

Honors College Retention in the College of Agriculture, Food and Environmental

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Abstract

The College of Agriculture, Food and Environmental Sciences (CAFES) at South Dakota State University (SDSU) has the second lowest Honors College student enrollment compared to all other colleges in the university. This study explores factors that deter CAFES students from enrolling or continuing with Honors and potential opportunities to encourage enrollment and retention. A QuestionPro survey and focus groups were utilized in collecting responses from first-year CAFES students on their awareness of the Honors College's automatic enrollment, factors that deter students from pursuing Honors, and opportunities. Survey responses (n=59) were reported as percentages. Randomized focus groups were created from the pool of survey participants and split into Honors and non-Honors sections. Data from both surveys and focus groups indicate the main factors deterring CAFES students from pursuing Honors include class schedule concerns, a lack of necessity for Honors in their intended career paths in agriculture, and a lack of CAFES-specific Honors courses. Furthermore, a gap in knowledge about the Honors College and its enrollment qualifications exists amongst CAFES students; a majority of students would potentially pursue Honors if more opportunities within CAFES were offered, such as informational sessions and Honors-specific CAFES courses. This supports the proposed curriculum requirements the Honors College is in the process of obtaining approval for and suggests that adding CAFES-specific Honors courses may help improve Honors College participation by CAFES students.

Introduction

As the second largest college at South Dakota State University (SDSU), the College of Agriculture, Food and Environmental Sciences (CAFES) has the second lowest Honors College student enrollment (Office of Institutional Research & Assessment, 2020). At SDSU, students can automatically qualify for the Honors College by meeting one of the following criteria: 27 or higher on ACT, 1280 or higher on SAT, or rank in top 10% of their high school graduating class. Current SDSU or transfer students are also automatically eligible if they have a 3.0 cumulative GPA in their college coursework. If students fail to meet this criterion but are still interested in Honors, they can meet with Honors College faculty and staff to discuss their options (Van D. & Barbara B. Fishback Honors College, 2022). In fall 2020, only 4.5% of CAFES students were also enrolled in Honors, comprising only 9% of the Honors College total enrollment. For comparison, the highest Honors enrollment was in the College of Natural Sciences with 20% and the lowest in the College of Education and Human Sciences at 7% (Holmquist, 2022). This low enrollment served as grounds to research what deters agricultural students from enrolling in and continuing with Honors.

The overall purpose of this study was to identify factors that deter students from enrolling in the Honors College and potential opportunities to encourage enrollment. This was accomplished through the following objectives:

1. Identify factors deterring enrollment in Honors
2. Identify student awareness of automatic enrollment and opportunities for all to enroll in Honors
3. Determine student perception of need for CAFES-specific Honors courses in curriculum

4. Identify additional opportunities that would motivate Honors College enrollment

Literature Review

One of the main purposes of an honors education is to build students' love for lifelong learning and promote learning experiences broader than what can be found in a typical college classroom (National Collegiate Honors Council, 2022). West Virginia University President E. Gordon Gee notes the increased value honors education provides to entire universities, providing his land-grant institution with intimate educational experiences to students who might not be able to afford a private college environment. Gee also states how the implementation of an honors college benefits land-grant missions by educating and keeping talented students in the state that they will hopefully continue to live and work in after graduation (Gee, 2015).

South Dakota State University became South Dakota's land-grant college after accepting 160,000 acres of land from Congress in 1889 to support the agricultural college. With a foundation in agriculture, SDSU continues to uphold the university's land-grant mission through colleges such as CAFES and its main branches in teaching, research, and extension ("The Land-Grant Heritage of SDSU").

A few recent studies have explored the connection between agricultural programs and honors programs. Honors programs specific to agriculture are uncommon in the United States. However, a study conducted at the University of Arkansas showed that most institutions with agricultural programs also had an honors college or program (Sellick, 2013). Additionally, the College of Agricultural and Life Sciences is the only college at the University of Florida that offers an upper division honors program for juniors and seniors. Students in this program are invited to take an honors colloquium specific to their college (Jones et. al., 2004).

Recruitment and retention efforts by honors colleges need to be focused on why students decide to enroll and persist as well as their satisfaction with honors experiences. In a study by Nichols and Chang in 2013, the team showed that “competitive advantage” was the top reason students enrolled in the Honors College at SDSU, while quality of the learning environment was the number one reason students continued to pursue graduating with Honors College distinction (Nichols & Chang, 2013). Coursework offerings could be another subject of retention amongst Honors students. A study conducted with Honors students in the Dale Bumpers College of Agricultural, Food and Life Sciences at the University of Arkansas reported less satisfaction with departmental courses offered, which caused researchers to conclude that honors programs in agricultural colleges should assess programming efforts consistently to identify students’ needs. (Edgar & Whitehead, 2019). A study conducted at SDSU in 2020 indicated that an Honors Lab section for Introduction to Animal Science provided students with an alternative exposure to the Honors College that resulted in Honors retention, which provided grounds to recommend that early exposure of agricultural students to Honors could enhance future Honors College participation (Hansen et. al., 2020). Another study at the University of Arkansas discovered a peer mentor program may be helpful in retaining agricultural students in the honors program (Whitehead, 2018).

Retaining agricultural students in honors programs can also lie in their perception of its value to their education. In 1991, Foster and Pikkert indicated that if students in colleges of agriculture were to be competitive in a world in which technology was changing more and more rapidly, agricultural faculty needed to be able to provide their students the cognitive abilities that would enable them to solve problems, make decisions, and integrate new technology outside the classroom (Foster & Pikkert, 1991). Fairbanks notes how an honors education provides an

opportunity for highly motivated agriculture students to develop discussion, writing, and research skills (Fairbanks, 1990).

Specific to SDSU, alumni of the SDSU Honors College from all majors have noted that Honors influenced their lives both professionally and personally (Kotschevar et al., 2018). A study on student perceptions and affinity towards the SDSU Honors College in 2020 concluded that student-centered ideas for creating value in Honors are essential for future efforts in programming and recruitment. This study also showed students may have an increased interest in the Honors College if it had more specific connections to their major or college (Kutzke et. al, 2020).

