children will be of an ethnic or racial minority; by 2050, African American/Blacks, Hispanics, and Asians will comprise the majority of the population. This

Corresponding Author: Angela M. Hagan, Belmont University College of Pharmacy, 1900 Belmont Blvd., Nashville, TN 37212. Tel: 615-460-6676. Fax: 615-460-6537. E-mail: angela.hagan@belmont.edu

shift in demographic composition strengthens the need to intensify efforts to promote diversity in education and training. Historically, African American/Black, Hispanic, and American Indian/Alaska Native populations are underrepresented in health-serving professions such as medicine, dentistry, nursing, and pharmacy.^{8,9,12-15}

This is borne out in the representation of pharmacy faculty. In 2006, a study reported an overrepresentation of White and Asian populations and an underrepresentation of African American/Black, Hispanic, American Indian/Alaska Native populations across medicine, dentistry, and pharmacy faculties.²² With only 88 schools of pharmacy at that time, 77% had at least one African American/Black or Hispanic faculty member. Fifty percent of all Hispanic faculty were employed in only three schools of pharmacy: Texas Southern, Nova Southeastern, and Puerto Rico. Five historically black colleges and university (HBCU) pharmacy programs—Howard, Florida A&M, Xavier, Texas Southern and Hampton—accounted for 52% of African American/Black faculty in pharmacy academia.²² Another paper reported that, between 1989 and 2009, underrepresented minorities (URMs)—African American/Black, Hispanic, American Indian/Alaska Native—at predominantly White institutions showed negligible growth (<0.12%).¹² It is not surprising, therefore, that the AACP Argus Commission was charged with examining diversity and inclusion in pharmacy academia.

This paper reviews how states with larger numbers of schools fare in their inclusion of racial and ethnic minority faculty. The impact of HBCUs, religious-affiliated institutions, and newer schools, on diversity is compared to the entire pharmacy academia. Comparison of pharmacy faculty to higher education, medical, and dental faculty further reveals of the status of diversity in pharmacy education. This paper has the following objectives: (1) to describe representation of racial and ethnic minorities among faculty in COP when compared with US Census Bureau data; (2) to evaluate faculty representation of racial and ethnic minorities in (HBCUs), newer doctor of pharmacy (PharmD) programs, and PharmD programs with a religious affiliation compared to all pharmacy programs; and (3) to compare pharmacy faculty data to trends in the medical and dental school faculty and to all higher education faculty to determine differences or similarities regarding race and ethnicity.

METHODS

The definition of diversity used for this study included the racial and ethnic categories utilized by the United States Census Bureau (USCB). Data were obtained from the USCB at both the national and state levels for the year 2013.²³ Demographic data for pharmacy faculty were

obtained from the AACP Institutional Database, reported from the Survey of Pharmacy Faculty, for calendar year 2013-2014.²⁴ Race and ethnicity of pharmacy faculty members nationwide and by selected states were reported. In 2008, AACP instituted a policy regarding how data can be shared. Race/ethnicity data from the annual Faculty Roster are reported within the Salary Survey, and as such is considered restricted data that can only be reported in aggregate (no fewer than five institutions). Therefore, institution specific data regarding race and ethnicity was not obtainable.

For comparison, data for medical school faculty were obtained from the American Association of Medical Colleges (AAMC) Profile of Medical School Faculty and Medical School graduates for the year 2014.²⁵ The American Dental Education Association (ADEA), reported data for dental school faculty for the 2013-2014 academic year.²⁶ The most recent data for all higher education faculty in the United States was obtained from the United States Department of Education, National Center for Education Statistics (NCES), for the year 2011.²⁷ The AACP, AAMC, ADEA, and NCES collects individual faculty data from member schools on a rolling basis. See Table 1 for categories of race or ethnicity reported by each data source. During appointment to faculty positions, institutions submit educational, employment, and demographic data of new faculty to the association. Institutional participation in this data collection is voluntary. Associations report data in aggregate for all member institutions.²⁴⁻²⁷

Analysis compared all COP to national census data. States with five or more COP were assessed for geographical trends in minority representation. Available data were limited to the following states: California, Florida, New York, Ohio, Pennsylvania, Tennessee, and Texas. These states educate a large subset of the nation's pharmacists and also have the highest employment levels for the occupation.²⁸ These states provide snapshots of the North, South, East, West and Midwest, and include border states.

