

# Demographics of Animal Science Students And Factors Influencing Choice of Major

Duane E. Reese, Dennis E. Burson,  
Keith E. Gilster, James E. Kinder,  
Foster G. Owen and Dennis R. Brink<sup>1</sup>

## Introduction

Student enrollment in the College of Agriculture at the University of Nebraska, Lincoln declined 22% from academic years 1980-81 to 1985-86 (1). At the same time the number of students majoring in Animal Science declined 10% (2). Current projections indicate that no major reversal of the decline in student enrollment at the University of Nebraska, Lincoln, can be expected at least through 1995 (3). These trends warrant an investigation of College of Agriculture students and recruitment methods at the University of Nebraska in an attempt to partially circumvent declining student enrollment.

The study reported herein was initiated to address the following specific objectives.

1. To determine the proportion of University of Nebraska Animal Science majors that (a) were farm/ranch or urban reared, (b) had 4-H and/or FFA experience, and (c) had livestock/poultry experience before entering college.
2. To learn why Animal Science majors chose Animal Science and why others did not select Animal Science as their major.
3. To evaluate the role of student clubs, teaching, research and extension faculty, alumni, agricultural agents and others in the recruitment of students who majored in Animal Science.

## Materials and Methods

Two surveys were conducted to meet the objectives of the study. In the first survey, data was collected over 11 consecutive semesters beginning the Fall Semester of 1980 and continuing through the Fall Semester of 1985 from Animal Science majors enrolled in a sophomore level feeds and feeding course. Furthermore during the spring semester of 1986, Animal Science majors in the same course plus those in two entry level animal courses were surveyed. Students were asked to indicate whether they were a FFA and/or 4-H member before entering college. One hundred and eighty-two Animal Science majors responded to the survey.

The second survey was circulated among College of Agriculture students who resided in various dor-

<sup>1</sup>Reese and Burson are Assistant Professors. Gilster and Owen are professors and Brink and Kinder are associate professors in the Department of Animal Science, University of Nebraska-Lincoln, Lincoln, NE 68583-0908.

mitories and fraternities. In an effort to reach off-campus non-fraternity students, the survey was distributed at two campus club meetings and through four upper level Animal Science courses.

The students were asked to respond to the following statements:

1. What is your current major?
2. Prior to entering college were you: (a) urban reared, (b) farm or ranch reared?
3. Prior to entering college did you have: (a) livestock or poultry experience, (b) no livestock or poultry experience?
4. Indicate the degree of influence (that is, major, contributing or none) that each of the following factors/persons had on your choice of a college major: (a) parents, (b) high school instructor or counselor, (c) county extension agent, (d) previous or current college student, (e) college informational programs, brochures, or exhibits, (f) college staff, (g) college clubs, (h) FFA, (i) 4-H, (j) potential employment opportunities, (k) my personal interest in the major, (l) my perceived aptitude to succeed in the major.

Results of the second survey were sorted into two categories: one representing "Animal Science majors" and the second "all other majors." One hundred and

**Table 1. 4-H and/or FFA Experience Among Animal Science Students, Fall 1980-Spring 1986.**

Item	N	%
4-H	65	35.7
FFA	17	9.3
4-H and FFA	70	38.5
None of the above	30	16.5
<b>Total</b>	<b>182</b>	<b>100.0</b>

**Table 2. Percentage of Animal Science Majors Representing Rural and Urban Backgrounds, Spring 1986.**

Background	N	%
Rural	92	86.0
Urban	15	14.0
<b>Total</b>	<b>107<sup>a</sup></b>	<b>100.0</b>

<sup>a</sup> Represents approximately 44% of all Animal Science majors enrolled.

**Table 3. Percentage of Animal Science Majors with and without Livestock or Poultry Experience before Entering College, Spring 1986**

Livestock or poultry experience	N	%
With	99	92.5
Without	8	7.5
<b>Total</b>	<b>107<sup>a</sup></b>	<b>100.0</b>

<sup>a</sup> Represents approximately 44% of all Animal Science majors enrolled.

seven out of a possible 238 students majoring in Animal Science at the time responded to the survey while 189 out of a possible 1074 students in other majors responded. Agricultural economic majors represented the largest single category (one-third) of all responses among "all other majors."

### Results and Discussion

Background information on Animal Science majors is presented in Tables 1-3. The distribution of Animal Science majors having had 4-H and/or FFA experience before entering college is shown in Table 1. Approximately 84% of the Animal Science majors surveyed were members of 4-H and/or FFA before entering college. Furthermore, of the Animal Science majors surveyed, 86% indicated that they were reared on a farm/ranch before entering college (Table 2) and about 93% of the Animal Science majors had obtained livestock or poultry experience before entering college (Table 3). Therefore, a significant majority of Animal Science majors surveyed at the University of Nebraska were reared on a farm or ranch, had previous livestock/poultry experience and were members of 4-H and/or FFA programs before entering college.

These results differ from those obtained at the University of Missouri where 45% of the animal science majors surveyed during 1980-1983 were members of 4-H and/or FFA and 48% were reared on a farm/ranch before entering college (4). While it has been indicated that the number of agricultural students lacking farm or ranch background has been increasing during the past decade (5,6), the trend may vary depending on the university.

Data indicating why current Animal Science majors chose Animal Science and why others did not select that major are presented in Table 4. Of the factors/persons evaluated, personal interest in the major, potential employment opportunities and participation in 4-H were perceived as the most important factors influencing the student's choice of major.

