

# An Assessment of Undergraduate Student Interest in Poultry Science



**Trent Wells<sup>1</sup>, Oscar Tejada<sup>2</sup>, & Mark S. Hainline<sup>3</sup>**

Hutson School of Agriculture, Murray State University<sup>1</sup>  
Department of Agriculture, Southern Arkansas University<sup>2</sup>  
School of Agricultural Sciences, Sam Houston State University<sup>3</sup>

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Correspondence concerning this article should be addressed to Trent Wells, Hutson School of Agriculture, Murray State University, 206 South Oakley Applied Science Building, Murray, KY 42071; Email: kwells23@murraystate.edu

## **Abstract**

Poultry production is an important and vital animal agriculture enterprise. The significant economic footprint of the poultry industry coupled with ever-increasing technological and production volume requirements predicates the need for well-qualified, trained employees to help carry the American poultry industry forward. Through the preparation of university-level agricultural degree program graduates lies an opportunity to help address this need. The purpose of our study was to assess undergraduate agricultural students' poultry science interest at a non-land-grant college of agriculture (NLGCA). We used a valid and reliable, paper-based survey instrument to collect data from 137 undergraduate agricultural students at Southern Arkansas University (SAU). We found that the majority of respondents were not interested in either poultry science academic programming or a career in the poultry industry. However, we did find that the majority of respondents were interested in completing summer semester internships in the poultry industry and that prior experience working in the poultry industry was a statistically significant predictor

of students' interest in careers in the poultry industry. Based on our findings, we recommend that poultry industry stakeholders (e.g., university faculty, industry representatives) strategically engage undergraduate students to recruit them into the poultry science pipeline.

*Keywords:* poultry, student interest, undergraduate

As the global population grows and changes, so do the challenges associated with feeding and clothing it (Andenoro et al., 2016). The United Nations (n.d.) projects the global population will exceed 9.7 billion by the year 2050 and 10.3 billion by the year 2080. This anticipated population increase of over 500 million people over a 30-year timeframe will further exacerbate the food security issues currently present all over the globe. Thus, combatting food security needs will depend upon both efficient agricultural production systems and the consistent availability of knowledgeable, skilled professionals who can tackle the agricultural production needs of the 21st century (Andenoro et al., 2016).

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Mottet and Tempio (2017) indicated that poultry production is the fastest-growing component of the agricultural industry. Further, Mottet and Tempio (2017) noted that poultry species are efficient producers of products consumed by humans (i.e., meat and eggs) and that poultry production can thus robustly contribute to human nutritional needs. Kleyn and Ciacciariello (2021) expressed that poultry production is, and will continue to be, an instrumental component of addressing local, national, and global food security needs for the foreseeable future. Taken together, poultry production will remain an imperative sector of the agricultural industry in the coming years.

Within the United States, poultry production is an important and vital animal agriculture enterprise. Per the United States Department of Agriculture (USDA) National Agricultural Statistics Service (NASS) (2022b), “[t]he combined value of production from broilers, eggs, turkeys, and the value of sales from chickens in 2021 was \$46.1 billion, up 31 percent from \$35.1 billion in 2020” (para. 1), thus indicating an upward trajectory in the value of poultry production nationally. Moreover, data from recent years have signified that both poultry production and poultry product consumption in the United States have increased (USDA Economic Research Service [ERS], 2022).

Arkansas is a leader in poultry production in the United States. In 2021, over one billion broiler chickens were produced in the state, making it the third-highest producer of broiler chickens in the country (USDA NASS, 2022a). Further, the state ranks second in the dollar value of broiler production in the United States, generating over \$3.6 billion in 2021 (USDA ERS, 2022). Arkansas ranks behind only Minnesota and North Carolina in turkey production, producing 27 million birds during 2021 (USDA NASS, 2022c). As such, it is evident that Arkansas plays a sizable, significant, and valuable role in the American poultry industry.

