

# ANALYZING RACE AND ETHNICITY TRENDS OF PROGRAM COMPLETERS IN AGRICULTURAL EDUCATION

**Daniel Foster**  
Associate Professor  
The Pennsylvania State  
University

**Amy R. Smith**  
Associate Professor &  
Program Leader  
University of Minnesota

**Michael Spiess**  
Professor Emeritus  
California State University, Chico  
College of Agriculture

**Rebecca Lawver**  
Department Head & Professor  
Applied Sciences, Technology and  
Education

## Introduction

Diversity, equity, and inclusion are at the forefront of educational efforts. Since 1965, the National Supply and Demand (NSD) for Agricultural Education project has been supported by the American Association for Agricultural Education (AAAE) and utilized by members. The project collects race and ethnicity data for newly licensed program completers (PCs), however, securing this information has been a challenge (Kantrovich, 2010). In 2000, Camp reported that “Agricultural Education teachers are disproportionately white, non-Hispanic males” and suggested efforts be taken to address the underrepresentation of ethnic minorities in agricultural education. Unfortunately, profound underrepresentation still exists today. Lawver, Smith, and Foster (2018) recommended additional research to identify strategies to recruit underrepresented populations and that “major efforts should be made to recruit and prepare minority teachers for the profession.”

## Results & Findings

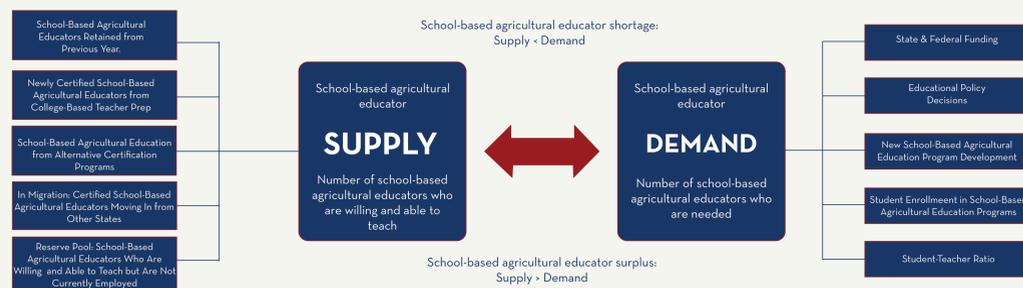
Data from 120 institutions (49 - North Central, 52 - Southern, 19 - Western), was analyzed. Institutional production of PCs varied from 1 to 350 over the study period. For objective 1, race and ethnicity profiles from 2014-2022 are provided in Table 1. Comparatively, practicing teachers were 81% white, 1% African American, 3% Hispanic, 2% other, and 13% reported as unknown (Foster et al., 2022).

Objective 2 looked at trends and regional differences in PCs' race and ethnicity. Nationally, white PCs declined from 88% to 86%, although this varied from 93% to 86% over the study period. Regionally, race and ethnicity profiles of PCs were more diverse. North Central averaged 95% white, Southern averaged 87% white, and Western averaged 86% white. At the state level even more variation existed from 0% (Puerto Rico), 75% (Maryland and New Mexico) to 100% (Massachusetts, Iowa, New Jersey, West Virginia, Nebraska, Wisconsin, Michigan, and North Dakota).

SBAE teachers continue to be predominately white. Nationally, there is no discernable trend toward increasing race and ethnicity diversity over the past nine years. Regionally and at the state level, we see differences in both numbers and trends. Anecdotally, California SBAE students are less than 40% white, while some states remain more than 90% white.

## Conceptual Framework

The conceptual framework for the NSD project (adapted from Lyndsey et al., 2009) identifies factors contributing to SBAE teacher supply and demand.



**Figure 1. Conceptual Framework of Agriscience Teacher National Supply and Demand Study. Adapted From Lindsay, Wan, & Gossin-Wilson (2009)**

## Methodology

Historic review of race and ethnicity of program completers in SBAE, leveraging data collected through the National Supply and Demand study

Objectives include:

- describe race and ethnicity of SBAE PCs (2014-2022)
- determine trends and/or regional differences in race and ethnicity of PCs

In total, 2014-2022 surveys yielded 370 records; records with more than 50% “unknown” or incomplete data were omitted, resulted in analysis of 365 complete records from 44 states and Puerto Rico.

**TABLE 1:**

*Racial distribution of program completers from 2014-2021*

| Year  | White | African American | Hispanic | All Other | Unknown |
|-------|-------|------------------|----------|-----------|---------|
| 2014  | 88%   | 2%               | 5%       | 2%        | 0%      |
| 2015  | 91%   | 1%               | 5%       | 3%        | 0%      |
| 2016  | 91%   | 1%               | 5%       | 2%        | 0%      |
| 2017  | 89%   | 2%               | 6%       | 2%        | 2%      |
| 2018  | 93%   | 1%               | 5%       | 2%        | 0%      |
| 2019  | 87%   | 1%               | 4%       | 2%        | 6%      |
| 2020  | 89%   | 0%               | 6%       | 4%        | 0%      |
| 2021  | 92%   | 1%               | 4%       | 3%        | 0%      |
| 2022  | 86%   | 3%               | 5%       | 6%        | 1%      |
| Total | 89%   | 1%               | 5%       | 3%        | 1%      |

## Conclusions & Recommendations

If we indeed strive to have a SBAE teaching profession that reflects our students, we have significant opportunities for improvement. Agricultural education teacher preparation programs continue to graduate predominantly White program completers. Using gender as a demographic example, we observe program completer trends influencing the gender demographic profile of the agricultural teachers (Lawver, Smith, & Foster, 2018). Effort is needed to align teacher demographics with student, school district, and community demographics. Additional research is needed to understand the magnitude of these issues more clearly.