Historically black colleges and universities with pharmacy programs (Howard University, Hampton University, Texas Southern University, University of Maryland-Eastern Shore, and Xavier University) were also examined. Florida A&M is also designated as an HBCU, but did not report data to AACP during the study timeframe. In addition, schools with a religious affiliation were examined to determine if these institutions had variation in representation of minority faculty. New schools (accredited in the past 10 years) were examined to determine if the increased demand for pharmacy faculty resulted in more opportunities for minorities to fill such positions. Data for COP with a religious affiliation, and Accreditation Council for Pharmacy Education (ACPE) precandidate, candidate, or accredited

Table 1. Categories of Race or Ethnicity Reported by Each Data Source

| Categories | US Census | AACP | AAMC | ADEA | NCES |
|--|-----------|---------------|---------------|-----------------------|-------------------|
| White | ✓ | ✓ | ✓ | ✓ | ✓ |
| African American/Black | ✓ | ✓ | ✓ | ✓ | ✓ |
| American Indian/Alaska Native | ✓ | ✓ | ✓ | ✓ | ✓ |
| Asian | ✓ | ✓ | ✓ | ✓ | ✓ |
| Native Hawaiian/Other Pacific Islander | ✓ | ✓ | ✓ | ✓ | Pacific Islander |
| Hispanic/Latino | ✓ | ✓ | ✓ | ✓ | ✓ |
| Two or More Races | ✓ | ✓ | Multiple Race | ✓ | ✓ |
| Unknown | ✓ | ✓ | ✓ | Do Not Wish to Report | ✓ |
| Foreign | ✓ | International | ✓ | Nonresident Alien | Nonresident Alien |

AACP=American Association of Colleges of Pharmacy; AAMC=American Association of Medical Colleges; ADEA=American Dental Education Association; NCES=National Center for Education Statistics

status in the past 10 years, were obtained from AACP and reported in aggregate.²⁹

RESULTS

The racial/ethnic composition of faculty compared to US Census Bureau data is shown in Figures 1 and 2. According to the 2013 USCB, African Americans/Blacks comprised 13.2% of the United States population yet only 4.7% of pharmacy faculty.^{23,24} Hispanics were the largest minority group in the United States at 17.1%; however, they constitute 2.9% of pharmacy faculty. The AACP reported Native Hawaiian/Pacific Islander comprised 0.1% of all faculty in US pharmacy schools, whereas they are 0.2% of the population. American Indians/Alaska Natives accounted for 1.2% of the general US population, and 0.2% of US pharmacy school faculty in 2013 (Figure 1). Asians represented 5.3% of the population and 14.5% of faculty. In

comparison, Whites were the dominant ethnicity among pharmacy faculty, as well as in the population.

In Figure 2, representation of minority faculty by state is interpreted by the Y-axis. At 0, the number of faculty in pharmacy schools in that state mirrored precisely the number of minorities in the state population. African American/Black individuals comprised 13.2% of the US population, and in New York, Florida, and Tennessee, they represented 17.5%, 16.7%, and 17%, respectively. Despite overrepresentation in the state population, 2.6% of faculty at schools of pharmacy in New York were African American/Black. In Tennessee and Florida, African American/Black pharmacy faculty comprised 6.6% and 21.4% of all pharmacy faculty, respectively. In Texas, 12.4% of the state population was African American/Black and this proportionality was closely mirrored in the pharmacy faculty representation at 10.9%.