The poultry industry is constantly increasing the sophistication of its production technologies and product volumes. As such, the poultry industry requires well-prepared, specially-trained individuals to ensure that management and production objectives are consistently met (National Chicken Council, 2021). Given the importance of poultry production in Arkansas, there is a need for graduates of university-level agricultural degree programs who can appropriately lead the industry forward. Moreover, as neighboring states (i.e., Louisiana, Mississippi, Missouri, Oklahoma, Tennessee, and Texas) likewise must sustain their own poultry industries through the availability of qualified, well-trained graduates of university-level agricultural degree programs, it is imperative that a steady stream of such persons exists.

In recent years, SAU has taken steps to address the need for qualified, well-trained individuals to enter into the poultry industry in Arkansas and its neighboring states. In 2020, a collaboration with Arkansas agricultural industry stakeholders yielded funds and expertise to develop, construct, and outfit a modern poultry facility on the SAU campus. Designed to be state-of-the-art, this facility is used to produce both broilers and broiler breeders and includes independent spaces for a hatchery and for poultry products

processing. This facility is primarily used to provide hands-on teaching and learning opportunities for the laboratory components of several agricultural courses at SAU, such as Introduction to Animal Science, Introduction to Poultry Science, and Poultry Production. To capitalize on the potential of this new facility, the university formally implemented the Agricultural Science: Poultry Science Option degree program in 2021. We sought to use social science research methods to help assess students’ interest in both this new degree program and the opportunities the program represents.

### Purpose & Objectives

The purpose of our study was to assess undergraduate agricultural students’ poultry science interest at a non-land-grant college of agriculture (NLGCA). Our specific objectives were to:

1. Describe students’ demographic characteristics.
2. Describe students’ interest in a poultry science academic program intended to prepare students for careers in the poultry industry.
3. Describe students’ interest in internships in the poultry industry.
4. Describe students’ interest in poultry-focused undergraduate research experiences.
5. Describe students’ interest in careers in the poultry industry.
6. Determine if selected student demographic characteristics could be used to predict students’ interest in careers in the poultry industry.

### Methods

Our study was similar in nature and scope to Borges et al.’s (2019) study, *Student Interest in a Professional Row-Crop Farm Management Academic Program*. We used an adapted version of their instrument to conduct our study. Because we altered Borges et al.’s (2019) instrument to fit the needs of our study, we solicited a panel of three agricultural faculty members with prior experience in survey research to review and advise us on the validity of our instrument. After receiving their feedback, we made the recommended changes to our instrument and sought SAU Institutional Review Board (IRB) approval to proceed with our study. Our IRB application was subsequently approved and our study was designated as exempt from SAU IRB oversight. We then conducted a pilot study with 27 undergraduate agricultural students during the Fall 2021 semester to establish the reliability of our instrument. We subsequently used our instrument to collect data from 137 unduplicated students enrolled in eight undergraduate-level agricultural courses at SAU during the Spring 2022 semester.

### Instrumentation

The final version of our instrument contained 18 items. Nine items were related to student demographics (e.g., gender, age) and contained a combination of both multiple-choice and open-ended responses. The other nine items

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were designed to ascertain information related directly to the poultry science academic program, such as students' interest in working in the poultry industry after graduation, and students' interest in poultry industry internships. These nine items contained a combination of single-response and multiple-response items.

### Validity and Reliability

During the Fall 2021 semester, we consulted with three agricultural faculty members at two different land-grant universities and asked them to both critique our instrument and assess its validity. We intentionally selected each panel member based on their expertise with survey instrument design and their prior experiences with social science research in agriculture. They each used an electronic panel of experts guidelines form to assess a copy of our instrument.

Our panel of experts guidelines form provided detailed instructions about our instrument. We requested each panel member assess our instrument for both content validity and face validity. We further instructed each panel member to complete our panel of experts guidelines form and return it to us via e-mail. We also asked each panel member to provide detailed feedback about our instrument and suggestions for its improvement. All three panel members indicated that our instrument would be both content valid and face valid once we addressed their recommendations. In accordance with their recommendations, we made the appropriate adjustments to our instrument (e.g., reworded selected items, changed the sequencing of some items), which yielded our 18-item instrument. Our instrument was thus content valid, face valid, and ready to be used in our pilot study to determine its reliability.

