



# National Agricultural Education Supply & Demand Study

Amy R. Smith, Rebecca G. Lawver, and Daniel D. Foster

Contributions by: Ellen C. Thompson, National Teach Ag Campaign



## 2018 Executive Summary

Since 1965, the National Agricultural Education Supply and Demand Study has been sanctioned and sponsored 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 fifth year (2018) of data collection.

### Need for the Project

Numerous challenges face school-based agricultural education including, but not limited to, student enrollment, funding, and the availability of licensed teachers (Smith, Foster, Lawver, 2017). Additionally, changing licensure requirements, fiscal implications of the teaching profession, and the lack of a diverse pool of teacher candidates create challenges for agriculture teacher preparation programs.

Given the compounding challenges, stakeholders in agricultural education need ongoing and continuous research to determine the best course of action to meet demand. Current, accurate agriculture teacher supply and demand information allows for meaningful, data-driven policy decisions at all levels.

### Data Collection/Methods

Since 2014, consistent efforts have been made to refine the data collection process, and improve the quality of data collected. Teacher educators at institutions with Agricultural Education teacher preparation programs were contacted for supply data, while state supervisors/executive secretaries were contacted for demand data. In each case, an online instrument was distributed via email using Qualtrics. Multiple follow-up contacts were made to each non-respondent and alternate contacts in some cases. Both supply and demand instruments were distributed in September to elicit more accurate data regarding program completer employment. Ultimately, the data reported is only as accurate as the data provided by respondents. While the supply and demand team has made every effort to identify errors and verify, there continue to be periodic issues with data entry and reporting resulting in inconsistencies in the final summary reports.

### Supply of Agriculture Teachers

A total of 90 teacher education programs provided supply data, resulting in an 89% response rate ( $n=101$ ). Hawaii, Maine, Rhode Island, Vermont, and the Virgin Islands currently have no existing Agricultural Education teacher preparation programs.

Of the 873 license-eligible program completers reported in 2018, 630 were undergraduate completers, 86 post-baccalaureate program completers, and 98 graduate program completers. An additional 59 individuals completed licensure only. Table 1 outlines post-graduation employment plans of the 2018 license-eligible program completers as reported.

*Table 1. Employment plans of license-eligible program completers ( $n=873$ )*

Source	<i>f</i>	%
SBAE in-state	584	66.9
Graduate school	81	9.2
SBAE out-of-state	70	8.0
Agribusiness	42	4.8
Teaching another subject	28	3.2
Unknown to teacher educator	17	1.9
Other	16	1.8
Extension	15	1.7
Production agriculture	13	1.5
Unemployed	7	.80
Military	0	0.0

Teacher educators indicated that of the license-eligible program completers, 6236 (71%) were female and 250 (29%) were male. Nearly 90.1% of all license-eligible program completers were reported as White, Non-Hispanic, with 5.0% Hispanic/Latino, 0.6% African American, 0.3% American Indian/Alaskan, 0.9% Bi-racial/Multi-racial, 0% Asian, and 0.9% Native Hawaiian/Other Pacific Islander. Teacher educators reported Other or Unknown ethnicity for approximately 2.6% of license-eligible program completers.

## Demand for Agriculture Teachers

A total of 51 states provided demand data, resulting in a 98% response rate (N=52). Vermont was unable to provide the requested demand data.

As of September 15, 2018, state supervisors reported 9,071 school-based agricultural education programs employing 13,827 teachers. Of the total, 1594 (11.5%) teachers were considered new hires in school-based agricultural education (SBAE). Table 2 identifies the source of new hires, according to data reported.

*Table 2. Source of new hires in SBAE (n=1594)*

Source	f	%
Licensed ag teacher (moved to new school)	443	27.8
Newly licensed undergraduate (prepared in-state)	418	26.2
Alternative licensure route completer	363	22.8
Unknown	45	2.8
Non-licensed individual	111	7.0
Newly licensed graduate (prepared in-state)	118	7.4
Newly licensed undergraduate (prepared out-of-state)	66	4.1
Other	14	0.9
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 2018-2019. In total, 33 were graduates of an agriculture program, 8 was a graduate of an education program, 18 were from agribusiness, farming, or industry, 15 were from other areas of education, 2 was a retired teacher returning to the classroom and 13 were graduates outside of agriculture or education. We acknowledge this totals 91, as opposed to 111 as reported. Prior experience was not provided for 20 individuals.

Additional teachers were still needed to meet demand in SBAE; state supervisors reported 61 full time and 10 part-time vacancies as of September 15, 2018. Further, substantial growth and expansion in school-based agricultural education occurred in 2017-2018 with 247 new positions and 140 new programs added.

Despite growth, 23 states lost programs or positions. A total of 88 positions were lost and 45 programs closed. Respondents reported that 868 school-based agricultural educators who taught in the 2017-2018 school year would not be returning to the classroom in 2018-2019. Table 3 identifies their reasons for leaving.

*Table 3. Reported reasons for leaving SBAE (n=900)*

Source	f	%
Retirement	223	24.8
Employed in business/industry	164	18.2
Not offered a contract/terminated	91	10.1
Employed in another educational content area (outside of Ag Ed)	75	8.3
Employed in school administration	71	7.8
Unknown	65	7.2
Stay at home parent/caregiver	62	6.9
Moved out of state (still teaching Ag)	32	3.6
Employed in production agriculture/farming	30	3.3
Employed in postsecondary education	19	2.1
Continuing education/grad school	17	1.9
Health	16	1.8
Employment in extension/non-formal education	13	1.4
Other	7	0.8
Ag Ed state staff	7	0.8
Death	6	0.7
Employed in adult education/FBM	2	0.2

## Future Plans

The current project team will continue data collection for the National Supply and Demand Study through 2020. Continued collaboration with the American Association for Agricultural Education, the National Association of Agricultural Educators, Teach Ag Campaign, National Association of Supervisors of Agricultural Education, National FFA and Local Program Success Specialists will enable successful supply and demand data collection.

## Recommended Citation

Smith, A. R., Lawver, R. G., & Foster, D. D. (2019). *National Agricultural Education Supply and Demand Study, 2018 Executive Summary*. Retrieved from: <http://aaaeonline.org/Teacher-Supply-and-Demand>

## 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](mailto:nsd@aaaeonline.org).