Methodology

This study was deemed exempt by the SDSU Human Subjects Institutional Review Board (IRB-2102006-EXM). Research was conducted via two phases: survey and focus groups. In the first phase, a QuestionPro survey was utilized as the method of measurement. Because first-year students are early in their undergraduate careers and have had the most recent experience in choosing whether to enroll in the Honors College, it was determined to target this group of students enrolled in a CAFES degree program. To ensure only the target audience took part in the study, the survey's first questions included all inclusion qualifiers, including if the participant was at least 18 years of age, enrolled in a CAFES degree program, and if they had graduated high school in 2020 and/or completed less than 30 college credits. If a potential participant selected that he/she was under 18 years of age, not enrolled in a CAFES program, or had neither graduated high school in 2020 nor completed less than 30 college credits, the survey was terminated and was not used in results. Participants gave an implied consent by participating in the survey and were provided with an overview of the study, as approved by the IRB, prior to

starting the survey. Fifty-nine students who met the population requirements completed the survey.

Name and email were stored from the survey for the purpose of contacting potential focus group participants for the second phase. Name and email information were deleted immediately upon completion of focus groups. All survey information was kept on a password-protected computer only accessible by the research team during the study to protect any potential identifiers.

Second phase participants were selected at random from two groups of survey participants: Honors and non-Honors students. Each group was asked a different set of questions, as outlined in the appendices, to provide a more in-depth explanation about why they chose to or did not choose to join Honors. Participants signed a voluntary participation consent form. Notes were taken on the respondents' answers, but their answers were not linked to their names. Eight students participated in the non-Honors group, and three participated in the Honors group.

Questions utilized in both the survey and focus groups are found in Appendices A-C. In the survey, four questions were utilized as qualifier questions to narrow down study participants. Six questions were asked of all participants, regardless of Honors enrollment, to aid in study objective. Once participants answered whether they were involved in Honors, Honors students were directed to two questions regarding their nervousness for completing their Honors requirements, which utilized a scale system, while non-Honors students answered two questions on why they chose to not participate. All participants then answered seven questions on their interest in CAFES-specific Honors courses and interest in future Honors opportunities. Questions were either yes/no, multiple choice, select all that apply, or had an "other" category to allow

participants to add their own answer, which was used especially in sections such as “what other CAFES courses would you like to see an Honors section for?”

Focus group questions were open-ended to enable participants to use personal experiences and thoughts to answer. An SDSU Animal Science faculty member served as group facilitator, asked the approved study questions, and fostered conversations amongst participants. Answers collected during the focus groups were used as a method of validation of survey responses and provided in-depth examples of personal student experiences. Quotes highlighting validations of survey data are outlined in the results and discussion section.

Results & Discussion

Responses from 59 surveys were recorded. Additional surveys were completed but failed to meet initial requirements of being a CAFES major, being over 18 years of age, or having graduated in 2020 or completed less than 30 college credits. Twelve of the 17 academic majors within CAFES were represented amongst survey participants, as depicted by Table 1, with most respondents (30.4%) coming from the animal science major. This accurately represents CAFES enrollment, as animal science constitutes the majority (25%) of CAFES enrollment. Participants enrolled in the Honors College included 27.1% of the population while the other 72.9% were not (Table 2). Randomized focus group sizes reflected the percentage of survey respondents, with approximately 27% (represented by three focus group participants) in the Honors group and 73% (represented by eight focus group participants) in the non-Honors group, as indicated by Tables 2a and 2b.

Table 1. Survey Respondents’ Primary Academic Major

Survey Question: Which academic major(s) are you currently pursuing? (Check all that apply)	Number of respondents	Percentage of respondents
Agricultural Systems Technology	4	5.8%
Precision Agriculture	2	2.9%

Agricultural Business	4	5.8%
Agricultural Education, Communication and Leadership - Agricultural Education Specialization	6	8.7%
Agricultural Education, Communication and Leadership - Communication Specialization	6	8.7%
Agricultural Education, Communication and Leadership - Leadership Specialization	4	5.8%
Agricultural Science	4	5.8%
Agronomy	6	8.7%
Horticulture	4	5.8%
Animal Science - Industry Specialization	8	11.6%
Animal Science - Science Specialization	13	18.8%
Dairy Production	1	1.5%
Food Science	1	1.5%
Natural Resource Law Enforcement	1	1.5%
Wildlife and Fisheries Sciences	3	4.3%
Total	67	

Table 2a. Survey Respondents’ Indication of Honors Enrollment

	Number of respondents	Percentage of respondents
Enrolled in Honors College	16	27.1%
Not enrolled in Honors College	43	72.9%
Total	59	

Table 2b. Focus Group Participants’ Indication of Honors Enrollment

	Number of participants	Percentage of participants
Enrolled in Honors College	3	27.3%
Not enrolled in Honors College	8	72.7%
Total	11	

Honors College Automatic Enrollment & Awareness

Based on Figure 1, only 24% of respondents did not meet automatic qualification standards for the Honors College. This percentage is important when compared to data presented in Table 3, as 35.6% of students were not previously aware of the automatic enrollment qualifications. This gap in percentages shows that some students who qualify for automatic

enrollment were not previously aware of their qualification. Additionally, a majority (52.5%) of respondents were not aware that students can still apply for Honors College enrollment even if they do not meet automatic qualification standards (Table 4). This data pattern indicates the gap in knowledge of the Honors College and its enrollment qualifications amongst CAFES first-year students.

Figure 1 also depicts that 76% of respondents automatically qualified for Honors College admission. However, this percentage is not indicative of the number of Honors students who participated in the survey (27.1%). This data point eliminates lack of qualification as a major reason for CAFES students deciding not to enroll in the Honors College, as students can discuss enrollment options with Honors College faculty even if they don't meet automatic requirements (Van D. and Barbara B. Fishback Honors College, 2022). Therefore, other factors for not enrolling needed to be explored through other survey questions, which was anticipated, and followed up on through focus group questions.