### Pilot Study

Similar to the procedures detailed by Borges et al. (2019), we sought to assess the test-retest reliability of our instrument. We collaborated with an agricultural economist at SAU who taught a junior-level agricultural marketing course during the Fall 2021 semester. They agreed to allow us to conduct our pilot study with the 30 undergraduate agricultural students enrolled in their course. All of our data collection procedures took place during two regularly-scheduled course meetings 14 days apart.

To assess the test-retest reliability of our instrument, we used a paper-based version of our instrument to collect data from the students in two separate rounds. The first round of data collection occurred on Monday, October 11, 2021 while the second round of data collection took place on Monday, October 25, 2021. During each round, we verbally explained our study procedures and distributed two informed consent documents and a paper-based version of our instrument to the students. We asked the students to complete all 18 items on our instrument and return the completed instrument to us. Each round of data collection took approximately 15 minutes to complete.

Twenty-seven students completed our instrument during both rounds of our pilot study, yielding a response

rate of 90%. Three of the 30 students in the course were absent on either of the days we collected our data. We used IBM® Statistical Package for the Social Sciences (SPSS®) Version 21 software to analyze our data. We assessed intrarater reliability by calculating Cohen's kappa coefficients for each item then calculating an averaged kappa value to provide a summary kappa estimate (De Vries et al., 2008). Based on the coefficient of stability ( $\kappa_{ave} = .823$ ,  $SE = .059$ ) yielded by our data analysis, we found that our instrument had "very good" test-retest reliability per the standards set forth by Altman (1991) and Fleiss et al. (2003). Once we determined our instrument was both valid and reliable, we conducted our formal study during the Spring 2022 semester.

### Data Collection

We used a paper-based version of our instrument to collect our formal study data. We collaborated with the agricultural faculty members at SAU to help conduct our formal study. We asked them to provide us with course rosters and assist with data collection in their respective courses as needed. The population for our study consisted of all 242 undergraduate students pursuing an undergraduate-level agricultural degree at SAU during the Spring 2022 semester. Our sampling frame included 158 unduplicated students enrolled in eight undergraduate-level agricultural courses (see Table 1).

Table 1.

*Undergraduate-level Agricultural Courses Used for Data Collection*

Course Title	Enrollment
AGRI 4033: Issues in Agriculture	24
ANSC 2002: Animal Nutrition I	57
ANSC 3023: Animal Nutrition II	12
ANSC 3103: Ruminant Animal Production	28
ANSC 4102: Beef Production	14
ANSC 4102: Honors Beef Production	3
PLSC 2002: Principles of Horticulture	58
PLSC 2012: Soils Science	56

**Note.** Duplicated students were included in the enrollment numbers reported in each course. We removed any duplicated students prior to collecting data for our formal study.

Our goal was to provide a cross-section of students in all six of our undergraduate-level agricultural degree programs. These eight courses are primarily comprised of sophomore, juniors, and seniors. Some freshmen do complete the Principles of Horticulture course. All undergraduate agricultural students at SAU are required to complete the Animal Nutrition I, Principles of Horticulture, Soils Science, and Issues in Agriculture courses, regardless of their major.

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After we received the course rosters from our colleagues, we removed duplicated students, yielding our sampling frame of 158 students. We only needed 149 unduplicated students per the sample size recommendations provided by Dillman et al.'s (2014) probability sampling calculator, which follows follows Krejcie and Morgan's (1970) formula (acceptable amount of sampling error =  $\pm 5\%$  of the true population; Z statistic associated with confidence level = 1.96, 95% level). However, we elected to oversample by nine students in accordance with the sampling recommendations offered by other scholars (i.e., Ary et al., 2014; Dillman et al., 2014; Doss et al., 2022).

After consulting with each course instructor, we scheduled a time and date to collect data during a regularly-scheduled meeting of each of the eight courses listed in Table 1. At the start of the course meeting, we verbally explained our study procedures and distributed a paper-based version of our instrument to the students. We asked the students to complete all 18 items on our instrument and return the completed instrument to us. It took us approximately 15 minutes to complete the data collection process in each course meeting. We received usable responses from 137 students, yielding a response rate of 86.7%. A response rate of 85% or higher does not necessitate using further procedures for controlling non-response error (Lindner et al., 2001). Thus, we did not follow-up with the 21 students who did not respond to our instrument.

