

Teachers' Perceptions of Students' Views on Agriculture and Agricultural Careers

Jessica Myschisin
The Pennsylvania State University
724-859-9954
jrm7133@psu.edu

Kendra Flood
The Pennsylvania State University
217-994-6252
flood.kendra5373@gmail.com

Kevin Wylie Curry, Jr.
Assistant Professor
The Pennsylvania State University
814-863-7069
kxc554@psu.edu

Department of Agricultural Economics, Sociology, and Education
211 Ferguson Building
University Park, PA 16802

Teachers' Perceptions of Students' Views on Agriculture and Agricultural Careers

Introduction

Along with an aging producer population, the current gap in students pursuing agricultural careers and experienced, upcoming leadership in agriculture is approaching a crisis state. Between 2020-2025, an average of 59,400 positions are projected to open each year in the food, agricultural, renewable natural resources, and environmental industries for college graduates, which is a projected 2.6% increase in openings from the past five years (Fernandez et al., 2020). However, there are estimated to be only 35,000 college graduates to fill the positions (Fernandez et al., 2020). As job availability in the agricultural sector increases, the existing shortage of workers will likely be enhanced. To address the shortage of workers, the researchers involved in this study worked to examine how teachers of school-based agricultural education (SBAE) programs perceive their students' views on apprenticeships and careers in the agricultural industry.

Theoretical Framework

Super's (1990) self-concept theory defines the process of career choice and development as the way the person's self-concept is developed and implemented. Within the theory, self-concept is the interaction among several factors, including physical and mental growth, personal experiences, and environmental uniqueness and stimulation that influence career decision making (Super, 1990). That is, self-perception plays a significant role in determining one's ability to make a satisfying vocational or career choice (Barrett & Tinsley, 1977). Theorists, such as Super, have strongly argued for a focus and emphasis on self-concept when considering determinants of vocational choice and adjustment (Barrett & Tinsley, 1977). In this study, researchers used Super's (1990) self-concept theory to better understand the factors that impact students' views on agriculture, agricultural careers, and apprenticeships. Through the proxy of their teachers, the researchers examined how students perceive agricultural careers.

Purpose and Objectives

The purpose of this study was to gain a better understanding of agriculture teachers' perspectives on students' career plans after high school. The following objectives guided our study, 1) describe the perceptions held by agriculture teachers in Pennsylvania on their students' views concerning agricultural careers, 2) identify which factors contribute most to students' views on agriculture from the teachers' perspective, and 3) identify teachers' perceptions of students' views on apprenticeships in agriculture. These objectives align with AAAE Research Priority 3, Question 3: "What methods, models, and practices are effective in recruiting agricultural leadership, education, and communication practitioners (teachers, extension agents, etc.) and supporting their success at all stages of their careers?" (Roberts et al., 2016).

Methodology

The selected population for this study consisted of all current agriculture teachers in Pennsylvania ($N = 255$). Data collection procedures, including the sending of the prenotification, the survey, and the survey reminders, were based on the recommendations of Dillman et al. (2014) and yielded a response rate of 33% ($n = 85$). A Qualtrics® survey questionnaire was sent via email to all current Pennsylvania agriculture teachers asking them to rate how their students view agriculture, agricultural careers, and apprenticeships. The questionnaire was developed

from a study by Smith (2010) that investigated students' perceptions of agriculture and agricultural careers and a study by Sims (2014) that investigated motivational factors contributing to the choice to pursue an agriculturally related career. Validity of the survey questionnaire was established by a panel of experts. Data collected were analyzed in SPSS version 28. Descriptive statistics were used to report demographic data. Frequencies were used to report all other data collected.

