
Chapter 20

Food Supply Veterinarian Career Retention Survey

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Introduction

The purpose of this study is to assess current employment challenges, occupational commitment, occupational stress, job satisfaction, and turnover intentions among food animal veterinarians that have been in the workforce for six or more years. This study also examines veterinarians that have made a significant change in their veterinary occupation in the last five years and the reasons that caused them to change to a new job. This information will be useful for the development of strategies that can be implemented to retain food animal veterinarians in current employment and prevent them from switching to other occupational areas within veterinary medicine. Data from this study are used to identify the key factors influencing turnover intentions and switching to other career options among those that have worked for six or more years in the veterinary profession.

Sample Design

The email lists of members from multiple veterinary professional associations were compiled and duplicate emails were eliminated. Pretested questionnaires were sent out in three waves separated by one week increments to 20,967 unique email addresses. Potential respondents were asked if they had graduated from veterinary medical school prior to August 1999. This generated 2,482 respondents. Assuming there are an average of 2,000 veterinarians that graduated annually from Colleges of Veterinary Medicine from 1984 to 1999, this resulted in an 8% response rate. Next, the 2,482 veterinarians were asked if they had made a significant change in their veterinary occupation in the last five years. This qualification produced 423 valid respondents that had switched jobs within veterinary medicine in last five years. This group of 423 respondents was used to analyze career switching and former employment challenges. The entire sample of 2,482 was used to assess current employment challenges, occupational commitment, occupational stress, job satisfaction, and turnover intentions among food animal veterinarians that have been in the workforce for six or more years. The questionnaire was approved by the AAVMC and the FSVMC prior to administration.

Methodology

The Canadian Veterinary Medical Association sent the questionnaire directly to its members with email addresses in three waves.

The following organizations provided us with member email lists:

- **American Veterinary Medical Association (AVMA)**
- **American Association of Bovine Practitioners (AABP),**
- **American Association of Veterinary Medical Colleges (AAVMC),**
- **American Association of Food Hygiene Veterinarians (AAFHV),**
- **American Association of Avian Pathologists (AAAP)**
- **National Association of State Public Health Veterinarians (NASPHV)**
- **American Association of Small Ruminant Practitioners (AASRP),**
- **American Association of Swine Veterinarians USA/Canada (AASV)**
- **American Association of Public Health Veterinarians (AAPHV),**
- **Academy of Rural Veterinarians (ARV)**
- **United States Animal Health Association (USAHA)**
- **National Association of Federal Veterinarians (NAFV)**
- **Academy of Veterinary Consultants (AVC)**
- **Kansas Veterinary Medical Association (KVMA)**

Contact and Measurements

Cover letter / Survey / Constructs

Subjects 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. A variety of constructs were measured in this research instrument. Items asked about changing occupational areas in veterinary medicine within the last five years, employment challenges in the former job, employment challenges in the current job, job satisfaction and commitment to their current occupational area, and the likelihood of switching from the current occupational area.

Survey items were developed based on insights from an extensive review of the veterinary career literature and general human resource/career selection literature as well as discussions with dozens of veterinarians.

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-respondents.

Overall Findings

- **The majority of veterinarians that had worked six or more years spent their childhood on a farm, ranch or in a suburban area, currently live in a city, and desire to live in a rural area near the city limits or in a suburban area in the future. The majority of respondents are between 30 and 50 years of age and are male. Most are working in companion animal exclusive practices, at a university or in an industrial setting.**
 - **The majority of veterinarians that had worked six or more years had an annual average income of \$85,000.**
 - **The mean and median year of graduation from veterinary college for the respondents was 1986.**
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Overall Findings (continued)

- **Nineteen questions were asked about former veterinary occupations and if the respondent had made a significant change in their occupational area in the last five years. These items were designed to identify who had changed occupational areas and why they made the change. Seventeen percent of the veterinarians that had worked six or more years had changed occupational areas in veterinary medicine with mixed animal and companion animal veterinarians being the most likely to have changed jobs. Most veterinarians that had changed occupational areas were happy in their former jobs. They reported that they received adequate job benefits, worked in a stable company, were able to use their medical/surgical skills, lived in a desirable area, and did not have to travel with their job too much. The major reason people left their original occupational area in veterinary medicine was that they received a more attractive offer in an alternative employment setting.**
- **Similar to early career veterinarians, the veterinarians that had worked six or more years claim they made a good income with an adequate client base. Their current job is not too demanding and they do not mind getting dirty at work. They like their clients, have good relationships with DVM colleagues, and get along well members of the opposite gender on a professional basis in their current position.**

Overall Findings (continued)

- **Veterinarians that had practiced six or more years were asked four items about their degree of satisfaction with their current occupational area and 11 items about their level of commitment to their current occupational area in veterinary medicine. There is a high degree of satisfaction, pride, and enthusiasm with being a food supply veterinarian. Although they have desirable career options and job offers outside of food animal veterinary medicine, senior career veterinarians choose to stay in their current jobs and do not think about leaving this occupational area. They prefer food animal medicine when compared to other areas and do not intend to leave it. These findings mirror those found for early career veterinarians in that senior veterinarians are very committed to food animal medicine.**
- **Veterinarians that had practiced six or more years were asked about their turnover intentions regarding their current occupational areas. The majority of the senior veterinarians are satisfied with their present occupation when compared to jobs in other areas of veterinary medicine and are satisfied with their current position in light of their career expectations. Most senior veterinarians predict they will be in their current occupation two years from now. In addition, the majority are not actively seeking a substitute for their current job in veterinary medicine.**
- **Among veterinarians with six or more years of work experience, the respondents feel their clients truly value their assistance but do experience some occupational stress at the end of the working day.**

Overall Findings (continued)

- **Multiple comparison tests were used to identify the significant differences between satisfaction and turnover intention variables by occupational area of focus. There were no significant differences between any area in veterinary medicine and satisfaction with their current occupation in terms of career expectations. There is a high degree of satisfaction among all areas of veterinary medicine in general.**
 - **In terms of occupational commitment, food animal veterinarians express more pride and enthusiasm for their occupational area than veterinarians in government and industry. Food animal veterinarians would feel more guilt about leaving their occupational area than those in government and industry. Companion animal veterinarians report having fewer attractive career opportunities, and fewer desirable options to pursue when compared to food animal veterinarians.**
 - **Multiple comparison tests were used to identify the significant differences between income and job benefit questions by occupational area. There are no differences between food and companion animal veterinarians thinking about future salary potential or having too small of a client base to make a good income. Companion animal veterinarians are more likely than food animal veterinarians to think their current income level is too low and worry more about job benefits.**
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Overall Findings (continued)

- **Multiple comparison tests were used to identify the significant differences between lifestyle and time management issues, and stress by occupational area among veterinarians that worked six or more years. There were few major differences between groups on exposure to recreational and cultural activities, affordable housing, and career opportunities for spouses. Food animal and companion animal veterinarians experienced no differences between balancing work and family, or getting time off for vacations.**
- **In terms of job stress, companion animal veterinarians were more likely to feel burned-out, exhausted, and too fatigued after work when compared to food animal veterinarians.**

Overall Findings (continued)

