1890 Land-Grant Institutions and School-Based Agricultural Education Preparation: Past, Present, and Future Insights from Institutional Opinion Leaders

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Abstract

This qualitative study explored the current status of school-based agricultural education (SBAE) in 1890 land-grant institutions (1890s). The authors interviewed opinion-leader participants at the 1890s regarding their experiences to determine their institutions' engagement in SBAE. Participants reported there is a national shortage of secondary agricultural teachers, especially among minority populations. Institutions where the SBAE programs have not gone dormant desire to resurrect them, and most agreed that, in order to grow SBAE enrollment, it is necessary to enhance recruitment. As a group, 1890 universities are well positioned to address the lack of diversity in SBAE, especially when collaborating with their respective 1862 land-grant institutions. It is recommended that future studies include input from other land-grant institutions to work collaboratively to address the changing demographics of the U.S. and agricultural education.

Introduction

While it is well-known that African Americans have historically played a significant role in agriculture, they were denied access to higher education institutions, especially related to agriculture, until 1890, when the second Morrill Act was established to allow African Americans to attend higher education universities, termed Historically Black Colleges and Universities (HBCUs) (United States Department of Education, 1991). This legislation required states with 1862 land-grant universities, which the first Morrill Act established in that year, to establish the same for African Americans to allow all people to learn about agriculture, science, military science, and engineering (United States Department of Agriculture, 2013).

Eventually, 18 1890 land-grant universities were established to teach subjects based on agriculture, mechanics, and industry (United States Department of Education, 1991), to meet African American students' needs, to address society's demands, and to continue the original charge of the Land-Grant University System.

Historically, the primary purpose of 1890 land-grant universities was agricultural education for African Americans. Today, while most 1890s educate individuals about agriculture and related sciences at the university level, very few are preparing students to replace current educators in colleges of agriculture or developing agricultural educators for secondary/high school school-based agricultural education (SBAE). SBAE programs in middle and high schools are particularly devoid of African American educators. This is important to note because "ethnicity [and the need for more diversity] plays a role in decision-making," (Talbert and Larke, 1995, p. 39) especially in terms of students' feeling of a sense of belonging. For example, in Tennessee just three out of 333 SBAE teachers self-reported as African American, and each of these teachers are located in the western region of the state (Tennessee FFA, 2013). Smith, Lawver, and Foster (2016) conducted the National Agricultural Education Supply and Demand Study of 2016 to identify the challenges facing SBAE. These researchers found that very few (0.7%; n=54) of the 772 newly qualified educators from license-eligible SBAE programs identified as African American. Table 1 reports the most recent demographics of newly qualified agricultural educators in the U.S. as of 2016, and clearly indicates that the agricultural education profession lacks diversity among students who become teachers.

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Table 1. Ethnicity of Newly Qualified Agricultural Teachers *N*=772

Item	*f*	%
White, non-Hispanic	691.0	89.5
Hispanic/Latino	39.0	5.0
African American	5.0	0.7
American Indian/Alaskan	4.6	0.6
Bi-racial/Multi-cultural	4.6	0.6
Asian	3.8	0.5
Native Hawaiian/Other Pacific Islander	0.7	0.1
Other/Unknown	19.5	2.5
Unreported	3.8	0.5
Total	772.0	100

While diversity continues to be addressed in the profession, specific standards are in place and support the effort. The six standards for SBAE teacher preparation programs implemented by the American Association for Agricultural Education (AAAE), in which graduates earn a license to teach SBAE (AAAE, 2017), include "*Embrace and celebrate diversity by creating environments that build positive rapport with students, parents, stakeholders, and community members ensuring fairness and equity*" (Standard four, p. 1), while standards five (Professionalism) and six (Personal Development) encourage the interaction of teachers in a collaborative manner (AAAE, 2017).

Studies indicate a decline in the number of students pursuing a career in agriculture in higher education (Esters and Bowen, 2005); additionally, only 8% of African American secondary students who are enrolled in agricultural education courses are members of the National FFA Organization (National FFA Organization, 2014).

