

University of Idaho Students' Perceptions Of Agriculture and Careers in Agriculture

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The purpose of this study was to assess the perceptions that University of Idaho students held about agriculture and careers in agriculture. An open-ended questionnaire was administered to a cross-section of the campus student population. This study indicated a general lack of understanding by college students of what agriculture entails today and what careers are available in the field. A concentrated effort to educate the general public about the modern agriculture industry and the wide array of agricultural careers available is desperately needed to ensure that the agriculture industry will continue to prosper.

Introduction

Enrollment in agricultural colleges and universities has declined in the last decade. A report by the Human Capital Task Force (1988) stated,

"The expertise base which supports the U. S. food and agricultural system is seriously eroded and must be revitalized. Strategically, our nation's security is clearly dependent upon the requisite expertise to conduct the science and business of producing and distributing our future food while carefully managing our natural resources" (p. 3).

Agriculture and careers in agriculture have in recent years suffered from a negative image. California high

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reer paths of deferring entry into farming, entering farming on a part-time basis, and entering farming full-time upon graduation, steadily lower consistency rates prevail. Part of this effect undoubtedly is a methodological artifact of the more general versus the more specific career alternatives used in the analysis. But this effect also seems to be based upon the perception by young adults that there exists a changing opportunity structure in which fewer and fewer persons will be able to fulfill their ideal of entering production agriculture.

These findings should be of use to university instructors, advisors, and placement personnel in assessing the demand curves for a diversity of agricultural career paths. The findings should also highlight the fact that, for certain of these paths, there is a disparity between the careers that students aspire to and those they realistically feel that they can attain, given their perceptions of current structural conditions in the agricultural industry. Although this disparity may not

school students, in a study conducted by the Mallory and Sommer (1986), "were unaware of the range of opportunities in agricultural careers. They equate agriculture with farming alone, or in some cases do not even know the meaning of the word".

Orthel, Sorensen, Lierman and Riesenber (1989) reported Idaho high school students had:

... a very inadequate perception of what constitutes the industry of agriculture. The students perceive agriculture as farming and ranching only. Little evidence exists to suggest the students have factual information on which to base their perceptions. ... a pervasively negative opinion of pursuing a career in agriculture. ... factors identified to be influencing students' opinions deal almost exclusively with production agriculture. (p. 154)

Many students make career decisions prior to their junior year. Juniors and seniors in high school listed a stable career with a secure future as their top priority in choosing their career path. Their second highest priority was to make a large income. Making a contribution to society and being their own boss was their lowest priority. When asked about careers in agriculture the students felt that a career in agriculture rated highest in making a contribution to society and lowest in providing a secure and stable future. They did not feel agricultural careers would afford them a large income. (American College Testing Program, 1989)

in itself be too surprising, it underscores the potential for frustration and anxiety which many students must feel when examining their future career potential. The findings also provide evidence of the magnitude of the disparity and the types of career alternatives being contemplated by students from farm backgrounds attending a typical land grant university. Such information should be useful in assessing the adequacy of both recruitment and career placement efforts in the nation's colleges of agriculture.

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Statement of the Problem

The future need of our nation and state for individuals with an education in agriculture and the opportunities for individuals with an agricultural education background has been well documented. The high school students' perceptions of agriculture and careers in agriculture have been documented, however the perceptions held by college students have not been studied. Agricultural education programs, at the university as well as other levels, will not be able to prepare the agriculturists needed in the future if young people do not have an interest in the career field.

Many colleges of agriculture have targeted students in other colleges at their universities for recruitment into the college of agriculture as a way to alleviate the shortage of students. If one ponders the future of colleges of agriculture and the education of the nation's agriculturists under the above recruitment scenario, the following questions come to mind. What picture enters the mind of the university student when he/she sees the word agriculture? Do university students know what agriculture is? Are university students considering a career in agriculture? What reasons do university students give for their interest (or lack of interest) in pursuing a career in agriculture? Are university students receiving adequate factual information so they can make intelligent decisions about pursuing a career in agriculture?

