Research Poster

Completers of a Summer Residential Program for Agriculture: Where are They Now?

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Introduction

Each year since 2001, approximately 100 rising secondary juniors and seniors, who are identified as gifted or talented, attend the Virginia Summer Residential Governor's School for Agriculture VGSA. The VGSA program allows these secondary students in Virginia to complete four weeks of coursework presented by faculty in the College of Agriculture and Life Sciences at Virginia Tech, and complete STEM-based research projects associated with agriculture. The mission of VGSA is "to develop future leaders and scientists for careers in agriculture" (Virginia Governor's School for Agriculture, 2017). Concentration of the curriculum is placed within the five NIFA priority science areas: global food security and hunger, climate change, sustainable energy, childhood obesity, and food safety (Toombs, N.D.). Interestingly, approximately 90% of students attending VGSA each year have little to no background in agriculture, nor have they participated in FFA or 4-H (Friedel, 2015). Given the background of these students traditionally enrolling in VGSA, one must ask if this program has an effect on secondary students consideration in choosing a career in agriculture. This research aligns with the American Association of Agricultural Education's recognized need to prepare future agricultural professionals equipped with essential skills; as identified in Research Priority 3: Sufficient Scientific and Professional Workforce That Addresses the Challenges of the 21st Century of the National Research Agenda (Stripling & Ricketts, 2016).

Theoretical Framework

The Theory of Planned Behavior (TPB; Ajzen, 1991) states that intention of behavior depends on motivation and ability. The theory differentiates between three different beliefs: behavioral, normative, and control (Ajzen, 1991). Behavioral beliefs connect the behavior to the outcomes and influence the attitudes toward the behavior. Normative beliefs refer to the expectations of people that are present in the individual's life. Control beliefs refer to the ability to perform the behavior. Behavior here is defined in a situation and intent as the indication of an individual's willingness to engage in behavior, such as seeking a career in agriculture (Ajzen, 1991).

Methodology

The purpose of this research was to determine the effect of VGSA on entering careers in agriculture. Specifically, researchers sought to: 1) identify careers associated with VGSA completers, 2) identify college degrees of VGSA completers, and 3) identify how VGSA informed the decision to enter a career in agriculture. Researchers obtained yearly rosters of participating students from the beginning of the VGSA program in 2001 through the year 2012 to better ensure students had completed college and were in the job market (N = 1,106). Social media was utilized to identify and confirm if individuals were past VGSA completers, and if they would like to complete a survey to provide more information regarding their career choices. A total of 547 completers were identified and sent an online questionnaire to ask additional questions regarding their career choices after completing VGSA. The online questionnaire was developed by the researchers to ask respondents demographic information, career information, and general attitude towards the VGSA program. Of the 547 students identified, 101 former VGSA students completed the questionnaire. Because of the low participation rate to the online questionnaire, the researchers reviewed social media profiles of the 547 completers to determine for declaration of an agriculture career, or a career outside of agriculture.

Results

Of the 547 VGSA completers recognized, 330 (60%) identified as female, and 217 (40%) identified as male. After reviewing social media profiles of these 547 completers, 69 (12.6%) were identified as having an agriculture career. These agriculture careers were in the areas of: agricultural research (*n* = 23), environmental or conservation (*n* = 15), agricultural education (*n* = 12), animal science (*n* = 11), and agribusiness (*n* = 8). There were 104 (19.0%) VGSA completers identified who, according to social media profiles, were not in agriculture careers. These areas included medical (*n* = 35), engineering (*n* = 31), government (*n* = 13), higher education (*n* = 13), and director of an organization (*n* = 12). Note that 68.4% of the VGSA completers could not be identified with certainty or did not have indication of their career field on their social media profile. From the questionnaire answered by 101 VGSA completers, 75 identified as female and 25 identified as male. With respect to ethnic or racial representation, 81 completers identified as White/Caucasian, and 12 identified as Asian. Other demographics of the remaining nine participants included Hispanic or Latino, Black or African American, or Native American. Of these participants, 47 live and work in Virginia. Of the questionnaire completers, 59 had obtained a bachelor's degree, 24 had obtained a master's degree, and 14 had obtained a doctoral degree. VGSA completers enrolled in over 29 majors of study, of which the most popular were six were identified in the college of agriculture. The most popular majors included biology (*n* = 13), animal sciences (*n* = 10), environmental sciences (*n* = 8), biochemistry (n = 7), business (*n* = 6), and engineering (*n* = 5). Only 15 participants considered themselves as currently working in an agricultural career. This number corresponded approximately with the job titles presented by the completers. Of these 15 individuals, five had little experience in agriculture before attending VGSA. For students who were asked if VGSA influenced their career decision, but indicated they were not in an agriculture career, 23 indicated that they had no intention of being in an ag career, 18 indicated that they have a stronger appreciation for agriculture, 9 indicated that there were skills learned during their time in VGSA that contributed to their current career, 8 indicated they did spend some time in an agriculture career, and 6 indicated they were curious and researched more about an agriculture career. For students who were asked if VGSA influenced their career decision and were in an agriculture career, 8 indicated that participating in VGSA confirmed their decision, 5 indicated that they explored additional agriculture career options, and 5 indicated that they began a career in agriculture as a result from participating in VGSA. When asked if VGSA influenced their attitude towards agriculture, 77 respondents were enthusiastically appreciative of VGSA contributing to their increased awareness of agriculture, while seven indicated that they were not made more aware of agricultural careers or content.

Conclusions and Implication

These findings present the only known evidence of long-term impact of the VGSA program. While the findings are limited due to the low participation rate of the questionnaire, and difficulty in identifying past VGSA completers, there is some evidence that the program does promote a positive appreciation for the agriculture industry for these individuals who have little to no agricultural background. Faculty members and staff associated with the VGSA program are encouraged to develop additional coursework and resources in the program to more effectively promote agriculture careers as a viable option for future VGSA students. The developed resources and coursework should focus on the behavioral, normative, and control beliefs associated with career intentions (Ajzen, 1991).

References

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