

Former 4-H'ers Perceptions of 4-H Participation's Influence on Decision to Attend College

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The shortage of qualified workers in nearly all agricultural, food, and natural resource (AFNR) sectors remains a major challenge for the agriculture industry (Goecker, Smith, Marcos Fernandez, Ali, & Theller, 2015). As a result of this shortfall, the development of a “sufficient scientific and professional workforce that addresses the challenges of the 21st century” was identified as a research priority of the American Association for Agricultural Education (AAAE) National Research Agenda (Stripling & Ricketts, 2016). COAs are called upon to create a steady pipeline of graduates for the workforce (Stair et al., 2016). To increase enrollment in COAs, one recruitment strategy highlighted in the AAAE National Research Agenda is for colleges and universities to “explore partnerships with youth-focused programs, such as 4-H...” (National Research Council, 2009, p. 9) with the intent to expose prospective students to the full breadth of agriculture and agriculture careers. Indeed, 4-H members are more likely to enroll in college when compared to non-4-H youth (Lerner et al., 2009), and it is the nation’s largest youth development organization with nearly 6 million young people annually (History of 4-H, n.d.).

One of the principal ways in which 4-H seems to impact students’ decisions to attend college (or a specific college) is simply to expose youth, particularly rural youth, to the college environment through pre-college programs set on college campuses. Former 4-H’ers report 4-H pre-college program involvement as key in influencing their decision to attend college (Ratkos & Knollenberg, 2015). However, while the literature generally supports the idea that youth involved in 4-H later credit 4-H as a factor in their decision to attend college, and in their choice of college, the results of such studies are often highly state specific (e.g., Ratkos & Knollenberg, 2015; Williams, Thompson, Taylor, & Sanders, 2010), and they don’t specify which pre-college programs are most effective. This left us to question how does the Missouri 4-H program contribute to the so-called pipeline of graduates in Missouri for the “sufficient scientific and professional workforce that addresses the challenges of the 21st century,” and how might this knowledge impact recruiting efforts at COA’s nationwide (Stripling & Ricketts, 2016, p. 30)?

Conceptual Framework

This study utilizes Chapman’s (1981) Model of Student College Choice, which delineates factors influencing a student’s decision to attend a college. Factors do include student characteristics, such as academic aspirations and high school performance, but also external influences, such as college characteristics, the influence of significant persons, and college communication efforts. The latter includes recruitment and, specifically, campus visits. Both of these are accomplished with on-campus 4-H pre-college programming.

Methodology

The purpose of this study was to explore former Missouri 4-H members’ perceptions of the influence of 4-H participation on their decision to attend college, and [College], specifically; the study was guided by the following research questions:

1. What are former 4-H’ers’ perceptions of 4-H’s influence on their decision to attend college and the University of Missouri?
2. What is the relationship between 4-H pre-college program participation and students’ perceived influence on their decision to attend college?

This is a quantitative, correlational research study (Ary, Jacobs, & Sorenson, 2013). A census of ($n=136$) of all former 4-H members enrolled in the College of Agriculture, Food & Natural Resources (CAFNR) at the University of Missouri (MU) was chosen due to interest, ease of access, and because Missouri 4-H's agricultural focus makes CAFNR a likely destination for many former 4-H'ers. A researcher-created, 33-question, four-point, Likert-type response set questionnaire measuring influence (e.g., "No influence" to "Strong influence") was developed based on a review of literature on college enrollment, college success, and prior participation in 4-H programming. We followed Dillman, Smyth, and Christian's (2014) Tailored Design Method. Of the 136 former 4-H'ers surveyed, 40% ($n=53$) responded with complete responses. Chi-Square Tests of Independence were used to determine the independence of variables; Pearson's product-moment correlation coefficient was used to determine the strength and direction of the relationship between 4-H participation and influence on factors related to college attendance. Cohen's (1998) classification of effect size was used.

Results

On a four-point scale, where a one is "No influence," and four is "Strong influence," respondents ($n = 53$) reported their overall 4-H participation as having a slight-to-moderate influence on both their decision to attend college ($M = 2.45$, $SD = 1.153$) and decision to attend MU ($M = 2.43$, $SD = 1.101$).

Chi Square Tests of Independence determined significant (i.e., not independent) interaction between a student's decision to attend college and attending State 4-H Teen Conference ($\chi^2(3) = 9.465$, $p < .05$), as well between a student's decision to attend MU, specifically, and attending State 4-H Congress ($\chi^2(3) = 7.821$, $p < .05$). Pearson's correlation coefficient was calculated for the relationship between the above variables. A small-to-medium positive correlation was found between decision to attend college and attending State 4-H Teen conference ($r(51) .274$, $p < .05$), and a medium positive correlation between decision to attend MU and attending State 4-H Congress ($r(51) .336$, $p < .05$).

Conclusions/Implications

Broadly, 4-H members are more likely to attend college than their non-4-H peers (Lerner et al., 2009), and they report 4-H as influencing their decision to attend college (Ratkos & Knollenberg, 2015). This study helped to clarify the level of influence and the specific type of 4-H events that influenced their decisions. Respondents reported their overall 4-H experience had only a slight-to-moderate influence on their decision to attend college (or a specific college), but participants in signature pre-college events — State 4-H Congress and State Teen Conference — were more likely to report 4-H as having a higher influence, particularly their choice of a specific college. This is likely because these events are designed to showcase MU's campus. This is consistent with Chapman's (1981) model, which posits campus visits and recruitment communication as key influences on a student's choice of college. These findings have implications for how COA's utilize 4-H to develop a pipeline of graduates for the agricultural workforce. Rather than COA's considering 4-H, broadly, as recruiting ground simply because of its shared agricultural focus, COA's should specifically target 4-H'ers at on-campus events because campus visits are important to a student's choice of college. Similarly, by moving existing events onto campus, COA's may increase the likelihood of enticing students to enroll

upon high school graduation. In summary, it is likely not so much that kids are in 4-H that influences their choice of college, but if they are in 4-H *on campus*.

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