### Data Analysis

We used IBM® SPSS® Version 29 software to analyze our data. We primarily used frequencies and percentages to analyze data pertaining to objectives one through five. We used means and standard deviations to calculate the average age of our respondents. We used binomial logistic regression to analyze data pertaining to objective six.

## Results

### Objective One: Describe Students' Demographic Characteristics

We reported the data pertaining to the respondents' demographics in Table 2. Similar to the demographics of the typical undergraduate agricultural student at SAU, the typical respondent was 20.43 (SD = 2.47) years old, was either a sophomore (f = 42; 30.7%) or a senior (f = 42; 30.7%), was female (f = 80; 58.4%), was not of Hispanic, Latino, or Spanish origin (f = 133; 97.1%), described their ethnicity as White (f = 128; 93.4%), reported that where they grew up included fewer than 10,000 people (f = 104; 75.9%), was majoring in Agricultural Business (f = 56; 40.9%), was not pursuing either a minor or a second undergraduate degree (f = 121; 88.3%), and reported having no prior experience working on a poultry farm (f = 78; 56.9%). Twelve students (8.7%) reported they were pursuing an undergraduate minor. Four students (2.9%) reported that they were pursuing a second undergraduate major.

Regarding prior experiences working in the poultry industry, the majority of respondents (f = 78; 56.9%)

reported having no prior experience working on a poultry farm. Thirteen respondents (9.5%) reported they had worked on a poultry farm not owned by a family member as a paid employee. Twelve respondents (8.8%) indicated they were raised on a poultry farm owned by their parents and worked with poultry production. Eleven respondents (8.0%) reported they had worked on a poultry farm owned by a family member other than their parents. Two respondents (1.5%) indicated they were raised on a poultry farm owned by their parents but did not work in poultry production.

Twenty-one respondents (15.3%) indicated they had some other type of experience working in the poultry industry not listed on our instrument. Of those 21 respondents, seven (33.3%) reported raising or working with a backyard flock of chickens. Six respondents (28.6%) reported working with chickens as part of their local youth development organization (i.e., 4-H and FFA) activities. Two respondents (9.5%) reported they had recently completed an internship experience at a poultry facility. Two respondents (9.5%) indicated they occasionally assisted a neighbor or friend with their own poultry production enterprise. One respondent (4.8%) indicated they had completed a university-level poultry production course. One respondent (4.8%) indicated they had been exposed to poultry production as part of a parent's off-farm occupation (see Table 2).

### Objective Two: Describe Students' Interest in a Poultry Science Academic Program Intended to Prepare Students for Careers in the Poultry Industry

We asked respondents to indicate their interest in completing an SAU academic program designed primarily to prepare graduates to take professional-level positions in the poultry industry. A majority of respondents (f = 109; 79.6%) indicated they were not interested in such a program while 28 respondents (20.4%) indicated they would be interested in a poultry science academic program. We asked the 28 respondents who indicated their interest in a poultry science academic program to further designate which academic program option (i.e., an undergraduate minor in poultry science, an undergraduate degree program in poultry science, or neither option) would be of the most interest to them. Eighteen (64.3%) of those 28 interested respondents specified they would be most interested in an undergraduate minor in poultry science. Five respondents (17.9%) indicated they would be most interested in an undergraduate degree program in poultry science and five respondents (17.9%) noted that neither option would be of interest to them.

### Objective Three: Describe Students' Interest in Internships in the Poultry Industry

To describe students' interest in internships in the poultry industry, we asked our respondents to answer two questions. The first question was, "If you were paid directly for your work (e.g., an hourly wage, a monthly stipend, etc.), would you be interested in completing a summer semester internship in the poultry industry?"



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Table 2.