Figure 1. Survey Respondents' Automatic Admission Qualifications for Honors College

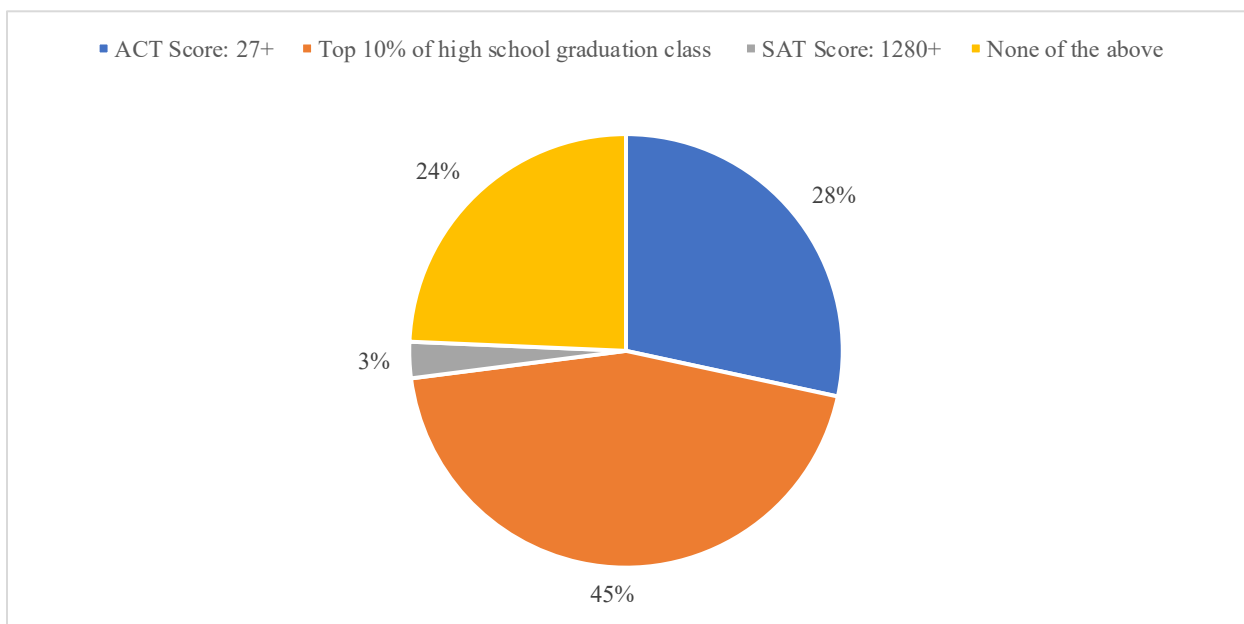


Table 3. Survey Respondents' Awareness of Honors Automatic Qualification

Survey Question: Were you previously aware that an ACT score of 27 or higher, SAT score of 1280 or higher, or ranking in the top 10% of your high school graduation class automatically qualifies you for enrollment in the Van D. and Barbara B. Fishback Honors College at SDSU?	Number of respondents	Percentage of respondents
Yes	38	64.4%
No	21	35.6%
Total	59	

Table 4. Survey Respondents' Awareness of Honors Admission Exception

Survey Question: Were you previously aware that students can still apply for Honors College enrollment without meeting the aforementioned Honors College requirements?	Number of respondents	Percentage of respondents
Yes	28	47.5%
No	31	52.5%
Total	59	

Deterrents to Pursuing Honors

Table 5 indicates the potential factors survey respondents not enrolled in Honors felt had prevented them from enrolling in Honors. The survey question allowed students to select multiple factors and provided an "other" category for them to list other preventative factors. While Figure 1 showed that 24% of respondents did not meet automatic Honors admission, only 13.2% said that was a reason for not enrolling in the Honors College (Table 5). Most respondents (20.2%) noted a fear of lack of time to complete Honors requirements as a major deterrent. Over 15% of students also indicated a lack of knowledge about Honors, expecting classes to be too hard, and requirements being too difficult as additional factors influencing their decision not to pursue Honors.

The non-Honors focus group provided substantial evidence to support survey data along with additional factors that have deterred them from the Honors College. When asked why they

did not pursue Honors or chose to discontinue their enrollment, the following notable quotes were stated:

- “I didn’t feel like it would give me a huge leg up in the agriculture industry as opposed to my skills and leadership involvement during college.”
- “(It) won’t be a deciding factor on if an employer chooses to hire me or not.”
- “I came in with 30 college credits. I didn’t want to have to take general education courses again to meet Honors requirements.”

Non-Honors students in the focus group also noted that because not many CAFES courses have an Honors section, it would have taken several Honors course contracts to meet requirements, which “was not worth the time” and students would rather “commit that time to clubs and organizations on campus.” However, if CAFES-specific Honors courses were offered, some students in this group would consider pursuing Honors, as having to contract extra courses was a reason for some students in this group to drop Honors. For others, adding CAFES courses still did not motivate them to pursue Honors, noting again that it was not needed for their career because “I’m not going to graduate school or in a pre-professional program.” Another student mentioned that there are already “honors” activities in the college, noting the Alpha Zeta agricultural honors fraternity offers organizational involvement to students in the college with high GPAs and recognizes their commitment to academics already. Several focus group participants agreed that they did not relate to other Honors students outside of CAFES, with examples of being the only student in their major in the Honors Orientation course and the lack of connection with others in Honors Hall stated. Only 20% of students enrolled in one of the multiple Honors orientation sections offered in fall 2020 were in CAFES, which could be a contributing factor to students’ lack of relating to other Honors students (Holmquist, 2022).

While this is a higher percentage than any other single college represented amongst Honors Orientation students, it is still quite different from other first semester courses CAFES students may be enrolled in, such as Introduction to Animal Science, Crop Production or even introductory biology courses that have a high percentage of CAFES majors. One student noted the difference in personality amongst students in the Honors residence hall compared to halls with agriculture majors.

“I never talked to anyone on my floor (in Honors Hall). Everyone does their own thing (in Honors Hall), as opposed to the agriculture living learning community (Pierson Hall) where everyone talks to everyone.”

