

Race and diversity in U.S. Biological Anthropology: A decade of AAPA initiatives

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Funding information

AAPA and NSF BCS-1516939.

Abstract

Biological Anthropology studies the variation and evolution of living humans, non-human primates, and extinct ancestors and for this reason the field should be in an ideal position to attract scientists from a variety of backgrounds who have different views and experiences. However, the origin and history of the discipline, anecdotal observations, self-reports, and recent surveys suggest the field has significant barriers to attracting scholars of color. For a variety of reasons, including quantitative research that demonstrates that diverse groups do better science, the discipline should strive to achieve a more diverse composition. Here we discuss the background and underpinnings of the current and historical dearth of diversity in Biological Anthropology in the U.S. specifically as it relates to representation of minority and underrepresented minority (URM) (or racialized minority) scholars. We trace this lack of diversity to underlying issues of recruitment and retention in the STEM sciences generally, to the history of Anthropology particularly around questions of race-science, and to the absence of Anthropology at many minority-serving institutions, especially HBCUs, a situation that forestalls pathways to the discipline for many minority students. The AAPA Committee on Diversity (COD) was conceived as a means of assessing and improving diversity within the discipline, and we detail the history of the COD since its inception in 2006. Prior to the COD there were no systematic AAPA efforts to consider ethnoracial diversity in our ranks and no programming around questions of diversity and inclusion. Departmental survey data collected by the COD indicate that undergraduate majors in Biological Anthropology are remarkably diverse, but that the discipline loses these scholars between undergraduate and graduate school and systematically up rank. Our analysis of recent membership demographic survey data (2014 and 2017) shows Biological Anthropology to have less ethnoracial diversity than even the affiliated STEM disciplines of Biology and Anatomy; nearly 87% of AAPA members in the United States identify as white and just 7% as URM scholars. These data also suggest that the intersection of race and gender significantly influence scholarly representation. In response to these data, we describe a substantial body of programs that have been developed by the COD to improve diversity in our ranks. Through these programs we identify principal concerns that contribute to the loss of scholars of color from the discipline at different stages in their careers, propose other directions that programming for recruitment should take, and discuss the beginnings of how to develop a more inclusive discipline at all career stages.

KEYWORDS

Ancestry, Diversity Initiatives, Inclusion, Racialized Minority, Underrepresented Minority

1 | INTRODUCTION

Diversity is not simply about social justice and equal opportunity—although it serves these ends—but about building the best possible

programs, doing the best possible research, and training the best students. Inclusivity matters. Primary research shows that diverse teams do better science (Apfelbaum, Phillips, & Richeson, 2014; Freeman & Huang, 2014; Hong & Page 2004) precisely because these teams bring

together multiple perspectives and as a result have lower levels of confirmation bias (Paige, 2008). Increasing the diversity of investigators brings unique perspectives and experiences together augmenting a team's ability to solve problems and promote creativity in basic and applied science. In addition, fields with ethnically diverse researchers are more likely to have individuals who can successfully anticipate, recognize, and navigate a broader range of social and political issues. No matter how well-intended the practitioners, social and political ignorance can lead to "cultural harm" in scientific research, resulting in mistrust, stigmatization, or weakened political authority for communities whose members participate in these studies (McInnes, 2011). This seems especially relevant to Biological Anthropology whose practitioners work globally in a variety of cultural contexts. However, the origin and history of the discipline, anecdotal observations, self-reports, and recent surveys suggest the field has significant barriers to attracting scholars of color.

We recognize the many, often intersecting, axes of diversity, but here we focus largely on the current state of diversity in Biological Anthropology in the United States as it relates to representation of minority and underrepresented minority (URM)¹ or racialized minority scholars. The consideration of other groups, including women, LGBTQ scholars, scholars with disabilities, and international indigenous scholars, is beyond the scope of this work; however, we touch on the status of these groups at points of particular intersection with racialized minority scholars and where COD has done work. There is notable interaction of race and gender, particularly in the STEM sciences (e.g., Malon & Barabino, 2009; Settles, Cortina, & Stewart, 2006), and we touch briefly on the intersection of these identity groups here. A more substantial consideration of gender equity and inclusion in Biological Anthropology is provided in Turner et al. (2018). Given the international location of field sites, the role of international scientists, especially those from indigenous groups, is often critical to the production of Biological Anthropological knowledge; and particularly in developing nations the representation, training, inclusion, and equity of local, and indigenous, scholars is a key axis of diversity to consider. Although we focus largely on issues specific to U.S. minorities here, we touch on the programs and issues for international scholars from developing countries where the data allow, programs overlap, and issues intersect. We highlight the need to assess and address the representation and inclusion of international indigenous scholars in future work.

In this article, we discuss the background and underpinnings of the current and historical dearth of ethnoracial diversity in Biological Anthropology in the United States. We describe the history of the AAPA Committee on Diversity (COD) since its inception in 2006 and its efforts to assess and increase ethnic/racial diversity in our ranks. We present programmatic and member demographic data collected by the COD and the AAPA and provide comparisons with related STEM sciences, Anthropology, and the U.S. population. We describe a

substantial body of programs that have been developed by the COD to improve diversity in our ranks in response to these data. Through these programs we identify principal concerns that contribute to the loss of scholars of color from the discipline at different stages in their careers, propose other directions that programming for recruitment should take, and discuss the beginnings of how to develop a more inclusive discipline at all career stages.

2 | IMPEDIMENTS TO RECRUITMENT AND RETENTION IN STEM AND BIOLOGICAL ANTHROPOLOGY

The disparity in representation of minority scholars across higher education in the United States reflects structural inequalities embedded in U.S. history and policy. These disparities are magnified throughout the STEM sciences (Science, Technology, Engineering, and Math) with relatively few URM scholars entering STEM fields overall (Chen & Thomas, 2009). The pathway and pipeline issues into STEM fields are identified as originating from the combination of inadequate primary and secondary school preparation/access to strong science and math programs coupled with a lack of role models/modeling for science careers, and a tight bottle-neck from postdoctoral to faculty positions (e.g., Gershenson, Holt, & Papageorge., 2016; Gibbs, Basson, Xierali, & Broniatowski, 2016; Malcom-Piqueux & Malcom, 2013;). Programs for underrepresented and first generation college students, such as the McNair and MARC programs² for undergraduates, aim to build mentoring relationships and research skills to offset some of these obstacles. Nonetheless, the lower expectations of certain students, particularly URMs (Tenenbaum & Ruck, 2007), lack of encouragement to enter STEM/science-related fields, and inadequate primary and secondary preparation (especially in Math) are embedded in disparities of the U.S. educational system across neighborhoods and have substantial negative consequences on the pipeline to STEM for populations of color, low SES students, and women (see Oakes, 1990 for an extensive study of the multiplier effect across sex, age, and race). As one example, GRE tests show a bias that results in substantially lower scores for URM, women, and low income test-takers; the combination of these attributes are additive resulting in systematically lower scores for low-SES women of color, for example. The highest predictors of GRE scores are race, sex, and class—not the ability to successfully complete a PhD (Miller & Stasun, 2014). Yet most higher education institutions and STEM departments in particular have a minimum cutoff for GRE scores and even in those that do not reviewers are unavoidably influenced by test scores.

A critical compounding issue exists for Biological Anthropology which is particularly poorly represented within colleges and universities that serve large "minority" populations. Because Biological Anthropologists

¹We follow the U.S. government definition of Underrepresented Minority and Minority. URM are individuals with ancestry of African-American/Black, Hispanic, Native Alaskan, Native American, Native Hawaiian, and Other Pacific Islands. Minority are URM and individuals of Asian ancestry

²McNair Scholars is a U.S. Department of Education program for exceptional URM and financially needy first generation college students that aims to prepare these students for doctoral programs <https://mcnairscholars.com/>; Maximizing Access to Research Careers (MARC) are NIH NIGMS institutional programs for supporting outstanding juniors and seniors traditionally underrepresented in biomedical research <https://www.nigms.nih.gov/training/MARC/pages/FAQs.aspx>

are a small percentage of Anthropology departmental faculty, when departments are small or combined with other disciplines Biological Anthropology faculty (and courses) are often entirely absent. Particularly at risk are programs at community colleges, historically black colleges and universities (HBCUs), Tribal Colleges and Universities (TCUs) and Hispanic-serving institutions. That is, Biological Anthropology is overwhelmingly represented at historically white colleges and universities (HWCUs). Students without access to a discipline are unlikely to recognize it as a career possibility, and even if they do they are unlikely to be competitively prepared for graduate admission. As one example, the highly successful Fisk-Vanderbilt Bridge to the PhD program in Astrophysics targets institutions that produce high-quality MA and undergraduate black Physics majors—students who come overwhelmingly from the HBCUs (Stassun et al., 2011). Indeed, a full third of all bachelor degrees awarded to African-American undergraduates are awarded by HBCUs. In contrast, most HBCUs lack stand-alone Anthropology departments and Biological Anthropology faculty. And most Biology programs at HBCUs are oriented toward biomedicine rather than ecology and evolution. A review of the top 21 HBCUs (as ranked by the 2017 U.S. News and World Report) finds not a single stand-alone Anthropology department, just three institutions with combined Sociology and Anthropology departments, none of which require a Biological Anthropology course for the major, and only one (Spelman) that offers a major with Anthropology in the name (see Appendix A). Three others offer minors or tracks either within their dually-named departments, or in one instance within the Sociology Department. It goes without saying that not a single graduate program in Anthropology exists at these HBCUs. Geosciences offer a similar paucity of access, with only one geoscience major, one major in a subset of the discipline (Geomatics), and two minors (in Planetary Sciences and Earth and Atmospheric Sciences, respectively) across the top 21 HBCUs. In contrast, all of the top 21 HBCUs have Biology (or more rarely combined Biology + other natural science) departments and majors. But only 6 of 21 mention evolution on the department landing page and only nine require a core course in evolutionary biology for the major. Most offer concentrations in biomedicine and biotechnology in addition to other areas. As a result we miss an important talent pool.