Student Demographics (n = 137)

Item	f	%
What is your current classification?		
Freshman	18	13.1
Sophomore	42	30.7
Junior	35	25.5
Senior	42	30.7
What is your gender?		
Male	57	41.6
Female	80	58.4
Are you of Hispanic, Latino, or of Spanish origin?		
Yes	4	2.9
No	133	97.1
How would you describe yourself?		
American Indian or Alaska Native	1	0.7
Asian	0	0.0
Black or African American	2	1.5
Native Hawaiian or Other Pacific Islander	0	0.0
White	128	93.4
Other	6	4.4
I prefer not to answer	0	0.0
Please describe where you grew up.		
Less than 10,000 people in my home community	104	75.9
Between 10,000 and 50,000 people in my home community	28	20.4
More than 50,000 people in my home community	4	2.9
Did not answer	1	0.7
What is your current academic major?		
Agricultural Business	56	40.9
Agricultural Education	23	16.8
Agricultural Science: Animal Science Option	14	10.2
Agricultural Science: Plant Science Option	9	6.6
Agricultural Science: Poultry Science Option	0	0.0
Agricultural Science: Pre-veterinary Science Option	33	24.1
Did not answer	2	1.5
Do you have either a minor or a second major?		
Yes	15	10.9
No	121	88.3
Did not answer	1	0.7

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Table 2 Cont.

Student Demographics (n = 137)

Item	f	%
Name of undergraduate minor		
Animal Science	4	2.9
Plant Science	1	0.7
Other (non-agricultural)	7	5.1
Name of second undergraduate major		
Agricultural Science: Animal Science Option	1	0.7
Agricultural Science: Plant Science Option	1	0.7
Did not answer	1	0.7
Which of the following best describes your experiences working in the poultry industry?		
I have no experience working on a poultry farm	78	56.9
I have worked on a poultry farm owned by a family member other than my parents	11	8.0
I was raised on a poultry farm owned by my parents but did not work in poultry production	2	1.5
I was raised on a poultry farm owned by my parents and worked with poultry production	12	8.8
I have worked on a poultry farm not owned by a family member as a paid employee	13	9.5
Other	21	15.3

Eighty-one respondents (59.1%) indicated they were interested in completing a paid summer semester internship in the poultry industry while 56 respondents (40.9%) indicated they were not interested in such an opportunity. The second question was, “If you received internship course credit applicable to your undergraduate degree, would you be interested in completing a summer semester internship in the poultry industry?” Ninety-one respondents (66.4%) indicated they were interested in receiving internship course credit applicable to their undergraduate degree in exchange for completing a summer semester internship opportunity in the poultry industry while 46 respondents (33.6%) indicated they were not interested in such an opportunity.

## Objective Four: Describe Students’ Interest in Poultry-focused Undergraduate Research Experiences

To describe students’ interest in poultry-focused undergraduate research experiences, we asked our respondents to answer two questions. The first question was, “Would you be interested in completing a poultry-focused undergraduate research experience during your time at SAU?” The second question was, “If you answered yes to [the previous question], would you be interested in receiving course credit applicable to your undergraduate degree?” (see Table 3).

## Objective Five: Describe Students’ Interest in Careers in the Poultry Industry

To describe students’ interest in careers in the poultry industry, we asked our respondents to answer two questions. The first question was, “Would you be interested in working in the poultry industry as a career after completing your undergraduate degree?” (see Table 4).

Our second question was, “Within five (5) years after finishing your undergraduate degree, which of the following would you be most interested in?” We provided six pre-listed poultry industry career opportunities to choose from. We also provided them the opportunity to select “Other” and a blank space to record their own response (see Table 5).

Of those 40 respondents who indicated “Other”, 16 (40.0%) reported they were not interested in either any of the six pre-listed choices or in a career in the poultry industry. Ten respondents (25.0%) reported they were interested in a career in veterinary medicine. Two respondents (5.0%) indicated they were interested in a career in research and development. Two respondents (5.0%) reported they were interested in a career as a high school Agricultural Education teacher. One respondent (2.5%) indicated they were interested in working in the Cooperative Extension system while another individual respondent (2.5%) reported they were interested in a career in management but not working directly with poultry. A single respondent (2.5%) indicated they were interested in row crop farming and eight respondents (20.0%) did not provide a response.

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Table 3.