Overall themes of deterring factors from the non-Honors focus group included:

- Class schedule concerns
- Lack of necessity for Honors in their intended career paths in agriculture
- Lack of CAFES-specific Honors courses

To continue analyzing factors that could deter students from Honors, Honors College survey respondents were asked about their nervousness in completing Honors College requirements, as shown by Figures 2 and 3. Respondents were most nervous about fulfilling the independent study requirement, and most (46%) were only nervous about a few of the requirements.

The Honors focus group also added commentary on daunting and challenging aspects of Honors, including the following:

- “Some Honors courses are much more daunting than regular sections”
- “Independent study”
- “Contracting a large number of courses when you come in with college credits”

- “Upper-division courses can be hard to contract in CAFES since professors have not had a lot of honors students since we have low Honors enrollment in CAFES”
- “We don’t really know who else is in Honors within CAFES”

Table 5. Factors That Deterred Non-Honors Students From Enrolling In Honors College

Survey Question: What has prevented you from enrolling in the Fishback Honors College? (select all that apply)	Number of respondents	Percentage of respondents
Not meeting the ACT/SAT/top 10% enrollment requirement	15	13.2%
Not knowing anything about the Honors College	18	15.8%
Think the classes will be too hard	22	19.3%
Think the requirements for graduation with Honors College distinction will be too difficult	19	16.7%
Afraid I won't have enough time for the Honors College requirements	23	20.2%
The Independent Study requirement	6	5.3%
Lack of upper division CAFES-related Honors courses	4	3.5%
Other	7	6.1%
Total	114	
Sample of “Other” Comments:		
<i>“I decided not to/no interest”</i>	2	
<i>“Interference with three-year graduation plan”</i>	1	
<i>“Didn't know I could”</i>	1	
<i>“Cost of extra classes”</i>	1	

*Note: Respondents could select multiple responses

Figure 2. Honors Survey Respondents’ Nervousness about Satisfying Honors Requirements: General

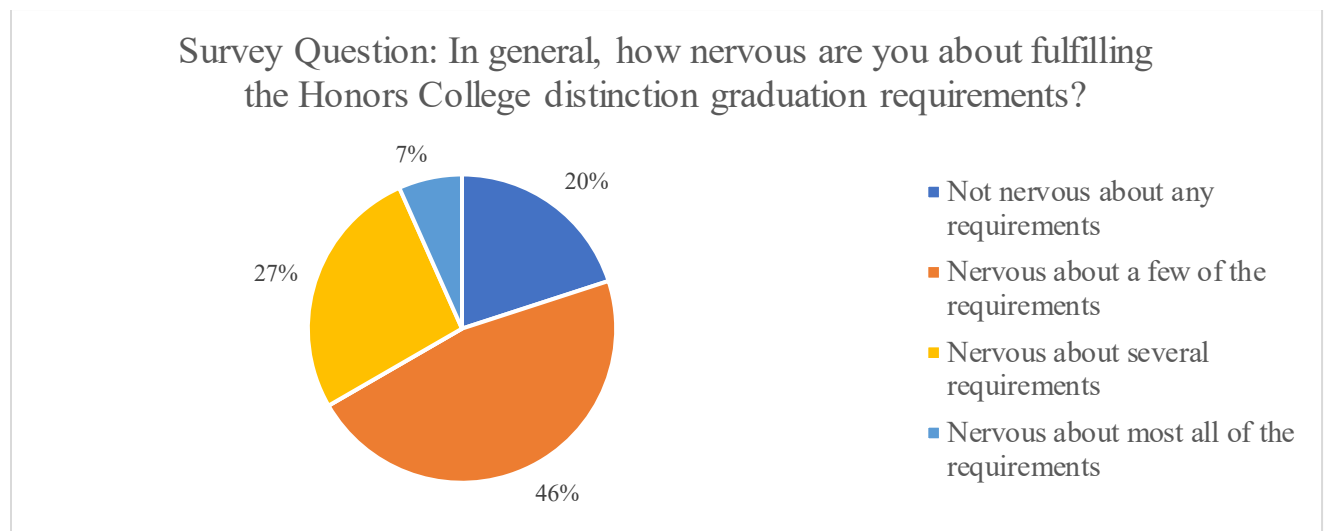
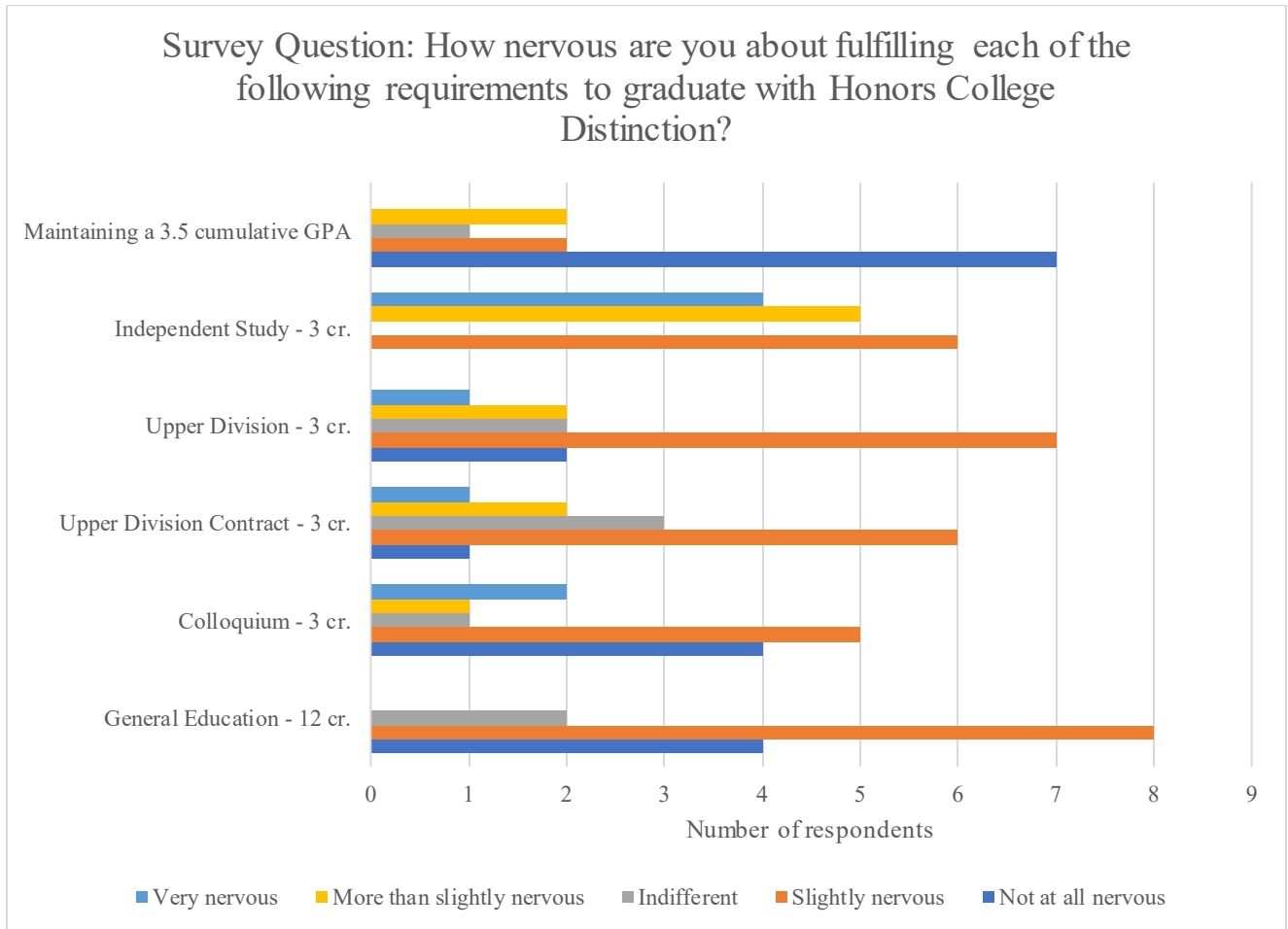