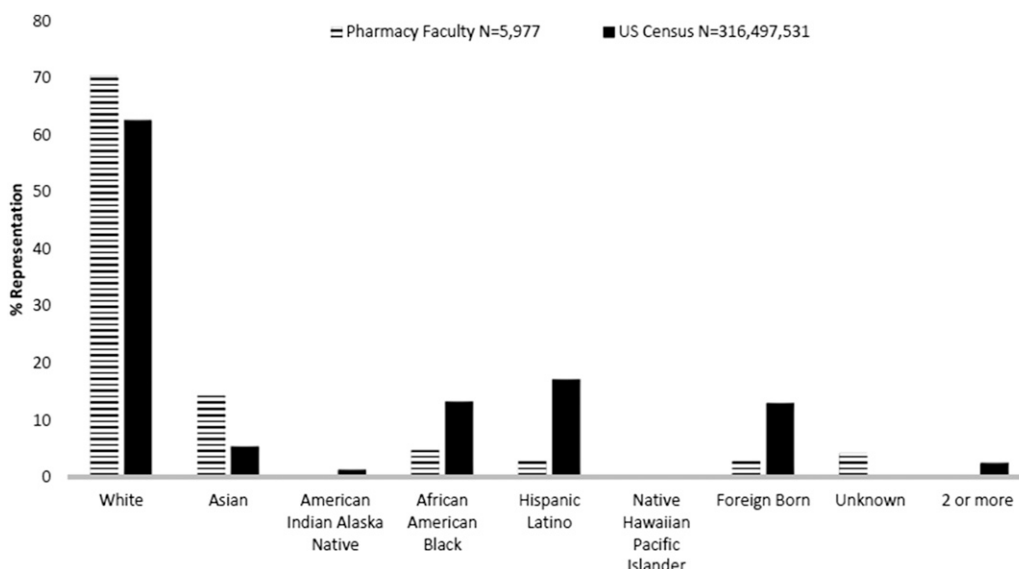


Figure 1. Racial/Ethnic Representation of Faculty in US Schools and Colleges of Pharmacy compared to the General Population.^{23,24}