Howard University is an interesting case study of the long lasting influence a single individual can have on programmatic and professional development. Although Howard also now lacks an independent Anthropology Department³, the Sociology and Criminology Department has a strong contingent of Archeologists and its Medical School, Biology and Anatomy programs have historically employed biological anthropologists, paleoanthropologists, and evolutionary morphologists. The Cobb Research Laboratory, formerly the Laboratory of Anatomy and Physical Anthropology that was once housed in various of these programs, is now an independent research institute at Howard. As it has been historically, the lab is directed by a Biological Anthropologist, Dr. Fatimah Jackson (PhD Cornell) who also teaches a course on Biological Anthropology and Human Evolution. The

³Howard recently closed its Anthropology Department and created a Sociology and Anthropology Department. Even more recently the department has been renamed Sociology and Criminology and lacks an Anthropology major.

Cobb Lab is an important influence on Howard undergraduates and it can be argued that this legacy, especially in Anatomy, owes much to the influence of a single individual, W. Montague Cobb, the first African-American to earn a PhD in physical anthropology (Rankin-Hill & Blakey, 1994).

Cobb can rightly be considered *the* early African-American pioneer in Biological Anthropology⁴. He earned an M.D. from Howard in 1929 and a PhD in 1932 from Case Western Reserve under T. Wingate Todd. No other African American would earn a Biological Anthropology PhD until after the Korean War. Like his mentor, Cobb saw the value of systematic skeletal collections for disassembling the “race” work of the time (e.g., Cobb, 1933, 1936, 1940, 1942, 1943). Cobb amassed a donated human skeletal collection from the local D.C. area that paid careful attention to social aspects of its individuals, including socio-economic class, occupation etc. In this way the influence of environment on the skeleton (rather than race) could be interrogated. From this foundation the Cobb Research Laboratory was born and Howard University has been an important training ground for scholars in various subfields of Biological Anthropology even though Cobb did not train Anthropology graduate students himself. He and the structures he emplaced nonetheless directly influenced anatomists and medical doctors who would go on to influence the practice of Biological Anthropology both nationally and internationally. For example, the late Teuku Jacob one of the first two independent indigenous paleoanthropologists (the other being Sartono) in Indonesia earned his PhD with GHR (Ralph) von Koenigswald and studied at Howard in the late 1950s. At Gadjah Mada University in Yogyakarta Indonesia, Jacob controlled the largest of the fossil hominin collections of Indonesia and was a collaborator on projects that changed our fundamental understanding of human evolution there, including the work that established the arrival of hominins in Indonesia by at least 1.6 million years ago rather than less than a million years ago (Larick et al., 2001; Swisher et al., 1994). The Cobb Skeletal collection continues to inspire Howard undergraduates to careers in Biological Anthropology including, for example, Michael Blakey who served previously as lab director and led the New York African Burial ground project (Blakey & Rankin-Hill, 2004), Teresa Leslie in Biomedical Anthropology (e.g., Leslie et al., 2014), and Rachel Watkins and Joseph Jones who like Cobb use the skeleton to interrogate the influence of social inequality on human health (Jones, 2015; Watkins, 2007, 2010, 2012). We are aware of many other PhDs recently inspired by Cobb or the Cobb collection, remarkable for a university without an extant Anthropology program.

In addition to his research, Cobb served as the first and only African American president of the AAPA in 1958 and 1959 (Cobb was also twice Vice President of AAPA in 1948–1950 and 1954–1956; along with tremendous other service including President of the NAACP and National Medical Association and Vice President of Section H of AAAS; [AAPA, 2017; Alfonso & Little, 2005; Rankin-Hill & Blakey, 1994]).

⁴Ross et al. (1999) present the work of Caroline Bond Day who earned her MA in 1932 with Earnest Hooton. Although she continued to do extensive independent research, she never earned a PhD or substantial standing in the field. As Ross et al. argue, Bond Day’s situation in part reflects the type of research she was doing (which like Hooton’s fell out of the common lexicon), but also reflects the intersectionality and additive effect of gender and race on career outcomes for women of color.

There would not be another African American president of any U.S. national anthropological organization until 1995, when Yolanda Moses was elected president of AAA (Rankin-Hill & Blakey, 1994). Clearly, Anthropology writ large, not just Biological Anthropology, has a long way to go in regards to representation in governance and leadership. Both AAPA Presidents Cobb and Phil Walker had some Native American ancestry (Rankin-Hill & Blakey, 1994; Lambert, 2009), although this ancestry did not constitute their primary identity. The AAPA has more recently had two Latina presidents (Antón and Madrigal) and to our knowledge no president of Asian descent. Although this track record among 45 presidents in some instances over-represents the diversity of our current membership (see below) it also makes clear why many students of color report a lack of identification with the discipline.

The overwhelming presence of Biological Anthropology at HWCUs and its general absence at HBCU's and other minority-serving institutions remains a severe impediment to diversifying the discipline, but one that we believe, based on Cobb's example, could be influenced by just a few practitioners and programs. The current paucity of departments and practitioners continues to thwart this work, however, and may in part be a product of the early history of our field.

2.1 | The history of the field as a contributing factor to lack of diversity in Biological Anthropology today

American Anthropology developed around a four-field perspective essentially as a means of study of native North American populations (Boas, 1904). A (sometimes) unintended consequence was that this perspective provided scientific cover for marginalizing and categorizing indigenous peoples in the Americas. In American Physical Anthropology much early research focused on and supported the notion of the biological basis of race (e.g., Morton, 1839) and with it the inferiority of certain "races". Often this race work was used to reinforce the racist "social" understanding of the mental inferiority of blacks (and women) as an after-the-fact justification for slavery and for the continuing differences in opportunity and income between white and black (and other brown) Americans (Rankin-Hill & Blakey, 1994; Marks, 2017). Other fields and Title IX have shown that programs targeted at changing the culture of a field can influence student choice of discipline and eventually the make-up of the professoriate (e.g., Howard et al., 1986). However, within Biological Anthropology, the downstream effects of our history have made these moves difficult for at least two reasons. Not only might students chose not to engage in Biological Anthropology because of its racist history, but this history also underpins reluctance on the part of the profession to undertake the necessary demographic work to ascertain whether scholars traditionally underrepresented in academia are, in fact, underrepresented in the discipline. We note a similar reluctance on the part of the four-field American Anthropological Association (AAA) whose most recent *ad hoc* consideration of the subject (the *Committee on Race and Racism in Anthropology*) concluded that the AAA did not collect ethnoracial data from its members that was suitable for assessment purposes (Hutchinson & Patterson, 2010). The AAA has since begun annual anonymized surveys of membership.

The AAPA has strongly and rightly promoted the scientific evidence showing there to be no basis to biological race (see AAPA, 1996; Edgar & Hunley, 2009 and papers therein); however, there is no question that social constructs of race and "racial experience" influence real outcomes for individuals (e.g., Benn Torres and Torres Colon, 2015; Gravlee, Non, & Mulligan, 2009; Solórzano & Ornelas, 2002). Given real concerns that the use of these socially constructed categories by Biological Anthropologists may inadvertently suggest our support for the reality of "biological race" there has, until recently, been no move to survey the discipline. Unfortunately, this has left us with the inability to quantify representation in our discipline relative to other sciences, the academy, or the U.S. population and hindered our ability to make an effective case for intervention or to engage visibly in efforts to promote ethnic diversity.

In contrast, this has not been the case for gender equity, which the AAPA has embraced and promoted effectively; although major issues related to inclusion remain (see Turner et al., 2018). In the late 1990s under the direction of Executive Committee member and Membership Chair Trudy Turner, the AAPA began important demographic surveys focused on gender equity (Turner, 1997, 2002). The surveys were conducted during membership renewal, with a subset of participants engaging in an in-depth questionnaire. The *AAPA Taskforce on Membership Composition/Gender Equity* effectively showed that in Biological Anthropology, as in other STEM disciplines, a clear and significant career bottleneck existed for women (Turner, 1997, 2002). According to data collected in the 1998 survey (Turner, 2002), women were well represented in our graduate programs (65% female), yet held just 36% of faculty positions; ethnicity data were not collected. As of 2014, while numbers of female full professors remain low (about 38%), in tenured positions overall gender equity has improved and our current leadership within the AAPA is predominantly female (including the four most recent presidents and 60% of the current executive board; although only 20% of president's historically and 36% of presidents since 1970 have been women). It is important to note that advances made and the impetus behind the initial surveys came from grassroots efforts of members of the AAPA, especially Trudy Turner. Despite the large numbers of women entering Biological Anthropology, however, the pipeline remains remarkably leaky and important and longstanding disparities remain in meeting representation, panel construction, and other areas. Retention of women in the field remains an issue as well (see Turner et al., 2018).

2.2 | History and scope of the AAPA COD

Similar grassroots efforts around questions of racialized minorities in Biological Anthropology began in the early 2000s. Recognizing the lost opportunities, members of the AAPA committed to increasing the diversity of our ranks and the benefits it derives for the scientific community. In 2006, two of us (Antón and Fuentes) with the enthusiastic support of Presidents John Relethford and Fred Smith started an AAPA *Ad Hoc* Committee on the Status of Underrepresented Groups in Physical Anthropology. After proving itself to be a stable and productive enterprise, the committee was renamed the COD and incorporated

into AAPA bylaws as a standing committee in 2011 (Konigsberg, 2012). The COD thus joined other named, permanent committees that must meet including the Executive Committee, Student Programs, Career Development, History and Honors, and Nominations⁵. The mission of the COD is to: 1) assess student and faculty diversity in the AAPA and U.S. programs of Physical Anthropology; 2) develop programs that increase the recruitment, participation and retention of diverse scholars within the field of Physical Anthropology; and 3) advocate for diversity within the membership and leadership of the AAPA (physanth.org/about/committees/diversity/).

