

Comparative Analysis of SBAE Teacher Representation Relative to U.S. Population in AAAE Regions

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Introduction/Need for Research

The teacher workforce remains racially and ethnically homogeneous even with increasingly diverse number of students (Little & Barlett, 2010). Research shows that students who share a race or ethnicity with their teacher experience significant positive effects on academic achievement and persistence (Lindsey, 2021; Morgan & Hu, 2023). In agricultural education, school based agricultural education (SBAE) teachers report that race/ethnicity is a significant barrier for students to take agricultural education classes in high school (LaVergne et al., 2012). There continues to be a shortage of agricultural education program completers nationwide (Foster et al., 2026), however with a general population becoming more diverse, SBAE teachers continue to be predominately white (Foster et al., 2023)

The purpose of this study is to identify the demographics of SBAE teachers in comparison to their respective region's demographics. The purpose and objectives for this study align with the AAAE Research Values under the value of "*Ensuring Diversity, Equity, Inclusion, and Belonging*" (AAAE, 2023, pg. 10). This study is fulfilled by the following objectives:

1. Describe the demographic characteristics of SBAE teachers and teacher-education program completers across the Western, North Central, and Southern Regions of the American Association of Agricultural Educators (AAAE).
2. Assess the alignment between the demographics of SBAE teachers to the overall demographic profiles of their respective states within these regions.

Theoretical Framework

This study utilizes social cognitive career theory (SCCT) (Lent et al., 1994) to examine how the disconnect between teacher and regional demographics may influence the career pipeline. SCCT posits that individuals are products of their surroundings; career choices are shaped by the interaction between self-efficacy beliefs, outcome expectations, and personal goals (Lent et al., 1994). In SBAE, the teacher plays an important role in the environment and learning experiences. An individual's sense of identity and performance in an academic setting is significantly bolstered when they feel they belong (Chen et al., 2020). Conversely, when students lack role models who reflect their racial or ethnic identity, their future career in SBAE may be in jeopardy (Stout et al., 2013). This research evaluates the reported race/ethnicity of SBAE teachers in each AAAE region to determine the differences between the general population and teachers.

Methodology

This study employed a cross-sectional descriptive-comparative design. Regional population data of the general population was sourced from the U.S. Census Bureau (2021). SBAE teacher demographics were drawn from the National Agricultural Education Supply and Demand Study (Foster et al., 2026). To assess the differences in the population samples researchers calculated the percentage point difference between the general population and the teacher workforce from 2020.

Results/Findings

There is an average of 1.61 SBAE teachers per program reported in 2020. Table 1 compares each AAAE region to the reported U.S. Census Data from 2020. The U.S. Census Data percentage was subtracted from the SBAE teacher data reported. Therefore, a negative value means a higher percentage of SBAE teachers compared to the U.S. Census Data of that region.

Table 1

SBAE Teacher Race/Ethnicity compared to 2020 Contiguous U.S. Census Data

Race/Ethnicity	U.S. Census Data	SBAE Teachers	F-F
North Central			
Black	9%	1%	8%
Hispanic	9%	0%	9%
Multi Race	4%	0%	4%
White	73%	97%	-24%
All Other	5%	2%	3%
Southern			0%
Black	20%	2%	18%
Hispanic	12%	4%	8%
Multi Race	5%	1%	5%
White	59%	80%	-21%
All Other	9%	13%	-4%
Western			0%
Black	3%	0%	3%
Hispanic	22%	4%	18%
Multi Race	5%	1%	4%
White	63%	87%	-25%
All Other	7%	8%	-1%

Conclusions

Within the North Central region, 97% of SBAE teachers identify as White, establishing it as the most demographically homogeneous region in the United States. Conversely, while the Southern region exhibits the highest levels of racial diversity, a significant disparity exists between the Black general population and the representation of SBAE teachers. A parallel trend is observed in the Western region, where a substantial gap persists between the Hispanic general population and their representation within the SBAE teaching force.

Implications/Recommendations/Impact on profession

Applying the SCCT Choice Model (Lent et al., 1994), these results suggest that the current SBAE environment may affect the self-perception of minority students. One way to tackle the SBAE program completer shortage may be to recruit students from diverse backgrounds to serve in SBAE teacher roles, who in turn become the role models for future students. Additionally, we recommend comparing SBAE race/ethnicity to National FFA demographics to better understand what is happening in the classroom every day. By increasing opportunity and belonging (Chen et al., 2020) SBAE teacher shortages can be combated.

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