Chapter 13

First Year Student Recruitment Survey
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Introduction

The purpose of this study is to understand, from a first year student perspective, (1) expectations for employment in FSVM, (2) challenges anticipated in FSVM careers, (3) benefits received in a FSVM career, and (4) effective methods for encouraging veterinary students to enter into careers in FSVM. This is an important target group to consider as they are making choices in the first year of their veterinary education that can set the stage for their career focus upon graduation. Understanding the concerns and motivations of this group will allow strategies to be developed that will encourage first year students to enter into FSVM related fields.
Methodology

Sample Design

The Deans at all 32 colleges of veterinary medicine in the United States and Canada were contacted and asked to participate in the survey by supplying email contact information for their first year veterinary students. Tremendous support was received with 19 colleges providing email listings directly to us and another 13 colleges agreeing to send out the survey directly to their students. The survey was administered in April of 2005. Three waves were sent out in one week increments. The survey was sent to 1,183 valid email addresses with 719 students responding, resulting in a 61% response rate. Responses were received from students at all 32 colleges of veterinary medicine in the United States and Canada. The questionnaire was approved by the FSVMC and the AAVMC.
Contact and Measurements

First year veterinary students were sent an email message from the research team that explained the purpose of the research, identified the sponsoring organizations, and invited them to participate in the study. A web URL was included in the email message that linked to the online survey. The survey was pretested and sent out in three waves separated by one week increments in order to increase response rates. A variety of questions were asked in this research instrument including planned occupational area, strategies for encouraging students to enter food animal careers, salary and work condition expectations, challenges in food animal careers, and the benefits of working as a food animal veterinarian.
Non-response Bias

Statistical analyses were carried out for non-response bias. A wave analysis with the Student’s t-test was used to look for differences between early and late returns. This provides some information about whether the data from completed questionnaires are biased by the likelihood of non-response. The wave analysis method assumes that subjects who respond less readily are more like non-respondents. Using the t-test for two sample proportions and a 95 per cent level of confidence, it was found that there were no significant differences between early and late returns for items in the questionnaire at the 0.05 level. Since the study did not involve sensitive issues, it was concluded that there was no compelling reason to believe that the response group systematically possessed different response tendencies from non-responders.
Overall Findings from First Year Student Recruitment Survey

• In terms of food animal career expectations there are both positive and negative aspects associated with careers in this field as rated by first year veterinary students. On the positive side, food animal careers are expected to be highly satisfying, stable careers that offer many opportunities to interact with other people and allow for a high level of personal autonomy on the job. Negative expectations include perceptions of limited flexibility as to when the work is performed, an abundance of on-call hours, and a work environment that is unclean.

• Students planning food animal careers, compared with those not planning to work with food animals, are more likely to perceive food animal careers as being flexible, not being dirty or requiring a great deal of travel, having a lot of autonomy, and being personally satisfying.

• Approximately a third of first year students expect food animal veterinarians to earn $40,000 to $49,000 in their first year out of veterinary medical school, another 27% expect food animal veterinarians to make $50,000 to $59,000 in their first year. The most popular (23%) salary range expectations for food animal veterinarians that have been working for 5 years is $60,000 to $69,000 among our respondents. However, another 21% expect food animal veterinarians to earn $70,000 to $79,000 after 5 years.
First year veterinary students seem reluctant to strongly agree or strongly disagree with many of the food animal career challenge questions posed to them. Their “neutral” responses likely reflect their limited knowledge of the specific aspects of a food animal career.

Even at this early point in their veterinary educations, there is some limited agreement among these respondents that producers are reluctant to use the services of a food animal veterinarian due to cost concerns and that producers are unwilling to take the veterinarian’s advice.