The original mission was centered on diversity as related to racialized minorities in the United States, but by design the standing committee serves as the umbrella organization for all diversity initiatives within the AAPA. The current subcommittees include the COD Women's Initiative⁶, the COD LGBTQQIAA group, the COD group for Anthropologists outside of Anthropology, Contingent and Teaching focused faculty (AACT), COD International scholars, as well as the original hub group, now known as IDEAS (Increasing Diversity in Evolutionary Anthropological Sciences). Each of the subgroups has developed organically as interested members have recognized a need and volunteered to organize a subcommittee. The most glaring absence at present is the lack of a subgroup addressing issues for disabled scholars. The leadership and organization of each subcommittee is determined by subgroup culture. However, as a standing committee, the chair of the entire COD is appointed by the AAPA President. Approximately 250 people are active members of at least one subcommittee. Many are members of multiple COD subcommittees, highlighting the intersectionality of questions related to diversity and identity.

The first efforts of the *Ad Hoc* committee were aimed at assessment of the current state of diversity in the discipline. These entailed initially a survey of programs in Biological Anthropology in the United States, followed by development of a demographic questionnaire for members. The results are discussed in more detail below where they are compared with other STEM sciences. These surveys along with discussion among COD members led to the development of a number of initiatives and programs at the annual AAPA meetings, as well as external grants to support committee goals as discussed below.

In support of the second and third goals of the mission statement, the COD has used a model based on the Ford Diversity Fellows annual meetings to improve inclusivity, expand research networks, and improve professional development. The COD has held annual committee meetings since its inception in 2006 and began sponsoring additional programming including academic sessions, professional development workshops, and discussion panels at the annual AAPA meeting in 2008. And the COD writ large and IDEAS in particular has garnered external funding to provide more resource intensive programs. COD programs specifically geared toward racialized minorities are discussed in detail below.

The influence of the COD on changing climate within the discipline is reflected in a number of outcomes. Among these are satellite

workshops and diversity committees at other institutions that pattern themselves on parts of the AAPA COD model as well as the heightened visibility of discussions around diversity and inclusion at the annual meetings (and elsewhere). We discuss these influences in greater detail below. The goal of the COD is to insert the dialog on the experiences, contributions, and challenges faced by minority scholars (writ large) into the mainstream discourse in order to broaden our range, inclusivity, and equity. To do this, we must also be able to assess where initiatives are most needed and whether our initiatives are effective - that is, we need to be able to assess progress.

3 | BASELINE SURVEYS OF BIOLOGICAL ANTHROPOLOGY

Through demographic surveys of our membership and U.S. Biological Anthropology programs the COD provides a baseline from which to assess change. These surveys identify vertical segregation across academic ranks including a particularly significant "bottleneck" in the transition of minority scholars from undergraduate majors to graduate Biological Anthropology programs and a leaky pipeline across professional ranks.

3.1 | 2007–2008 Program surveys

In 2007 and 2008, the AAPA *Ad Hoc* Committee on the Status of Underrepresented Groups in Physical Anthropology conducted a baseline assessment survey of ethnic diversity in U.S. Biological Anthropology programs. Via a letter from the COD co-chairs (SA and AF) and then President Fred Smith, a short survey was electronically delivered to senior Biological Anthropologists at U.S. programs of Anthropology. These senior members were asked to provide data on their faculty, graduates, and undergraduates (letter and survey questions in Appendix B). In early 2008, 175 surveys were delivered. Following extensive re-contacting of original survey recipients, a total of 30 programs replied. The representativeness of this sample of 30 institutions is unknown. However, we note that the answers came from a range of institution type (24 public and 6 private) and locales (the West, Midwest and South were better represented than East Coast, but all are represented). Additionally, the proportions for graduate and faculty representation are similar to our 2014 member survey (see below) suggesting a consistent theme. The sample includes a total of 385 undergraduates, 217 graduate students, and 98 regular faculty in Biological Anthropology.

We had hypothesized that Biological Anthropology programs would be less diverse than Anthropology generally and that neither would be particularly diverse. In contrast, the program survey suggested that undergraduate Biological Anthropology majors were surprisingly diverse at 25% of students in Biological Anthropology tracks; this is especially remarkable given the composition of most colleges and universities (Table 1). Nearly 10% of undergraduate majors with a focus in Biological Anthropology were identified as African-American, 10.4% as Asian-American, and 4.9% as Hispanic. Additionally, within Biological Anthropology, African-American and Asian-American

⁵Ethics became a standing committee by final vote in June 2017.

⁶A group whose formation was recommended in 1997 (Turner, 1997)

TABLE 1 2007–2008 AAPA survey of Biological Anthropology programs^a

Ethnicity/ancestry/"race" of scholars in Biological Anthropology programs	Undergraduates	MA's	PhDs	Faculty
White (European-American)	75.3%	92.2%	88.9%	89.1%
Asian-American	10.4%	2.6%	3.7%	3.2%
Black (African-American)	9.4%	1.3%	3.7%	2.2%
Latina/o American (Hispanic)	4.9%	2.6%	2.8%	5.4%
Native American/Alaskan/Hawaiian	0	1.3%	0	0

^aSee text and Appdenix B for survey details.

undergraduates are nearly twice as frequent as they were in the entire Anthropology undergraduate population from all four fields of these same programs. Women were 73% of the undergraduate majors.

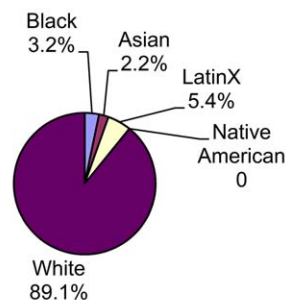
However, ethnic diversity decreased at subsequent levels (i.e., from undergraduate to graduate to faculty and up rank; Table 1). In particular, graduate student populations are significantly less diverse. At both the MA and PhD levels, women continue to represent the greatest percentage of students in Biological Anthropology (71 and 77% in MA and PhD programs, respectively). However, U.S. students from underrepresented groups make up only 8 and 11%, respectively, of MA and PhD graduate student pools. Differences between undergraduate and graduate student diversity are statistically significant.

The program survey data also suggest a bottleneck at the faculty level for both women and most racialized minorities, but one that is slightly less strong than from undergraduate to graduate school. Regular

faculty in these Biological Anthropology programs are 44% female and 10% are URM (Table 1). Adjunct faculty include somewhat more women (54%) and fewer URM scholars (7%; Figure 1). Differences in sex ratios between faculty and graduate groups are statistically significant.

Based on these data, increasing diversity in Biological Anthropology would appear to depend on increasing the number of underrepresented students in graduate programs; that is, encouraging promising undergraduates to pursue graduate school and facilitate opportunities for them to do so. Because of this vertical bottleneck, the *COD Undergraduate Research Symposium*, now in its eighth year, was started to model Biological Anthropology as a career option, incentivize undergraduate mentoring, and highlight undergraduate work (<http://physanth.org/about/committees/diversity/cod-undergraduate-research-symposium/>). We discuss this program and its outcomes in greater detail in Section 4.2.

Composition of Reported Biological Anthropology Tenure-Line Faculty Members



Composition of Reported Biological Anthropology Adjunct Faculty Members

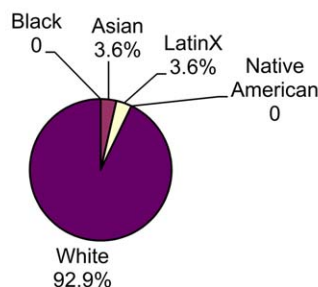


FIGURE 1 Tenure line and adjunct faculty compositions from 2007/2008 AAPA Program Survey

3.2 | Membership demographics

Following several years of development and discussion, in 2014 the AAPA COD in conjunction with the AAPA Executive Committee re-issued the member demographic survey. The survey built on previous surveys written by Trudy Turner for gender-equity and added questions on ethnicity, family college experience, job security and contingency, and disability among others (see Appendix C). The first of these surveys was administered by the AAPA management company, Allen Press, in early 2014. The survey was sent as an email blast to members with a unique link to a SurveyMonkey survey. Anonymized results were provided to then AAPA Vice President Antón. The survey yielded a 52% response rate; 603 of 1,166 surveys were returned.

As programs are implemented, the ultimate goal is an annual assessment of membership demographics in order to track change with time. However, this effort has hit some stumbling blocks, to date. In 2015, AAPA changed management companies from Allen Press to Burk Associates Inc (BAI). The need for an expanded management company role was necessitated by increases in membership, meeting attendance, and complexity of the organization. The move has been a tremendously positive change for the AAPA, leading to greater member benefits and professionalization of meetings, accounting, and other tasks (Grauer, 2016). Work on a demographic survey linked to membership renewal began at the time of transition, but was a lower priority than other key systems including an integrated membership and

TABLE 2 AAPA 2014 and 2017 Surveys of members by specialty (all members of all types and nationalities)^a

Survey year	2014	2017
n; % of members	601; 52%	1116; 58%
Specialty		
Anthropological genetics	5.3%	6.7%
Behavioral ecology	NA	2.2%
Bioarchaeology ^b	1.8%	3.4%
Forensic anthropology	10.3%	12.1%
Human biology	8.0%	9.4%
Paleoanthropology	16.3%	20.6%
Paleopathology	8.2%	7.4%
Primatology	8.9%	12.9%
Skeletal and dental biology	23.3%	22.2%
Other	2.4%	3.0%
Totals	711	1116

^aData for first-ranked specialty area. Data include specialty information from all respondents to the question regardless of membership type or country of citizenship.