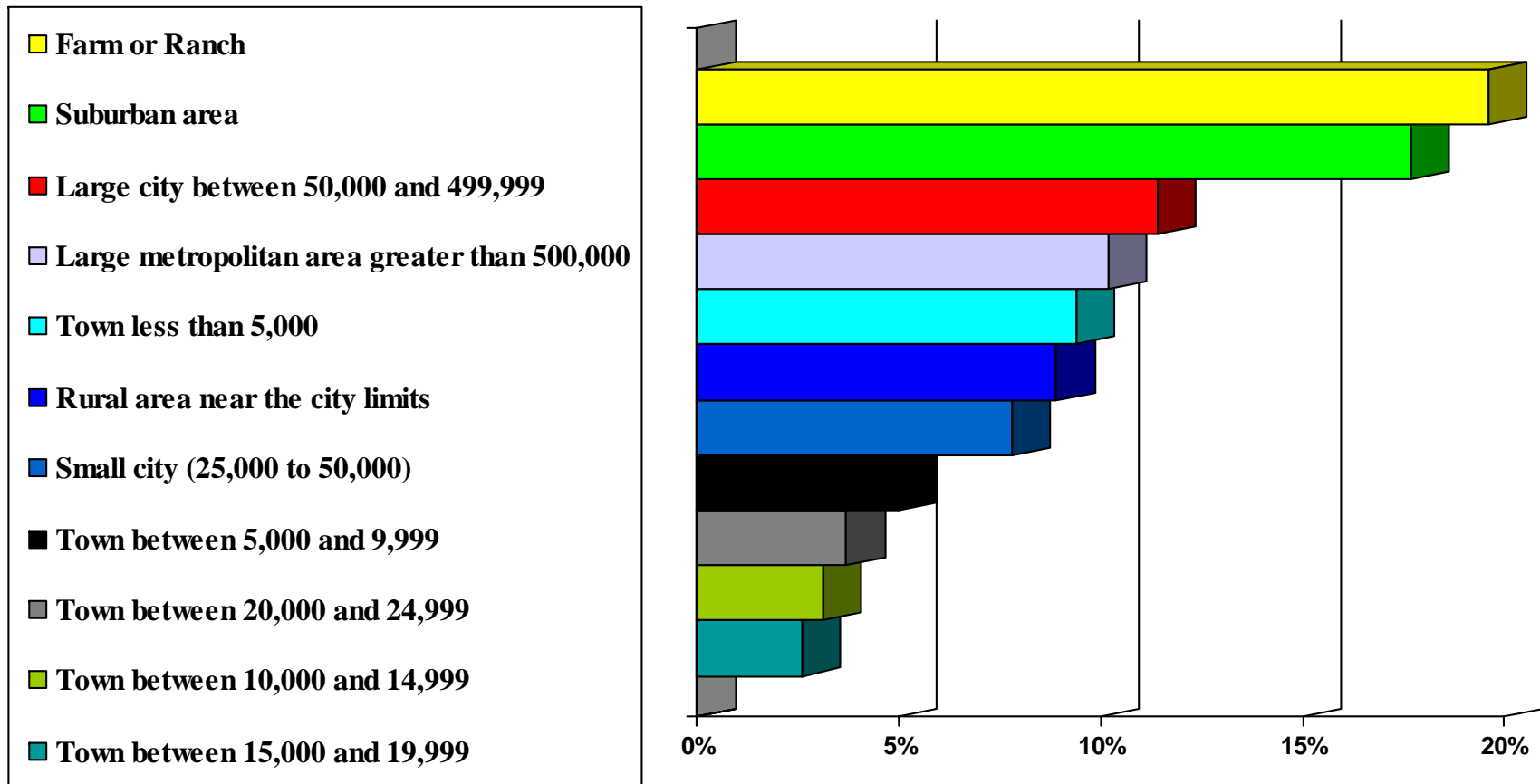
- **Principal components analysis was performed on all satisfaction, job commitment, current employment challenge, stress, and turnover intention construct questions. Nine factors emerged that were subsequently used in a stepwise regression equation to predict career switching.**
- **Although career switching was *uncommon* among food animal veterinarians with six or more years of work experience, this analysis found that senior career food animal veterinarians that were most likely to switch to other occupational areas (1) were less satisfied with their former occupation, (2) had many attractive career alternatives, (3) were less enthusiastic, (4) experienced more stress, (5) desired a balanced lifestyle, and (6) wanted more income.**

Respondent Demographic Profile

- **The majority of respondents spent their childhood on a farm or ranch or suburban area, currently live in a suburban area or a large city between 50,000 and 499,999, and desire to live in a rural area near the city limits or in a suburban area.**
- **The majority of respondents are between 30 and 50 years of age, and 64% are male.**
- **Most respondents are engaged in practices that are companion animal exclusive, or are employed in a university setting or industry.**
- **The average annual income is \$85,000 and the median income is \$80,000.**
- **The mean and median years for graduation from veterinary college was 1986.**

Childhood Community Size

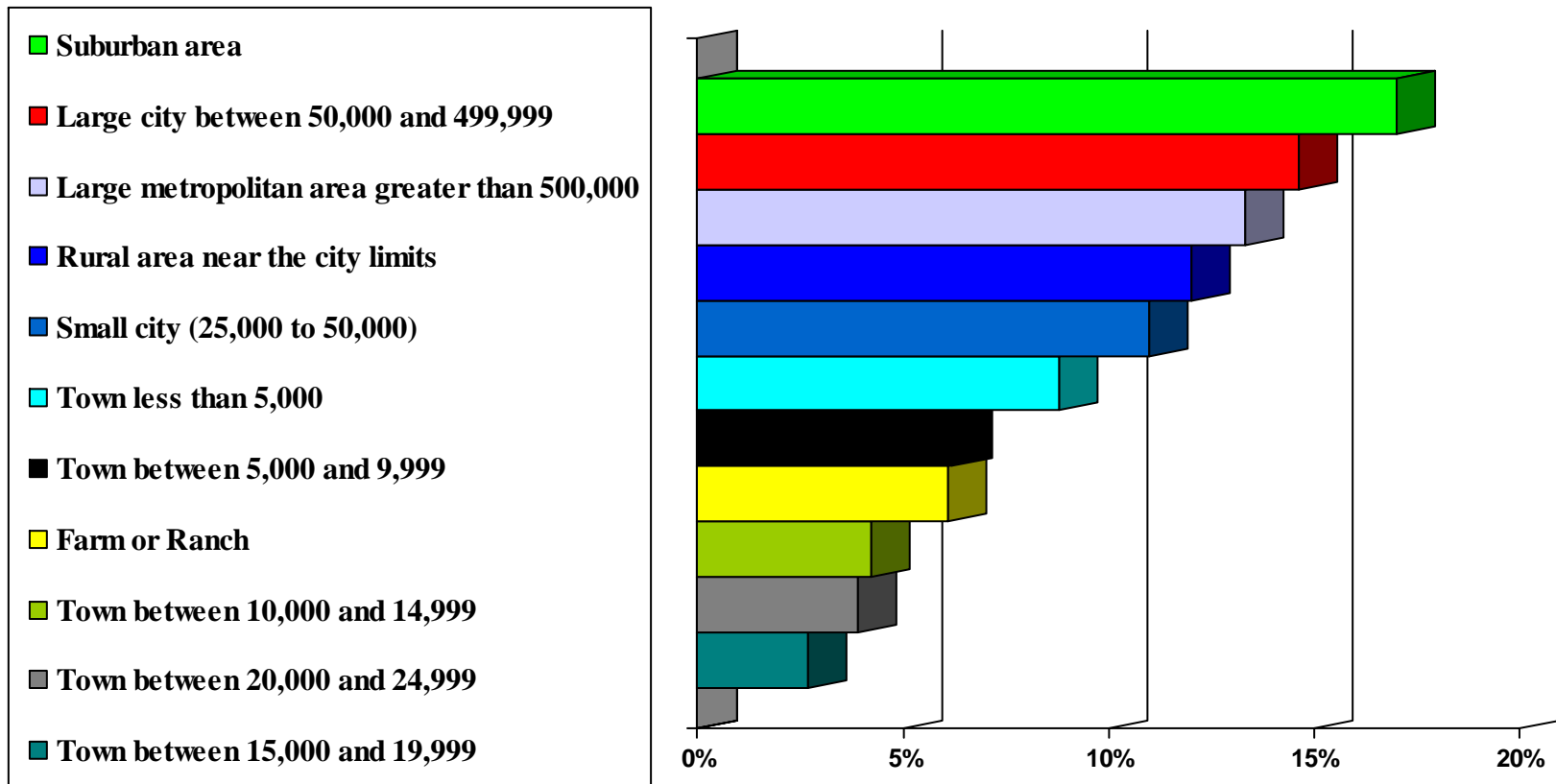
Among veterinarians with six or more years of work experience