This issue leads to the question: "Why are so few African American students choosing to pursue a career in agricultural education?" One issue is the lack of relatable instructors at the university level, which filters down to the secondary school level. For instance, Jones and Larke (2003) conducted research on the topic and suggested that "*having people of color [involved in higher education for agriculture] encourages minority students to consider an agriculture-related career*" (p. 47).

In a similar study Warren and Alston (2004) conducted in North Carolina on secondary programs, they reported, "*There is one white agriculture teacher for every nine Caucasian students, compared to one ethnic minority teacher for every 40 ethnic minority students*". If HBCUs employed more African American agriculture teachers, would more African American students be influenced to become interested in middle, high school, or university-level agricultural education? Additionally, according to Westbrook and Alston (2007), if professors and other staff who are African American are visible to African American students, the students are more likely to remain in school to complete their degree.

While research studies have been conducted concerning the best strategies for increasing diversity in agricultural education, few have explored the relationship between 1890 land-grant institutions and their possible contributions to the diversity of SBAE programs.

Another study involved Extension Directors of both 1862 and 1890 universities assessing their leadership skills (Rudd and Moore, 2004). In 2009, Copeland et al., conducted a study of the programs Missouri's 1862 and 1890 land-grant institutions developed to encourage underserved 4-H youth to enroll in college by providing mentoring and college orientation.

The purpose of this study was to explore the history, current status, and future outlook of SBAE at eight of the original 18 1890 land-grant institutions to find out whether 1890 institutions had programs that prepared African American teaching professionals to teach in secondary schools. By exploring the 1890s in relation to SBAE, the researchers expected to identify the best strategies for increasing the number of African American and other minority agricultural students and teachers.

Methods

For this qualitative study, the authors interviewed eight subjects, representing eight of the 18 original 1890 land-grant institutions. All of these eight institutions identified as having an established SBAE preparation program. The universities which were included in this study were Alcorn State University (ASU), Fort Valley State University (FVSU), North Carolina Agricultural and Technical State University (NCAT), Prairie View Agricultural and Mechanical State University (PVAM), Tennessee State University (TSU), Virginia State University (VSU), the University of Arkansas-Pine Bluff (UAPB), and the University of Maryland at Eastern Shore (UMES).

The authors used purposive sampling to identify the eight expert participants who possessed the institutional knowledge to

Table 2. Participant and Institution Profile

Participant	Institution
Participant A	Institution #1 Enrollment: 31 undergraduate students comprised of 29 African American and 2 White No graduate students 1 White faculty member
Participant B	Institution #2 Enrollment: 70 undergraduate students comprised of 40 White and 30 African American 80 graduate students comprised of 55 White and 25 African American 4 faculty African American faculty members
Participant C	Institution #3 Inactive agricultural education program under consideration for rebuilding One African American faculty
Participant D	Institution #4 Enrollment: 4 undergraduate students comprised of 2 African American and 2 White No graduate students. 1 African American faculty member
Participant E	Institution #5 Enrollment: 8 undergraduate students comprised of 7 African American and 1 White 5 graduate students comprised of 4 African American and 1 White 1 African American faculty member
Participant F	Institution #6 Enrollment: 3 undergraduate students comprised of 2 African American and 1 White No graduate students 1 African American faculty member
Participant G	Institution #7 Enrollment: 11 undergraduate students comprised of 6 African American and 5 White 15 graduate students comprised of 9 White and 6 African American 5 faculty members comprised of 4 White and 1 Pakistani
Participant H	Institution #8 Enrollment: 4 undergraduate students comprised of 3 African American and 1 White No graduate students 1 African American faculty member

answer questions about SBAE preparation at their respective 1890 land-grant HBCUs. This sampling method allowed to choose participants that were known to have a depth of knowledge of a combination of the history, current status, and future outlook of their respective HBCU SBAE program. Participants included academic deans, agriculture professors, and agricultural education faculty. Table 2 displays the institutional demographic profile.