*Students' Interest in Poultry-focused Undergraduate Research Experiences*

Question	Response	
	Yes f (%)	No f (%)
Would you be interested in completing a poultry-focused undergraduate research experience during your time at SAU?	45 (32.8%)	92 (67.2%)
If you answered yes to [the previous question], would you be interested in receiving course credit applicable to your undergraduate degree?	45 (100%)	0 (0%)

Table 4.

*Students' Interest in Careers in the Poultry Industry*

Question	Response	
	Yes f (%)	No f (%)
Would you be interested in working in the poultry industry as a career after completing your undergraduate degree?	46 (33.6%)	91 (66.4%)

Table 5.

*Students' Interest in Poultry Industry Career Opportunities within Five Years of Graduation*

Career Opportunity	f (%)
Other	40 (29.2%)
Owning and operating my own poultry farm	24 (17.5%)
Working as a field service technician for a poultry company	21 (15.3%)
Managing someone else's poultry farm	17 (12.4%)
Working as a supervisor in a poultry processing facility	17 (12.4%)
Pursuing a graduate degree in poultry science or in a related field	13 (9.5%)
Leasing / renting poultry facilities and operating them	4 (2.9%)
No response	1 (0.7%)

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Table 6.

Logistic Regression Predicting Students' Interest in Careers in the Poultry Industry (n = 135)

	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Prior experience	1.340	.401	11.147	1	<.001	3.817	1.739	8.380
Gender	.621	.424	2.148	1	.143	1.861	.811	4.272
Classification	-.369	.401	.849	1	.357	.691	.315	1.517
Major	-.395	.457	.747	1	.388	.673	.275	1.651
Constant	.096	.529	.033	1	.855	1.101		

Note.  $p < .05$ ; Variables entered on step 1: Prior Experience; Gender; Classification; Major.

## Objective Six: Determine if Selected Student Demographic Characteristics Could Be Used to Predict Students' Interest in Careers in the Poultry Industry

We conducted a binomial logistic regression to determine the effects of prior experience working in the poultry industry (coded as Yes = 0, No = 1), gender (coded as Male = 0, Female = 1), classification (coded as Freshman or Sophomore = 0, Junior or Senior = 1), and enrollment in an animal science-related major (i.e., Agricultural Science: Animal Science Option, Agricultural Science: Poultry Science Option, or Agricultural Science: Pre-veterinary Science Option; coded as Yes = 0, No = 1) on the likelihood that our respondents have an interest in pursuing a career in the poultry industry (i.e., the dependent variable). We found that the logistic regression model was statistically significant  $\chi^2(4) = 19.816, p < .001$ . Our regression model explained 18.9% (Nagelkerke R<sup>2</sup>) of the variance in students' interest in careers in the poultry industry and correctly classified 71.1% of cases in this study (see Table 6).

Sensitivity was 84.3% while specificity was 54.7%. Of the four predictor variables in our model, we found that only prior experience working in the poultry industry was a statistically significant predictor of students' interest in careers in the poultry industry. Specifically, students who had prior experience working in the poultry industry had 3.8% higher odds of deciding to pursue a career in the poultry industry.

## Conclusions, Recommendations, and Limitations

The purpose of our study was to assess undergraduate agricultural students' poultry science interest at a NLGCA. Within our sample of undergraduate agricultural students at SAU, we found that: (1) most respondents were not interested in completing an academic program designed primarily to prepare graduates to take professional-level positions in the poultry industry; (2) most respondents were interested in completing a summer semester internship in the poultry industry for either financial compensation or

internship course credit; (3) most respondents were not interested in completing a poultry-focused undergraduate research experience; (4) most respondents were not interested in working in the poultry industry as a career after completing their undergraduate degree; and (5) prior experience working in the poultry industry was the only significant predictor of respondents' interest in pursuing careers in the poultry industry after graduation.