Purpose And Objectives of the Study

This study was conducted to determine the perceptions of University of Idaho students about agriculture and careers in agriculture. The specific objectives of the study were:

1. To determine the perceptions of agriculture held by University of Idaho students.
2. To determine the perceptions of pursuing a career in agriculture held by University of Idaho students.
3. To identify factors contributing to the perceptions of agriculture and pursuing a career in agriculture held by University of Idaho students.
4. To identify the differences in perceptions of agriculture and pursuing a career in agriculture among groups of students at the University of Idaho.

Methods and Procedures

Population and Sample

The population of this study enrolled at the University of Idaho. The University of Idaho is the land-grant university for Idaho. The majority of the students are Idaho residents.

The subjects selected as the sample of this study were students enrolled in English 104 during the spring semester of 1990. This English class is required of all students who receive a degree from the University of Idaho. The sample provided a representative cross-section of the University of Idaho students enrolled during the spring semester. There were 20 sections of English 104 taught in the spring semester of 1990. The sample totaled 429 students.

Development of Questionnaire

In order to obtain the least biased perceptions, an open-ended questionnaire was used as the instrument to collect

the data. The questionnaire was based on an open-ended questionnaire used by Orthel et al. (1989) to collect data on the perceptions of high school students on agriculture and careers in agriculture.

Collection of Data

Through the English professor who was in charge of all English 104 classes the instructions and questionnaires were passed on to the individual instructors. They did not receive any information about the study other than it was being conducted to gather information for the State Department of Agriculture. The instructors and students in these classes receive many questionnaires to complete for different agencies; this procedure eliminated any bias that may have occurred due to the student or instructors knowing the purpose of the study.

The students were instructed to complete the questionnaire for an assignment in their English class. The investigators obtained permission to access the students' university records by cross-referencing their names with their identification numbers.

Analysis of Data

The data were analyzed using the following procedures:

1. After reviewing all the responses, the investigators collectively established classification categories for each question.
2. Each investigator categorized the responses into the established categories. A consensus of the investigators was reached on each response.
3. Data were reduced into frequencies and analyzed for statistical differences by SPSSx.
4. Responses were selected for this report to aid readers in understanding the classification categories.

Findings and Discussion

Four hundred twenty-nine (429) students completed the survey and all responses were accepted for the analyses. Of the 429 respondents, 24 (5.6%) were enrolled in agricultural majors in the College of Agriculture at the University of Idaho. The undergraduate agricultural enrollment in the College of Agriculture at the University of Idaho is approximately 6 percent of the undergraduate enrollment of the University. The largest group of respondents (22.8%) were majoring in the College of Letters and Science, 14.7 percent in General Studies, 14.7 percent in Business and Economics, 12.6 percent in Education and 11.4 percent in Engineering. In addition, 59.4 percent of the respondents were male; 80.7 percent were freshman at the time of the study, 95.3 percent came to the University of Idaho from one of the western states and the respondents had an average high school GPA of 3.066 and an average collegiate GPA of 2.423.

Question 1. What is Agriculture?

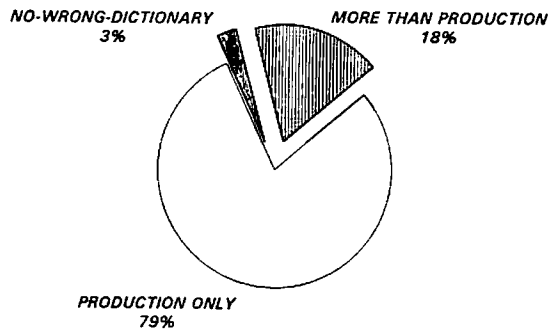
The responses to Question 1 were classified into 3 categories: Production agriculture only, More than production agriculture, No, wrong or dictionary definition.

Responses selected as typical for each category were:

Production agriculture only

* Agriculture to me is farming. Even cowboys. When I

Figure 1. Question - What is Agriculture? (N=429 Students).



think of that word, I think of farmers doing chores early in the morning and right before the sun goes down. I think of a lot of tractors and heavy machinery.