The researchers notified each participant of the study and sent them an informed consent form and a list of questions they would be asked during the interview. The researchers developed the survey and the Tennessee State University Institutional Review Board (HS2013-3315) approved it for administration purposes. Each of the eight participants agreed to be interviewed; the researchers recorded participants with a phone call and the iTunes App, TapeACall Pro (2013).

Interviews were semi-structured to allow general question responses and any other specific or situational questions and answers that arose during the interview, to be considered equally important (Leedy and Ormrod, 2005). The following open-ended questions were posed to all experts:

1. Tell me about the history of SBAE at your university.
2. What is the current status of SBAE at your university?
3. What is the future outlook of SBAE at your university?

After each interview, a diverse team of researchers from various backgrounds and experiences with SBAE programs and HBCU experiences transcribed the recordings for analysis. Summaries were developed of the interviews using summative content analysis concepts (Hsieh and Shannon, 2005; Neuendorf, 2017) by interacting with the transcribed interviews through critical reading, highlighting, note taking, and identification of key concepts. The researchers used Saldana's (2013) framework for qualitative data reduction in analyzing the information (see Figure 1). The process involved examining the data and completing open coding. Subsequently, categorical axial coding and then the development of themes followed. Table 3 illustrates how Saldana's sequence of coding was applied in the coding process. Credibility and dependability concepts of data trustworthiness were established by using peer review and triangulation of the data across interviews (Huberman and Miles, 2002).

Figure 1. Saldana Coding for Qualitative Research

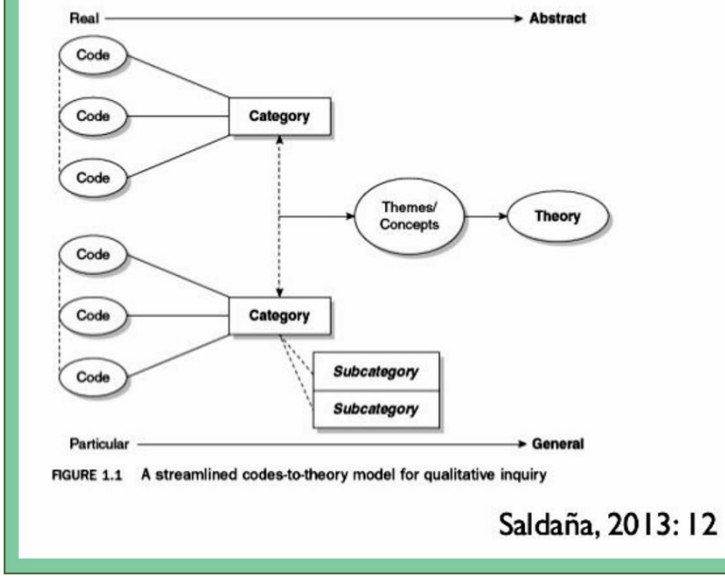

FIGURE 1.1 A streamlined codes-to-theory model for qualitative inquiry

Saldaña, 2013: 12

Table 3. Example of Coding Process Using the Saldana Framework

Category	Open Code	Interviewee original Statement
Barriers to the Original Mission of 1890 SBAE	Fluctuating Enrollments	"There were no students in it [Ag Ed], and it was located in the Department of Education. We transferred it back [to our School of Agriculture and Human Sciences]. Once they moved it [back to the College of Agriculture], we were able to recruit students more, and we hired a faculty member."
	Location of program	
	Program interruptions	"There was a lapse here with the ag program because the (last year we had an) ag teacher here at [university] was in 1998."

Results and Discussion

The researchers extracted the following results from the semi-structured interviews using the aforementioned questions with the participants, who are referred to with the following pseudonyms: Participant A, Participant B, Participant C, Participant D, Participant E, Participant F, Participant G, and Participant H. The researchers redacted some of the participants' interview responses to provide anonymity due to following IRB guidelines and rules for reporting qualitative research.