Figure 3. Honors Survey Respondents’ Nervousness about Fulfilling Specific Honors College Requirements



Interest in Potential Honors Topics and Classes

In addition to finding out what has deterred students from pursuing Honors, survey participants were asked what Honors opportunities might interest them or cause them to enroll in Honors. When asked if they would likely take an Honors section of a course required for their major, 50.9% said yes (Table 6). Since only 27.1% of respondents were enrolled in Honors, this data indicates that some non-Honors students would also likely enroll in an Honors class, if offered. Table 7 shows common CAFES classes students would like to see an Honors section for, with Survey of Animal Nutrition with the highest percentage of responses (11.3%). In the

focus group, Honors students expressed that they would like to see more CAFES-specific Honors courses, in addition to a CAFES colloquium, offered in the future.

Figure 4 demonstrates topic opportunities that respondents, regardless of Honors enrollment, might be interested in pursuing with the Honors College, such as career exploration or how Honors could fit into CAFES. The opportunities listed caused 37.9% to “maybe” consider enrolling in Honors and 25.9% to continue with Honors or choose to enroll (Table 8). In a following question, 38.8% of respondents also said they would be interested in mentor/mentee opportunities with current CAFES Honors students (Table 9).

Table 6. Survey Respondents’ Likelihood of Enrolling in CAFES Honors Classes Regardless of Honors Enrollment

Survey Question: If there were Honors sections offered for required classes of your major, would you be more likely to pursue those sections rather than regular sections?	Number of respondents	Percentage of respondents
Yes	30	50.9%
No	29	49.2%
Total	59	

Table 7. Courses Survey Respondents Would Like to See Honors Section Offered

	Number of respondents	Percentage of respondents
ABS 203 - Global Food Systems	10	6.6%
ABS 475-475L - Integrated Natural Resource Management and Lab	1	0.7%
AGEC 271 - Farm and Ranch Management	13	8.6%
AGEC 354 - Agricultural Marketing and Prices	7	4.6%
AS 218 - Survey of Animal Nutrition	17	11.3%
AS 241-241L - Introduction to Meat Science and Lab	12	8.0%
AS 319-319L - Livestock Feeds and Feeding and Lab	12	8.0%
AST 202-202L - Construction Technology and Materials and Lab	3	2.0%
AST 333-333L - Soil and Water Mechanics and Lab	5	3.3%

AST 342-342L - Applied Electricity and Lab	1	0.7%
DS 130-130L - Introduction to Dairy Science and Lab	5	3.3%
DS 231 - Dairy Foods	3	2.0%
EES 275 - Introduction to Environmental Science	2	1.3%
FS 101 - Introduction to Food Science	2	1.3%
FS 251 - Food Safety and Quality Management Systems	1	0.7%
HO 111-111L - Introduction to Horticulture and Lab	6	4.0%
MICR 311-311L - Food Microbiology and Lab	4	2.7%
NRM 311 - Principles of Ecology	4	2.7%
PS 103-103L - Crop Production and Lab	9	6.0%
PS 213-213L - Soils and Lab	5	3.3%
PS 223-223L - Principles of Plant Pathology and Lab	3	2.0%
PS 405-405L/505-505L - Entomology and Lab	4	2.7%
PS 407-407L/507-507L - Insect Pest Management and Lab	4	2.7%
RANG 205 - Introduction to Range Management	5	3.3%
RANG 374-374L - Habitat Conservation and Management and Lab	4	2.7%
WL 220 - Introduction to Wildlife and Fisheries Management	6	4.0%
Other: <i>Select answers</i> <ul style="list-style-type: none"> - Precision Ag - Microbiology - Introduction to Animal Science (already offered) - Botany - Fisheries - More Ag Education required courses - Don't really care, probably going to dropout of honors 	3	
Total	151	

*Note: The options listed for respondents to select are Group 1 courses for CAFES students. Students who wish to complete a Bachelor of Science in Agriculture, Food and Environmental Sciences must complete a minimum of 11 credits from the approved list of Group 1 courses. Some departments require specific courses from the list, whereas others leave the selection to the student and the advisor. Courses in CAFES that currently have an Honors section, such as Introduction to Animal Science, were not listed. Respondents could select multiple answers.

