

National Agricultural Education Supply & Demand Study

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2025 Executive Summary

The National Agricultural Education Supply and Demand Study has been facilitated by the American Association for Agricultural Education (AAAE) since 1965. This document summarizes findings from the 12th year of data collection by the current project team (2025). In 2023, a national dataset was established to advance scholarship on teacher recruitment and retention, providing stakeholders in agricultural education with accessible data to inform practice. This executive summary offers a brief glimpse into current national data; readers are encouraged to explore the full dataset through the online National Supply and Demand database (<https://nsd.aaaeonline.org/>) for deeper analysis and application.

Need for the Project

The shortage of highly qualified school-based agricultural educators is a longstanding issue. Despite increasing demand and continued program expansion within school-based agricultural education (SBAE), challenges persist in securing sufficient funding, addressing educator compensation, navigating complex licensure requirements, and ensuring diverse representation in the teaching workforce. To support data-informed policy discussions, stakeholders must collaborate systematically to collect accurate, timely data on both the supply of qualified educators and the demand for agricultural education positions across the United States.

Data Collection/Methods

State supervisors and executive secretaries representing all states were invited to provide demand-side data. The comprehensive supply frame consisted of teacher educators at all institutions with known agricultural teacher preparation programs; these individuals were asked to submit supply-side data reflecting 2024–2025 program completers. Both supply and demand instruments were updated and distributed via Qualtrics in September 2025. All respondents were asked to provide data as of September 15, 2025. To increase response rates,

multiple follow-up requests were sent to non-respondents, and alternate contacts were engaged when necessary.

Supply of Agriculture Teachers

A total of 95 teacher education programs submitted supply data, resulting in an 88% response rate (N = 108). Land-grant universities comprised 47% of responding institutions and accounted for 55% of all agricultural education program completers in 2025. In 2025, 747 individuals were identified as license-eligible program completers (PCs), down slightly from 781 in 2024. Of these, 597 (80%) were undergraduate completers, 62 (8%) were post-baccalaureate completers, 57 (8%) were graduate program completers, and 29 (4%) completed licensure-only programs. Table 1 highlights the reported employment plans for these license-eligible PCs. While the overall number of completers decreased from 2024, the yield—defined as the percentage of PCs entering school-based agricultural education (SBAE) positions—increased slightly in 2025.

Table 1
Employment Plans of License-Eligible Program Completers as Reported by Institutions (N=95)

Employment Plans	f	%
Employment SBAE in State	539	72%
Employment SBAE Out of State	56	7%
Employment Teaching Other Subject	36	5%
Agribusiness	32	4%
Graduate School	27	4%
Employment Unknown	16	2%
Other	15	2%
Extension	15	2%
Unemployed/Undecided	5	1%
Production Ag	4	1%
Military	0	0%
Total Program Completers	747	

Of the 747 license-eligible program completers, 600 (80%) identified as female, 143 (19%) as male, and 2

(<1%) as non-binary. This gender distribution is consistent with recent trends, with females comprising 75% of completers in 2022, 78% in 2023, and 77% in 2024, suggesting continued growth in female representation among agricultural educators. Table 2 presents the reported ethnicity of program completers. In 2025, the percentage of White program completers increased sharply from 80% in 2024 to 89%.

Table 2
Race of License-Eligible Program Completers

Race	<i>f</i>	%
White	662	89%
Hispanic	54	7%
AA Black	6	1%
AI AN	1	0%
Asian	0	0%
Multi	5	1%
NH PI	4	1%
Other	0	0%
Unknown	13	2%
Total PC	747	

Demand for Agriculture Teachers

Demand data were provided by 46 states, resulting in a 88% response rate (N = 52). As of September 15, 2025, a total of 9,512 school-based agricultural education (SBAE) programs employing 15,273 teachers were reported. Of these, 14,978 (98%) were full-time, and 295 (2%) were part-time. A total of 3,207 teachers (21%) were reported to teach at the middle school level. Among the total SBAE teaching population, 2081 teachers were new to their position at the start of the 2024-2025 academic year. Of these individuals, 1262 (61%) were newly hired teachers, 819 (39%) were SBAE teachers who transitioned to different schools. Of newly hired teachers, 322 were licensed by alternative methods, and 175 were hired unlicensed. Table 3 presents the reported sources of new hires. In 2024, the project began collecting data on the number of hires who were returning to teaching after time away from the classroom. Studies

using NCES data¹ indicate that 25% to 33% of all hired teachers are returning to the classroom. This finding suggests that returning teachers are underrepresented as a hiring source in SBAE compared with all secondary teachers. Some literature suggests that ² female teachers are more likely to return to teaching. With the change in agricultural teacher gender, we expect the number of returning teachers to increase.