Guiding Question 1:History of the 1890s School-Based Agricultural Education Program

The interviewees almost unanimously noted that SBAE was the founding degree program, either formally or informally, at most of the institutions in this study. Participant B said, "*Ag Ed is the oldest academic discipline at [university] in both the undergrad and master level…we have a long history of producing Ag Ed teachers here, minority Ag teachers.*" Participant G said, "*Agriculture at [institution] started as agriculture education and then it grew from there. For many of these institutions, agriculture was an essential part of establishing their universities. It all started out as an agriculture teacher education program, that's what the school is all about.*"

However, it was also clear that SBAE quickly became rather unstable at most institutions. The instability meant various academic units operated SBAE programs. Many agricultural education programs became housed in Colleges of Education instead of Colleges of Agriculture or switched back and forth between the two colleges.

One reason for the instability was the ebb and flow of undergraduate students seeking a traditional path to teacher licensure in agriculture. Participant F said, "*There were no students in it [Ag Ed], and it was located in the Department of Education. We transferred it back [to our School of Agriculture and Human Sciences]. Once they moved it [back to the College of Agriculture], we were able to recruit students more, and we hired a faculty member.*"

Not all programs were able to keep up with the changing tides of SBAE supply and demand, though. Participant C stated that, while his institution does not currently offer an agricultural education degree, the university was in the process of building the degree back up.

When discussing the barriers they faced throughout the history of their SBAE programs, all participants cited drastic fluctuations in student numbers.

Competition for a limited number of students has also negatively influenced SBAE at 1890 institutions. Participant D alluded to situations in which SBAE programs completely closed because of so much competition for students, with potential students crossing state lines to get degrees in SBAE because there were not any in their state. He said, "*I was able to save it [Ag Ed]*," he said, "*When I got here, it was struggling, but now it's active. We have graduated one student each year for the past two years, and I've got one that's student teaching this year and then I've got another who is going to student teach next year.*"

Participants further explained the way their SBAE programs fluctuated over the past decade. *"From 2000 to 2010, there's been a steady decline; peaked in 2004, 16 in 2005 and ever since, it's been on a steady decline until … [2014]. There are three enrolled students in Ag Education."* Participant E affirmed, "*There was a lapse here with the Ag program because the (last year we had an) Ag teacher here at [university] was in 1998.*"

In at least one instance, an 1890 capitalized on waning SBAE numbers at the 1862. Participant H discussed how the 1862 institution in their state "*released their program several years back*," but "*they are trying to reestablish it.*" This lapse in SBAE program availability at the 1862 allowed them to be "*the primary teacher training institute for agricultural teachers. We are predominately now still the major institution for ag teachers in the state for African American teachers and [others].*" However, with a national secondary agriculture teacher shortage, especially among minority populations, most participants agreed that growing at the expense of other schools is not the answer.

Guiding Question 2: Current Status of the 1890 Land-Grant Institutions

The current status of SBAE is varied across the interviewed 1890s, but most of their programs are miniscule compared to their 1862 counterparts. Most programs also have in common a focus on nontraditional students. Participant A said the types of students that are enrolled in SBAE preparation are different. "*We get a lot of transfer students from 2-year colleges,*" he stated.

Participant H said, "*Enrollment is very low, and as far as the Afro Americans are concerned, it's pretty much null.*" He believed that the history of African American enrollment stems from the transitional period of desegregation and integration of minorities into public schools. "*There weren't many Afro American teachers or graduates going into teacher education, particularly in agriculture.*" As a result, he is convinced that "*Afro Americans have a tendency to follow or enroll in classes with teachers that look like them.*"

Participant H noticed that African American teachers who are retiring "*are not being replaced by an Afro American teacher*" which has led to a "*very detrimental effect on Afro Americans having an interest in teaching agricultural education in high schools, or in agriculture period.*"

Among 1890s, there was one instance of success in building a robust SBAE program. Participant B's program has experienced an increase in student enrollment. He said, "*When I started at the institution, we had about 30 total students, i.e. undergraduate and graduate students. Today, the program is sitting at about 170 undergraduates and graduates combined.*"

According to Participant G, his SBAE program "*…looks like it's going to be one of the better programs.*" He added, "*They're pushing us to get a doctorate in it.*"

All but one of the interviewees stated that they have an active program, with students majoring in SBAE. When describing their programs as active or inactive, the participants often discussed the various degrees which their institution offered, and which included two major factors: The number of faculty who were available to teach the courses and the number of students who were enrolled in each course. A majority of the 1890 land-grant institutions viewed their programs as evolving over the years but reports on the current status were mixed.

