



National Agricultural Education Supply & Demand Study

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2019 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 sixth year (2019) 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, 2017). 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.

With 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

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 95 teacher education programs provided supply data, resulting in an 89% response rate ($n=107$). Hawaii, Maine, Rhode Island, Vermont, and the Virgin Islands currently have no existing Agricultural Education teacher preparation programs.

Of the 904 license-eligible program completers reported in 2019, 731 were undergraduate completers, 51 post-baccalaureate program completers, and 77 graduate program completers. An additional 45 individuals completed licensure only. Table 1 outlines the post graduation employment plans of the 2019 license-eligible program completers as reported.

Table 1. Employment plans of license-eligible program completers ($n=904$)

| Source | <i>f</i> | % |
|-----------------------------|----------|------|
| SBAE in-state | 626 | 69.2 |
| SBAE out-of-state | 74 | 8.2 |
| Graduate school | 51 | 5.6 |
| Agribusiness | 56 | 6.2 |
| Unknown to teacher educator | 18 | 2.0 |
| Teaching another subject | 32 | 3.5 |
| Other | 16 | 1.8 |
| Extension | 15 | 1.6 |
| Unemployed | 7 | 0.8 |
| Production agriculture | 7 | 0.8 |
| Military | 2 | 0.2 |

*Note: Numbers as reported by state contacts.

Teacher educators indicated that of the license-eligible program completers, 668 (74%) were female and 236 (26%) were male. Nearly eighty-seven percent of all license-eligible program completers were reported as White, Non-Hispanic, with 4.0% Hispanic/Latino, 0.8% African American, 0.7% American Indian/Alaskan, 0.6% Bi-racial/Multi-racial, and 0.4% Asian. Teacher educators reported Other or Unknown ethnicity for approximately 6.3% of license-eligible program completers.

Demand for Agriculture Teachers

A total of 47 states provided demand data, resulting in a 90% response rate ($N=52$). Georgia, Rhode Island, Vermont, the Virgin Islands, and West Virginia were unable to provide demand data.

As of September 15, 2019, state supervisors reported a total of 8504 school-based agricultural education programs employing 13189.5 teachers. Of the total number of teachers, 1420 (10.7%) 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=1420)

| Source | f | % |
|--|-----|------|
| Licensed ag teacher (moved to new school) | 400 | 28.2 |
| Newly licensed undergraduate (prepared in-state) | 391 | 27.5 |
| Alternative licensure route completer | 235 | 16.5 |
| Non-licensed individual | 141 | 9.9 |
| Unknown | 89 | 6.3 |
| Newly licensed graduate (prepared in-state) | 79 | 5.6 |
| Newly licensed undergraduate (prepared out-of-state) | 60 | 4.2 |
| Other | 19 | 1.3 |
| Newly licensed graduate (prepared out-of-state) | 6 | 0.4 |

Prior educational/employment experience was reported for non-licensed individuals hired to teach school-based agricultural education in 2019-2020. In total, 41 were graduates of an agriculture program, 51 were from agribusiness, farming, or industry, 26 were from other areas of education, and 11 were graduates outside of agriculture or education.

Additional teachers were still needed to meet demand in SBAE; state supervisors reported 60 full time and 3 part-time vacancies as of September 15, 2019. Further, substantial growth and expansion in school-based agricultural education occurred in 2019-2020 with 224 new positions and 156 new programs added.

Despite program growth, 28 states reported a loss of programs or positions. A total of 70 positions were lost and 36 programs closed. Respondents reported a total of 605 school-based agricultural educators who taught in the 2018-2019 school year would not be returning to the classroom in 2019-2020. Table 3 identifies their reasons for leaving, if known.

Table 3. Reported reasons for leaving SBAE (n=605)

| Source | f | % |
|---|------|------|
| Retirement | 149 | 24.6 |
| Employed in business/industry | 76 | 12.6 |
| Not offered a contract/terminated | 71.8 | 11.9 |
| Unknown | 65 | 10.7 |
| Employed in another educational content area (outside of Ag Ed) | 63 | 10.4 |
| Employed in school administration | 33 | 5.5 |
| Moved out of state (still teaching Ag) | 24 | 4.0 |
| Employed in production agriculture/farming | 23 | 3.8 |
| Stay at home parent/caregiver | 21 | 3.5 |
| Other | 21 | 3.5 |
| Continuing education/grad school | 16 | 2.6 |
| Employment in extension/non-formal education | 12 | 2.0 |
| Employed in postsecondary education | 10 | 1.7 |
| Health | 10 | 1.7 |
| Ag Ed state staff | 6 | 1.0 |
| Death | 3 | 0.5 |
| Employed in adult education/FBM | 1 | 0.2 |

Future Plans

In addition to this annual summary document, a more comprehensive report compiling 2017-2019 data will be published and disseminated to the profession in 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 through 2020.

Recommended Citation

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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.