



National Agricultural Education Supply & Demand Study

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2014 Executive Summary

The National Agricultural Education Supply and Demand Study has been an ongoing project sanctioned and sponsored by the American Association for Agricultural Education (formerly the American Association for Teacher Educators in Agriculture) since 1965.

Beginning in 2014, Drs. Daniel Foster (Pennsylvania State University), Rebecca G. Lawver (Utah State University), and Amy R. Smith (University of Minnesota) were awarded a contract to coordinate efforts and conduct the national agriculture teachers' supply and demand research. Under their leadership, data will be collected on an annual basis (2014-2020). Supply and demand summaries will be provided to the AAEE executive committee annually, with a comprehensive report produced every three years.

Need for the Project

Stakeholders in the agricultural education profession need current, accurate estimates of the supply and demand for teachers of Agricultural Education to provide for meaningful policy decisions at all levels (Kantrovich, 2010). Teacher educators, agricultural education organizations, and state agricultural education staff need such data as well, for use in recruitment efforts of potential teachers of Agricultural Education.

Data Collection/ Methods

Every effort was made to streamline the process of supply and demand data collection and reduce burden to respondents. Instruments were developed, reviewed and revised to clarify items, minimize repetition, and eliminate unnecessary content. 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.

A total of 91 teacher educators representing 45 states provided supply data, resulting in an 88% response rate (N=103). Four states (Hawaii, Maine, Rhode Island, and Vermont) do not offer Agricultural Education teacher preparation. Data was not available from the following institutions: University of Arkansas – Pine Bluff, Fort Hays State University, University of Maryland – College Park, University of Massachusetts, College of the Ozarks, Missouri State

University, University of New Hampshire, Delaware Valley College, Middle Tennessee State University, Angelo State University, Prairie View A&M, and University of Wisconsin – Platteville.

A total of 47 states provided demand data, resulting in a 92% response rate (N=51). Data was not available from the following states: Massachusetts, Puerto Rico, Virginia, and Washington.

Key Findings

As of September 15, 2014, state supervisors/executive secretaries reported 7,424 school based agricultural education programs, which employed 10,874 teachers. A total of 1,366 new hires in school based agricultural education (SBAE) were reported for 2014-2015. Table 1 identifies the source of new hires, according to data reported.

Table 1. Source of 2014-2015 new hires in SBAE (n=1,366)

Source	f	%
Licensed ag teacher (moved to new school)	449	32.9
Newly licensed undergraduate (prepared in-state)	378	27.7
Non-licensed individual	183	13.4
Newly licensed graduate (prepared in-state)	121	8.9
Other	109	8.0
Newly licensed undergraduate (prepared out-of-state)	86	6.3
Unknown	22	1.6
Newly licensed graduate (prepared out-of-state)	18	1.3

Of the 183 non-licensed individuals hired to teach school based agricultural education in 2014-2015, 82 were graduates of an agriculture program, 26 were graduates of an education program, 22 were unknown, 20 were from agribusiness, farming, or industry, 14 were from other areas of education, 9 were "other" and 1 was a graduate outside of agriculture or education. Nonetheless, additional teachers were still needed to meet demand in SBAE. As of September 15, 2014, 86 full time and 10 part time vacancies still remained across the country. Further, substantial growth and expansion in school based agricultural education occurred in 2014-2015, resulting in 253 new positions and 162.5 new programs reported.

Despite program growth, 27 of 47 states reported a loss of programs or positions since 2011. On average, 67 positions and 45 programs were lost each year. Additionally, respondents from 39 states reported a total of 833 school based agricultural educators who taught in the 2013-2014 school year would not be returning to the classroom in 2014-2015. Table 2 identifies these individuals' reasons for leaving, if known.

Table 2. Reported reasons for leaving SBAE in 2014-2015 (n=833)

Source	f	%
Retirement	204	24.5
Employed in business/industry	118	14.2
Other	102	12.2
Not offered a contract/terminated	64	7.7
Employed in school administration	53	6.4
Employed in production agriculture/farming	49	5.9
Employed in another educational content area (outside of Ag Ed)	41	4.9
Stay at home parent/caregiver	39	4.7
Moved out of state	21	2.5
Continuing education/grad school	15	1.8
Health	9	1.1
Unknown	8	1.0
Employed in postsecondary education	8	1.0
Employed in adult education/FBM	5	.6
Death	3	.4

A total of 87 Agricultural Education teacher preparation programs reported 717 license-eligible, program completers as of spring/summer 2014. Of these graduates, 440 were female, and 251 male. Gender was not provided for 26 completers. Table 3 provides an overview of the ethnicity of program completers.

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

Note: Any data collected after the release of this executive summary will be included in the 2014-2016 three-year report.

REVISED 1-25-2015

Table 3. Ethnicity of license-eligible program completers (n=691)

Ethnicity	Female	Male
African American/Black	4	7
American Indian/Alaska	3	1
Asian	2	0
Bi-racial/Multi	4	1
Hawaiian/Pacific Islander	0	3
Hispanic/Latino	22	16
White, Non Hispanic	405	223

Note: Ethnicity not reported for 26 program completers.

Of the 717 reported program completers in 2014, 536 were undergraduate program completers, 47 post-baccalaureate program completers, and 68 graduate program completers. Table 4 outlines the post graduation employment plans of 2014 license-eligible program completers as provided.

Table 4. Employment plans of license-eligible program completers (n=746)*

Source	f	%
SBAE in-state	469	62.9
Agribusiness	58	7.8
Graduate school	52	7.0
SBAE out-of-state	45	6.0
Unknown to teacher educator	41	5.5
Undecided	33	4.4
Extension	22	2.9
Teaching another subject	16	2.1
Farming	8	1.1
Military	2	0.3

*Note: Numbers reported by key contacts in each state.

Future Plans

As year one of this multi-year project concludes, minor revisions will be made to both the supply and demand instruments. The data collection timeline will be modified slightly, to better accommodate respondents and ensure the accuracy of data provided. 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 be critical and better enable researchers to identify and access the best source of data from each institution and/or state.

Kantrovich, A. J. (2010). *The 36th volume of a national study of the supply and demand for teachers of agricultural education 2006-2009*. West Olive, MI: Michigan State University. American Association for Agricultural Education.