^bFrequent specific response to the "Other" category, elevated for this reason to a subcategory.

registration site and updating and verifying member status. The demographic survey was first available online in 2016, and starting in 2017, the survey was embedded in the membership renewal process. Members must click through the survey on their way to renewal; however, answering questions is optional. Additionally, the survey can be accessed and answers amended at any time from the member's personal login page. As of the summer of 2017, of 1,914 members in good standing 1269 (66%) had completed at least one question of the survey. However, only 356 of these (28%) answered gender identity questions and only 179 (14%) answered ancestry questions. In contrast, very few respondents declined to answer gender and ancestry questions in 2014. Given the low yield in 2017, we doubt that comparison of ancestry proportions between the 2014 and 2017 data will be meaningful. The reasons behind the lack of answers are unknown but may include the relatively recent introduction of the linked-survey, the way questions were framed and/or members identify themselves

(although these questions did not change between 2014 and 2017), concerns over lack of anonymity (although AAPA officers receive only anonymized data), that these questions come at the end of the survey or some other reason. We note that AAA has had a similar issue with incomplete demographic member profiles and therefore runs an anonymous annual survey (Liebow, personal communication). Future targeted efforts will seek to find means of acquiring more representative data, which will likely entail a return to anonymous individual surveys in parallel with the membership profile data. Here we include discussion of the 2017 data where they are fairly robust, but rely largely on the 2014 data for questions of ethnicity and intersectionality of ethnicity and gender.

The 2014 and 2017 surveys provide important information regarding proportions of members in various specialties in the discipline. Table 2 compares the 2014 and 2017 data and Table 3 compares these recent data aggregated into groups broadly comparable to those from Turner's 1997 survey (Turner, 1997). The difference in number of respondents reflects the increasing size of the association from 2014 to 2017, a direct result of improved oversight put in place through the collaboration of AAPA and BAI. Comparing data from 1996 and 2014/17 shows apparent increases in the percentage of members indicating Anthropological Genetics, Primatology, and Skeletal and Dental Biology as their first ranked specialty, and decreases in Human Biology and Paleoanthropology (i.e., Primate + Human Evolution of Turner). The stark decrease in the former may be due, however, to the absence in the 2014/17 surveys of some specialty options (e.g., "growth and development", "biomedical", and "adaptation") present in the 1996 survey that were in turn aggregated into Turner's Human Biology category but might have been differently aggregated by the practitioners themselves.

The 2014 survey confirmed our perceptions of low numbers of scholars from minority and URM groups. Hispanic and Black scholars are the most severely underrepresented relative to the U.S. population overall and the U.S. academy writ large (Table 4). In contrast to the program survey, the 2014 membership survey suggested slightly better representation of Native scholars (i.e., Native American, Native Alaskan,

TABLE 3 Comparisons of AAPA members by specialty (all members of all types and nationalities through time)^a

Survey year	1996 ^b	2014	2017
n; % of members	1033; 72%	601; 52%	1116; 58%
Specialty			
Anthropological genetics	3.4%	5.3%	6.7%
Human biology ^c	24.9%	8.0%	9.4%
Paleoanthropology	34.5%	16.3%	20.6%
Primatology (including behavioral ecology)	7.6%	8.9%	15.1%
Skeletal and dental biology (including paleopathology, bioarchaeology, and forensic anthropology)	30.9%	43.6%	45.1%
Other	4.5%	2.4%	3%

^aData include first specialty area. 2014 and 2017 data include specialty information from all respondents regardless of membership type or country of citizenship.

^bData sum to >100% as reported in the original paper, Turner (1997, p. 565).

^c1996 data include Adaptation, Growth and Development and Biomedical specialties into Human Biology. These categories were not options in the 2014 and 2017 surveys and the Human Biology categories may not be strictly comparable as a result.

TABLE 4 Ancestry results of 2014 AAPA survey of members^a

Ethnicity/ancestry/"race"	U.S. population	U.S. PhDs All fields—2010	AAPA 2014 member survey
White (European-American)	63.0%	76.0%	86.9%
Asian-American	5.0%	8.4%	3.4%
Black (African-American)	12.3%	8.9%	0.9%
Latina/o American (Hispanic)	16.9%	6.1%	3.6%
Native American/Native Alaskan	0.7%	0.6%	1.1%
		Includes below	
Native Hawaiian/Pacific Islander	0.2%	...	0.45%
		Included above	
No answer			3.6%

^aBased on AAPA data of 443 individuals identifying as U.S. Citizens working and/or training at U.S. Institutions. U.S. Population Data follow U.S. Census (2010); U.S. PhD data follow Digest of Education Statistics 2011 edition (see Snyder and Dillow, 2012).

Native Hawaiian, and Other Pacific Islander) compared with U.S. PhD recipients overall. This representation may be attributable to the greater visibility of Biological Anthropology in these communities due to the long (and fraught) history of association between Anthropology and indigenous peoples (Deloria, 1969). This history has led to outreach programs by AAPA scholars that focus on recruiting Native students. Among these are the NSF- and NIH-funded *Summer institute for INdigenous peoples in Genomics* (developed by Malhi sing.igb.illinois.edu), and similar outreach by affiliated groups such as the Society of American Archeology's *Native American Scholarships*, also in part funded by NSF (<http://www.saa.org/AbouttheSociety/Awards/SAANativeAmerican-Scholarships/tabid/163/Default.aspx>). We hypothesize that this outreach, despite Anthropology's checkered history, has helped to heighten awareness amongst potential students and to change the culture of Biological Anthropology to foster such training. We expect, therefore, that expanded outreach can enhance this trend in and have a similar benefit with other "minority" communities.

The 2014 survey found very low representation of "minority" scholars in the professoriate and a strong difference between the demographics of graduate student members and tenure-line faculty

members (Table 4). When tenure line faculty of all ranks are combined, the graduate cohort is more diverse with 83.7 compared with 88% who identify as white (Table 4). Across faculty ranks, however, there seems no clear progression. Assistant and Full professor cohorts are similar to one another—with just 4–5% minority scholars (including <2.6% URM scholars), whereas Associate Professor ranks include 14.2% minority scholars (including ~11% URM), more similar to the graduate student respondents (13% minority including 9% URM).

However, the 2014 survey makes clear that we cannot ascribe our low representation of minority scholars simply to family educational background and by extension socio-economic background. We are a discipline that attracts students from non-academic family backgrounds, with 20% (125 of 603) indicating they were the first generation in their family to attend college and 45% indicating they were first generation graduate school attendees. Instead the dearth of Biological Anthropology faculty and coursework at minority serving institutions and aspects of the history of Biological Anthropology are likely among the substantive reasons behind this difference.

The 2014 survey also provides insight into the intersection of race and gender. Overall, women are 62% of U.S. citizen AAPA members. But women are 71–100% of minority members (Table 6). Women form

TABLE 5 2014 AAPA survey ancestry results by tenure-line rank^a

Ethnicity/ancestry/"race"	Graduate students	All tenure-line faculty	Assistant professor	Associate professor	Full professor
White (European-American)	83.7%	88.0%	93.9%	81.8%	92.0%
Asian-American	4.0%	3.2%	4.0%	3.6%	2.6%
Black (African-American)	1.6%	1.6%	...	5.4%	...
Latina/o American (Hispanic)	5.7%	2.2%	...	3.6%	2.6%
Native American/Native Alaskan	0.8%
Native Hawaiian/Pacific Islander	0.8%	0.5%	...	1.8%	...
No answer	2.4%	4.3%	2.0%	2.6%	2.6%

^aBased on 307 individuals identifying as U.S. Citizens in tenure stream positions or graduate programs at U.S. Institutions. Only 11 undergraduate members submitted the survey and their data are therefore not included here.

TABLE 6 2014 AAPA gender proportions by ancestry^a

Ethnicity/ancestry/"race"	Male (n = 168)	Female (n = 277)
White (European-American)	38%	62%
Asian-American	23%	76%
Black (African-American)	43%	57%
Latina/o American (Hispanic)	29%	71%
Native American/Native Alaskan	28%	72%
Native Hawaiian/Pacific Islander	...	100%
No answer	53%	47%

^aBased on 443 individuals identifying as U.S. Citizens in U.S. Institutions regardless of their position. See Table 4 for proportion of total formed by each ethnographic group.

a relatively higher proportion of all groups of minority scholars, except for African-American scholars among which they represent a slightly smaller proportion (58%) of the total than in the membership overall.

In comparison to all of Anthropology, URM scholars are significantly less well-represented in AAPA membership than in AAA membership and are less well represented in graduate programs of Biological Anthropology (Table 7). Although Anthropology-wide results include more non-respondents even if all these non-respondents are White, AAPA members are less diverse than Anthropology overall. These results are in contrast to the 2007–2008 program survey results, but are more in line with our initial expectations of differences across subdisciplines.

3.3 | Comparisons with other biological, natural, and earth sciences

Comparisons with related STEM fields suggest that Biological Anthropology has as strong or stronger barriers to recruitment and retention of racialized minority scholars as closely allied fields (Table 8). Nearly 84% of graduate student members of AAPA identify as European-American. Even if we factor in the higher non-response rate of other

fields and assume that those non-respondents are all White, Anatomy, Biology, and Genetics all have more diverse graduate cohorts than does Biological Anthropology. Ecology, Geology, Zoology, and Biological Anthropology are all comparatively non-diverse, with Biological Anthropology slightly more diverse than Zoology and Ecology across the board and less diverse than Geology in representation of Black and Hispanic but not Native scholars. As we noted earlier, like Biological Anthropology, Geology, Ecology, and Evolutionary Biology all have relatively low profiles at HBCUs.