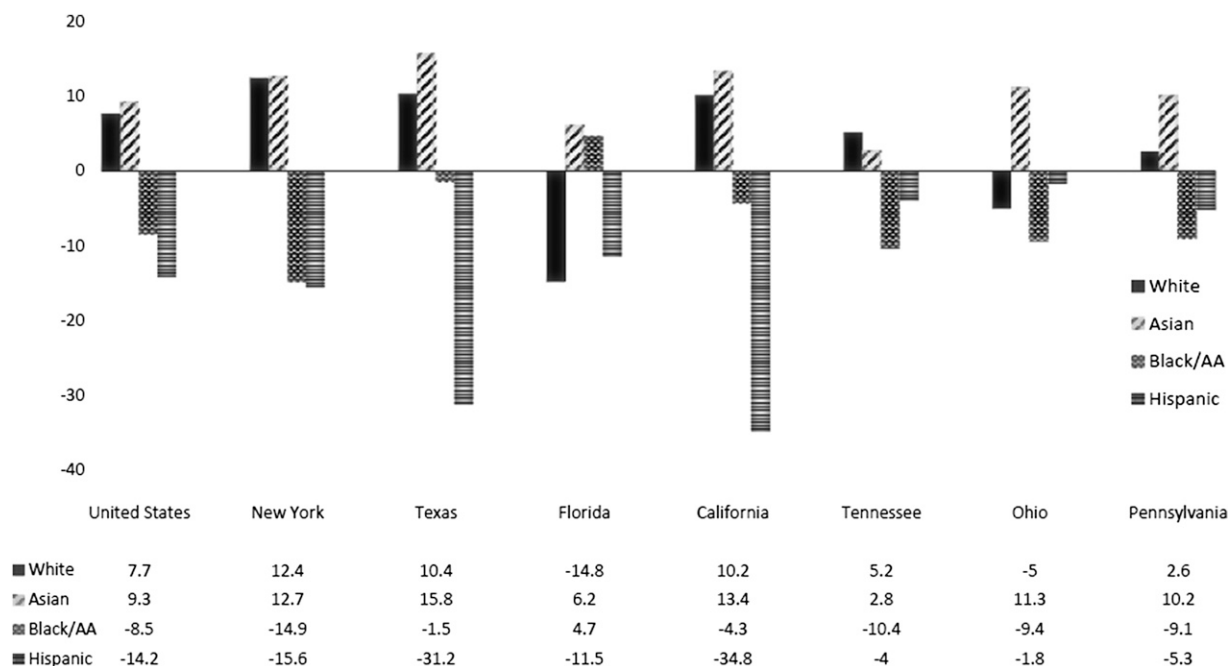


Figure 2. Ethnic/Racial Composition in Schools/Colleges of Pharmacy in States with at Least Five Schools of Pharmacy^{23,24} (Numbers represent the difference between the percentages of select populations in US states and their representation in colleges of pharmacy within the state. A negative number signifies underrepresentation, positive numbers signify overrepresentation, when compared with US Census Bureau state data).

In the entire state population, there were 18.4%, 38.4%, 23.6%, and 38.4% Hispanics in New York, Texas, Florida, and California, respectively. The availability of 1-2 times the US population of Hispanics (17.1%) living in these states would allow the representation of this minority group in faculty at schools of pharmacy to likely be at or higher than the national average. Analysis of the data indicates, however, that in none of these states did the representation of Hispanic faculty reach that of the respective state population. Florida was the closest with 12% of the faculty being Hispanic. The Asian population represented only 5.3% of the overall US population. Among pharmacy faculty, Asian representation ranged from 4.4% in Tennessee (1.6% population estimate) to 27.5% in California (14.1% population estimate), with an average of 14.6% representation across all COP. Among pharmacy faculty in the states for which data was available, Asian representation ranged from two to seven times the state representation, for example, Ohio was 1.9% Asian, but 13% of Ohio COP faculty are Asian.

The five HBCUs that reported race/ethnicity data for 2013-2014 employed 149 total pharmacy faculty, of which more than half (54.4%) were African American/Black. This is more than 11 times the lowest level of representation, which was found in all COP. In 2013-2014, AACP reported 282 African American/Black

faculty across 131 member institutions. As such, 29% of African American/Black faculty (n=81) were found at five HBCUs. The number of Asian faculty was also greater at HBCUs compared to all COP. White faculty represented one of every five faculty members.

In the past ten years, the proportion of White faculty members at recently accredited, candidate, or precandidate institutions (n=48) was 67.1%. This is slightly lower than the 70.3% reported at all AACP member institutions. The proportion of Asian faculty was also slightly lower at 13.2%. Underrepresented minorities had greater levels of representation, with more faculty identifying as African American/Black (5.6%) or Hispanic (4%) at newer institutions in 2014. One year later, with three more programs reporting, White faculty declined 3%, Asians increased 1%, while African Americans/Blacks, and Hispanics remained the same. Faculty in new schools of pharmacy (n=1,511) accounted for 25% of total faculty within the academy (n=5,977). Like HBCUs, new schools of pharmacy employed nearly 30% (n=84) of the academy's African American/Black faculty, which totaled 282. One third of Hispanic faculty were employed at new schools of pharmacy.

More than 17% of COP had a religious affiliation (n=23 of 133) (Table 2). The demographic trends of White faculty for such institutions appear to be no different from the combined demographics of all pharmacy programs. The representation of African American/Black (8.7%) was 4%