More than production agriculture

* Agriculture is producing, processing, transportation and many other jobs. Agriculture is more than just cows and plows. A very small percentage are actually farmers. Agriculture starts with producer and ends with consumer, but there are many people in between.

No, wrong or dictionary definition

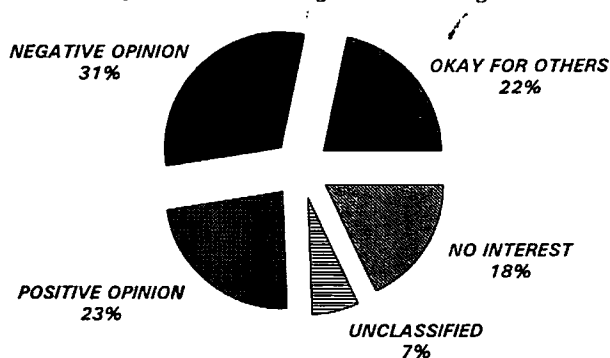
* The science, art and business of cultivating the soil, producing crops and raising livestock. (Webster's II Dictionary, pg. 87)

* Design of buildings. Agriculture is different for different time periods. It tells a lot about different times and countries.

By their answer to Question 1, 79.3 percent (340) of the respondents indicated agriculture was production only with many using the words "farming or ranching" to describe agriculture. Almost 18 percent (77) of the respondents suggested agriculture was more than production agriculture. The remaining 12 respondents used a dictionary definition, did not have an answer or the answer given was wrong (Figure 1).

Of the agricultural majors, 58.3 percent (14) gave an answer that was classified as production agriculture only and 41.7 percent (10) stated that agriculture was more than production. This illustrates that students who are majoring in agriculture are not even aware of what exactly agriculture is. No other grouping of the respondents produced a pattern of answers to Question 1 significantly different from the total group.

Figure 2. Opinions of Pursuing a Career in Agriculture



Question 2. What is your opinion of pursuing a career in agriculture?

The responses to Question 2 were classified into five categories: Positive opinion, Negative opinion, Okay for others, No interest and Unclassified.

Almost 31 percent (132) of the respondents' answers were classified as expressing a *negative opinion* of pursuing a career in agriculture, while 23.1 percent (99) expressed a *positive opinion* of pursuing a career in agriculture. Almost 22 percent (93) of the responses were classified as *okay for others*. Another 17.9 percent (77) of the responses were classified as principally an expression of *no interest* without any indication whether the opinion was either positive or negative. In addition, since the respondents of this study were college students who had presumably already selected a career (based on the fact they had selected a major), the responses classified as expressions of no interest were not considered to be negative opinions (Figure 2).

Of the 24 respondents enrolled in agricultural majors, 70.8 percent (17) expressed a positive opinion of pursuing an agriculture career; 5 responses were classified as negative and 3 responses were classified as okay for others. This may be due to the fact that some agriculture majors do not realize that the career they are interested in is actually involved in agriculture.

Male respondents were significantly more positive than females (29.4% vs 13.8%) about pursuing a career in agriculture. Females indicated significantly more than males that careers in agriculture were okay for others (28.7% vs 16.9%) and they did not have an interest in a career in agriculture (24.7% vs 13.3%). No other grouping of the respondents produced a pattern of answers to Question 2 significantly different from the total group.

The following responses to Question 2 were selected as examples of the 5 classification categories.

Positive opinion - I am pursuing a job in agriculture at the University of Idaho. I am enrolled as an Ag engineer and hope to specialize in grain storage and transportation. Through this I can help the consumer and the producer.

Negative opinion - I think it would be boring. I wouldn't want to till fields or plow all day long. I don't like hard manual labor and I certainly wouldn't wish to walk around in a muddy field filled with manure on an average day.

Okay for others - I would not consider a job in this field because it is not my field of interest. I think it is a good field to go into for people who are interested in farming.