The relatively strong proportions of African-American and Hispanic students in Anatomy and Biology (6.7–9.4% compared with 1.6–5.7% in Bioanthropology) suggest that targeted outreach to undergraduate students in these sciences may increase the Biological Anthropology pipeline. The essential absence of Biological Anthropology from HBCU's as well as from STEM recruiting organizations such as SACNAS, however, means that a large proportion of these students currently have no exposure to Biological Anthropology. Students are unlikely to choose a career that is unknown to them.

4 | COD INITIATIVES AND OUTREACH RELATED TO RACIALIZED MINORITIES

We recognize that the key to increasing representation relies on the satisfaction of two major considerations—Biological Anthropology as a discipline must be open and proactive in supporting diversity, and students of color must find themselves drawn to Biological Anthropology as a career choice. To date COD IDEAS programs have been based on the foundational demographic data described above and have focused on network building, mentoring, and outreach to communities. The more costly and targeted of these activities are funded by an NSF grant for the AAPA IDEAS Program (BCS-Biological Anthropology-1516939) to Antón and Malhi. As a result of interest in obtaining this grant, the AAPA went through the process of becoming an NSF-Awardee Institution, a long-term benefit for the entire organization that allows the AAPA to apply for and hold its own federal grants rather than routing them through member institutions.

TABLE 7 2014 AAPA survey Ancestry results compared with AAA membership and U.S. Anthropology graduate students^a

Ethnicity/ancestry/"race"	U.S. Anthro graduate students	AAPA Bioanthro graduate members	AAA member survey ^b	AAPA member survey
White (European-American)	71.7%	83.7%	70.0%	86.9%
Asian-American	3.4%	4.0%	4.6%	3.4%
Black (African-American)	3.4%	1.6%	2.3%	0.9%
Latina/o American (Hispanic)	8.3%	5.7%	4.9%	3.6%
Native American/Native Alaskan	1.5%	0.8%	1.5% (includes below)	1.1%
Native Hawaiian/Pacific Islander	0.5%	0.8%	Included above	0.45%
No answer	7.9%	2.4%	12.7%	3.6%

^aU.S. Anthropology graduate students based on NSF NCSSES (2014) U.S. Anthropology programs include all four fields of Anthropology. AAPA Bioanthro graduate members based on 2014 survey; these individuals are also included in the AAPA Member Survey results column. AAA membership as per their 2016 anonymous survey.

^bDoes not sum to 100% because of the category Two or More Racial Identities.

TABLE 8 Graduate students in Biological Anthropology and related fields^a

	Bioanth	Anatomy	Biology	Ecology	Genetics	Geology	Zoology
Total <i>n</i>	123	439	13,354	1,241	1,846	6,887	972
White (European-American)	83.7%	66.7%	66.6%	78.6%	71.6%	78.5%	81.3%
Asian-American	4.0%	7.7%	7.7%	2.7%	9.4%	3.6%	2.9%
Black (African-American)	1.6%	7.1%	6.7%	1.4%	4.0%	2.1%	1.1%
Latina/o American (Hispanic)	5.7%	9.3%	9.4%	4.4%	7.1%	6.4%	4.1%
Native American/Native Alaskan	0.8%	0.45%	0.43%	0.64%	0.43%	0.76%	0.2%
Native Hawaiian/Pacific Islander	0.8%	0.2%	0.2%	0.3%	0.3%	0.1%	0.4%
No answer	2.4%	7.3%	6.6%	9.4%	4.5%	6.3%	6.9%

^aData for U.S. Citizens in MA or PhD programs in the U.S. Biological Anthropology data from 2014 survey of AAPA members. Comparative field data calculated from U.S. citizen data from Table 21 of 2014 S&E data of NCSES (see NSF, NCSES [2014]).

4.1 | COD outreach: YouTube channel and STEM recruiting

Among issues for recruiting URM students to STEM fields generally and Biological Anthropology in particular are general public misperceptions about what scientists do and who scientists are—that is, a lack of culturally accessible role models. To counter this, IDEAS has developed a YouTube channel (https://www.youtube.com/channel/UCNjWd-YXBLWgz9K3zx_Bxw/featured) that hosts videos produced in collaboration with the BOAS network. With this channel we aim to bring greater visibility of our science to the public. The initial set of videos were filmed in 2016 and feature minority scientists discussing their research and path to Biological Anthropology. Those filmed in 2017 feature AAPA IDEAS students and their experiences at the AAPA national meetings and reflections on the discipline. In the long run the AAPA YouTube channel will also be used to host educational videos suitable for teaching about Biological Anthropology and to facilitate general public education regarding human evolution with an aim of recruiting ethnically diverse scholars to Biological Anthropology.

As identified in our earlier discussion, students are unlikely to choose a career with which they are unfamiliar. To expand the range of Biological Anthropology beyond HWCUs and to recruit from Biology and Anatomy undergraduates from “minority” serving institutions—the IDEAS program has begun to conduct outreach at societies dedicated to the advancement of minorities in science (e.g., SACNAS, AISES, etc.). The SACNAS conference hosts more than 2,300 student attendees, 80% of whom are minority scholars, many from MARC and McNair programs. SACNAS offers scientific sessions and professional development opportunities and graduate program and career information. Annually, AAPA supports a Biological Anthropology booth at the SACNAS meeting that provides information about Biological Anthropology generally, the AAPA including the IDEAS program, and specific graduate program materials provided by AAPA members. The booth has been staffed by IDEAS faculty (Antón and Thayer) and IDEAS alumna and other students (Ceja, Graves, and Trujillo) who interact and recruit students, working to raise the profile of the discipline among both students and (importantly) faculty mentors. (Currently, travel expenses are

paid by the scholars’ institutions not AAPA). IDEAS faculty also participate in the SACNAS “meet the scientists” lunch that features one-on-one discussion with students interested in ecology and evolution. Future efforts should entail development of scientific sessions at SACNAS related to topics in Biological Anthropology. The aim is to increase pathways to and retention in the discipline.

4.2 | COD AAPA programming

In addition to outreach, COD offers programming at the AAPA meeting to promote dialog and the inclusion of diverse voices and issues into mainstream Biological Anthropology.

4.2.1 | COD undergraduate research symposium

To address the undergraduate to graduate bottleneck issue identified in the 2007-2008 Program Survey, COD began the *Undergraduate Research Symposium* (COD URS; <http://physanth.org/about/committees/diversity/cod-undergraduate-research-symposium/>). This poster symposium precedes the start of the main AAPA meetings. The inaugural symposium was held in 2011. Organized by Cara Wall-Scheffler, the symposium facilitates undergraduate participation at AAPA by providing a later deadline for submission and a meeting registration fee waiver for undergraduate participants. Open to all undergraduate AAPA members, in the most recent symposium 73 undergraduate authors from 49 different schools presented 63 posters. Twenty-one of the students who presented were first generation college students. About a third of student participants identify as URM or Minority. Eighteen of the schools lacked graduate options in Anthropology so this symposium offered a crucial opportunity for these students to meet and talk with graduate students and potential graduate advisors. The symposium employs a vertically integrated mentorship model that pairs graduate students with undergraduates. Graduate students review abstracts and are available to work with the undergraduates on improving abstract construction, preparing “pitches” of their poster results to attendees, and other advice. Undergraduates are thus exposed not only to the science and community of AAPA but to productive mentoring relationships as well.

The goal is to develop these undergraduates into both successful scholars *and* mentors. The success of the integrated model of mentorship development has been proven by the substantial number of the graduate mentors over the past four years who have been undergraduate symposium participants themselves. In 2017, 8 of 29 mentors were previous undergraduate participants in the COD URS. Beginning in 2015, the COD undergraduate symposium and reception has been enhanced by small travel awards sponsored by the AAPA and AAPA Auction. Awards are allotted to participants on a sliding scale based on distance from the conference locale and are distributed competitively based on their answer to the essay question “Describe how you, your work, and/or any extracurricular activities support diversity”.

4.2.2 | COD IDEAS workshop

The COD IDEAS Workshop is the centerpiece of the NSF grant and is a full day event on the Wednesday preceding the AAPA meetings (<http://physanth.org/about/committees/diversity/cod-ideas-increasing-diversity-evolutionary-anthropological-sciences/>). First held in 2016, the workshop includes 30 IDEAS Scholars annually: 8 undergraduate students (from 4-year or community colleges), 7 graduate students, 4–5 postdoctoral faculty fellows, and 10–11 faculty members. In the first three years the workshop received 167 applications for 45 student slots. Pre-workshop surveys are used to match IDEAS students with faculty mentors of similar interests. These mentoring groups are the formal support structure for the program. The workshop consists of presentations and group discussions on a range of ongoing research in Biological Anthropology. In addition, the workshop includes professionalization modules and networking activities throughout the meeting week that allow the participants to meet a variety of researchers at the conference. IDEAS Student Scholars receive a travel stipend, lodging, and meeting’s registration fee waiver. IDEAS graduate students receive a one year AAPA membership fee waiver. IDEAS undergraduates receive up to a 3-year waiver of AAPA membership fees contingent on their continuing student status (in undergraduate, post-baccalaureate, or internship status).