Most students report not feeling very well prepared by their veterinary education to enter food animal veterinary jobs, but this is not too surprising given the early stage in their veterinary education.
When asked about the benefits of a food animal career in an open ended question, the following five areas accounted for 78% of all responses:

1) Rural lifestyle / outdoor work – the benefits of living in a rural community, working outside, and the ability to travel.
2) Public health / Safety – the beneficial feelings associated with contributing to the safety of the nation’s food supply, assisting with public health, and helping food producers succeed.
3) Variety / Interesting tasks – the benefit of engaging in a large variety of interesting tasks and challenging work.
4) Work with good people – the benefits of working with nice, interesting people in the course of performing one’s job.
5) Flexible hours / Autonomy – the benefit of working in an autonomous environment with flexibility in work hours.
Overall Findings from First Year Student Recruitment Survey (continued)

First year students were asked their opinion on the effectiveness of 16 different strategies that could be used to encourage more students to enter into food animal veterinary careers. The top 10 strategies were the same for both those students planning to enter food animal careers and those not going into a food animal career (although the ranking within the top 10 varied slightly).

The top rated tactics by first year students revolve around financial considerations and increased exposure to food animal medicine.

The top 6 rated strategies to encourage more students to enter into food animal veterinary careers are:

1. Payoff all student loans in exchange for working in a food animal veterinary medicine field for 3 years
2. Offer paid 8-week summer externships in food animal medicine
3. Financial assistance in purchasing equipment to begin a food animal practice
4. Establishment of mentoring / shadowing program that matches high school students with food animal veterinarians
5. Provide job placement services for food animal careers
6. Assigning students interested in a food animal career to a faculty mentor
Respondent Demographic Profile

- Respondents primarily came from suburban areas and large communities. A sizeable group (12%), however, are from ranches or farms.

- Respondent undergraduate degrees are primarily from the biological sciences and agriculture.

- Over 60% of the respondents are 20 to 24 years in age with 84% being female and 89% being Caucasian.
Q104: What is the size of the community in which you spent the majority of your childhood?
Undergraduate Major

Among all first year veterinary student respondents

Q110: In which area was your undergraduate major?
Among all first year veterinary student respondents

Q111: What is your current age?
**Respondent Gender**

Among all first year veterinary student respondents

- **Female**
- **Male**

**Q112: What is your gender?**
Respondent Marital Status

Among all first year veterinary student respondents

Q113: What is your marital status?
Q113: Which of the following best describes your racial or ethnic background?
Strategies to Encourage FSVM Careers

- Top tactics for encouraging students to enter food animal careers deal with either financial considerations or exposure to the area.
- The number one tactic is to payoff student loans in exchange for working in a food animal medicine career.
- Other top reasons include paid summer experiences working with food animals in the form of externships, financial and other types of assistance in setting up a practice, high school and veterinary student mentorship programs, substantial food animal student scholarships, and more exposure to food animals in the first semester at a veterinary college.
- The rankings of the best tactics are consistent between food animal and non-food animal students.
Effectiveness of potential strategies for encouraging students to enter into food animal veterinary careers

<table>
<thead>
<tr>
<th>Overall rank</th>
<th>Strategy</th>
<th>All Respondent Mean</th>
<th>Non-food animal student ranking</th>
<th>Food animal student ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Payoff all student loans in exchange for working in a food animal veterinary medicine field for 3 years</td>
<td>6.11</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>Offer paid 8-week summer externships in food animal medicine</td>
<td>5.85</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>Financial assistance in purchasing equipment to begin a food animal practice</td>
<td>5.64</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Establishment of mentoring / shadowing program that matches high school students with food animal veterinarians</td>
<td>5.55</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>5.</td>
<td>Provide job placement services for food animal careers</td>
<td>5.45</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>6.</td>
<td>Assigning students interested in a food animal career to a faculty mentor</td>
<td>5.45</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>Assistance in setting up a food animal practice</td>
<td>5.42</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>Providing substantial scholarships to those interested in food animal veterinary medicine</td>
<td>5.22</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>9.</td>
<td>A first semester program in veterinary medical school that lets students study and treat food animals</td>
<td>5.22</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>10.</td>
<td>Orientation session prior to the start of first year classes that highlights career options in various veterinary medicine fields</td>
<td>5.01</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>11.</td>
<td>Produce a television show to compete with &quot;Emergency Vets&quot; call &quot;Farm Vets&quot;</td>
<td>4.94</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>12.</td>
<td>Provide high school and undergraduate college students written information about different food animal careers</td>
<td>4.84</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>13.</td>
<td>Reserve class slots for academically qualified applicants who express a commitment to food animal veterinary medicine</td>
<td>4.32</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>14.</td>
<td>Making students select a curriculum track that provides detailed knowledge in particular areas of emphasis</td>
<td>4.29</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>15.</td>
<td>Create a compact disc that features the life and career of food animal veterinarians</td>
<td>4.22</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>16.</td>
<td>Early admission decisions targeted toward academically qualified applicants who express a commitment to food animal veterinary medicine</td>
<td>4.07</td>
<td>16</td>
<td>15</td>
</tr>
</tbody>
</table>