Table 2. Comparison of Diversity in Faculty in HBCUs^a, Newly Accredited Programs and Religious-affiliated Institutions vs All Colleges of Pharmacy (COP)^b

| Faculty | % | | | | | | | | |
|--------------------------------|-------------------------------|-------|----------------------------------|------------------------|--------------|-----------------|---------|-----------|-------|
| | American Indian Alaska Native | Asian | Native Hawaiian Pacific Islander | African American/Black | Foreign Born | Hispanic Latino | Unknown | 2 or More | White |
| All COP N=5,977 | 0.15 | 14.5 | 0.08 | 4.7 | 3.0 | 3.0 | 4.3 | 0.06 | 70.3 |
| HBCU COP ^c N=149 | 0.00 | 21.5 | 0.00 | 54.4 | 2.0 | 0.7 | 0.7 | 0.7 | 20.0 |
| New COP N=1,511 | 0.13 | 13.2 | 0.07 | 5.6 | 3.0 | 4.0 | 6.8 | 0.07 | 67.1 |
| Religious COP N=903 | 0.00 | 12.6 | 0.22 | 8.7 | 3.0 | 2.1 | 2.5 | 0.33 | 70.4 |

^aHistorically black colleges and universities

^bBelmont, Cedarville, D’Youville, Loma Linda, Palm Beach Atlantic, Presbyterian, Regis, and St. John Fisher are both newly accredited and religious institutions

^cIncludes Howard, Hampton, Texas Southern, Maryland-Eastern Shore and Xavier 2013-2014 data. Florida A&M did not report data to AACP in 2013-2014 or 2014-2015

more than it was across all COP. The representation levels of Hispanics (2.1%) and Asians (12.6%) were slightly less than their percentages across all COP. Faculty in pharmacy programs with a religious affiliation (n=903) accounted for 15% of all pharmacy faculty (n=5,977). Twenty-eight percent of African American/Black faculty (n=79) and 10% of Hispanic faculty (n=19) were found at a religiously affiliated pharmacy institution.

As shown in Table 3, when comparing pharmacy faculty to faculty in higher education, there were comparable percentages of White faculty and foreign-born faculty. Asian faculty representation was more than double in pharmacy than in higher education; however, URMs were not as well represented in pharmacy as in all of higher education. Pharmacy had better representation of African American/Black faculty than in medical and dentistry professional degree programs. Dentistry had the highest levels of Hispanic representation, more than twice that of pharmacy faculty and triple the amount of Hispanic faculty in medicine.

DISCUSSION

Positive learning outcomes improve for all students when there is faculty diversity at institutions.^{30,31} Diversity in health care addresses health care disparities and is on the radar of pharmacy institutions and accrediting bodies.^{2,10} In 2008, the representation of African American/Black, Hispanic, and Native American faculty in schools of pharmacy was considerably less than they were in the general population (12% vs 28%).¹⁵ Seven years later, the picture remained fairly unchanged as indicated by the AACP Institutional Database and the USCB. While acknowledgement from key

faculty associations regarding the importance of diversity exists, recruiting URMs remains a challenge.

As the number of URMs rise in the population, AACP member schools and colleges may need to employ methods to increase URM faculty representation. Underrepresentation appears to be mitigated only when there is an HBCU present in the state. In Texas, California, and Florida, representation of White faculty was less than state population percentages. In these states, the representation of Hispanics, Asians, and African Americans/Blacks in COP faculty approached state levels of representation.

Florida had the largest Hispanic faculty population, attributable perhaps to Nova Southeastern University, located in Florida, which has a satellite campus in Puerto Rico. Also, the presence of an HBCU (Florida A&M) was likely to have a significant impact on the number of URM in the faculty across the state. Florida was the only state examined that had overrepresentation of African American/Black faculty COP when compared to state census data. In Texas, the presence of Texas Southern University, an HBCU, likely contributed to near-adequate representation of African Americans/Blacks in COP faculty. Also, there were three schools of pharmacy in large metropolitan areas that were home to 75% of the Asian population living in Texas (University of North Texas in Fort Worth and University of Houston and Texas Southern, both in Houston).²³ This may explain the trends in Asian representation in Texas.