Q86: What is the size of the community in which you spent the majority of your childhood?

Current Community Size

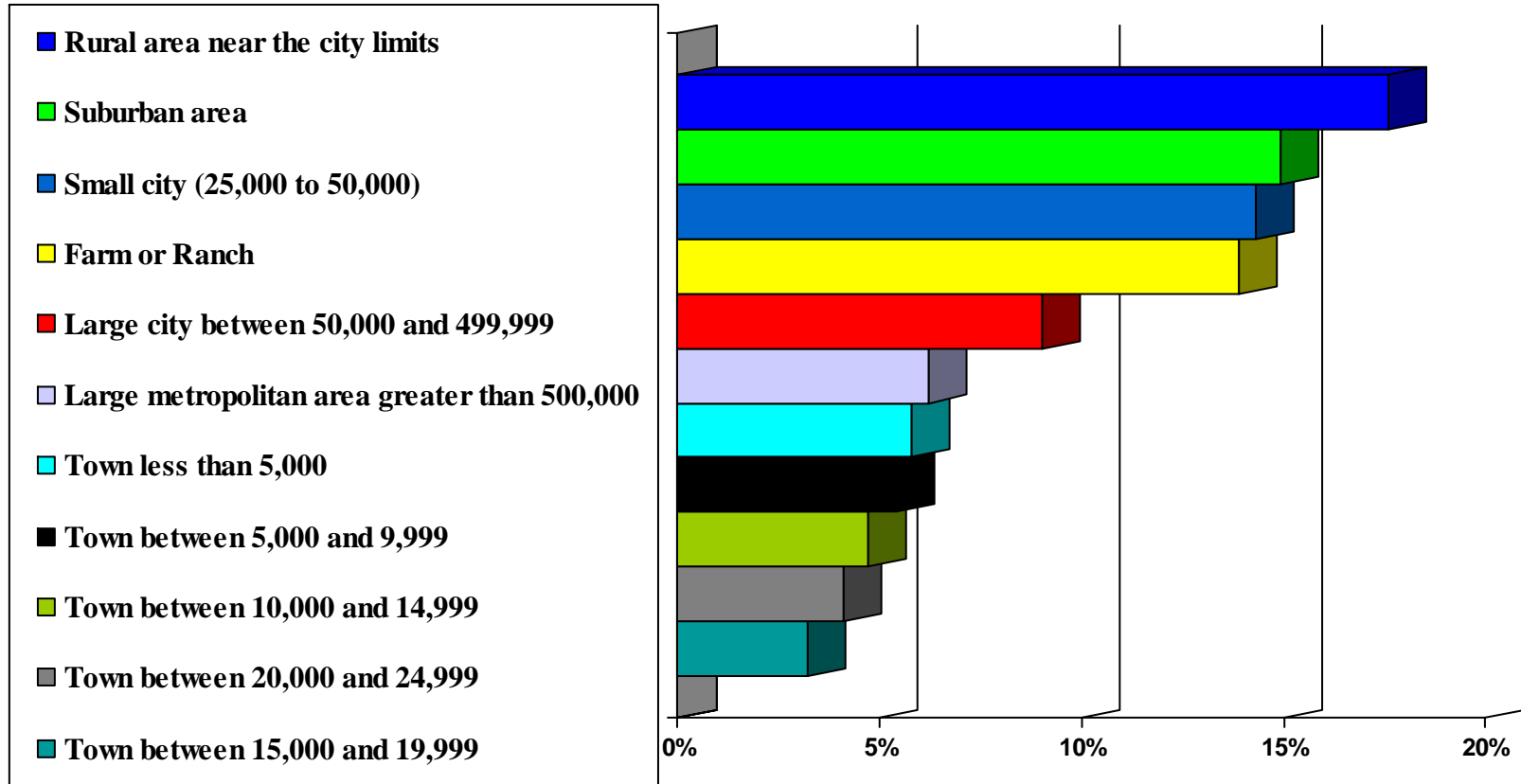
Among veterinarians with six or more years of work experience



Q87: What size is the community in which you currently live?

Desired Community Size

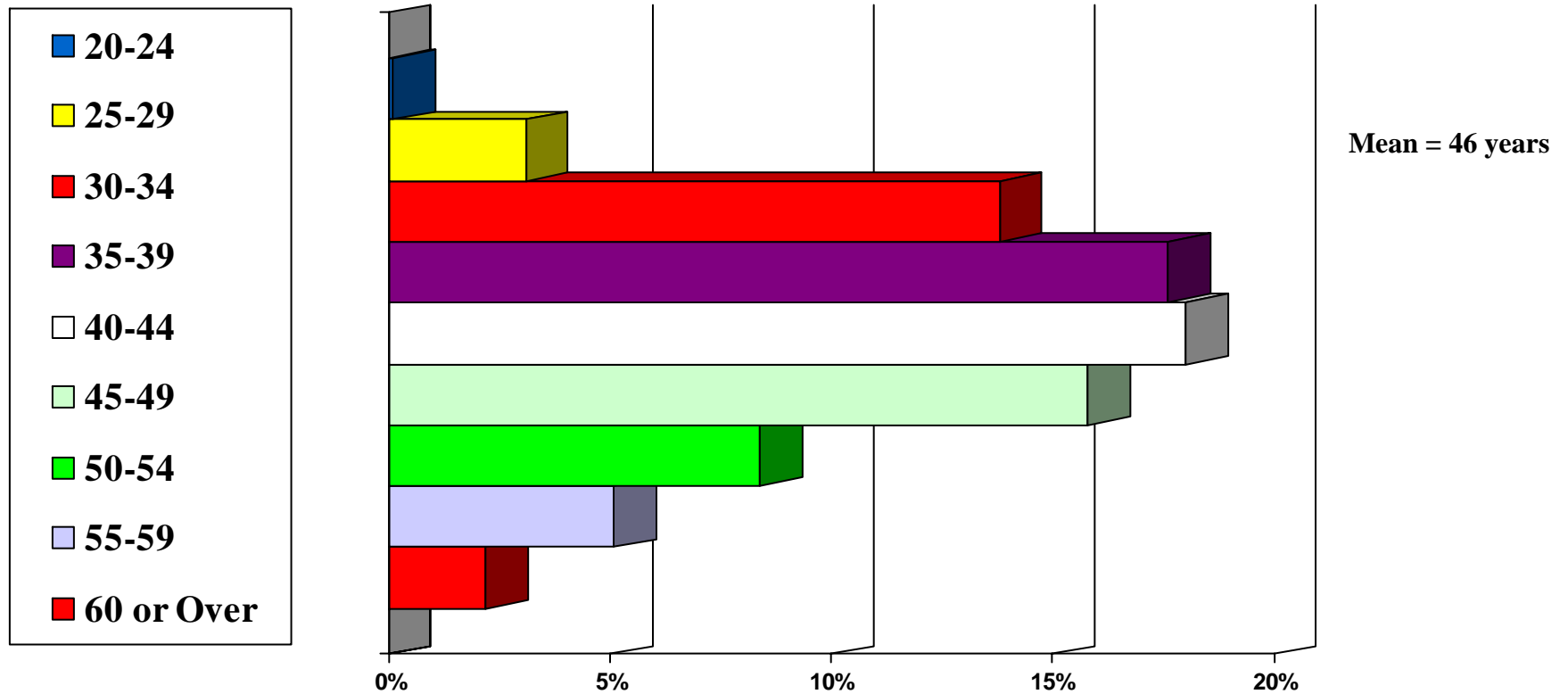
Among veterinarians with six or more years of work experience