1 to 7 scale, 1 = very ineffective, 2 = ineffective, 3 = somewhat ineffective, 4 = neutral, 5 = somewhat effective, 6 = effective, 7 = very effective.
Expectations of a Food Animal Career

- Negative expectations include a lack of flexibility when work is performed, large amounts of on-call time, and dirty aspects of the job.
- Positive expectations include high levels of expected job satisfaction, stability in career, level of interaction with other people, and a high level of autonomy.
- Expectations of living in rural areas and job-related travel were high but might be viewed as either positive or negative elements depending upon individual preferences.
- Expectations of how easy it is to switch between employers has mixed perceptions.
- Students expect food animal veterinarians to have annual salaries in the $40K to 59K range immediately after veterinary medical school, increasing to $60K to $79K after 5 years.
Food Animal Career Expectations

Among all first year veterinary student respondents

“Food animal veterinarians have a great deal of flexibility regarding when they perform their work”

Mean = 3.39, Standard deviation = 1.49
Although most respondents feel food animal veterinarians lack flexibility regarding when they perform their work, those students planning to work with food animals are more likely to perceive greater of flexibility for food animal veterinarians.

“Food animal veterinarians have a great deal of flexibility regarding when they perform their work”

Cross tabulation: Q1 (percent of time planning to spend working with specific species) by Q88 (Food animal veterinarians have a great deal of flexibility regarding when they perform their work).
Food Animal Career Expectations

Among all first year veterinary student respondents

“Food animal veterinarians spend a lot of time on-call”

Mean = 5.39, Standard deviation = 1.18
Food Animal Career Expectations

Among all first year veterinary student respondents

“Food animal veterinarians need to live in rural areas”

Very Strongly Agree
Agree
Somewhat Agree
Neutral
Somewhat Disagree
Disagree
Very Strongly Disagree

Mean = 4.55, Standard deviation = 1.54
Food Animal Career Expectations

Among all first year veterinary student respondents

“The nature of food animal veterinary medicine is dirty”

Very Strongly Agree
Agree
Somewhat Agree
Neutral
Somewhat Disagree
Disagree
Very Strongly Disagree

Mean = 4.45, Standard deviation = 1.64
Students not planning to work with food animals are more likely to perceive food animal medicine as dirty.

“The nature of food animal veterinary medicine is dirty”

Cross tabulation: Q1 (percent of time planning to spend working with specific species) by Q91 (The nature of food animal veterinary medicine is dirty).
Food Animal Career Expectations

Among all first year veterinary student respondents

“Food animal veterinarians have a lot of autonomy”

Very Strongly Agree
Agree
Somewhat Agree
Neutral
Somewhat Disagree
Disagree
Very Strongly Disagree

Mean = 4.44, Standard deviation = 1.39
Students planning to work the most with food animals are more likely to perceive food animal veterinarians as having job autonomy.