In all states studied, Asian representation in pharmacy ranged from two to eight times the state representation. For example, Ohio is home to research-intensive institutions (The Ohio State University and the University of Cincinnati) with master’s and doctor of philosophy (PhD)

Table 3. Ethnic/Racial Representation of Faculty in Pharmacy (2013-2014), Medicine (2014) and Dentistry (2013-2014) Compared to All US Higher Education Faculty (2011)

| Faculty | American | Asian | Native | African | Foreign | Hispanic | Unknown | 2 or More | White | N |
|-------------------------|----------|-------|----------|----------------|---------|----------|---------|-----------|-------|-----------|
| | Indian | | Hawaiian | | | | | | | |
| | Alaska | | Pacific | American/Black | Born | Latino | | | | |
| | Native | | Islander | | | | | | | |
| Pharmacy ²⁸ | 0.15 | 14.5 | 0.08 | 4.7 | 3.0 | 3.0 | 4.3 | 0.06 | 70.3 | 5,977 |
| Medical ²⁹ | 0.11 | 14 | 0.25 | 2.9 | – | 1.9 | 12.7 | 5.3 | 62.3 | 155 209 |
| Dental ³⁰ | 0.33 | 11.2 | 0.35 | 3.6 | 3.0 | 7.0 | 6.9 | 0.53 | 67.2 | 10 711 |
| Higher Ed ³¹ | 0.47 | 6.2 | 0.2 | 6.9 | 2.8 | 4.3 | 4.7 | 0.62 | 73.8 | 1 523 615 |

programs. Asian students represent 11% and 11.5% of all master’s and PhD students in pharmacy, potentially illuminating the upward trend in Asian representation.

Pharmacy programs located at HBCUs represent a significant source of Black or African American faculty. Until other institutions are able to increase representation of URMs, the pharmacy academy relies upon HBCUs to increase levels of diversity and promote inclusion nationally. With 29% of African American/Black faculty employed at 5 HBCUs, 201 faculty were found in the remaining 126 schools.

As the number of accredited pharmacy programs has steadily increased, access to a pharmacy degree has never been more readily available to minority students at non-HBCUs. Despite the recent proliferation of pharmacy schools, HBCU pharmacy programs have not increased in number. With the majority of minority students matriculating at these institutions for degrees in dentistry and medicine, (40% and 85%, respectively), it stands to reason that the trend exists in pharmacy as well.^{8,9} The National Study for Student Engagement indicated minority students at HBCUs reported higher levels of engagement with faculty than African American students at non-HBCUs, including opportunities to conduct research.³¹ At institutions with few minority educators, potential students may not view the institutional climate as supportive of diversity, with little opportunity for advancement into academia.^{32,33}

Newer schools of pharmacy house 25% of the total faculty population, and these schools have made some strides in representation of URM faculty. With 30% of total African American/Black faculty (n=84) and 34% Hispanic faculty members (n=60), these schools greatly contribute to the overall numbers of diversity in the academy. When compared to all URM faculty in COP, it is evident that newer programs have made incremental gains. With such growth, one might speculate that even more opportunities exist for minority faculty to gain representation in pharmacy academia, especially with changing demographic trends in the United States.

When compared to all COP, schools with religious affiliations have also made great strides in URM representation.

These institutions have nearly doubled the numbers of African American/Black faculty (8.7% compared to 4.7%). Surprisingly, 23 of these institutions employ 28% (n=79) of all African American/Black pharmacy faculty. For Christian schools, members of any race may be excluded from obtaining a faculty position if they don’t practice Christianity. For example, Asians that practice Buddhism or Hinduism may be excluded from faculty searches for new positions at institutions with internal policies requiring employees to practice a certain religion. This may partially explain why the percentage of Asian faculty in religious institutions was 2% lower than in all COP.

Pharmacy is not unique in its underrepresentation of minority faculty. Medicine and dentistry also report low levels of African Americans/Blacks and Hispanics, with Whites and Asians being adequately represented.^{25,26} However, medical and dental schools have created initiatives at the institutional and association level to address these concerns, while pharmacy has not. Initiatives such as Diversity 3.0 implemented by AAMC offers resources to individual faculty members regarding professional development and an emphasis on encouraging medical students to seek academic medicine positions after graduation.³⁴ Another objective of the initiative is to assist schools in achieving diversity and inclusion. The ADEA has the Minority Foundation Dental Faculty Development Program, with 13 dental programs participating.³⁵ This program provides a framework for diversity programming, mentoring, and partnership with the community, particularly underserved populations.