Results

Of the 85 participants, the majority of teachers described their school location as rural ($n = 60, 70.6\%$) and reported to teach an animal science course ($n = 66, 77.6\%$). The first objective was to describe the perceptions held by agriculture teachers in Pennsylvania on their students' views concerning agricultural careers. Findings show that most agriculture teachers perceived that their students view careers in agriculture as viable career options ($n = 55, 64.7\%$). Additionally, most agriculture teachers perceived that their students view agriculture as a broad career field ($n = 65, 76.4\%$). However, over half of the agriculture teachers estimated that less than 25% of their students are considering pursuing a career in agriculture ($n = 45, 52.9\%$). The second objective was to identify which factors contribute most to students' views on agriculture from the teachers' perspective. Most agriculture teachers agreed income impacts their students' decision to choose the field of agriculture ($n = 64, 75.2\%$). The third objective was to identify teachers' perceptions of students' views on apprenticeships in agriculture. Interestingly, the majority of agriculture teachers agreed that apprenticeships would be beneficial to their students ($n = 58, 68.3\%$) and that their students would pursue an apprenticeship in an agricultural field if the opportunity was there ($n = 69, 81.1\%$).

Conclusions and Recommendations

Findings are not generalizable beyond the sample of this study. However, this research is an important step in understanding how agriculture teachers perceive their students' views of agricultural careers, as well as their career plans after high school. Results indicate that there is a discrepancy between agriculture teachers' perception that students believe a career in agriculture is viable and agriculture teachers' beliefs about their students' intentions to pursue a career in agriculture. Perhaps this discrepancy could be caused by students' hesitation regarding the profitability of agricultural careers. In a similar study that investigated high school students' perceptions of agriculture and agricultural careers, almost a quarter of students attending schools with agriculture programs in both urban and rural areas believed agriculture to be an unprofitable field (Smith, 2010). According to Hoover and Houser (1991), students are less likely to pursue a career in agriculture if they perceive it to be associated with manual labor, low salaries, unstable job security, contingent upon weather conditions, and equivalent to farming. Further research is needed to understand profitability as a barrier to pursuing a career in agriculture and explore the disconnect between agriculture teachers' apparent desire to place in apprenticeship style opportunities and the lack of those opportunities present in current SBAE programs. Rubenstein and Thoron (2015) reported teachers perceived lack of time, facilities, resources, motivation, and communication between program partners as factors that generally hinder student participation in supervised agricultural experience (SAE) programs. It is recommended that qualitative research be conducted to understand the barriers that agriculture teachers face when implementing apprenticeship style placements in their SAE programs.

References

- Barrett, T. C. & Tinsley, H. E. A. (1977). Measuring vocational self-concept crystallization. *Journal of Vocational Behavior, 11*(3), 305-313. [https://doi.org/10.1016/0001-8791\(77\)90026-4](https://doi.org/10.1016/0001-8791(77)90026-4)
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method (4th ed.)*. John Wiley & Sons Inc.
- Fernandez, J. M., Goecker, A. D., Smith, E., Moran, E. R., & Wilson, C. A. (2020). *Employment opportunities for college graduates*. USDA National Institute of Food and Agriculture. <https://www.purdue.edu/usda/employment/>
- Hoover, T. S. & Houser, M. L. (1991). Participant perceptions about agricultural careers. *NACTA Journal, 35*(2), 14-18. <http://www.jstor.org/stable/43764834>
- Roberts, T. G., Harder, A., & Brashears, M. T. (Eds). (2016). *American Association for Agricultural Education national research agenda: 2016-2020*. Gainesville, FL: Department of Agricultural Education and Communication.
- Rubenstein, E. D. & Thoron, A. C. (2015). Supervised agricultural experience programs: An examination of committed teachers and student-centered programs. *Journal of Agricultural Education, 56*(4), 75-89. doi: 10.5032/jae.2015.04075
- Sims, L. J. (2014). *Motivational factors contributing to the choice of agriculturally related careers* [Master's thesis, West Virginia University]. The Research Repository @ WVU. <https://researchrepository.wvu.edu/cgi/viewcontent.cgi?article=1353&context=etd>
- Smith, E. (2010). *High school students' perceptions of agriculture and agricultural careers as delineated by presence of an agriculture program and rural/urban categorization*. Cornell University eCommons. <https://ecommons.cornell.edu/handle/1813/15037>
- Super, D. E. (1990). A life-span, life-space approach to career development. In D. Brown & L. Brooks, *Career choice and development: Applying contemporary theories to practice* (pp. 197-261). Jossey-Bass.