Q88: What size is the community in which you would ideally like to live?

Respondent Age

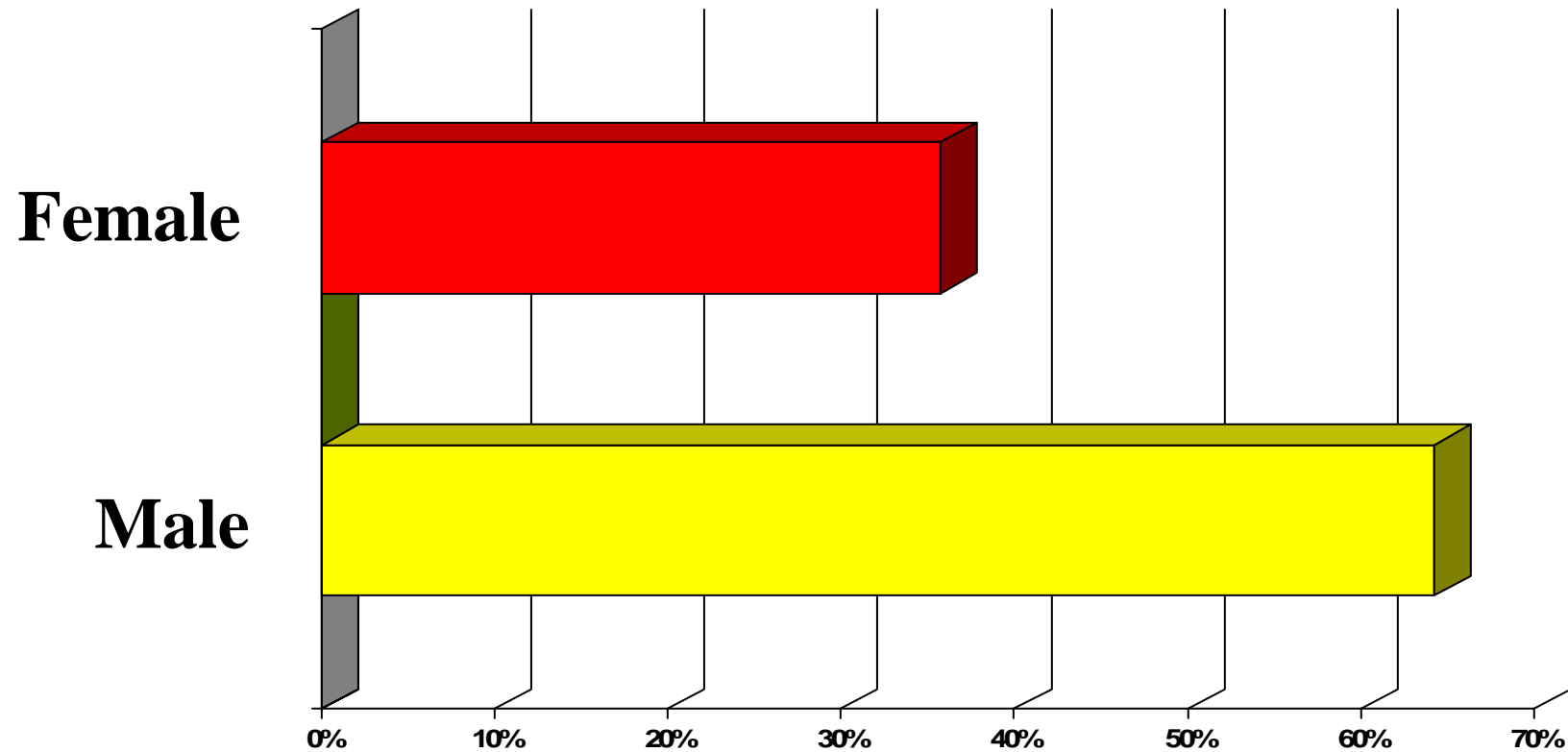
Among veterinarians with six or more years of work experience



Q90: What is your current age ?

