

National Agricultural Education Supply & Demand Study



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2021 Executive Summary

Since 1965, the National Agricultural Education Supply and Demand Study has been facilitated by the American Association for Agricultural Education (AAAE). In 2014, Drs. Daniel Foster (Pennsylvania State University), Rebecca G. Lawver (Utah State University), and Amy R. Smith (University of Minnesota) were selected to conduct the national agriculture teachers' supply and demand research. This document is a summary of findings from the eighth year (2021) of data collection by the present team.

Need for the Project

Within school-based agriculture, a shortage of highly qualified school-based agricultural educators is not a new phenomenon (Smith, Foster, & Lawver, 2017). While demand is voracious and program growth continues, challenges surrounding appropriate program funding, educator salary, licensure requirements and diverse representation in the teaching field persists. Systematically collaborating as stakeholders in agricultural education to obtain accurate and timely data for both the supply of qualified teachers in agricultural education and the demand for school-based agricultural education positions across the United States will allow for data-drive policy discussions.

Data Collection/Methods

Teacher educators at institutions with Agricultural Education teacher preparation programs were invited to provide supply data, while state supervisors/executive secretaries were invited to provide demand data. Both supply and demand instruments were developed in Qualtrics and distributed via email in November. While the initial request for data was sent later than previous years, respondents were asked to provide data as of September 15, 2021. Multiple follow-up requests were made to each non-respondent and alternate contacts in some cases.

Supply of Agriculture Teachers

A total of 81 teacher education programs provided supply data, resulting in an 76% response rate ($n=107$). Alaska, Hawaii, Maine, Rhode Island, Vermont, and the Virgin Islands currently have no existing Agricultural Education teacher preparation programs.

Of the 789 license-eligible program completers reported in 2021, 676 were undergraduate completers, 45 post-baccalaureate program completers, and 42 graduate program completers. An additional 21 individuals completed licensure only. Table 1 outlines the post-graduation employment plans of the 2021 license-eligible program completers as reported.

Table 1. Employment plans of license-eligible program completers ($n=789$)

Source	<i>f</i>	%
SBAE in-state	519	65.8
SBAE out-of-state	67	8.5
Graduate school	51	6.5
Teaching another subject	44	5.6
Agribusiness	43	5.4
Other	22	2.8
Unknown to teacher educator	19	2.4
Production agriculture	6	0.8
Extension	13	1.6
Unemployed	5	0.5
Military	0	0.0

*Note: Numbers as reported by state contacts.

Teacher educators indicated that of the license-eligible program completers, 596 (76%) were female and 192 (24%) were male. Just over 92% of all license-eligible program completers were reported as White, Non-Hispanic, with 3.9% Hispanic/Latino, 0.8% African American, 1.0% American Indian/Alaskan, 0.8% Bi-racial/Multi-racial, and 0.3% Asian. Teacher educators reported Other or Unknown ethnicity for approximately 1.0% of license-eligible program completers.

Demand for Agriculture Teachers

A total of 41 states provided demand data, resulting in a 79% response rate ($N=52$). Alabama, Alaska, Idaho, Maine, Massachusetts, New Hampshire, Puerto Rico, Rhode Island, Vermont and West Virginia were unable to provide demand data.

As of September 15, 2021, state supervisors reported a total of 8,367 school-based agricultural education programs employing 13,349 teachers. Of the total number of teachers, 1680 (12.6%) were considered new hires in school-based agricultural education (SBAE). Table 2 identifies the source of new hires, as reported.

Table 2. Source of new hires in SBAE (n=1680)

Source	f	%
Newly licensed undergraduate (prepared in-state)	510	30.4
Licensed ag teacher (moved to new school)	353	21.0
Alternative licensure route completer	307	18.3
Unknown	152	9.0
Newly licensed graduate (prepared in-state)	149	8.9
Newly licensed undergraduate (prepared out-of-state)	84	5.0
Non-licensed individual	76	4.5
Other	33	2.0
Newly licensed graduate (prepared out-of-state)	16	1.0

Prior educational/employment experience was reported for non-licensed individuals hired to teach school-based agricultural education in 2021-2022. In total, 19 were from agribusiness, farming, or industry, 14 were graduates of an agriculture program, 6 were from other areas of education, 3 were graduates of an education program, 2 were a graduate outside of agriculture or education, and 1 was a retired educator. The source of 27 non-licensed individuals was other/unknown.

Additional teachers were still needed to meet demand in school-based agricultural education; state supervisors reported 84 full time and 1 part-time vacancies as of September 15, 2021. Further, substantial growth and expansion in school-based agricultural education occurred in 2021-2022 with 382 new positions and 220 new programs added.

Despite program growth, 29 states reported a loss of programs or positions. A total of 60 positions were lost and 30 programs closed. Respondents reported that 674 school-based agricultural educators who taught in the 2020-2021 school year would not be returning to the classroom in 2021-2022. Table 3 identifies the reasons for leaving, if known. A total of 40 school-based agricultural educators moved to another state, but continued teaching agriculture.

Table 3. Reported reasons for leaving SBAE (n=674)

Source	f	%
Retirement	198	29.4
Unknown	76	11.3
Employed in business/industry	120	17.8
Employed in another educational content area (outside of Ag Ed)	11.3	10.6
Not offered a contract/terminated	30	4.5
Employed in school administration	43	6.4
Stay at home parent/caregiver	33	4.9
Employment in extension/non-formal education	6	0.9
Employed in production agriculture/farming	31	4.6
Employed in postsecondary education	12	1.8
Continuing education/grad school	10	1.5
Health	12	1.8
Ag Ed state staff	9	1.3
Other	8	1.2
Death	9	1.3
Employed in adult education/FBM	1	0.1

Future Plans

Continued collaboration with the American Association for Agricultural Education, the National Association of Agricultural Educators, National Association of Supervisors of Agricultural Education, National FFA and Local Program Success Specialists will enable successful supply and demand data collection through 2026.

Recommended Citation

Smith, A. R., Foster, D. D., & Lawver, R. G. (2022). *National Agricultural Education Supply and Demand Study, 2021 Executive Summary*. Retrieved from: <http://aaaeonline.org/Resources/Documents/NSD2021Summary.pdf>

References

Smith, A. R., Lawver, R. G., & Foster, D. D. (2017). *National Agricultural Education Supply and Demand Study, 2016 Executive Summary*. Retrieved from: <http://aaaeonline.org/Resources/Documents/NSD2016Summary.pdf>

For questions or concerns regarding this study, please email nsd@aaaeonline.org.