



# National Agricultural Education Supply & Demand Study

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## 2017 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 fourth year (2017) of data collection.

### Need for the Project

Numerous challenges facing school-based agricultural education include, but are not limited to, student enrollment, funding, and obtaining licensed teachers (Smith, Foster, Lawver, 2016). Changing licensure requirements, societal perceptions of the teaching profession, and the lack of diversity among teacher candidates contribute to challenges for agriculture teacher preparation programs.

With compounding challenges, stakeholders in agricultural education must engage in 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

Following the collection of 2016 supply and demand data, efforts were made to refine the data collection process, incorporating operational definitions when needed and customizing validation settings to reduce the occurrence of mathematical errors in data entry. 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.

### 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 740 license-eligible program completers reported in 2017, 536 were undergraduate completers, 51 post-baccalaureate program completers, and 65 graduate program completers. An additional 89 individuals completed licensure only. Table 1 outlines the post-graduation employment plans of the 2017 license-eligible program completers as reported.

Table 1. Employment plans of license-eligible program completers ( $n=740$ )

Source	f	%
SBAE in-state	495	66.3
SBAE out-of-state	61	8.2
Graduate school	46	6.2
Agribusiness	33	4.4
Unknown to teacher educator	28	3.7
Teaching another subject	23	3.0
Other	22	2.0
Extension	15	2.0
Unemployed	9	1.2
Production agriculture	5	0.7
Military	3	0.4

\*Note: Numbers as reported by state contacts.

Teacher educators indicated that of the license-eligible program completers, 506 (69%) were female and 234 (31%) were male. Nearly 86.3% of all license-eligible program completers were reported as White, Non Hispanic, with 5.2% Hispanic/Latino, 1.5% African American, 0.4% American Indian/Alaskan, 0.2% Bi-racial/Multi-racial, 0.2% Asian, and 0.2% Native Hawaiian/Other Pacific Islander. Teacher educators reported Other or Unknown ethnicity for approximately 4.8% of license-eligible program completers.

## Demand for Agriculture Teachers

A total of 49 states provided demand data, resulting in a 94% response rate (N=52). Puerto Rico, Vermont and

the Virgin Islands were unable to provide demand data.

As of September 15, 2017, state supervisors reported a total of 8,471 school-based agricultural education programs employing 12,690 teachers. Of the total number of teachers, 1834 (14%) 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=1834)*

Source	f	%
Licensed ag teacher (moved to new school)	542	29.6
Newly licensed undergraduate (prepared in-state)	357	19.5
Alternative licensure route completer	356	19.4
Unknown	253	13.8
Non-licensed individual	106	5.8
Newly licensed graduate (prepared in-state)	101	5.5
Newly licensed undergraduate (prepared out-of-state)	64	3.5
Other	37	2.0
Newly licensed graduate (prepared out-of-state)	18	1.0

Prior educational/employment experience was reported for non-licensed individuals hired to teach school-based agricultural education in 2017-2018. In total, 45 were graduates of an agriculture program, 1 was a graduate of an education program, 26 were from agribusiness, farming, or industry, 15 were from other areas of education, 1 was a retired teacher returning to the classroom and 1 was a graduate outside of agriculture or education.

Additional teachers were still needed to meet demand in SBAE; state supervisors reported 72 full time and 4 part-time vacancies as of September 15, 2017. Further, substantial growth and expansion in school-based agricultural education occurred in 2017-2018 with 216 new positions and 189 new programs added.

Despite program growth, 27 states reported a loss of programs or positions. A total of 71.7 positions were lost and 52 programs closed. Respondents reported a total of 702 school-based agricultural educators who

*Table 3. Reported reasons for leaving SBAE (n=702)*

Source	f	%
Retirement	158	22.5
Employed in business/industry	128	18.2
Not offered a contract/terminated	93	13.2
Employed in another educational content area (outside of Ag Ed)	67	9.5
Employed in school administration	41	5.8
Stay at home parent/caregiver	38	5.4
Moved out of state (still teaching Ag)	34	4.8
Unknown	28	4.0
Continuing education/grad school	22	3.1
Employed in production agriculture/farming	21	3.0
Employment in extension/non-formal education	21	3.0
Employed in postsecondary education	15	2.1
Other	12	1.7
Health	11	1.6
Ag Ed state staff	9	1.3
Death	2	0.3
<u>Employed in adult education/FBM</u>	<u>2</u>	<u>0.3</u>

## Future Plans

In addition to this annual summary document, a comprehensive report compiling 2014-2016 data will

be published and disseminated to the profession in 2018. Continued collaboration with the American

taught in the 2016-2017 school year would not be returning to the classroom in 2017-2018. Table 3 identifies their reasons for leaving, if known.

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 through 2020.

### **Recommended Citation**

Smith, A. R., Lawver, R. G., & Foster, D. D. (2018). *National Agricultural Education Supply and Demand Study, 2017 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).