Table 3
Source of New Hires in SBAE

Source	<i>f</i>	%
Returning	91	7%
UG in State	473	37%
UG Out of State	58	5%
Grad in State	73	6%
Grad Out of State	11	1%
Alternative	322	26%
Non Licensed	175	14%
Other	57	5%
Total New Hires	1262	

Note: New hires exclude teacher moving.

Prior education and employment backgrounds of non-licensed individuals hired to teach SBAE during the 2025–2026 academic year was also collected. Of the 175 non-licensed hires, 38% had backgrounds in agribusiness, farming, or industry; 16% were graduates of an agricultural program; and 25% were graduates of an education program (non-agricultural).

Table 4 summarizes reported reasons for teachers leaving SBAE roles. The most frequently cited reasons were retirement (ranked #2 in 2024), transitions to agribusiness jobs (non-production), and a shift to teaching other subjects. Despite new hires, vacancies remained as of September 15, 2025; a total of 140 full-time and 1 part-time teaching vacancies were reported. These figures are consistent with previous years. Continued growth and expansion of SBAE programming was observed in 2025, with 210 net teaching positions and 198 net programs added

¹ National Center for Education Statistics (NCES): The Schools and Staffing Survey (SASS) and the newer National Teacher and Principal Survey (NTPS).

² Grissom, J. A., & Reininger, M. (2012). Who comes back? A longitudinal analysis of the reentry behavior of exiting teachers. *Education Finance and Policy*, 7(4), 425–454. https://doi.org/10.1162/EDFP_a_00075

nationwide. Nonetheless, 143 teaching positions were lost, and 66 programs closed. The most cited reasons for position losses were a lack of available teachers (27%), low student enrollment (26%), and insufficient funding (20%). Notably, the lack of available teachers declined from 33% in 2024, but it remains the leading cause of lost positions.

Table 4
Reported Reasons for Teachers Leaving SBAE

Reason	<i>f</i>	%
Retirement	165	22%
Agribusiness	138	18%
Teach Other Subject	81	11%
Unknown	70	9%
Caregiver	60	8%
Terminated	56	7%
Admin	42	6%
Production AG	35	5%
Moved Out of State	31	4%
Continue Education	15	2%
Other Reason	14	2%
Post-secondary Position	12	2%
Ag Ed Leadership Position	11	1%
Death	10	1%
Personal Health	9	1%
Extension	7	1%
Adult Education Position	6	1%
Total	762	

Diversity in SBAE Teachers

Diversity within the teaching profession remains an issue. FFA membership, particularly in the West, is quite racially diverse, yet SBAE teachers remain predominantly White (Table 5).

Table 5
SBAE Teacher Race

Race	<i>f</i>	%
White	12927	85%
Unknown	1317	9%
Hispanic	488	3%
African American/Black	218	1%
Am Indian/Alaska Native	192	1%
Multi	55	0%
Asian	41	0%
Other	21	0%
Native HI/Poli Islander	12	0%
Total	15273	

SBAE students, like the overall population, are fairly evenly split between male and female, yet trends in SBAE continue to show an increasing number of female teachers. This trend is likely to continue, as PCs are 80% female and often replace retiring male teachers (Table 6).

Table 6
SBAE Teacher Gender

Gender	<i>f</i>	%
Female	8704	57%
Male	6443	42%
Other	116	1%
Unknown	8	0%
Non-Binary	0	0%
Total	15273	

Trends in SBAE

School-based agricultural education continues to experience steady growth across the United States. Tables 7 and 8 present net gains in both SBAE programs and teaching positions nationwide, and growth, measured by the number of programs or positions from the previous year. This upward trend has remained consistent in recent years and, barring significant policy changes, is expected to continue.