Respondent Gender

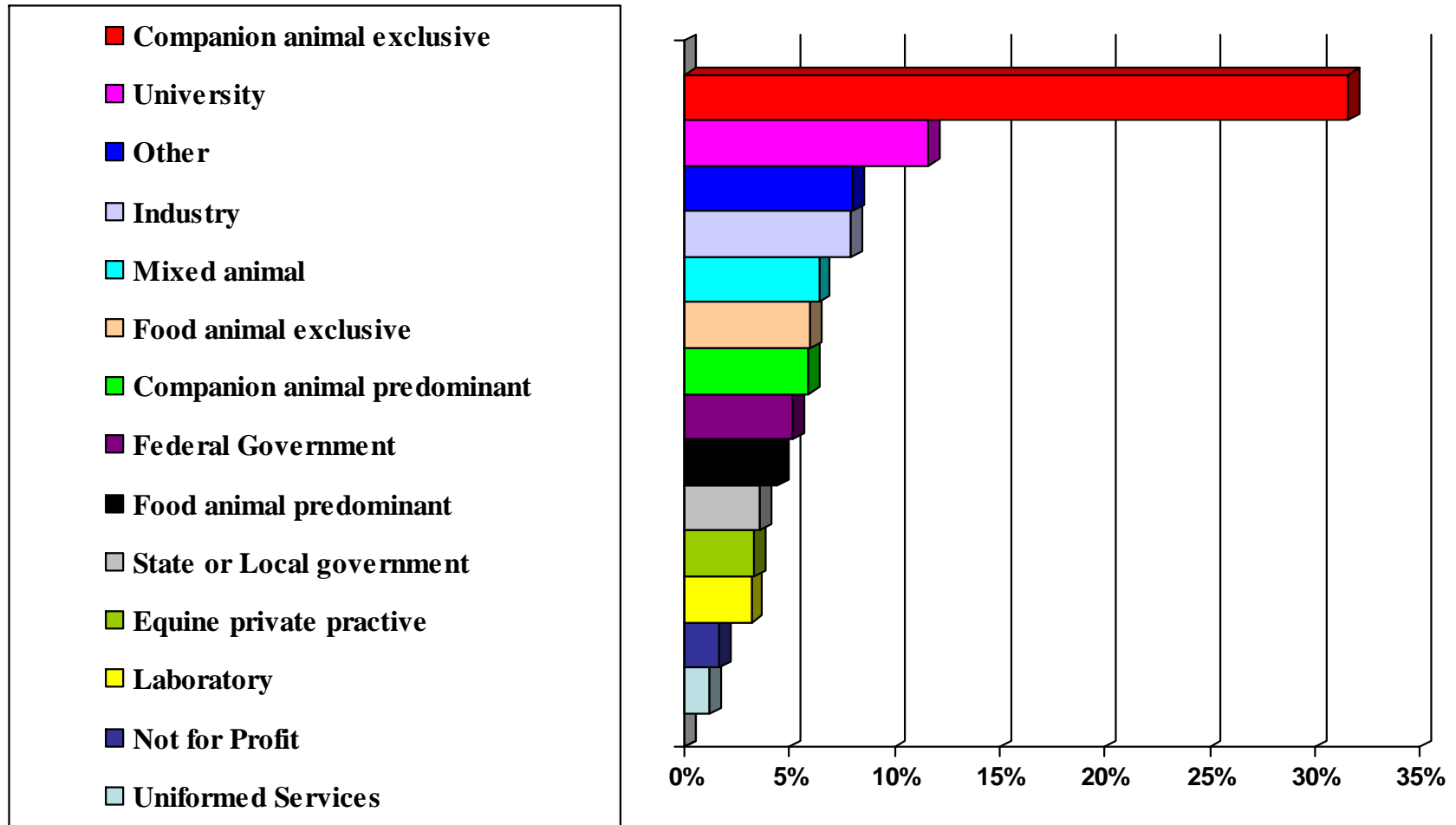
Among veterinarians with six or more years of work experience



Q83: What is your gender?

Respondent's Current Occupational Area

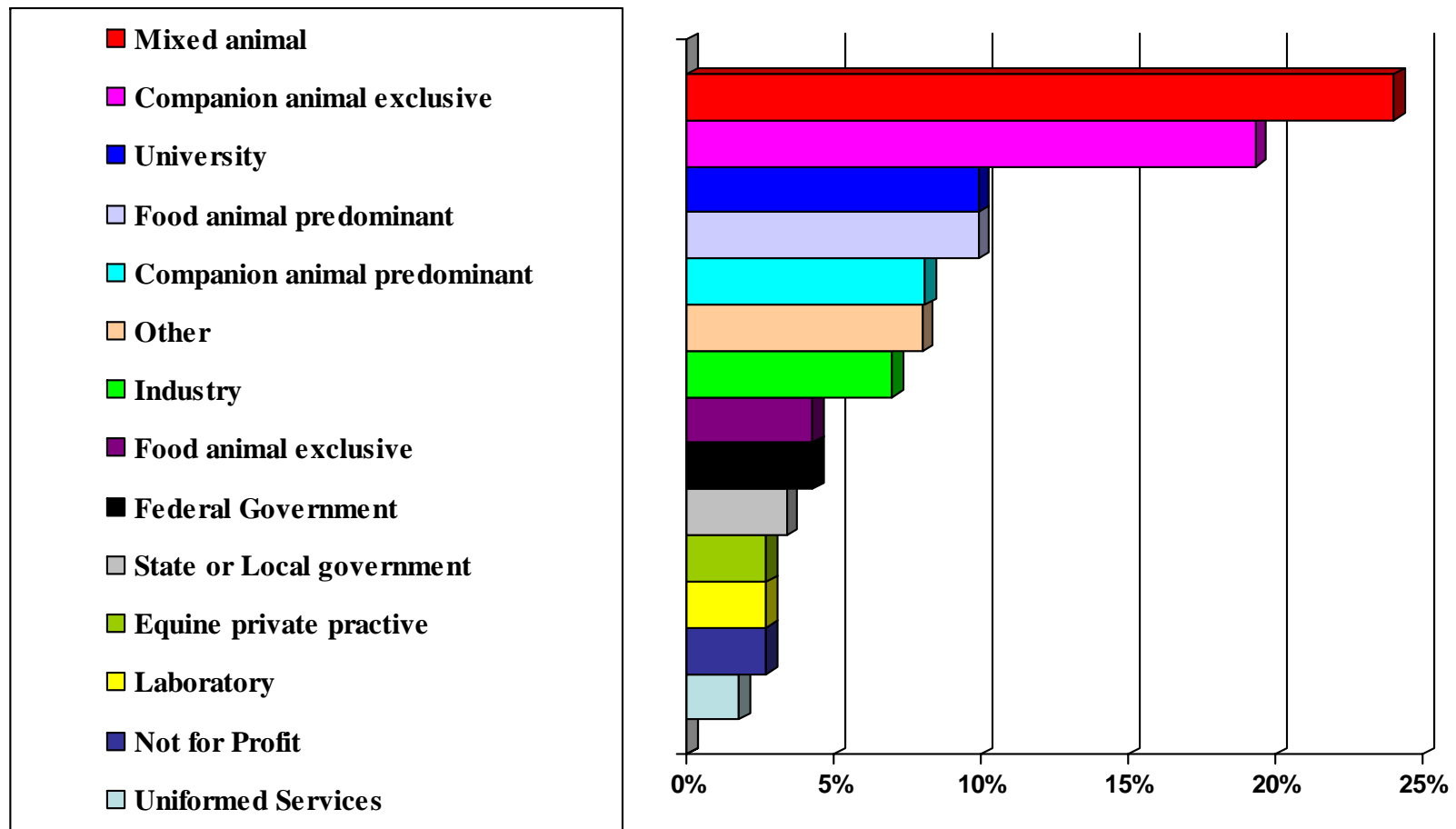
Among veterinarians with six or more years of work experience



Q1: Which category best describes your current occupational area?

