

Intern if U-DAIRE: Adding Value to Dairy Through an Inclusive Undergraduate Experience

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Introduction

The number of people entering the agricultural workforce has steadily decreased in the past decade (Bureau of Labor Statistics, 2023; Economic Research Service [ERS], 2023; Roser, 2023;). This is particularly true in the dairy industry. Current labor challenges have resulted in dairy processors experiencing a decline of ten percent or more in their workforce, with about two job openings for every one person seeking employment (Gibeson, 2023). This decline poses a need to train the future generation of workers. One way to do so is through college internships. The benefits of internships on students' skills include the development of job-specific knowledge through hands-on experience (Hall et al., 2017; Johnson, 2020; Wolfgram et al., 2021); development of soft skills (Hall et al., 2017; Johnson, 2020), improved school-to-work transitions (Hall et al., 2017; Hora et al., 2021; Johnson, 2020; Wolfgram et al., 2021), enhanced grades (Hora et al., 2021; Wolfgram et al., 2021), and more advanced research skills (Hall et al., 2021). Benefits to students in the workforce include enhanced employment opportunities when they enter the workforce (Hall et al., 2017; Hora et al., 2021; Johnson, 2020; Wolfgram et al., 2021), higher compensation when first starting (Hall et al., 2017; Hora et al., 2021; Johnson, 2020; Wolfgram et al., 2021), and a higher career trajectory (Johnson, 2020).

However, internships do not come without challenges. Participation in internships can be hindered by students' perceptions toward participating, as well as outside factors that limit their access to internship opportunities. Barriers to students' perceptions include perceived availability of opportunities (Hora et al., 2021; Hora et al., 2022; Johnson, 2020), knowledge of access to internships (Hora et al., 2022; Wolfgram et al., 2021), and perceived disorganization of the internship program itself (Hall et al., 2017). Accessibility barriers to students include lack of transportation (Hora et al., 2021; Hora et al., 2022; Johnson, 2020), lack of access to housing (Johnson, 2020; Wolfgram et al., 2021), having a heavy course load (Hora et al., 2021; Hora et al., 2022), and having insufficient pay, low or unpaid, and needing to work a paid job (Hora et al., 2021; Hora et al., 2022; Johnson, 2020; Wolfgram et al., 2021). There are also inclusivity factors that contribute to barriers to entry including academic major, gender, and institutional prestige, which can interact to give students a sense they may not be competitive enough to be selected for an internship (Hora et al., 2022). Therefore, to combat these barriers and enhance workforce development and diversity at [University] and across the Southeastern region, the Undergraduate Development and Internship Research Experience (U-DAIRE) was created.

How it Works

U-DAIRE offers undergraduate students of any major the opportunity to gain hands-on experience in the dairy industry, which they might not otherwise have. Students can apply between November and January of the year preceding the internship. During the application process, they are required to provide information about their current college enrollment, ethnicity, and race, as well as their resume and a cover letter expressing their interest. The internship spans a nine-week program, with three weeks dedicated to interns' participation on campus where they complete a leadership and communications training program. The remaining six weeks involve hands-on work experience at a farm in the region. Lastly, students complete the internship by presenting research posters at a regional value-added dairy conference. As

interns, students receive a \$6,500 stipend, as well as housing and transportation assistance. During the program, students are asked to keep a journal, complete a pre- and post-internship questionnaire, and participate in regular debriefing sessions to help the internship leads evaluate the program. Participating farmers are also asked to participate in a debriefing session to enhance program evaluation.

Results to Date

The program has been successfully conducted for two consecutive summers since 2022 and has attracted a total of fourteen students from three universities in the Southeastern region. Students in each cohort varied in demographic characteristics, including academic year, race, ethnicity, income, and animal science background, as well as included first-generation college students and nontraditional late-career students.

Preliminary data from the pre- and post-internship questionnaires and debriefing sessions indicate interns made positive gains in areas of knowledge about the dairy industry, career pathways, leadership skills, and communication skills. The interns perceived themselves as significantly more knowledgeable about the dairy industry after completing the internship, as well as demonstrated a greater interest in pursuing a career in the industry and more efficacy in overcoming barriers to secure a position in the industry. Regarding their leadership skills, the interns believed themselves to be better leaders and had more confidence in using their leadership skills to address problems. Interns also reported being more likely to go find help when they are unsure of how to address a problem. As for their confidence and abilities to communicate about and within the industry, interns felt overall more confident in their ability to communicate about dairy following the internship. Further, students reported having greater confidence engaging with the public about complex issues, identifying tactics for communicating in crisis situations, and using storytelling to talk about complex issues. Lately, after the conclusion of the internship, interns noted they were more willing to take time to listen to someone's perspective before responding.

Future Plans

We plan to continue to offer the internship program, as well as expand it to include an additional participating university. Based on internal evaluations, we have developed a more comprehensive curriculum for the on-campus portion of the internship for the next cohort. This curriculum includes learning objectives targeting leadership, communication, and animal science learning outcomes that can be adopted by other practitioners interested in developing a similar internship program. Due to differences in communication styles and backgrounds of interns and host farmers, we plan to launch a leadership training session that all participating dairy farmers will be required to take prior to hosting interns. The intention behind this training workshop is to help farmers communicate effectively with youth who have limited background with animal handling and dairy production. Lastly, we will continue to conduct formative and summative evaluations of the program, as well as plan to debrief again with past participants to examine longer-term impact of the program on students' perceptions and career pathways.

Costs

Costs incurred during this program included intern stipends, housing during the on-campus portion of the program, intern transportation, and travel expenses for interns to attend the yearly value-added dairy conference.

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