Table 7
SBAE Program Growth

Year	2022	2023	2024	2025
States Reporting	45	44	46	46
Total Programs	8968	9200	9202	9512
Added Programs	212	223	236	264
Programs Lost	48	48	58	66
Net Programs	164	175	178	198
Program Growth	-	2%	2%	2%

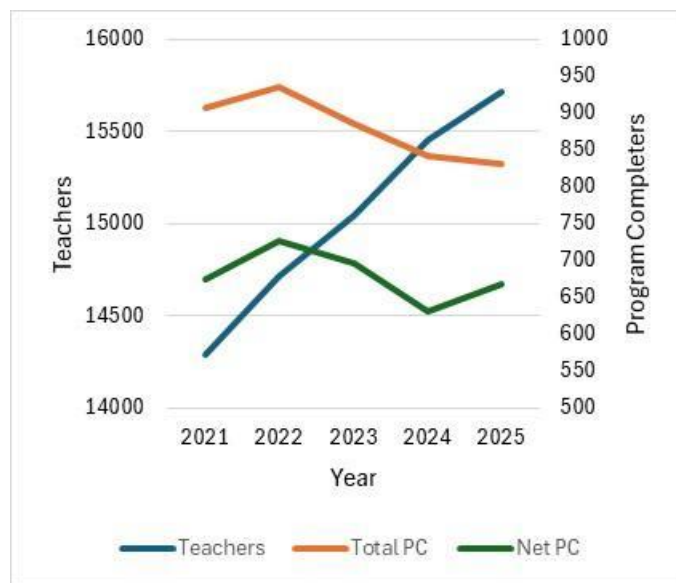
Table 8
SBAE Position Growth

Year	2022	2023	2024	2025
States Reporting	45	44	46	46
Total Teachers	14409	14741	15005	15273
Added Positions	425	474	394	353
Lost Positions	97	105	107	143
Net Positions	328	369	287	210
Position Growth	-	3%	2%	1.4%

Because the number of survey respondents can vary from year to year, imputation of missing values was used to provide a more accurate representation of the

total number of teachers and program completers over time. This approach supports more meaningful year-to-year comparisons. Data is imputed every year using data from 2014 to present. Figure 1 illustrates a clear trend of increasing numbers of SBAE teachers. The number of PCs rebounded in 2025; this may be a recovery of programs from the decline caused by the COVID-19 disruption.

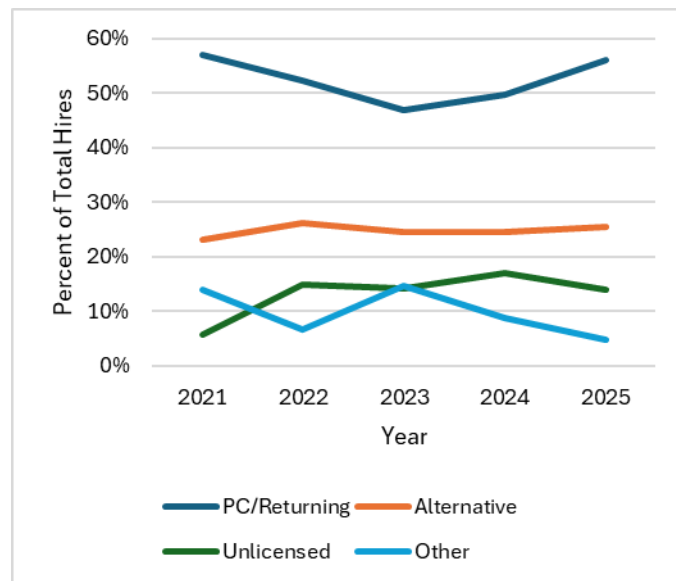
Figure 1
Interpolated Teacher and Program Completer Trends



Note: PC=Total Program Completers, Net PC=PCs taking jobs in SBAE.

Figure 2 illustrates that PCs are meeting the demand of new growth, but still are far from meeting the overall demand. We see PC hires rebounding from less than 50% in 2023 to 56% in 2025.

Figure 2
Trends in Hiring Sources



Note: PC/Returning = PCs plus teachers returning to teaching.

The increasing trend of PC hires conflicts with the decrease observed in the number of PCs taking jobs in SBAE as reported by preparation institutions. The relatively flat trend for alternative licensed, unlicensed, and other teachers suggests that PCs will be hired when available.

Plans for Continuation

With continuing funding from the American Association for Agricultural Education and ongoing collaboration with the National Association of Agricultural Educators, National Association of Supervisors of Agricultural Education, and National FFA, the National Agricultural Education Supply and Demand Study will continue to provide essential data for the foreseeable future. The next scheduled data collection cycle will begin in the fall of 2026.

Recommended Citation

Smith, A. R., Spiess, M., Foster, D. D., Rogers, A.R. & Lawver, R. G. (2026). *National Agricultural Education Supply and Demand Study, 2025 Executive Summary*. <https://nsd.aaaeonline.org>

Online Resources

Published data from 2014-2025 are available at <https://nsd.aaaeonline.org/> and may be viewed in chart or map formats or downloaded to Excel.