Defining the “true” pipeline of pharmacy faculty is puzzling. The entire US population of the URM demographic is at the beginning of pipeline; however, the pipeline narrows considerably beginning with student enrollment data, PharmD degrees conferred, residency training, and PhD degrees conferred. White students make up little more than half of enrollments and degrees conferred in PharmD programs (52% and 55%, respectively). The next largest demographic is Asian, with nearly a quarter of all PharmD enrollments and degrees conferred.³⁶ Underrepresented minorities account for 11% of PharmD degrees conferred in 2014 and nearly

12% of total PharmD student enrollments in fall 2014.³⁶ The attrition rate for minority students in PharmD professional programs should be examined to determine what happens between matriculation and graduation.

It is also unclear how many of the postgraduate year 1 or 2 residency (PGY1, PGY2) positions (1145 and 3086, respectively) are held by URMs.³⁷ These numbers better represent the pool from which certain types of faculty (pharmacy practice) are recruited. The AACP collects data on PhD degrees conferred from US schools of pharmacy, and as of 2013, half of all degrees were awarded to international or foreign recipients.³⁶ These individuals are also part of the pipeline; however, the implications that training these students have on the URM pipeline is currently unknown.

The effect of geographical distribution of minority faculty on the practice of pharmacy is another consideration. In medicine, data suggest that minority physicians disproportionately serve minority and underserved communities.³⁸ This research also suggests that there are geographical patterns of minorities practicing in areas that are considered “health deserts.”³⁸ Does having minority faculty representation influence these trends? Underrepresented minority medical faculty teach students to care for underserved and minority patients by caring for these patients themselves; thus, their relative absence among faculty has a negative effect on patient care.³⁹

In 2011, the projected growth in pharmacy education was examined, addressing the potential need for faculty from 2010-2015.⁴⁰ Knapp and colleagues anticipated that the number of faculty full-time equivalents (FTEs) in the academy would increase to 5719 in 2015.⁴⁰ The 2014-2015 Profile of Pharmacy Faculty reported there were 6053 faculty (not including lecturers, librarians, or instructors).⁴¹ It is unclear if the downward trend in faculty vacancies will continue, or if, as the number of precandidate and candidate programs increase, there will be faculty shortages nationwide. Faculty shortages may impede efforts to increase minority representation as programs compete for qualified candidates, regardless of diversity initiatives in recruitment.

To address the lack of diversity in pharmacy academia, we propose the following recommendations to be evaluated and adopted. First, AACP should provide additional guidance on how diversity could be defined for individual pharmacy programs within the context of the Argus Commissions Report. Second, definitions of diversity have evolved over time to include life and professional experiences, eschewing categorization by race or ethnicity alone. Experiential diversity, an artifact of multifarious work experience, is another consideration.²¹ One might argue that society uses these other definitions as a result of institutional failure to achieve traditional representation of diversity. Institutional responses to these definitions may influence patient care and

mentorship seeking behaviors. Students and patients may still seek faculty members and providers who share their demographic profile, which may not be in alignment with these responses. Having White faculty who are experientially diverse is not a substitute for the experiences of racially diverse URM faculty. In the face of small gains in racial and ethnic diversity at our institutions, understanding how such evolved definitions adversely contribute to institutional success is needed.