Of the Animal Science students surveyed 97% indicated their interest in this area of study was a most important influence in choosing Animal Science as a major. This was also of major importance for students in other majors, but to a lesser degree (97.2 vs 85.0%) than students in Animal Science. Similarly, participation in 4-H was a more important factor influencing choice of major among Animal Science majors than those in other majors (30.2 vs 19.6% indicated major influence). Potential employment opportunities, however, played more of a role in determining a major for students in other areas than for Animal Science majors (46 vs 33% indicated major influence). In addition college informational programs, brochures or exhibits seemed to be more important for students in areas other than animal science (12.2 vs 4.7% indicated major influence). No other major differences between Animal Science majors and other majors were noted. Thus, it is apparent that potential employment opportunities and college informational

**Table 4. Factors/People Influencing Students Choice of a Major**

	Animal Science	All other majors
No. of responses (possible)	107 (238)	189 (1074)
<b>Parents</b>		
% major influence	27.4	28.7
% contributing influence	56.6	54.3
% no influence	16.0	17.0
<b>Instructor or High School Counselor</b>		
% major influence	10.4	15.0
% contributing influence	32.1	29.4
<b>County Extension Agent</b>		
% major influence	1.9	4.8
% contributing influence	21.7	16.5
% no influence	76.4	78.7
<b>Previous or Current Influence College Student</b>		
% major influence	24.5	27.1
% contributing influence	42.5	46.3
% no influence	33.0	26.6
<b>College Informational Program, Brochure or Exhibits</b>		
% major influence	4.7	12.2
% contributing influence	55.7	51.1
% no influence	39.6	36.7
<b>College Staff</b>		
% major influence	9.4	7.4
% contributing influence	38.7	31.4
% no influence	51.9	61.2
<b>College Clubs</b>		
% major influence	7.5	5.9
% contributing influence	27.4	19.1
% no influence	65.1	75.0
<b>FFA</b>		
% major influence	26.4	27.7
% contributing influence	20.8	18.6
% no influence	52.8	53.7
<b>4-H</b>		
% major influence	30.2	19.6
% contributing influence	29.2	27.7
<b>Potential Employment Opportunities</b>		
% major influence	33.0	46.2
% contributing influence	52.8	42.6
% no influence	14.2	11.2
<b>My Personal Interest in the Major</b>		
% major influence	97.2	85.0
% contributing influence	2.8	15.0
% no influence	0.0	0.0
<b>My Perceived Aptitude to Succeed in the Major</b>		
% major influence	65.7	58.7
% contributing influence	31.4	38.0
% no influence	2.9	3.3

programs, etc., are more important to students who choose majors other than Animal Science than for those who chose to major in Animal Science. Also, it appears that students majoring in Animal Science have a deeply ingrained interest in pursuing this area of study, whereas this does not appear to be as important in other areas.

Data presented in Table 4 also reveal the relative importance of various factors/persons involved in the recruitment of students who majored in Animal

Science. For convenience of factors/persons are ranked in descending order of importance in Table 5. Among the factors evaluated, the two most important involved in the recruitment of students who majored in Animal Science were: 1) interest in the area and 2) perceived aptitude to success in the major (97.2 and 65.2% indicated major influence, respectively). Fewer (33%) of the Animal Sciences majors indicated potential employment opportunities were important in their choosing Animal Science. Similarly, results from Virginia Polytechnic Institute and State University indicated that the two most important criteria influencing the choice of a major were interest in the area and job opportunities (7).

Fewer (25 to 30%) of the students majoring in Animal Science indicated that parents, previous or current college students, and FFA and 4-H Clubs were a major influence in determining the major they chose. Parents, although not most important in our survey were considered the most influential factor associated with a student's decision to enroll in the College of Agriculture at the University of Idaho (8).

Factors influencing students to a much lesser degree were factors such as high school counselors and instructors, college staff, college clubs, college programs, brochures and exhibits, and county extension agents. In contrast to our study, university literature ranked second to parents as the most important factor associated with a student's decision to enroll in agriculture at the University of Idaho (8). These data imply that some traditional methods of recruitment have little impact on influencing a student to choose Animal Science at the University of Nebraska.

### Summary

Results of the study revealed the following major points.

1. Approximately 84% of the Animal Science majors surveyed were 4-H and/or FFA members prior to attending college.
2. Nearly 90% of the Animal Science surveyed had rural backgrounds and a similar per-

**Table 5. Relative Importance of Various Factors/Reasons in the Recruitment of Students Who Major in Animal Science**

Factor	% Indicating major influence
Interest in area	97.2
Perceived aptitude to succeed	65.7
Potential employment opportunities	33.0
4-H	30.2
Parents	27.4
FFA	26.4
Previous or current college student	24.5
High School instructors or counselors	10.4
College staff	9.4
College clubs	7.5
College programs, brochures or exhibits	4.7
County extension agents	1.9

• Total number of Animal Science students responding = 107.

centage had livestock experience before entering college.

3. Personal interest in Animal Science was the single most important factor influencing a student's choice of Animal Science as a major. Perceived aptitude to succeed in the major was second in importance.
4. Potential employment opportunities were more important to students who choose other majors than to students who chose to major in Animal Science, whereas personal interests in the major were more important to Animal Science students than to those choosing other majors.
5. Current college and county extension staff, clubs and recruitment programs had little overall influence on the student's choice of a major.

### Recommendations

In an attempt to increase student enrollment in Animal Science programs, the following recommendations are offered.

1. Emphasize developing an interest in high school students regarding animal agriculture.
2. Provide potential students with some basis that they have the aptitude to succeed.
3. Inform potential students of job possibilities for Animal Science majors.

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