The progress of the IDEAS program is assessed formally by Dr. Luisa Maria Rosu, Director of I-STEM, UIUC. Research in the area of project management has identified four dimensions of success that can be used in the assessment of projects (Lipovetsky, Tishler, Dvir, & Shenhar, 1997). To assess benefits to workshop participants, short and long term impact of the workshop is assessed using pre-, exit-, and post-workshop surveys (see Appendix D). The Association for Women in Science (AWIS) has successfully demonstrated the value of creating transferable toolkits that can be easily accessed and widely shared in order to initiate and continue conversations about strategic career planning (Dean & Koster, 2014). We have modified this idea to suite our framework using feedback from workshop participants and our targeted membership survey and interviews (see below). In 2017, the IDEAS workshop model was transferred and modified to a four-field workshop, *Anthropology in Color* that was delivered by NYU Anthropology.

Discussion at and following the workshops has highlighted the intersectionality between international scholars from developing countries and U.S. racialized minorities. Indeed, several of our IDEAS faculty are international scholars and most work at international field sites. Although NSF funding precludes support of international students, each year we receive several international applications. Given the reliance on developing nations for field sites, the IDEAS team believes that integrating international scholars from developing countries into the program is an important part of expanding the project. We are currently seeking funds for such work.

The exit interviews as well as discussions during the workshops and non-COD events also highlighted several areas of common concern among racialized minority scholars. These highlight areas where additional initiatives can help increase representation as well as improve climate and inclusion. These common concerns included the negative impact of subtle but powerful discriminatory statements by students and faculty alike and mirror those often reported in other studies (e.g., Puritty et al., 2017). In particular, students report statements that singled out underrepresented/racialized students as recipients of “lowered standards of evaluation” due to affirmative action and statements that reflected patterns of blindness to white and/or economic privilege create an adversarial environment that forms a backdrop to students’ daily interactions in departments. Additionally, many respondents noted the tendency for faculty to call on them during class discussions to “represent” for their specific group or on the opposite extreme the refusal to acknowledge the relevance of different histories on our work. They also reflect on the “othering” that so commonly occurs in academia even during well-intentioned discussions around increasing diversity, as recently reported by IDEAS alum Martin (2017). This lack of inclusion of diverse perspectives creates subtle and not so subtle forms of distancing/othering for minoritized scholars that is physically and emotionally exhausting and can have negative downstream consequences for engagement and participation in classroom and research contexts (e.g., Malon & Barbino, 2009; Puritty et al., 2017).

The students also note the lack of access to mentors with similar life experiences or those who could identify, recognize, or engage with the contexts of daily life for students of color in the academy. This is not due simply to the dearth of senior faculty of color, but also a by-product of the tendency within the academy to downplay personal histories and the extent to which these histories result in differences in perspective as well as access, preparation, and training. Given that Biological Anthropology has a high proportion of members who were first generation college students themselves, and is gender female majority, these should be areas that we can improve rapidly given a deliberate and intentional approach. One practical recommendation transferred from studies on imposter syndrome is for mentors to take proactive approaches to recognizing issues and fostering an environment in which it is not necessary to pretend to leave one’s personal history at the door (Puritty, et al., 2017).

4.2.3 | Other AAPA programming

The COD and IDEAS subcommittee aim to build permanent infrastructure with the goal of diversifying the discipline. To this end, the

committee has sponsored and co-sponsored topically themed events at annual meetings to provide assistance with understanding and developing NSF Broader Impacts programs. The materials from the COD 2013 panel on Broader Impacts featuring NSF awardees and program officer Carolyn Ehardt are archived at <http://physanth.org/about/committees/diversity/>. And the IDEAS program also has specific mechanisms for PIs to include “add-ons” to the workshop as part of their own broader impacts programs in individual NSF grants. Similarly, individual donations can fund additional IDEAS students.

The COD also provides member programming on timely issues. In 2015 in St Louis the COD organized the discussion panel *In the Shadow of Ferguson: Race, Inequality and how Biological Anthropologists might contribute to the Dialog* a discussion of how Biological Anthropology could better engage and advance the public discourse on race. In 2016 in light of incidents at the 2015 AAPA meeting, the COD organized a guest speaker on Title IX and sexual harassment. The COD also co-sponsored (and Fuentes moderated) that year’s Presidential Panel *Working Together to Change the Future: A dialog on harassment in Biological Anthropology*—a fulsome discussion of the issues of all types of harassment and possible solutions (<http://physanth.org/news/788/>; Gibbons & Culotta, 2016).

The goal of the COD is to insert the dialog on the experiences, contributions, and challenges faced by minority scholars (writ large) into the mainstream discourse at the annual meetings and the discipline. We aim for this dialog to be seen as an integral component of how we (Biological Anthropologists) think about and engage with our discipline and our science. The last decade of work by the COD has lain a foundation for non-COD programming, including the welcome melding of science and diversity in scientific program contributions. This includes the invited podium symposium *Beyond Visibility: How Academic Diversity is Transforming Scientific Knowledge* session organized by Deborah Bolnick and Rick Smith in 2017. These papers made a compelling case for moving beyond diversity to inclusion. The symposium was amazingly successful with standing room only and attendees spilling out into the hallways (<https://storify.com/rickwsmith/beyond-visibility-how-academic-diversity-is-transf>). Another downstream influence includes regional spin-off groups modeled after COD such as a student-initiated diversity group, NISDS (New York Consortium for Evolutionary Primatology Initiative to Support Diversity in Science), begun within the NYCEP graduate training program in 2017.

4.3 | Recognition and retention

Although the COD work to date has largely been about creating student pathways to the discipline, to provide a complete pathway we must address issues of climate and advancement throughout the life-course of a career. The vertical and horizontal mentoring strategies embedded in the IDEAS workshop aim to build those networks for the incoming students and positively influence the faculty by developing community and “mentoring-up”. The COD panels on harassment influence climate for all. However, there remains a significant need for mentoring and professional leadership development into postdoctoral positions, between postdoctoral and professional appointments, and through promotional steps (both inside and outside academia).

These more senior pathways also require recognition of the leadership activities of the ancestors. In this vein, in 2017 the COD successfully proposed to the AAPA Executive Committee the long overdue recognition of Montague Cobb’s contribution to the discipline. The naming of the AAPA *W. Montague Cobb Professional Development Grants* honors and curates Cobb’s legacy for future generations. These early career research grants represent the spirit of Cobb’s contribution to the discipline (<http://physanth.org/about/awards-funding-and-other-opportunities/professional-development-grant/>).

5 | NEXT STEPS—PRIORITY NEEDS AND INTERVENTIONS

The AAPA and its members have already committed substantially to the inclusivity effort, and importantly have ensured that the aims of these programs are worked into the organization’s permanent infrastructure. Nonetheless, greater and permanent commitments that weave diversity programming into all aspects of the organization would be welcome. By this we do not mean targeted programs, but programs that make valuing diversity normative in all their considerations. For example, this year the number of Pollitzer Travel awards has been expanded along with the criteria for considering diversity along many axes including institutional affiliation, family educational background, disability, developing country, sexual orientation, and ethnoracial status.

Unlike other organizations, such as the American Anatomical Association and the Society for American Archaeology, programmatically the AAPA is limited by having no paid staff beyond those who track our membership and meetings logistics. This means that the generation and sustenance of new programming relies entirely on the efforts, time, and good will of volunteer AAPA members. An alternate, or parallel, model might be to partner with external associations already delivering programming—such as COD WIN has with AWIS (Association for Women in Science)—recognizing that these partnerships will also cost money. SACNAS might be an obvious partner for the work that COD IDEAS has ongoing.

Many of the logical next steps require moving beyond the AAPA structure and implicate the involvement of individual AAPA members at their home institutions possibly in partnership with AAPA. For example, partnering with Biology and Anatomy programs at HBCUs and other minority-serving institutions to raise the visibility of Biological Anthropology in diverse communities is something effectively done between universities and PIs with a group like AAPA serving in an ancillary capacity. Given the greater regularity of the MA prior to entering a PhD in communities of color—these partnerships could potentially build from the Fisk-Vanderbilt bridge model (See Stassun et al., 2011). And the AAPA could play a role in bringing students together across multiple programs. Additionally, departments should consider eliminating the GRE as an admissions requirement. Given the strong correlation between identity indicators and score and the weak correlation between scores and success in PhD programs, this is a seemingly meaningless measure that nonetheless systematically influences our perspectives on particular classes of students. As the Fisk-Vanderbilt program has shown, other more telling indicators that are better

predictors of long term success can be applied with a bit more work (see Stassun et al.'s Appendix on interviews, and evaluation of persistence and resilience). Beyond the spurious correlates of the GRE, eliminating its use would also eliminate GRE prep classes and testing fees that are in themselves a burden for low-SES students.

In addition to recruitment, there is an urgent need to address the causes that drive scholars of color from the academy and Biological Anthropology along with it. A long literature identifies issues at the heart of the problem in STEM generally; issues including isolation, othering, micro and macro-aggression (e.g., Clancy, Nelson, Rutherford, & Hinde, 2014; Settles, 2006), along with best practices that can be applied in Biological Anthropology as well. Mentoring is a key factor in success, and collaborative programs across groups at AAPA could be easily operationalized (see also Turner et al., 2018). Loss of identity and connection with family and community are harder issues to address, but may be facilitated by the growing sense of urgency for public outreach and community engagement amongst our members. For this to be effective, however, we have to value service and public outreach at important career junctures (such as hiring and promotion) and consider training and strategies for seriously engaging multiple perspectives. Additionally, leadership academies have been developed by a number of organizations—including the SACNAS Linton-Poodry Leadership Institute that promotes diverse perspectives in STEM and trains scholars of color for senior leadership (<http://sacnas.org/2017/08/07/leadership-institute-promotes-diverse-perspectives-in-stem/>). Likely the most logical next step for considering the more senior parts of the career pathway at AAPA is the development of a COD IDEAS Leadership Alliance to consider and implement preferred strategies.