Table 8. Survey Respondents' Likelihood of Pursuing/Continuing with Honors Based on New Opportunities

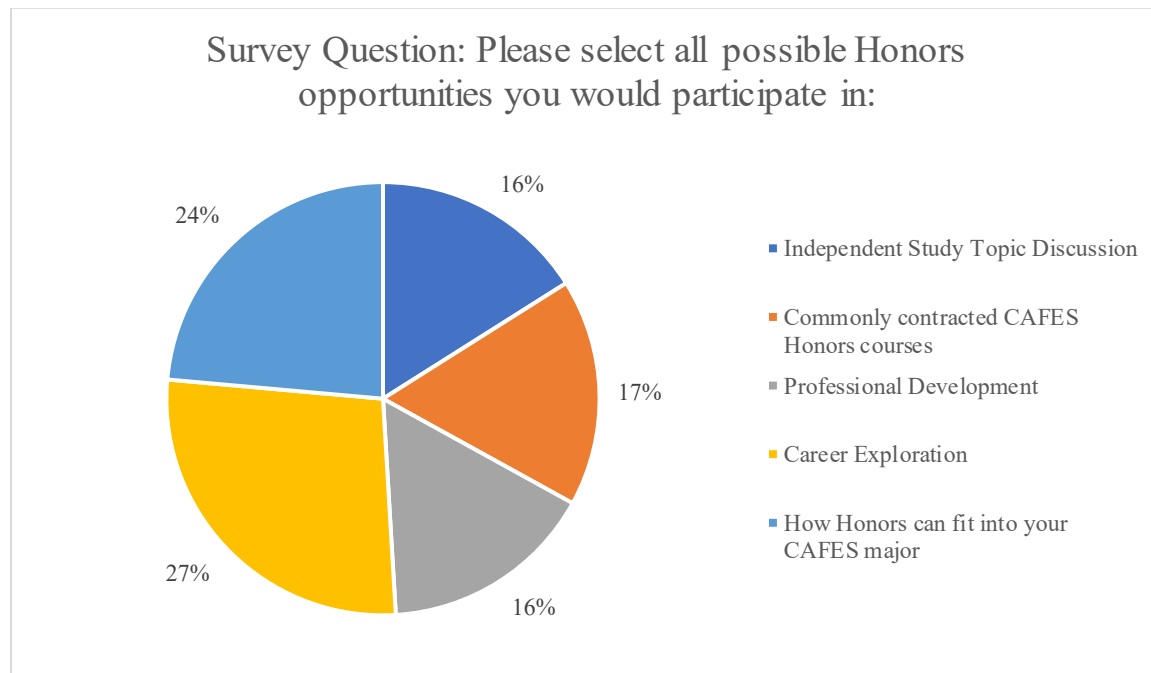
	Number of respondents	Percentage of respondents
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Yes	15	25.9%
No	7	12.1%
Maybe	22	37.9%
I am still not interested in the Honors College	14	24.1%
Total	58	

Table 9. Survey Respondents’ Interest in Pursuing Honors Out-of-Classroom Experiences as a Factor in Staying Involved in Honors

Survey Question: What types of out-of-classroom experiences would be more likely to have you stay involved in Honors?	Number of respondents	Percentage of respondents
Honors alumni socials	4	5.0%
Community service activities with agriculture focus	26	32.5%
Consumer awareness of agriculture forum	15	18.8%
Mentor/mentee opportunities with current CAFES Honors students	31	38.8%
Other	4	5.0%
Total	80	

Figure 4. Survey Respondents’ Interest in Pursuing New Honors College Topic/Discussion Opportunities



Conclusion and Recommendations

This study provides data to support possible solutions to low Honors enrollment within CAFES. Survey and focus group data supports the following conclusions to each of the five main objectives:

- Objective 1: Main factors deterring CAFES students from pursuing Honors include:
 - Class schedule concerns
 - Lack of necessity for Honors in their intended career paths in agriculture
 - Lack of CAFES-specific Honors courses
- Objective 2: A gap in knowledge about the Honors College and its enrollment qualifications exists amongst CAFES first-year students
- Objective 3 & 4: A majority would potentially pursue Honors if more opportunities within CAFES were offered, such as informational sessions and Honors-specific CAFES courses

Since the start of this study, the Fishback Honors College has submitted proposed changes to current Honors curriculum requirements, which would allow additional opportunities to count for Honors credits, such as leadership positions and internships. As of February 2022, this proposal is currently under review and awaiting final approval from the South Dakota Board of Regents.

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References

- Edgar, L. D., & Whitehead, I. (2019). Lessons Learned from an Assessment of an Honors Program in a College of Agriculture. *North American Colleges and Teachers of Agriculture Journal*, 63(2).
- Fairbanks, D. J. (1990). Politics, science, and hunger: An interdisciplinary approach to honors education in agriculture. *Journal of Agronomic Education*, 19(2), 184–186. DOI: 10.2134/jae1990.0184
- Foster, R. M., & Pikkert, J. J. (1991). Perceptions of agriculture college faculty regarding integration of higher order level skills in the curriculum. *NACTA Journal*, 35(4), 23-25.
- Gee, E.G. 2015. Access, not exclusion: Honors at a public institution. *Journal of the National Collegiate Honors Council*, 16(2), 177-180.
- Hansen, A., Nold, R. A., Kutzke, K., Bott-Knutson, R. C., & Djira, G. (2020). Early Exposure to an Honors Course Yields Retention of Agricultural Majors in Honors. *North American Colleges and Teachers of Agriculture Journal*, 65, 460–464.
- Holmquist, H. (2022, February 16). 2020 Honors Enrollment by College. Personal communication.
- Jones, D., Rudd, R., Sieving, K., & Luzar, E. J. (2004). The college of agricultural & life sciences honors colloquium: Teaching and learning 'outside the box'. *NACTA Journal*, 48(4), 78-79.
- Kotschevar, C.M., Ngorsuraches, S., & Bott-Knutson, R.C. (2018). The value of honors: A study of alumni perspectives on skills gained through honors education. *Journal of National Collegiate Honors Council*, 19(2), 137-155.