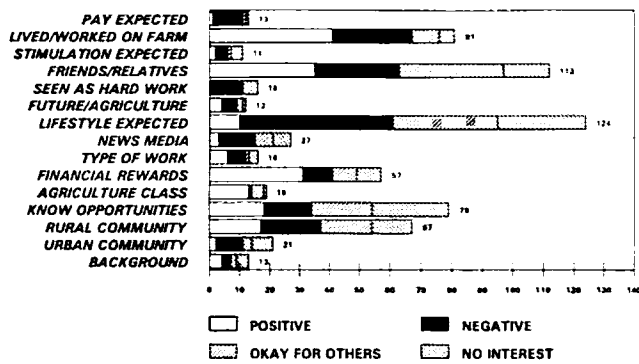
No interest - I have no interest in this field. Mainly due to the fact that I don't know much about it.

Unclassified - I have never given agriculture much thought. I really have no opinion.

Question 3. What factors have influenced your answer to the above questions?

Responses to Question 3 were classified in two steps. If the individual's response to Question 2 had been classified as positive, negative, okay for others or no interest, the factor(s) identified in Question 3 were classified as positive, negative, okay for others or no interest. In addition, the re-

Figure 3. Factors Influencing Opinions by Type of Opinion (N=429).



sponses to Question 3 were classified in the following 15 factor groups: 1. Pay expected, 2. Lived/worked on farm, 3. Stimulation expected, 4. Friends/relatives, 5. Seen as hard work, 6. Future of agriculture, 7. Lifestyle expected, 8. News media, 9. Type of work, 10. Financial rewards, 11. High school agriculture classes, 12. Knowledge of opportunities, 13. Rural community (respondents' home area), 14. Urban community (respondents' home area) and 15. Background in agriculture.

Factors the students indicated influenced their opinions most were the lifestyle expected (124 citations), friends/relatives (112 citations), lived/worked on a farm (81 citations) and knowledge of opportunities (79 citations). Surprisingly, the news media was cited only 27 times (Fig. 3).

When the factors were compared only on the basis of their positive or negative influence, the factors of lifestyle expected, friends/relatives and lived/worked on a farm accounted for 105 (49.5%) of the 212 negatively cited factors; the factors of lived/worked on a farm, friends/relatives, financial rewards, knowledge of opportunities and rural community accounted for 142 (75.9%) of the 187 positively cited factors. As a point of interest, the respondents cited their high school agriculture class 13 times as a positively influencing factor as compared to once as a negative factor (Figure 4). Please note that 231 of the factors were classified as positive or negative.

The respondents with an agricultural major cited lived/worked on farm, friends/relatives, knowledge of opportunities and agriculture classes most often as the factors influencing their opinion.

Figure 4. Positive and Negative Factors Influencing Opinions by Type of Opinions (N=231).

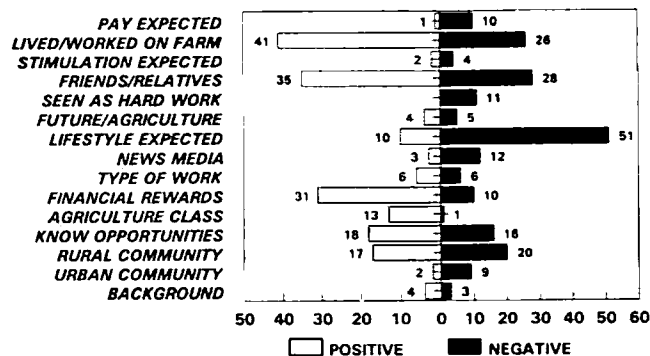
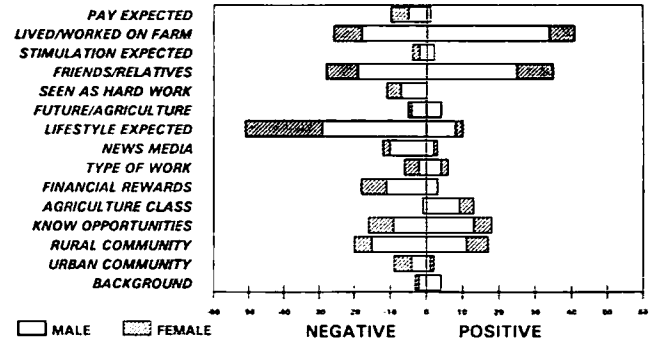


Figure 5. Positive and Negative Factors by Gender (N=231).