Based on our findings, we offer several recommendations:

1. Stakeholders (e.g., agricultural faculty members, university administrators) at SAU should carefully consider the direction of its poultry science programming. We recommend that our findings be used to strategically plan degree program recruitment activities, learning opportunities, and industry-based internships moving forward. Developing consultative relationships with industry stakeholders would be a useful and practical approach as well.
2. While the majority of our respondents indicated that they were not interested in a poultry science academic program, a substantial number of respondents who were interested in such programming signified preference for an undergraduate minor in poultry science. Thus, we recommend that agricultural faculty members at SAU collaborate to develop an undergraduate minor in poultry science to serve students who are interested in such an opportunity.
3. Considering the breadth of the poultry industry in Arkansas, follow-up work should be done to determine why undergraduate agricultural students at SAU do not appear to be interested in either poultry science or a career in the poultry industry. Does pursuing either a poultry science-focused education or a career in the poultry industry carry a negative stigma? Is a lack of experience working with poultry prior to enrolling at SAU a culprit? Such questions are worth answering.



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4. Agricultural faculty members at SAU should collaborate with poultry industry representatives to provide students with opportunities to pursue summer semester internship opportunities in the poultry industry.
5. When possible and practical, agricultural faculty members at SAU should provide opportunities for students to obtain experience and / or employment in the university's poultry facility to allow them to acquire experience working with poultry, which may stimulate their interest in pursuing a career in the poultry industry after graduation. To our knowledge, the Introduction to Animal Science course taken by all undergraduate agricultural students at SAU incorporates minimal classroom or laboratory instruction related to the poultry industry. This is congruent with much of the other animal science coursework (e.g., Animal Anatomy and Physiology, Animal Breeding) taught at SAU. Incorporating some poultry-focused instruction within each of these courses may impact students' interest in working with poultry in the future. Our findings indicate that receiving some exposure to poultry is certainly better than none at all.
6. In the context of recruiting new employees, we advise that poultry industry representatives in Arkansas who elect to hire SAU undergraduate agricultural degree program graduates should deliberately target those who have prior experience working in the poultry industry in some capacity.

Regarding limitations, we recognize that our data are not generalizable beyond the undergraduate agricultural students at SAU. We thus make no attempt to suggest that our findings are reflective of the broader population of undergraduate agricultural students across either Arkansas or the United States more broadly. Upon reflecting on our findings, however, we wonder if some expansion of our survey instrument would be useful to other scholars should they decide to replicate or follow-up on our work.

In particular, we recommend that additional questions be added to our instrument to gather additional data about students' experiences with poultry during their secondary education experiences, such as during their enrollment in a public school Agricultural Education program. Within such programs, students may have the opportunity to participate in competitive events designed to stimulate interest in poultry science (i.e., the FFA Poultry Evaluation Career Development Event) or engage in a long-term project via Supervised Agricultural Experience (SAE) programming under the mentorship of their Agricultural Education teacher. We believe that such information would have yielded a deeper examination into our respondents' backgrounds. While we did not collect data regarding such experiences, other scholars should consider doing so.

The poultry industry is continuing to advance at a rapid pace, especially when considering technological changes and production volume requirements (National Chicken Council, 2021). As the poultry industry is poised to help address global human nutritional needs both now and in the coming years (Kleyn & Ciacciariello, 2021), it must be

staffed and led by qualified, capable individuals who possess the requisite technical knowledge and skills. Arkansas is a leader in the poultry industry (USDA NASS, 2022a) and is a vital contributor to the industry's continued growth. Because there are only two universities in the state who actively offer undergraduate degree programs in poultry science (i.e., SAU and the University of Arkansas) and the poultry industry, like the broader agricultural industry of which it is a part, will need additional human capital in the future, it is imperative that undergraduate student interest in the academic programming and career area components of poultry science be explored. Doing so may help to attract more undergraduate students into this imperative enterprise.

### Summary

We sought to assess undergraduate agricultural students' poultry science interest at a NLGCA. We found that the majority of respondents were not interested in either poultry science academic programming or a career in the poultry industry. However, we found that the majority of respondents were interested in completing summer semester internships in the poultry industry and that prior experience working in the poultry industry was a statistically significant predictor of students' interest in careers in the poultry industry. Our findings have implications for the poultry industry in Arkansas. We recommend that poultry industry stakeholders (e.g., university faculty, industry representatives) strategically engage undergraduate students to recruit them into the poultry science pipeline.

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