“Food animal veterinarians have a lot of autonomy”

Cross tabulation: Q1 (percent of time planning to spend working with specific species) by Q92 (Food animal veterinarians have a lot of autonomy).
Among all first year veterinary student respondents

“Food animal veterinarians do not interact with many people”

Mean = 2.31, Standard deviation = 1.29
Although most respondents feel food animal veterinarians interact with people a great deal in their work, those students not planning to work with food animals are more likely to perceive that food animal veterinarians do not interact with many people.

Cross tabulation: Q1 (percent of time planning to spend working with specific species) by Q93 (Food animal veterinarians do not interact with many people).
Food Animal Career Expectations

Among all first year veterinary student respondents

“Food animal veterinarians must travel for work a great deal”

- Very Strongly Agree
- Agree
- Somewhat Agree
- Neutral
- Somewhat Disagree
- Disagree
- Very Strongly Disagree

Mean = 4.86, Standard deviation = 1.37
Students planning to work with food animals are more likely to disagree that food animal veterinarians must travel a great deal in their job.

<table>
<thead>
<tr>
<th>“Food animal veterinarians must travel for work a great deal”</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% of time planning to work with food animals</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>1% to 33% of time planning to work with food animals</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>34% to 66% of time planning to work with food animals</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>More than 66% of time planning to work with food animals</td>
<td>60</td>
<td>40</td>
</tr>
</tbody>
</table>

Cross tabulation: Q1 (percent of time planning to spend working with specific species) by Q94 (Food animal veterinarians must travel for work a great deal).
Food Animal Career Expectations

Among all first year veterinary student respondents

“Food animal veterinarians can easily switch between employers”

Mean = 3.67, Standard deviation = 1.20
Food Animal Career Expectations

Among all first year veterinary student respondents

“Food animal veterinarians have a great deal of job satisfaction in their careers”

Very Strongly Agree
Agree
Somewhat Agree
Neutral
Somewhat Disagree
Disagree
Very Strongly Disagree

Mean = 5.22, Standard deviation = 1.21
Although most respondents agree that food animal veterinarians have a lot of job satisfaction, those students not planning to work with food animals are less likely to agree.

Cross tabulation: Q1 (percent of time planning to spend working with specific species) by Q96 (Food animal veterinarians have a great deal of job satisfaction in their careers).
Food Animal Career Expectations

Among all first year veterinary student respondents

“Most food animal veterinarians stay in that field their entire career”

<table>
<thead>
<tr>
<th>Opinion Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Strongly Agree</td>
<td>1%</td>
</tr>
<tr>
<td>Agree</td>
<td>48%</td>
</tr>
<tr>
<td>Somewhat Agree</td>
<td>23%</td>
</tr>
<tr>
<td>Neutral</td>
<td>25%</td>
</tr>
<tr>
<td>Somewhat Disagree</td>
<td>4%</td>
</tr>
<tr>
<td>Disagree</td>
<td>2%</td>
</tr>
<tr>
<td>Very Strongly Disagree</td>
<td>1%</td>
</tr>
</tbody>
</table>

Mean = 4.33, Standard deviation = 1.37
Food Animal Veterinarian
Starting Salary Expectations

Among all first year veterinary student respondents

“The expected annual starting salary for a full time food animal veterinarian”

- $20,000 to $29,000
- $30,000 to $39,000
- $40,000 to $49,000
- $50,000 to $59,000
- $60,000 to $69,000
- $70,000 to $79,000
- $80,000 to $89,000
- $90,000 to $99,000
- $100,000 to $109,000
- $110,000 to $119,000
Food Animal Veterinarian
Salary Expectations 5 years after graduation

Among all first year veterinary student respondents

“The expected salary for a full time food animal veterinarian 5 years after graduation”
Food Animal Career Challenges

- There is some concern that food animal producers are not willing to pay for the services of a veterinarian and are likely to ignore their advice, presumably out of cost concerns.
- There are mixed perceptions of the impact of producer consolidation on the availability of food animal veterinarian jobs.
- Most students report not feeling prepared to enter food animal veterinary jobs, but they are also very early in their veterinary education.
Food Animal Career Challenges