It is clear that Biological Anthropology has a long way to go to develop a serious and beneficial level of equity of access and participation. The major challenges identified by our work include a disciplinary history that offers little evidence of inclusion and invitation to diverse voices/participants, a bottleneck at the PhD and faculty levels indicating subtle (and not so subtle) forms of discrimination and obstacles for underrepresented scholars, and an academic landscape across the United States that demonstrates a strong degree of structural inequality against the full participation of racialized minorities. However, we also note that in Biological Anthropology specific recent moves have begun to address these issues in an attempt to restructure the landscapes of access and participation and generate an ecology of inclusivity and engagement as central to the discipline. To date the association and its members have proven open to and supportive of this dialog.

To move forward we must clearly acknowledge the history of our discipline, including its roots in a racialized (and racist) "Physical Anthropology". We maintain that this reality needs to be clearly engaged rather than downplayed or sidelined as unimportant. It is not sufficient to show and say that "biological races do not exist" without also acknowledging the ways in which social race and "racial experience" have real influence on opportunities and access, bodies and lives (Benn-Torres & Torres Colon, 2015). The discussion surrounding the name of the AAPA, the central U.S. association of Biological Anthropologists, and the history of its practice provides important opportunity

for discussion and dialog about as well as critique of that history, regardless of whether the association eventually changes its name. The COD and many members of the AAPA are engaging in serious intellectual debate about the best ways to reshape the practice of Biological Anthropology such that the methodological and theoretical mainstream includes diverse voices and perspectives, not as add-ons, but as central thematic and structural elements of our discipline. Much like the debate around monuments and statues of the confederacy in the United States, the challenge to U.S. Biological Anthropology is how to recognize and engage with the past and present, how to become more demographically and theoretically inclusive, and how to move toward a more integrative and integrated future.

The activities of the COD, especially the mentoring projects of the undergraduate symposium and the IDEAS program, are having slow but evident impact. Maintaining these projects and expanding them and partnering with the other current COD groups (COD International scholars (CODI), COD Women's Initiative (COD-WIN), COD LGBTQQIAA, and COD Anthropologists outside of Anthropology, Contingent and Teaching Focused Faculty (COD-AACT) and those yet to form must be a central focus of our professional organization. Only such work will allow us to staunch our leaky pipeline and retain our undergraduate diversity into the professoriate and the broader landscape of Biological Anthropology practitioners.

ACKNOWLEDGMENTS

President's John Relethford, Fred Smith and Dennis O'Rourke were critical partners in the origin of the COD. Heide Rohland of BAI and Joyce Lancaster of Allen Press provided invaluable help with the 2017 and 2014 surveys, respectively. Ed Liebow provided comparative data and insights from AAA. The AAPA surveys would not be the same without the foundation provided by Trudy Turner. These surveys deemed exempt by NYU's IRB standards. S.C.A. is especially grateful to Trudy for the invitation to write this initial summary for the Yearbook. For the past 25 years, S.C.A. has benefitted from her association with the Ford Diversity Fellows and NASEMs Ford Fellowship Office who provided innumerable models for diversity programming and meetings. Senior Ford Fellows Alex Chaparro and Mark Lawson, COD WIN Co-Chair Andrea Taylor, and three anonymous reviewers provided insights and suggestions for this article. Many of the initiatives described herein were funded by the AAPA and by the NSF Grant for the AAPA IDEAS Program: Increasing Diversity in Evolutionary Anthropological Sciences (BCS-Biological Anthropology-1516939) to Antón and Malhi. AAPA Treasurer Anne Grauer managed (with good humor) to set up AAPA as an NSF-Awardee institution, for which we are eternally grateful and without which there would be no IDEAS program. Mark Weiss, a member of the original Taskforce on Membership Composition/Gender Equity, supported the idea of an NSF funded program for URM scholars before we could even imagine one, and current program officer Rebecca Ferrell has been an impeccable supporter. The work of the COD is the work of a village and we are grateful to all the IDEAS faculty and students, and to each and every COD member. We are especially grateful to Cara Wall-Scheffler and Marcella Myers

for developing and delivering the COD URS annually, and to the AAPA Executive Committees from 2006 to 2017 who have supported these initiatives. The work of the COD extends well beyond those programs aimed at “minority” scientists described here; information on that work can be found at <http://physanth.org/about/committees/diversity/>. All COD work is volunteer-generated and we are counting on AAPA members to continue this work and to feel free to contact us with their ideas and energy for the next steps.

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How to cite this article: Antón SC, Malhi RS, Fuentes A. Race and diversity in U.S. Biological Anthropology: A decade of AAPA initiatives. *Am J Phys Anthropol*. 2018;165:158–180. <https://doi.org/10.1002/ajpa.23382>

APPENDIX A

BIOLOGICAL ANTHROPOLOGY AT HBCUs

Websites of the top 21 HBCUs, as determined by the 2017 U.S. News and World Report rankings (www.usnews.com/best-colleges/rankings/hbcu; accessed August, 2017) were surveyed by SCA to identify undergraduate departments and majors in Anthropology, the presence of Biological Anthropology requirements, and the presence of related fields (such as evolutionary biology requirements within Biology or the presence of Geological Sciences majors/minor). Results are summarized below.

College/University (State)	Anthro + Sociology Dept? Anthro Major/Minor?	Geoscience Major/Minor?	Biology Dept/Major?	Evolution on Bio landing page/Required core**
Spelman College (GA)	Soc/Anthro Dept; Sociology & Anthro major		Yes	Yes/Yes
Howard University (DC)			Yes	Yes/Yes
Hampton University (VA)		Planetary Science minor	Yes	Yes/Yes
Morehouse College (GA)		Earth & Atmospheric Science minor	Yes	No/No
Tuskegee University (AL)			Yes	Yes/Yes
Xavier University Louisiana			Yes	Yes/?No
Florida A&M University			Yes	No/Yes
Fisk University (TN)	Soc/Anthro Dept; Anthro track in Sociology major		Yes	No/No
Clayton University (SC)			Yes	No/No
North Carolina A&T State University	Sociology Dept; Anthro minor	Geomatics major/minor	Yes	Yes/Yes
Tougaloo College (MS)			Yes	No/?
Dillard University (LA)			Yes	No/No
North Carolina Central State		Geoscience major	Yes	No/No
Delaware State University (DE)			Yes	No/?
Johnson C Smith University (NC)			Yes	No/No
Jackson State University (MS)			Yes	No/?
Bennett College (NC)			Yes	No/Yes
Clark Atlanta University (GA)			Yes	No/No
Elizabeth City State Univ (NC)			Yes	No/Yes
Lincoln University (PA)			Yes	No/?
Morgan State University (MD)	Soc/Anthro Dept; Anthro minor		Yes	No/Yes

APPENDIX B

2007/2008—AAPA PROGRAM SURVEY LETTER

American Association of Physical Anthropologists
Ad Hoc Committee on the Status of Underrepresented Groups
 Survey of the Field

The American Association of Physical Anthropologists is the largest association of its kind and plays a major role in structuring practice within the discipline, recruiting and training students, and creating the discipline's public persona. Because we understand the importance of mentoring and access in these endeavors we realize the importance of having a variety of interests, backgrounds, and life experiences represented amongst our

professional practitioners. In an attempt to better understand the diversity within our association and discipline and to consider ways in which to enhance diversity, we offer the following brief, voluntary survey.

The survey has three preliminary goals:

1. **To assess the presence of traditionally underrepresented groups** (individuals who self-define as: African-American, Asian-American, Latino/Hispanic-American, Native-American/American Indian) in U.S. Anthropology departments that offer Physical Anthropology undergraduate course work or graduate programs with emphases in Physical/Biological Anthropology.
2. **To assess the presence of students and faculty from developing countries** in U.S. programs.
3. **To compile a sense of the kinds of initiatives** currently in place to increase and retain student and faculty diversity.

We hope that you will respond to the survey, describing diversity, as defined above, in your faculties and students. This information will be for the sole use of the AAPA as we attempt to develop programs and projects to engage a broader audience and enhance the diversity of practitioners in our field. However, we would be happy to share the results of the survey with you if you are interested. Also please rest assured that your responses will remain anonymous in the presentation of these results.

We know that completing such surveys takes a good deal of time and that demands on your time are high. However, we cannot hope to achieve our goals of enhancing diversity in biological anthropology without your help. We're sure you agree that building and maintaining diversity in academia is a priority. We assure you that the information you provide will help us tremendously as we address that priority.

Thank you for your consideration. You can return your survey by email or regular mail. And please feel free to contact any one of us should you have questions or concerns. You can reach us by email at: fsmith3@luc.edu, susan.anton@nyu.edu, and afuentes@nd.edu

Sincerely

Susan Antón and Agustin Fuentes, Committee Chairpersons
 Fred H. Smith, AAPA President

To see read more about the charge of the *ad hoc* committee and its current activities please see the website at <http://www.physanth.org/underrepresented.html>

Please return survey by March 15, 2008 to:

Agustin Fuentes

Nancy O'Neill Associate Professor of Anthropology

648 Flanner Hall

University of Notre Dame

Notre Dame, IN 46556-5611

tel. 574-631-5421

fax. 574-631-5760

or by Email to: afuentes@nd.edu

**Even partially completed surveys will be of use—so
 please provide any information that is feasible.**

Thank you!