Respondent's Former Occupational Area

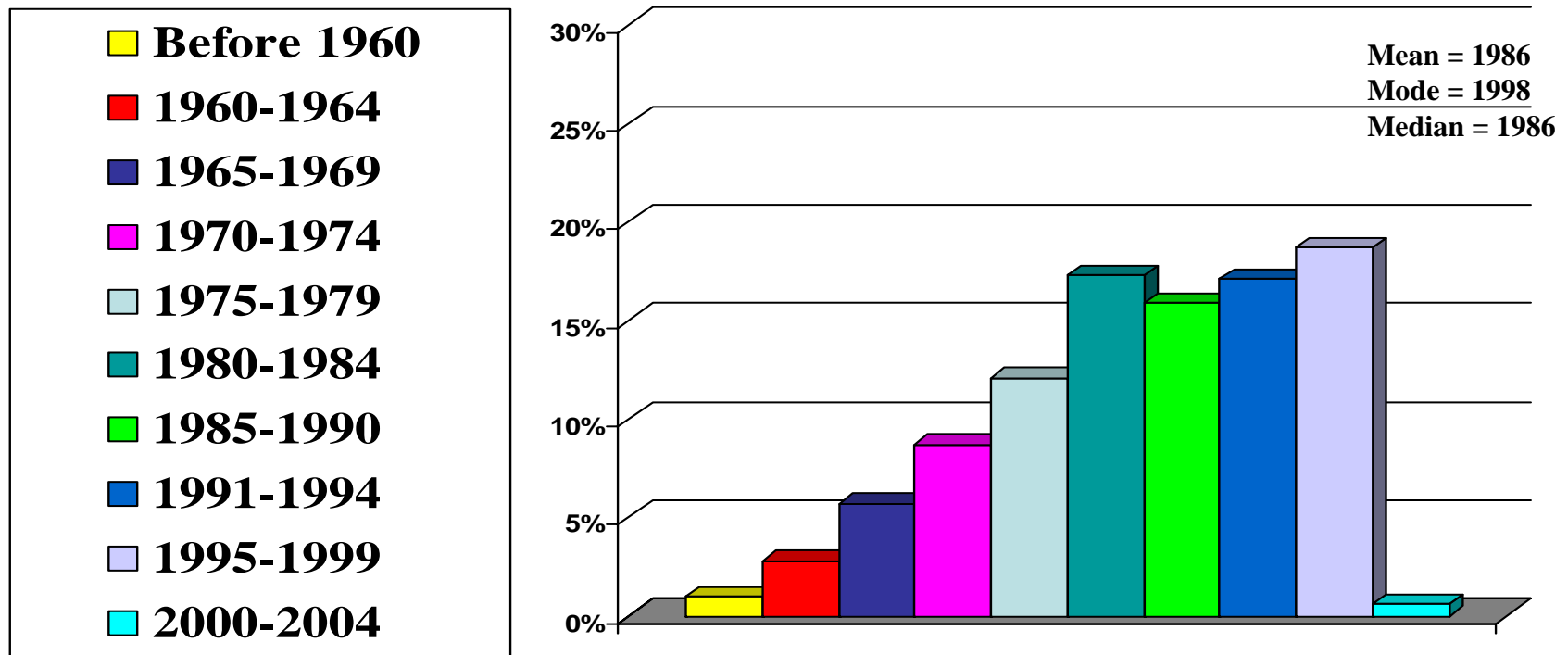
Among veterinarians with six or more years of work experience



Q4: What was your former veterinary occupation?

Graduation Year from Veterinary College

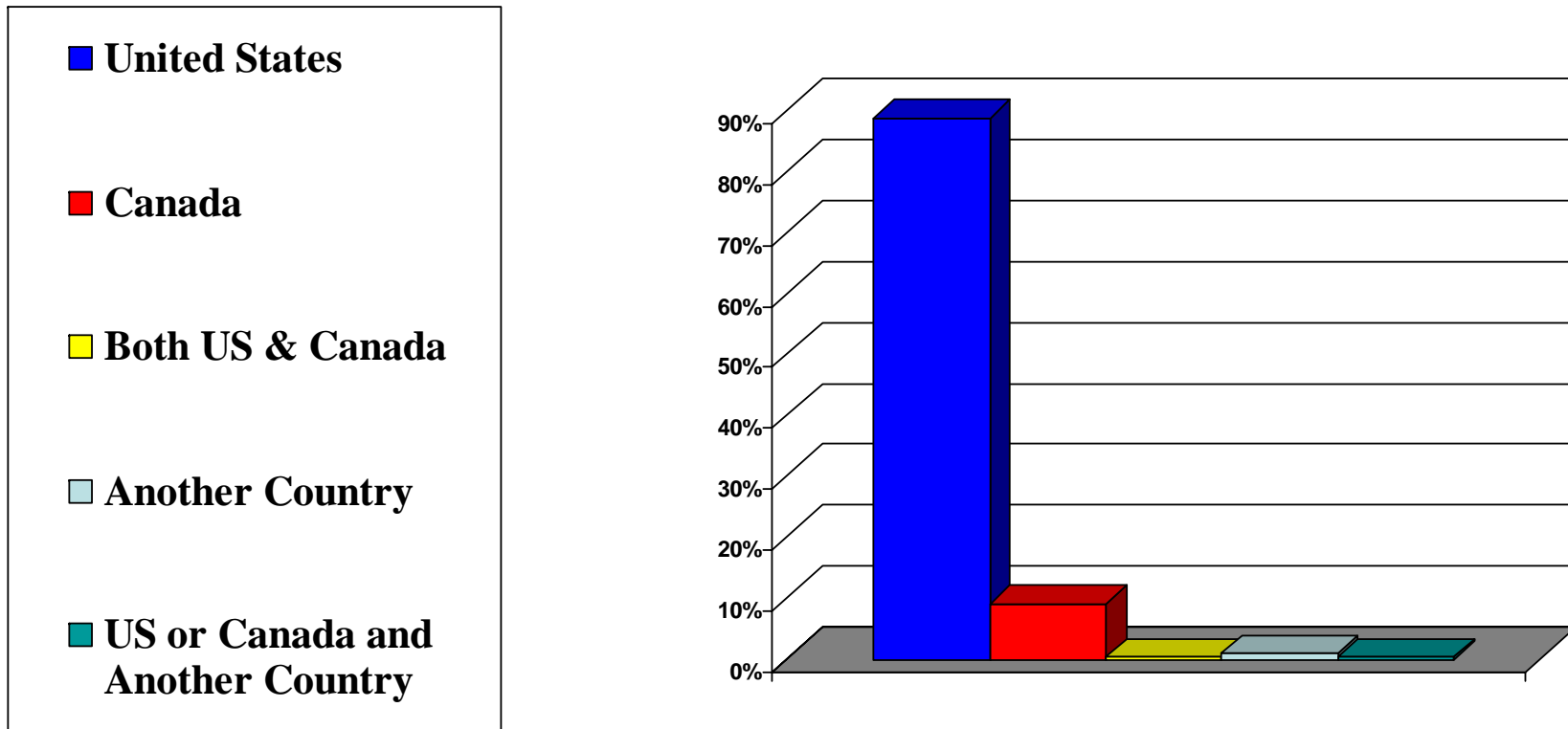
Among veterinarians with six or more years of work experience



Q84: What year did you graduate from veterinary medical school?