Even though they believed they had an engaged SBAE program, and there was an overall desire to grow the program, there was little agreement among the interviewed participants about how to go about it with such low student numbers. Participant H compared his university to many others that are at a loss to decide how to keep a low enrolling program active: "*We did have a degree program in agriculture education, but we've changed it to a general ag degree with an option of agriculture education, and I think that's what many of the institutions have done because of the low enrollment in their programs.*"

Participant E added, "*To have a degree in agricultural education, we have to have 10 undergrads, and now I have 7 undergrads and 10 graduate students in the program. We are working to build a program. This program lapsed for a while until 2009.*"

The program that Participant C oversees does not have students actively enrolled in SBAE; however, their program is classified as a SBAE with faculty members who are placed at their university to resurrect the program.

Participant B described their agricultural education degree as having two parts. "*At the undergraduate level, we have Ag Ed secondary, which is the teacher licensing track, and the other part is the professional services, which is where we put our extension tract.*" The extension track usually leads to students entering the agricultural industry, [in jobs] such as the United States Department of Agriculture (USDA).

In some cases, a lack of faculty leads to lack of enrollment. Participant A said, "*We only have a bachelor's, since I am the only faculty in Ag Ed. I am also the only African American faculty member in the College of Agriculture, which also potentially limits program growth.*" Participant D is also the only SBAE faculty member at his institution, and the only African American faculty member in his College of Agriculture. Both Participants D and A said that their institution offers no support to hire faculty or to teach the courses in the course catalog.

In summary, institutions where the SBAE programs have not gone dormant desire to resurrect them. However, 1890s need to contribute teachers, especially minority teachers, but most respondents are not sure where to begin to build the program back. The last guiding question below uncovered similar responses.

Guiding Question 3: Outlook of the 1890s School-Based Agricultural Education Programs

As the authors noted above, most participants expressed a desire to increase SBAE student enrollment and to retain the SBAE programs within their institution. Although the researchers did not ask questions about graduate programs, multiple participants seemed to have graduate education and Ph.D. options for SBAE, as part of their vision. Participant A's institution has a bachelor's degree program, but he says, "*there's some discussion of having a master's in teaching in technical education…it's just in the very beginning stages of discussions.*" Participant B added: "*What I would envision is to put a Ph.D. in agricultural science with tracks like Ag Ed, Ag business, what have you. To be honest with you, we're of course hoping to add more faculty members. Our major plan is to increase enrollment.*"

Participant C does not have an active program with students who were enrolled at the time of the interview. However, he said the university "*is hoping to bring the program back as a full-fledged major, because we are trying to bring back the concentration area and trying to increase the number of students pursuing in that area. The plan of action to accomplish this goal is to increase the number of students recruited in the area.*"

Participant C reported that his school would like to start with a bachelor's, "*but first, it would probably just be the concentration areas, because we don't have enough students for it to be a degree.*"

If needed funding and support were made available, Participant D believes they would "*have a bustling program, because again there aren't that many choices for those [students] who are interested…This opportunity to recruit could be a gold mine.*"

Participant G said: "*I see agriculture education one day being in a separate department with enough students to run it.*" His institution is also hoping for a doctoral program to go along with their bachelors and master's options in agricultural education. He stated: "*I believe that we can justify a department with our program. I think it's going to happen. I won't be here when it happens, because I'll be retired.*"

Participants are of the opinion that SBAE programs will grow because of current trends in education. For example, Participant F mentioned that his state had eliminated the Praxis II exam requirement for teachers. As a result of this and of the need for SBAE teachers, he believes his program is going to grow.