2007–2008 PROGRAM SURVEY QUESTIONS:

I. Contact and Location information:

Institution:

College/School/Division:

Department:

State:

Contact individual (responsible for filling this form):

Contact information:

II. PLEASE LIST total number of students and representation by members of underrepresented groups: in UG, MA/MS (terminal degree), and PhD students for most recent year (or years) available. AfAm= African-American, AsAm= Asian-American, LatAm= Latino/Hispanic-American, NatAm = Native American/American Indian, Intl = International (non-USA citizens)

No. of UG students currently in program(majors and minors):

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ Intl. _____
 Total female _____ Total male _____

If applicable:

No. of UG students currently in program with Physical/Biological Anthropology focus

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ Intl. _____
 Total female _____ Total male _____

No. of MA/MS (term. degree) students

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ Intl. _____
 Total female _____ Total male _____

No. of MA/MS (term. degree) students with Physical/Biological Anthropology focus

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ Intl. _____
 Total female _____ Total male _____

No. of PhD students in department

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ Intl. _____
 Total female _____ Total male _____

No. of PhD students with Physical/Biological Anthropology focus

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ intl. _____
 Total female _____ Total male _____

III. PLEASE LIST total number of T/R faculty and representation by members of the above described underrepresented groups:

Anthropology (or other home Department for Phys Anth) Faculty

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ Intl. _____
 Total female _____ Total male _____

Physical/BioAnth T/R faculty

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ intl. _____
 Total female _____ Total male _____

IV. PLEASE LIST total number of adjunct faculty and representation by members of the above described underrepresented groups:

Anthropology (or home Department for Phys Anth) Faculty

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ Intl. _____
 Total female _____ Total male _____

Physical/BioAnth adjunct faculty

Total _____ AfAm _____ AsAm _____
 LatAm _____ NatAm _____ Intl. _____
 Total female _____ Total male _____

APPENDIX C

2014–AAPA MEMBERSHIP SURVEY

AAPA membership survey

Scholarly excellence is bolstered by diversity. Diversity is especially germane in a field dedicated to understanding the evolution of human and comparative primate variation. The American Association of Physical Anthropologists plays a major role in structuring practice within the discipline, recruiting and training students, and creating the discipline's public persona. To facilitate academic excellence, we appreciate the importance of having a variety of interests, backgrounds, and life experiences represented amongst our members.

Little empirical data exist regarding the representation of demographic and ethnic groups practicing biological anthropology, and the data that are available are outdated. In an attempt to better understand the diversity within our association and discipline, and to consider ways in which to enhance inclusivity, we invite you to complete the following brief, voluntary survey of the membership. Responses are anonymous. You may choose not to answer individual questions or parts of questions. Summary results will be posted at www.physanth.org.

As we all know, categories cannot describe identity well, so the wording of the following survey should be taken as a compromise between the groupings that are familiar to the general public, and are therefore comparable to data available for other disciplines and the U.S. population at large and the discipline's understanding of the biology of human diversity.

You may answer all, none, or some of these questions.

Highest degree:

BA/BS
 MA/MS/MsC/MPhil
 MD/DDS/DVM
 PhD
 Other _____

Year highest degree attained:

Country in which highest degree attained

Highest degree discipline (if you are currently in school list your current discipline):

Anthropology
 Anatomy
 Biology
 Ecology and Evolution
 Psychology
 Other _____

Specialty (rank up to 3, with 1 being where your principal effort is invested):

Forensic Anthropology
 Paleoanthropology
 Primatology
 Human Biology
 Molecular Anthropology or Anthropological Genetics
 Skeletal/Dental Biology
 Paleopathology
 Other

My employer/school is located in:

United States
 Non-United States
 List Country

My current primary position is:

Undergraduate Student
 Graduate Student
 Postdoctoral position
 Temporary position: (use this category if you are not a student and are a semester-semester, or year-year course adjunct without a permanent contract; in a term limited/non-renewable faculty or research position other than a postdoc)
 Permanent positions:
 non-tenure stream:
 Laboratory Administrator
 Research Faculty
 (soft money)
 (fixed salary)
 (mixed compensation)

My primary employer/school is:

University/College (other than med/dental school)
 Medical/Dental/Veterinary school
 Zoo/Museum
 Gov't (federal, state, local) lab/facility/agency
 NGO or non-profit private lab/facility/agency
 For-profit lab/facility/agency
 Other

	Teaching Faculty (fixed salary) tenured/tenure-stream: Assistant professor (or equivalent) Associate professor (or equivalent) Full Professor(or equivalent) Clinician (Veterinary, Dental, or Medical) Retired Other _____	
<u>My citizenship is:</u> United States Non-United States Permanent U.S. resident Non-permanent resident If non-United States, list country	<u>My age is:</u> <20 20–29 30–39 40–49 50–59 60–69 70–79 >80	<u>I identify myself as a person with a disability:</u> Yes No
<u>I identify my gender as:</u> Woman Man Transgender Other	<u>I identify my ancestry and ethnicity as: (you may choose more than one)</u> African-American Asian-American European-American Latino/a-American (Hispanic) Native-American Native Hawaiian/Pacific Islander Foreign-born _____ Other _____	<u>In my family I am in the:</u> First generation to attend/finish college First generation to attend/finish graduate school

APPENDIX D

COD IDEAS ASSESSMENT MATERIALS

IDEAS Workshop—AAPA Conference, New Orleans

Beginning of Workshop Questionnaire April 2017

Do not put your name on this questionnaire! Your responses are confidential. You will not be identified individually. Data will not be reported in a way that is attributable to you. Data from this questionnaire will be merged with other participants' responses and findings reported in aggregated format.

I.1 Gender: _____

I.2 How do you define your ethnicity? (e.g. Italian American, Afro-Cuban, Japanese American, etc.)

I.3 Racial/Ethnic Identification (Circle all that apply)

Asian/Asian American	American Indian or Alaska Native	Black or African American	Hispanic	Native Hawaiian or Other Pacific Islander	White	Other: (please specify)
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II. Why did you decide to attend the IDEAS workshop?

III. List three things (knowledge and/or skills) you anticipate you will learn at the IDEAS workshop. Please briefly explain why the knowledge is important for you.

III.1

III.2

III.3

IV. I am well informed about the scope of the workshop. (Circle your response)

Strongly disagree

disagree

neither agree nor disagree

agree

strongly agree

IDEAS workshop – AAPA conference, new orleans end of workshop questionnaire April 2017.

This questionnaire asks you to consider your experience in the IDEAS workshop. The purpose is to gain a better understanding of how IDEAS workshop activities provide with a beneficial experience in pursuing your potential career in biological anthropology. Do not put your name on this questionnaire! Your responses are confidential. You will not be identified individually. Data will not be reported in a way that is attributable to you. Data from this questionnaire will be merged with other participants' responses and findings reported in aggregated format.

I.1 Gender: _____

I.2 How do you define your ethnicity? (e.g. Italian American, Afro-Cuban, Japanese American, etc.)

I.3 Racial/Ethnic Identification (Circle all that apply)

Asian/Asian
AmericanAmerican Indian
or Alaska NativeBlack or African
American

Hispanic

Native Hawaiian
or Other Pacific
Islander

White

Other:
(briefly
specify)

2. List three things you have learned (knowledge and/or skills) in the IDEAS workshop. Briefly explain why the knowledge is important for you.

2a.

2b.

2c.

3. Would you recommend IDEAS workshop to other Anthropology students? _____ Yes _____ No

Briefly explain why/detail your answer.

Please place an "X" in the box that most closely represents your opinion on each of the following items:

4. In this workshop, I have developed a better understanding of biological anthropology

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
--	-------------------	----------	---------	-------	----------------

Explain how your understanding of biological anthropology changed or why you think it has not changed.

5. The workshop has increased my interest in biological anthropology activities.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
--	-------------------	----------	---------	-------	----------------

Explain how your interest in biological anthropology activities has changed or why you think has not changed.

6. What I have learned in this workshop has increased my confidence in my own ability to pursue a biological anthropology career

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
--	-------------------	----------	---------	-------	----------------

Briefly explain how your confidence in your ability to pursue a biological anthropology career has changed or why you think has not changed.

7. On a scale of 1 (low) to 10 (high) rate the level of confidence in your ability to pursue a biological anthropology career. Explain your response.

8. What activity of the workshop you found most important for your self-understanding? Explain how the activity provoked a change.

9. What guest/faculty member/mentor was most inspiring and talked closest to your self-understanding? If it provoked a change in your self-understanding or attitude towards pursuing a career in biological anthropology briefly detail.

10. Overall, I believe that what I have learned in this workshop will help me achieve my career goals.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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How? Briefly explain your answer

11. Overall, I believe that the concepts discussed in the mini science sessions are relevant to my interest in biological anthropology

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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How? Briefly explain your answer

12. The Mentoring Group contributed to my interest in biological anthropology

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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How? Briefly explain your answer

13. How would you improve this workshop? (Check all that apply)

- Provide better information before the workshop.
- Clarify the workshop objectives.
- Reduce the content covered in the workshop.
- Increase the content covered in the workshop.
- Update the content covered in the workshop.
- Improve the instructional methods.
- Make workshop activities more stimulating.
- Improve workshop organization.
- Make the workshop more difficult.
- Slow down the pace of the workshop.
- Speed up the pace of the workshop.
- Allot more time for the workshop.
- Shorten the time for the workshop.
- Improve the readings used in the workshop.
- Add more video to the workshop.
- Make the workshop less difficult.

14. What was least valuable about the IDEAS workshop?**15. What was most valuable about the IDEAS workshop?**

16. What was your "burning question" before the workshop? Please comment whether you have had the chance to discuss the topics you suggested to the organizers before the workshop.

17. Are you interested in staying in contact with IDEAS community and in receiving other educational materials regarding research and training opportunities in biological anthropology?

Yes

No

18. What plans do you have for continuing to study or research topics related with biological anthropology?