Country of Primary Employment

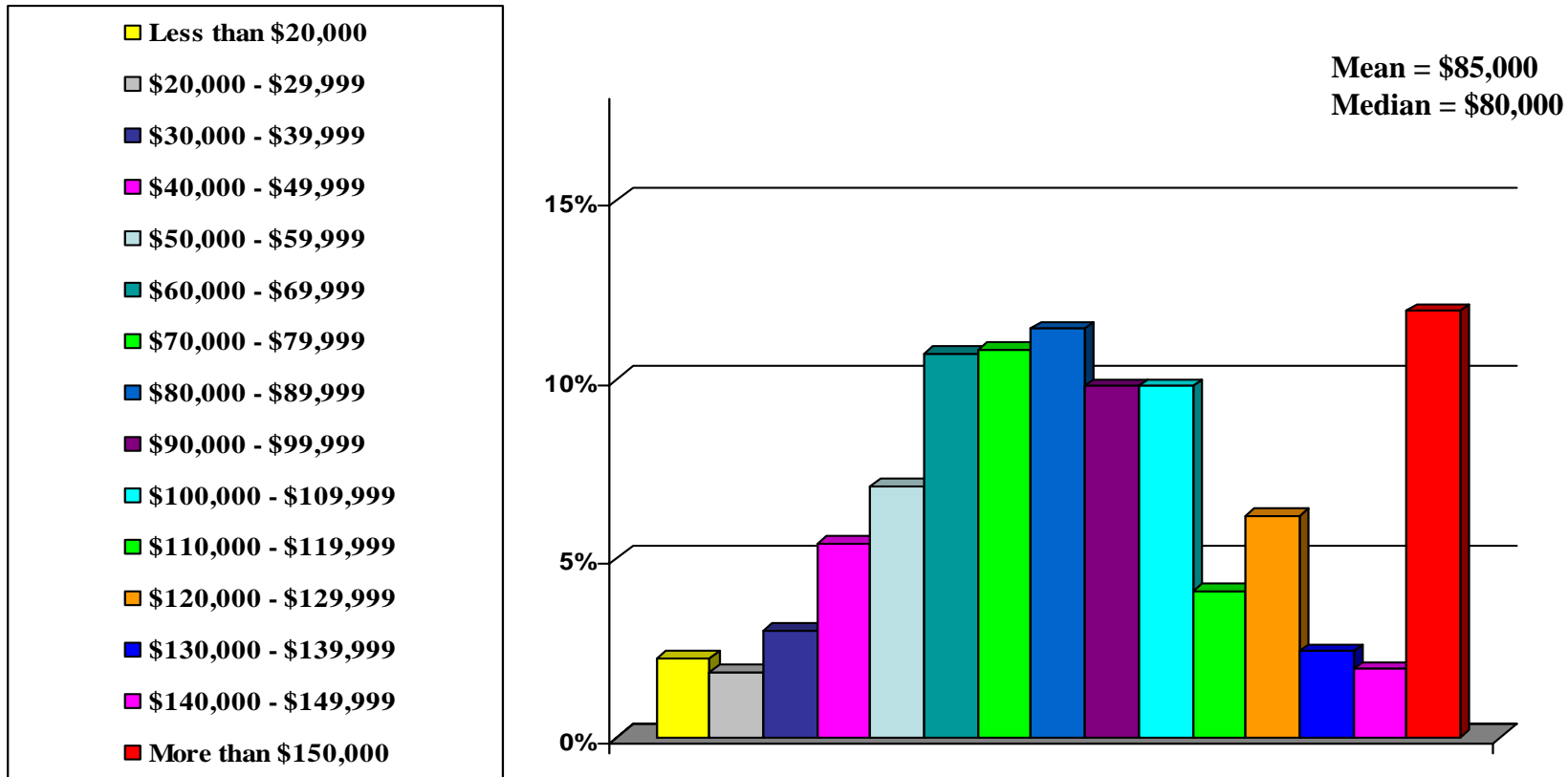
Among veterinarians with six or more years of work experience



Q91: Where are you primarily employed?

Annual Income from Veterinary Medicine

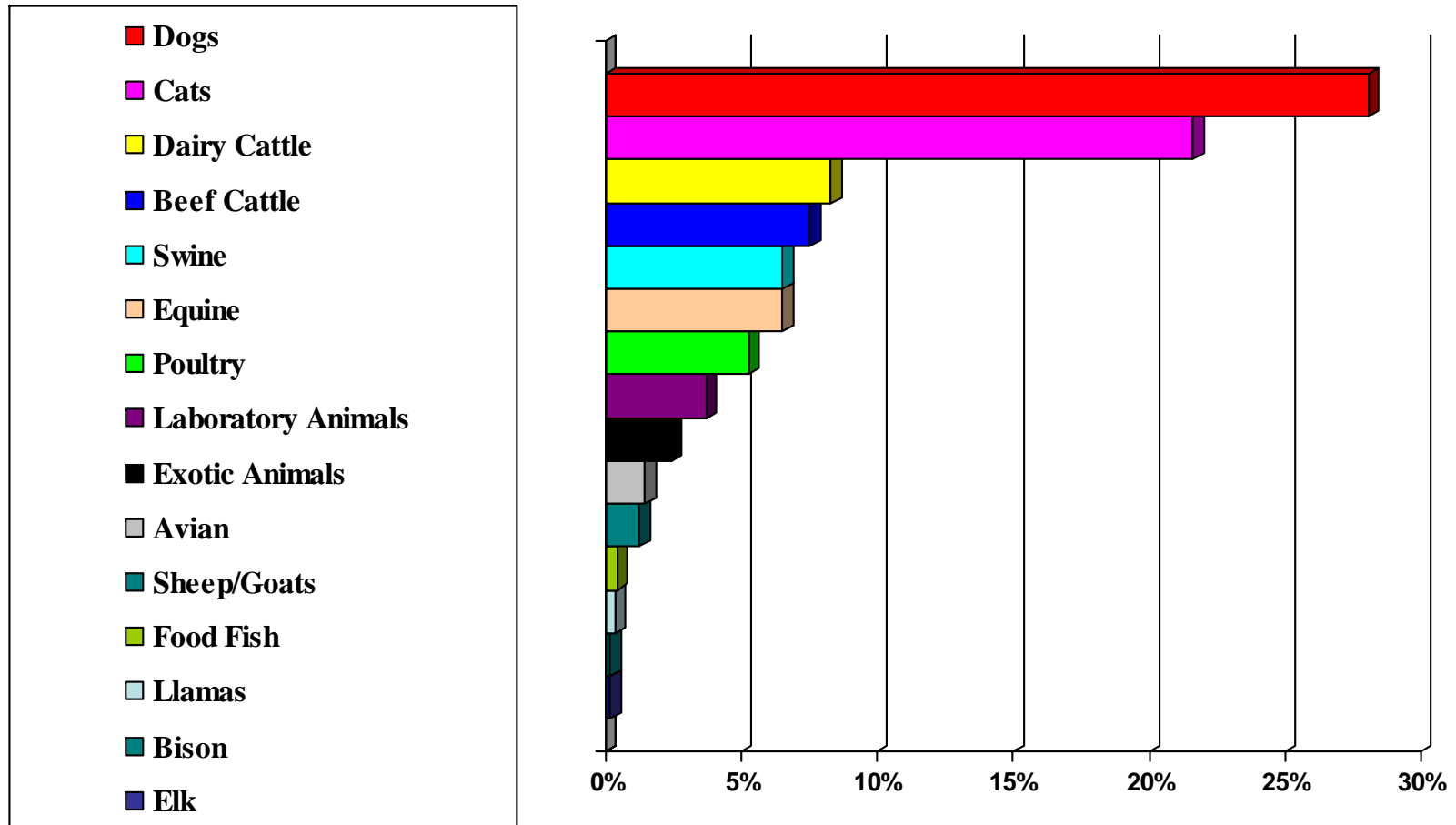
Among veterinarians with six or more years of work experience



Q89: Which category below best describes your annual income from your current occupation in veterinary medicine?