- Kutzke, K. L., Bott, R. C., Hansen, A. M., Gonda, M. G., & Nold, R. A. (2020). Student Perception and Affinity: Establishment of an Institutional Framework for the Examination of Underrepresented Programs Such as Agriculture in Honors. *Journal of the National Collegiate Honors Council*, 21(2), 95–116.
- National Collegiate Honors Council. (2022). *About NCHC*. National Collegiate Honors Council. <https://www.nchchonors.org/about-nchc>
- Nichols, T.J., & Chang, K. (2013). Factors influencing Honors College recruitment, persistence, and satisfaction at an upper-Midwest land grant university. *Journal of the National Collegiate Honors Council*, 14(2), 105-127.
- Office of Institutional Research & Assessment. (2020). *2020 Fall Headcount by Program*. Inside State.
- Sellick, S. A. (2013). Agriculture Honors Programs in APLU Member Institutions. *Agricultural Education, Communications and Technology Undergraduate Honors Theses*.
- The Land-Grant Heritage of SDSU. South Dakota State University. <https://www.sdstate.edu/about-us/land-grant-heritage-sdsu>
- Van D. & Barbara B. Fishback Honors College. (2022). *Honors eligibility and graduation requirements*. South Dakota State University. <https://www.sdstate.edu/van-d-barbara-b-fishback-honors/honors-eligibility-and-graduation-requirements>
- Whitehead, I. (2018). *Assessing a peer mentor program in an honors college of agriculture* (thesis). ProQuest Dissertations Publishing.

Appendix A – Survey Questions

1. Please enter your email address.

2. Are you at least 18 years of age?

1. Yes
2. No (survey ends)

3. Are you enrolled in a College of Agriculture, Food and Environmental Sciences academic program?

1. Yes
2. No (survey ends)

4. Which academic major(s) are you currently pursuing? (Check all that apply)

1. Agricultural Systems Technology
2. Precision Agriculture
3. Agricultural Business
4. Economics - Agricultural Economics Specialization
5. Agricultural Education, Communication and Leadership - Agricultural Education Specialization
6. Agricultural Education, Communication and Leadership - Communication Specialization
7. Agricultural Education, Communication and Leadership - Leadership Specialization
8. Agricultural Science
9. Agronomy
10. Horticulture
11. Animal Science - Industry Specialization
12. Animal Science - Science Specialization
13. Dairy Manufacturing
14. Dairy Manufacturing - Microbiology Specialization
15. Dairy Production
16. Food Science
17. Conservation Planning & Park Management
18. Conservation Planning & Park Management - Park Administration and Management Specialization
19. Ecology and Environmental Science
20. Ecology and Environmental Science - Rangeland Ecology and Management Specialization
21. Natural Resource Law Enforcement
22. Wildlife and Fisheries Sciences
23. I have a second major in addition to my previously listed CAFES major
24. None of the above options include my academic major (survey ends)

5. Select all that apply

1. I graduated high school in 2020
2. As of December 2020, I have completed less than 30 college credits
3. None of the above apply to me (survey ends)

6. Select all of the following that are true for you:

1. ACT Score: 27+
2. Top 10% of high school graduation class
3. SAT Score: 1280+
4. None of the above

7. Were you previously aware that an ACT score of 27 or higher, SAT score of 1280 or higher, or ranking in the top 10% of your high school graduation class automatically qualifies you for enrollment in the Van D. and Barbara B. Fishback Honors College at SDSU?

1. Yes

2. No
8. Were you previously aware that students can still apply for Honors College enrollment without meeting the aforementioned Honors College requirements?
1. Yes
 2. No
9. What Honors classes have you taken or are currently taking?
1. Introduction to Animal Science/Lab
 2. General Biology II
 3. Genetics & Cellular Biology
 4. General Chemistry II/Lab
 5. Principles of Microeconomics
 6. Organic Chemistry II/Lab
 7. Composition II
 8. Honors Orientation
 9. Lifespan Development
 10. Honors Colloquium
 11. Calculus II
 12. Music Appreciation
 13. Introduction to Logic
 14. General Psychology
 15. Introduction to Sociology
 16. Computer Science II
 17. Human Anatomy
 18. General Biology I
 19. Genetics and Organismal Biology
 20. General Chemistry I
 21. Organic Chemistry I
 22. Composition I
 23. World Civilizations I
 24. Computer Science I
 25. Independent Study
 26. Calculus I
 27. Introduction to Film
 28. Intro Microbiology
 29. Current World Problems
 30. Public Speaking
 31. None of the above
 32. Other _____
10. Are you currently enrolled in or have completed HON 100 (Honors Orientation)?
1. Yes (go to question 12)
 2. No (go to question 11)
11. Why did you not take HON 100?
1. It did not fit in my schedule
 2. I was not enrolled in Honors when I registered for classes
 3. I did not think I would benefit from it
 4. I did not want to add another credit to my schedule
 5. I didn't know what it was
 6. Other _____
12. Are you currently enrolled in the Fishback Honors College?
1. Yes (go to question 15)
 2. No (go to question 13)

Non-Honors Only:

13. What has prevented you from enrolling in the Fishback Honors College?
1. Not meeting the ACT/SAT/top 10% enrollment requirement
 2. Not knowing anything about the Honors College
 3. Think the classes will be too hard
 4. Think the requirements for graduation with Honors College distinction will be too difficult
 5. Afraid I won't have enough time for the Honors College requirements
 6. The Independent Study requirement
 7. Lack of upper division CAFES-related Honors courses
 8. Other _____

Non-Honors Only:

14. The requirements for graduation with Honors College distinction are listed below.

Honors General Education: 12 credits

Honors Colloquium: 3 credits

Honors Upper Division Contracted Coursework: 3 credits

Honors Independent Study: 3 credits

Additional Honors Upper-Division Coursework: 3 credits

Total: 24 Honors credits and a 3.5 cumulative grade point average

Are you interested in enrolling in the Honors College knowing that you can still apply without having met those initial requirements?