Most participants shared that, in order to grow, though, recruitment needs to be enhanced. Participant H believes that establishing relationships with local high schools is the key to increasing students' interest for agricultural education. His institution is working on a grant that would "*look at identifying several high schools that we can go into and form mentoring groups of Afro Americans, basically at the 9th-12th grade.*" The purpose of the grant would be "*to inform students about agricultural education and agricultural careers.*"

Regarding recruitment and building community relationships, such as with secondary schools, each participant agreed that they must perform for their programs to be successful. Participant A noted that his program "*influences secondary agricultural education by hosting 6 or more state FFA championships and area career development events annually.*" By hosting these events, it "*brings over 600 students [annually] to our campus.*" This is an excellent recruitment tool because "*teachers are now telling their students that they should come here to get their teacher's certificate in agriculture education.*"

Participant F also believes that "*we should be filling up those spots in those schools.*" By putting teachers certified by their university into the schools, "*they also serve as your recruiters. They'll recruit kids to come to your university.*"

Participant B reported working on two goals in their SBAE. The first is assisting in the development of middle school programs: "*We have really been emphasizing the development of middle grade ag programs in our state. We host the FFA Middle Grade Rally every year at the state level,*" he said.

The second goal is increasing the conversation on diversity. "*We are really trying to impact the whole conversation on diversity even more on the secondary level,*" he said. The plan is to "*let particularly minority populations know who we are, what we are about, and impress upon teachers the need to impress upon their students the opportunities that are*

available in becoming an ag or environmental scientist." Participant B noted that this is part of a national conversation that could influence their university and agriculture as a whole.

Influential individuals who can serve as mentors and role models are the people Participant C seeks to target when building relationships within the community. The first relationship is "*through the high school teachers.*" Participant C said that he had conducted research that examined factors that influence students' career choices and found that "*students choose careers because of individuals in their lives, such as fathers, teachers, and counselors. If we don't keep people in the high schools that interact with students, then we possibly miss out recruiting students for SBAEs.*"

Participant E believes that building relationships with the schools could be accomplished by working more closely with administrators in the school districts and by educating them about agriculture. Participant G credits his university's faculty for reaching out to the community. He added, "*We have the faculty, we have the program back up and running, we have a good friend in the school system that works as an adjunct…I think they'll be looking for us to help replace these people [teachers] or find new people [teachers] for them.*"

Lack of program support, including lack of faculty members and classes, was the major barrier Participant D expressed. "*I'm not recruiting, I feel bad recruiting students for them to arrive and can't take courses…there's no need in beating bushes when you don't have anything to show for it.*"

Participant H was concerned with recruitment, too, but for a different reason: Students going out of state for college. He said that his institution's influence is limited because many of the state's agriculture teachers were trained across state lines. "*Many of our teachers come from the surrounding states and the reason is because many of our state's Ag programs are closer to [other university] and [other university] than they are to [Participant H's university].*" This poses a problem because his institution is "*the only institution that offers the certifying teacher education program in the state*" in agricultural education.

Participant A said, "*it appears that fewer HBCUs are producing certified school-based agriculture teachers.*" One of their issues was that their community did not know where they were located. He recalled, "*When I first came to the area teacher meeting, not one of the teachers could tell me where [university] was located except for the black teachers.*" Since Participant A has been at his university, that is no longer the case, but he suggested that "*HBCUs producing Ag teachers should mentor other HBCUs, so that all can produce more minority secondary and middle school teachers,*" as a whole.

Participant C also believes that, by working together, the 1890s can have more viable SBAE programs, and that more programs could be established. Learning from each other and building on one another's strengths is the path Participant D suggested.