When the factors were identified as being cited by male or female students, most noticeable was that female respondents did not cite pay expected, stimulation expected, seen as hard work, financial rewards and background as positively influencing factors. They did cite lifestyle expected, lived/worked on a farm, and friends/relatives the most often as a negative influence. Females also cited lifestyle expected and friends/relatives most often when they indicated a career in agriculture would be okay for others or when they indicated no interest in a career in agriculture (Figure 5).

Conclusions

Based on the findings of this study, the following conclusions were formed:

1. The university students in the population represented by the sample of this study have a very inadequate perception of what constitutes the industry of agriculture. The majority of the students perceived agriculture as concerned only with the production aspect and did not indicate they knew the true dimensions of the agricultural industry and associated careers.
2. The university students' opinion of pursuing a career in agriculture was primarily negative or that the careers would be okay for others.
3. The factors identified to be influencing students' opinions dealt primarily with popularly held views of farming and ranching - both positive and negative. The influencing factors were lifestyle expected, friends/relatives, lived/worked on a farm, knowledge of opportunities, coming from a rural community and financial rewards. This phenomenon may relate to the past experience of many of these students in part-time summer jobs and/or general exposure to agricultural careers. The factor of the news media was cited only 27 times and was classified as slightly more negative than positive.
4. Significantly different response patterns were identified between male and female students. Male were more positive about pursuing a career in agriculture while females indicated careers in agriculture were more for others.

Implications

Based on the conclusions of this study, the following implications are offered to those responsible for providing information about modern agriculture and the careers available to students:

"Publication Parity" for Instructional Media of Merit Through NACTA Media Review Process by Peers

Victor A. Bekkum

As teachers in colleges of agriculture in the United States and Canada, we are all aware of the tremendous effort required to develop excellent quality instructional materials. As members of NACTA we have the opportunity to have many of these media reviewed by our peers similar to research or book reviews. A goal of NACTA is to obtain "Publication Parity" for instructional media of merit so authorship will count toward promotion and tenure.

What can be reviewed?

Only media developed in the last 24 months including: computer software, videotapes, 16mm films, transparencies, audio cassette or tape, slides, filmstrips or models.

Who can participate?

For the present, members only.

How do I initiate a media review?

Make 4 copies of the form at the right. The rest is easy. As author of the material, complete the forms and send them to the chair of the instructional media review committee along

with the media item. Related printed materials (documentation) must be included. If possible, three copies of the media are to be sent. In some instances this may not be possible or practical.

Who reviews the instructional media?

Three members of the media review board thoroughly review the instructional media using media review form 2. The review board chair combines the three reviews and recommends to the *NACTA Journal* editor whether the reviews should be published in the *NACTA Journal* or returned to the author for reference only. Poor media reviews will not be published in other words.

Is there other recognition?

The top instructional media will be selected and the author(s) will be appropriately recognized at the annual NACTA Conference.

Submit your instructional media for review now. Review Requests are accepted at anytime. Make 4 copies of the form on Page 58 and send in your requests today.

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Your Instructional Media Review



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1. If university students enrolled in majors in colleges other than agriculture become the recruitment target population, colleges of agriculture will have some major information hurdles (concerning both the image of agriculture and the awareness of agricultural career potential) to overcome in order to be successful in recruiting students from other colleges into the college of agriculture.
2. The frightening picture drawn by the results of this and similar studies must be shown to all agriculturists and educators in agriculture in such a fashion and with such tenacity that they will be moved into action to correct the situation with more than mere "lip service".

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