1. Yes (go to question 17)
2. No (go to question 17)

Honors Only:

15. In general, how nervous are you about fulfilling the Honors College distinction graduation requirements?

	Not nervous about any requirements	Nervous about a few of the requirements	Indifferent	Nervous about several requirements	Nervous about most all of the requirements
Fulfilling the Honors College requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Honors only:

16. How nervous are you about fulfilling each of the following requirements to graduate with Honors College Distinction?

	Not at all nervous	Slightly nervous	Indifferent	More than slightly nervous	Very nervous
12 credits of Honors General Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 credits of Honors Colloquium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 credits of Upper Division Honors Contracted Coursework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional 3 credits Honors Upper Division Coursework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Credits Independent Study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Maintaining a 3.5 cumulative GPA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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17. If there were Honors sections offered for required classes of your major, would you be more likely to pursue those sections rather than regular sections?

1. Yes
2. No

18. The following list includes all Group 1 courses in Agriculture, Food and Environmental Sciences. Students who wish to complete a Bachelor of Science in Agriculture, Food and Environmental Sciences must complete a minimum of 11 credits from the approved list of Group 1 courses. Some departments require specific courses from the list, whereas others leave the selection to the student and the advisor.

Which of the following classes would you like to see an Honors section offered? Check all that apply.

1. ABS 203 - Global Food Systems
2. ABS 475-475L - Integrated Natural Resource Management and Lab
3. ABS 482-582 - International Experience
4. AGECE 271 - Farm and Ranch Management
5. AGECE 354 - Agricultural Marketing and Prices
6. AS 218 - Survey of Animal Nutrition
7. AS 241-241L - Introduction to Meat Science and Lab
8. AS 319-319L - Livestock Feeds and Feeding and Lab
9. AST 202-202L - Construction Technology and Materials and Lab
10. AST 213-213L - Ag, Industrial and Outdoor Power and Lab
11. AST 333-333L - Soil and Water Mechanics and Lab
12. AST 342-342L - Applied Electricity and Lab
13. DS 130-130L - Introduction to Dairy Science and Lab
14. DS 231 - Dairy Foods
15. EES 275 - Introduction to Environmental Science
16. FS 101 - Introduction to Food Science
17. FS 251 - Food Safety and Quality Management Systems
18. HO 111-111L - Introduction to Horticulture and Lab
19. MICR 311-311L - Food Microbiology and Lab
20. NRM 110 - People and the Environment
21. NRM 221 - Introduction to Conservation Planning and Management
22. NRM 282-282L - Natural Resource Statistics and Lab
23. NRM 311 - Principles of Ecology
24. PS 103-103L - Crop Production and Lab
25. PS 213-213L - Soils and Lab
26. PS 223-223L - Principles of Plant Pathology and Lab
27. PS 405-405L/505-505L - Entomology and Lab
28. PS 407-407L/507-507L - Insect Pest Management and Lab
29. RANG 205 - Introduction to Range Management
30. RANG 374-374L - Habitat Conservation and Management and Lab
31. WL 220 - Introduction to Wildlife and Fisheries Management
32. Other (Please list in the text box in the next question)
33. None of the above

19. What other courses should an Honors section be offered for?

20. Upper Division Credit Opportunities: Would you take a Current Issues in Agriculture Honors course if it were offered? This course would fulfill the Upper Division Credit requirement for the Honors College. Some academic degree programs could potentially accept it as one of your required courses for your major. This course would have

a communication focus in agriculture.

1. Yes
2. No

21. Would you be interested in learning more about opportunities in Honors with CAFES faculty, current CAFES students, or past CAFES Honors alum?

1. Yes
2. No

22. Please select which topic opportunities you would participate in: (select all that apply)

1. Independent Study Topic Discussion
2. Commonly contracted CAFES Honors courses
3. Professional Development
4. Career Exploration
5. How Honors can fit into your CAFES major
6. Other

23. Would these opportunities motivate you to continue with or enroll in Honors?

1. Yes
2. No
3. Maybe
4. I am still not interested in the Honors College

24. What types of out-of-classroom experiences would be more likely to have you stay involved in Honors? (select all that apply)

1. Honors alumni socials
2. Community service activities with agriculture focus
3. Consumer awareness of agriculture forum
4. Mentor/mentee opportunities with current CAFES Honors students
5. Other

Appendix B – Focus Group Questions: Honors

Why did you choose to pursue the Fishback Honors College distinction?

What factors have influenced your decision to continue to pursue this distinction and stay enrolled in the Fishback Honors College?

What is the most daunting aspect of graduating with Honors College distinction?

Are there any other aspects you find more challenging than you anticipated? If so, what?

Would you like to see more opportunities combining CAFES with the Honors College? If so, what types of opportunities do you wish to see available?

Would you enroll in more Honors courses if they were available in your major or in CAFES? If so, which classes would you like to see have an Honors section?

If offered, would you enroll in an “Honors in Agriculture” (not a specific name, but type of) course, that would explore topics across the spectrum of agriculture? How would you like to see such a course structured (e.g. discussion, readings, presentations, research projects, etc.)

Appendix C – Focus Group Questions: Non-Honors

Did you ever consider pursuing Fishback Honors College distinction? If so, why did you decide not to pursue the Fishback Honors College distinction?

Were you previously pursuing the Fishback Honors College distinction? If so, was there a single moment or challenge that caused you to stop pursuing the distinction?

What factors have influenced your decision to not pursue or continue to pursue this distinction in the Fishback Honors College?

Have you taken any Honors classes? Which one(s)?

What is the most daunting aspect of graduating with Honors College distinction?

Would you like to see more opportunities combining CAFES with the Honors College? If so, what types of opportunities do you wish to see available? Would this cause you to pursue the Honors College distinction?

Would you enroll in Honors courses if they were available in your major or in CAFES? ? If so, which classes would you like to see have an Honors section?

If offered, would you enroll in an “Honors in Agriculture” (not a specific name, but type of) course, that would explore topics across the spectrum of agriculture? How would you like to see such a course structured (e.g. discussion, readings, presentations, research projects, etc.)