Participant E added, "*It [successful 1890 programs] would push other HBCUs to perform or to become equal to [university].*" Another barrier that Participant E faces is "*getting people to leave their state and come to [state] and [state] graduates to go to other states.*"

Contrarily, Participant B does not believe that they [1890s] could influence or push other 1890s to perform. "*Since we are located in separate states, we really are kind of isolated from each other and so what we do in our state really doesn't impact what goes on in other states.*"

Participant G agreed with Participant B, who added, "*I don't believe it's going to do much, although we do talk about it when we go to meetings.*" These meetings bring faculty from the different 1890 land-grant institutions together in one room. "*Once we get a few teachers out there and people start seeing what we are doing, it might help,*" he said.
Participant H also believes that, based on the nature of each program's differences, his institution may not compare itself with other 1890s.

Summary

All participants have extensive relationships with both 1890 land-grant institutions and SBAE. The results of this study were revealing because, while each participant had a different perspective on experiences working within the 1890, the experiences at their core were the same.

Historically, the respondents concluded that their institutions possess a rich history in their communities as well as in SBAE programs. In most cases, SBAE was an original or founding degree program for their universities and thrived until various points of time. All have identified barriers such as low student enrollment numbers, competition with the other land-grant institutions, and the hiring of African American faculty, when attempting to maintain a SBAE program. However, each participant reported their university had always had the goal of keeping their SBAE program viable.

During the interviews, all but one participant reported having students pursuing a degree in agricultural education. The one university without enrolled students reported that they were rebuilding their program. All of the programs are in various stages of rebuilding, due to fluctuations in student interest, competition with other institutions, and/or lack of funding. Today's students, especially minorities, are no longer eager to study agriculture because of its historical context: Farm labor, working with "cows, plows and sows" (Bowen, 2002; Croom and Alston, 2009; Esters and Bowen, 2005; Faulkner et al., 2009; Jones and Larke, 2003; Warren and Alston, 2005). The students are often unaware of the numerous career opportunities beyond production agriculture, such as STEM degrees, food sciences and natural resources, or of the many minority agricultural professionals in the discipline.

Support systems of teachers and professionals may influence enrollment in agricultural education programs. Wakefield (2003) supported this premise in a study that examined the need for a more diverse agricultural education. He

found that more minority students should be recruited to become agricultural educators and influence younger generations of minority students to become involved in agriculture.

The outlook for the future of SBAE at 1890 land-grant institutions is bright, according to most of the participants' responses. They view their programs as growing, with new students, new faculty, and more collaboration. Some believe more degree programs are in the future. The participants all agreed that it is their responsibility as HBCUs to increase the number of diverse students and teachers in what is viewed as a predominately white field. This philosophy is in line with the 1890s tradition of "developing capabilities in areas where other institutions have committed little or no resources" (Christy and Williamson, 2012).

As Participant B stated, "*if we don't put them [African American students] out [educate and graduate] then who will? If 1890 land-grant institutions, including HBCUs, fail to graduate minority students, then who will be responsible? The answer is, so far, 'No one'.*"

As the data the researchers collected in this study suggest, there is a general shortage of U.S. agricultural educators (Kantrovich, 2012), and African Americans make up a very small number of these educators. The purpose of this study was to explore the relationship between SBAE and 1890 land-grant institutions, because these institutions generally have a higher enrollment of African Americans and other minority groups. The essential question was: "*If the 1890 land-grant institutions have a high minority population, then why are they not producing and graduating minority agricultural educators?*"

A limitation of the study was that the researchers recruited only eight (44%) of the eighteen 1890 land-grant institutions to participate, despite repeated attempts. This low response supports the need for more communication, collaboration, leadership, and, perhaps, program re-establishment among the 1890 land-grant institutions. Participants provided mixed responses to questions related to the relationship between SBAE and more productive 1890 SBAE programs.

Apparently, it is much more challenging than the authors of this study expected for these institutions to recruit and graduate future minority agricultural educators. It is recommended that future studies include input from other land-grant institutions, so that they and 1890s can work collaboratively to address the changing demographics of U.S. agricultural education we are supposed to learn from our history. This study reveals that we need to do something different to grow SBAE at the 1890s and working together with each other and 1862 partners seems to be a great place to start.

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