Among all first year veterinary student respondents

“Consolidation among food animal producers will make it more difficult to be a food animal veterinarian”

Mean = 4.24, Standard deviation = 1.42
“A major challenge in food animal veterinary medicine is that food animal producers often ignore the veterinarian's advice”

Mean = 4.54, Standard deviation = 1.37
**Food Animal Career Challenges**

Among all first year veterinary student respondents

“Food animal producers are often unwilling to pay for the types of services offered by veterinarians”

![Bar chart showing responses to the statement](chart)

- **Very Strongly Agree**: 0%
- **Agree**: 5%
- **Somewhat Agree**: 10%
- **Neutral**: 15%
- **Somewhat Disagree**: 20%
- **Disagree**: 25%
- **Very Strongly Disagree**: 30%

Mean = 4.61, Standard deviation = 1.48
Students planning to work with food animals the most are more likely to feel that food animal producers are willing to pay for veterinary services.

"Food animal producers are often unwilling to pay for the types of services offered by veterinarians”

Cross tabulation: Q1 (percent of time planning to spend working with specific species) by Q100 (Food animal producers are often unwilling to pay for the types of services offered by veterinarians).
Among all first year veterinary student respondents

“I am concerned over my ability to buy into a food animal practice”

Mean = 3.56, Standard deviation = 1.48
Food Animal Career Challenges

Among all first year veterinary student respondents

“My veterinary education has made me extremely well prepared to work in a food animal practice”

Mean = 3.70, Standard deviation = 1.30
Most first year students do not yet feel well prepared by their veterinary education to work in a food animal practice, those interested in a food animal career feel better prepared than others.

“My veterinary education has made me extremely well prepared to work in a food animal practice”

Cross tabulation: Q1 (percent of time planning to spend working with specific species) by Q102 (My veterinary education has made me extremely well prepared to work in a food animal practice).
Benefits of Working as a Food Animal Veterinarian

• Respondents were asked to list the major benefits of being a food animal veterinarian.

• 931 responses were content analyzed for common themes.

• 10 themes emerged from the data.

• The top 5 themes account for 78% of the responses.
Benefits of Working as a Food Animal Veterinarian

Ten Themes from content analysis of open-ended responses

1. **Rural lifestyle / outdoor work** – responses put into this category included the benefits of living in a rural community, working outside, and the ability to travel.
2. **Public health / Safety** – benefits include contributing to the safety of the nation’s food supply, assisting with public health, and helping food producers succeed.
3. **Variety / Interesting tasks** – benefits include the ability to engage in a large variety of interesting tasks and challenging work.
4. **Work with good people** – benefits include the pleasure of working with nice, interesting people in the course of performing one’s job.
5. **Flexible hours / Autonomy** – benefits in this group include the chance to be one’s own boss, an autonomous work environment, and flexibility in work hours.
6. **Good income** – benefits include earning a decent living and the opportunity for reduction in one’s student loans.
7. **Personally satisfying** – responses that indicated that the job held a great deal of enjoyment and personal satisfaction.
8. **Stable career / Opportunities** – Benefits in this category include high demand for services, small number of food animal veterinarians, stable demand, and the opportunity to transition into different types of careers.
9. **Low stress / Slower pace** – Benefits in this category include a lack of stressful situations, understanding, non-emotional clients, and a slower pace of work.
10. **Build community** – Benefits include respect from others, being thought of as a community leader, and having the opportunity to help a community improve.
Benefits of Working as a Food Animal Veterinarian

Among all first year veterinary student respondents

- Rural lifestyle / Outdoor work (29%)
- Public health / Safety (15%)
- Variety / Interesting tasks (14%)
- Work with good people (12%)
- Flexible hours / Autonomy (8%)
- Good Income (6%)
- Personally satisfying (4%)
- Stable career / Opportunities (2%)
- Low stress / Slower pace (5%)
- Build community (5%)

Q103: What are the two biggest benefits you see of working as a food animal veterinarian? (open ended response)
931 responses were coded.