Individual institutions need to create strategic plans that address the lack of representation of underrepresented minority groups in their faculty and student body, focusing on recruitment and retention. This can be accomplished by creating a diversity taskforce to collect data and evaluate local practices. Search committee guidelines are helpful in successfully recruiting and retaining minority faculty. Additionally, developing school-specific strategies that support retention of URM faculty, including resources for professional development opportunities, allow URM faculty the opportunity to attend national meetings and interact and collaborate with one another. These opportunities are especially important for programs that employ few URM faculty. The presence of dedicated personnel, such as diversity officers, to help foster an institutional climate that respects and values diversity and inclusion, might also increase URM faculty retention rates. Having progressive leaders who value inclusion, with proper mentoring for promotion and tenure processes, helps ameliorate the effects of any discrimination.⁴²

Furthermore, schools of pharmacy should consider conducting “cultural” assessments of their faculty, staff, and students to determine individuals’ attitudes towards other groups. Lack of awareness, particularly of negative or neutral attitudes in classroom or patient care settings, can lead to misunderstandings, disrespect, and feelings of being undervalued and unappreciated. The Higher Education Research Institute (HERI) at the University of California, Los Angeles uses a validated module that assesses faculty perception of the campus environment, as well as the practices and policies specific to diversity and inclusion at their institution.⁴³ To gauge student perspectives of diversity on campus, the Cooperative Institutional Research Program validated the Diverse Learning Environments Survey, a web-based survey that assesses experiences with discrimination, cross-racial interactions, and students’ sense of belonging at an institution. The HERI published results from the use of this instrument in African American/Black and Hispanic students across 26 universities.^{44,45}

Individual institutions can sponsor organizations that support the efforts of minority faculty. The AACP Minority Faculty SIG can be a resource for individuals seeking mentorship. At the institutional level, administration can assist in the process of junior faculty seeking mentors both within departments and colleges, and across disciplines at the

university. The Student National Pharmaceutical Association, whose mission statement addresses the underrepresentation of minorities in pharmacy, should create initiatives to mentor minority students to consider academic pharmacy careers. Hosting a minority summer camp for high school students was a successful way of increasing awareness of pharmacy as a profession.⁴⁶

Some of the limitations associated with this investigation include errors in collecting, reporting, or inputting of data from any one of the aggregate data sources and may impact the accuracy of the report. For example, the difference in the reporting of ethnicity and race between AACP and the US census may limit comparison. Additionally, the AACP Profile of Faculty contains a category labeled International or Foreign, and unknown, both of which are not a part of the US census report. The category, Two or More Races, is subjective and may be reported by individuals differently. A citizen of Puerto Rico may see himself or herself as Hispanic/Latino and White or Hispanic/Latino and African American/Black or simply Hispanic/Latino. The AACP Faculty Roster and Salary Survey is sent directly to schools to complete. Schools indicate the race/ethnicity of each faculty member at their schools from the available list of options. It is unclear why a school would select race/ethnicity unknown: whether the faculty member has chosen not to report his/her race to the school or whether the school is simply choosing not to share it with AACP. However, AACP does not assign a race/ethnicity to a faculty member if a school has not reported one, and these faculty do not populate within a race/ethnicity table. The rationale for such choices and the impact on the data reported is unknown. It is possible that these individuals might represent minority faculty, and this information is not being captured and reported. There were also limitations with respect to how data were reported in a given year. If one school chose not to report data for a given year, older data was used and this may not accurately reflect the current situation at that particular institution or in that state. While a trend analysis was not conducted, in previously reported analyses, the trend for URM faculty over a 10-year period was relatively flat.²² Improved granularity of AACP data would be useful in targeting interventions.

CONCLUSION

Diversity in pharmacy academia can be reflective of location within a state that has increased representation of URMs or the presence of an HBCU. There is an overrepresentation of Asian faculty in pharmacy academia, while other minorities lag behind. Decades of examination and conversation about the issue have done little to reverse this trend. New strategic thinking around this issue needs to

occur. The HBCUs, new schools, and religious-affiliated institutions have had some minor success in representation of African American/Black faculty and new schools have more representation of Hispanic faculty. Pharmacy has been more successful than medicine and dentistry at recruiting African American/Black faculty, but still lag behind dental schools in their representation of Hispanic faculty. Across professional programs in medicine, dentistry, and pharmacy, Asians are increasing in number, second only to White faculty. As there is adequate representation of Asians in pharmacy academia, pharmacy needs to focus on initiatives that increase the representation of African American/Black, Hispanic, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander populations.

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