Percent of Time Currently Working with a Particular Species

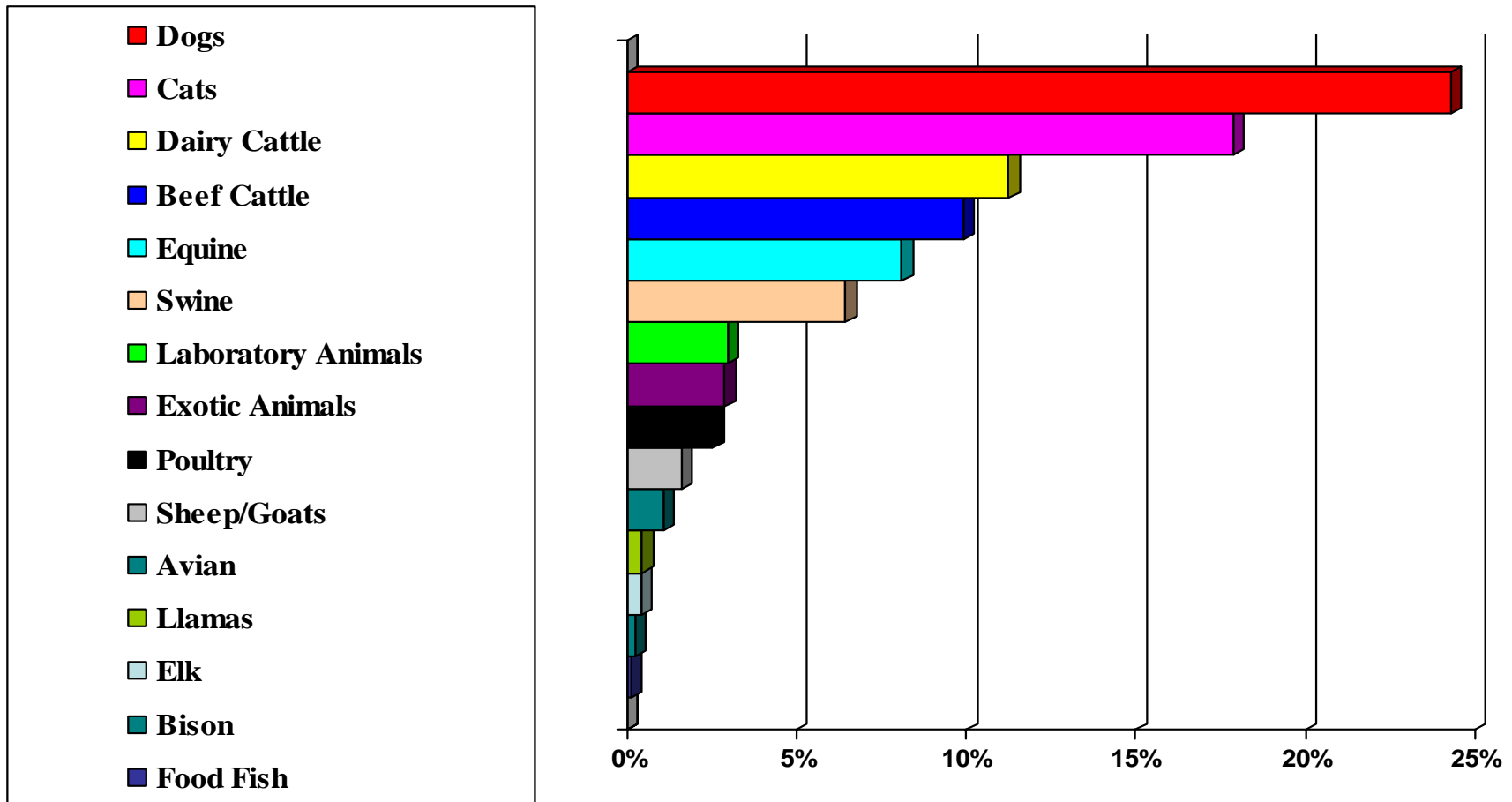
Among veterinarians with six or more years of work experience



Q2: Please identify the percent of time you spend with the species you primarily work with in your current veterinary job.

Percent of Time Formerly Working with a Particular Species

Among veterinarians with six or more years of work experience



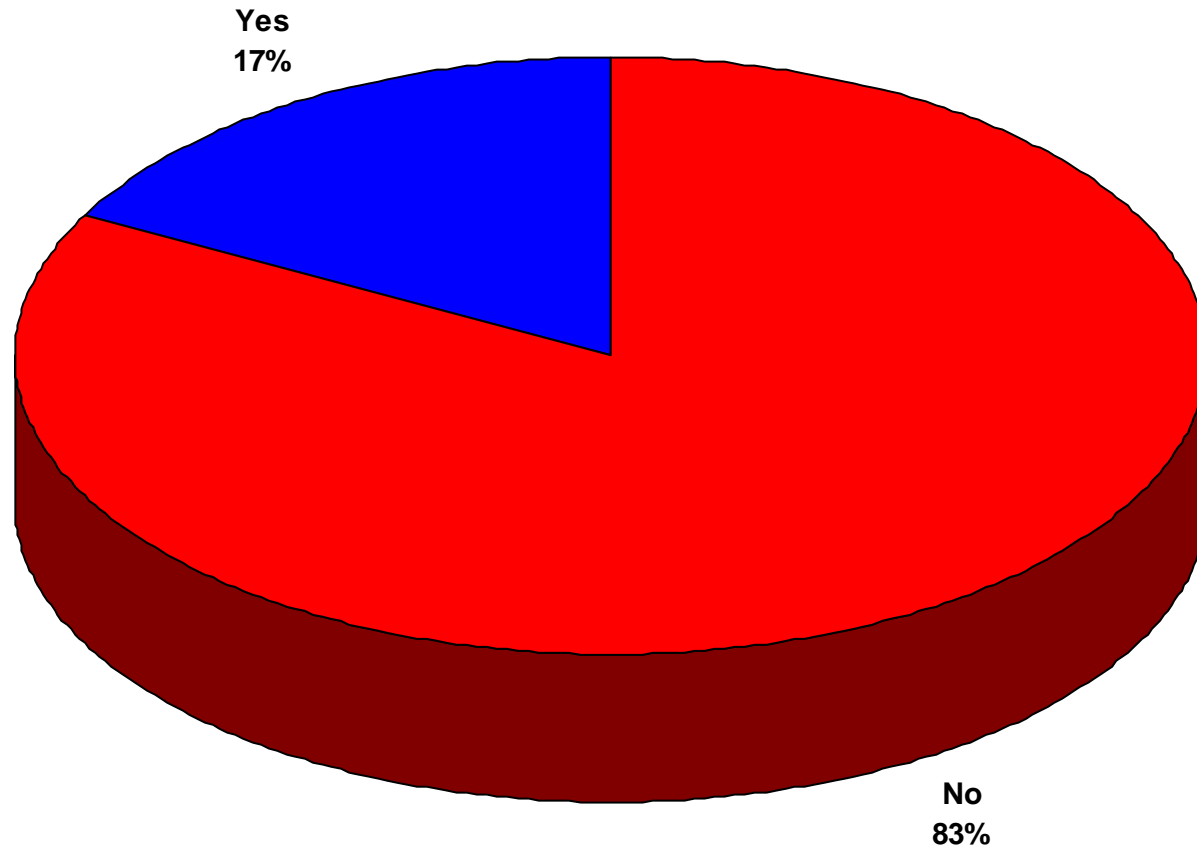
Q5: Please identify the percent of time you spend with the species you primarily work with in your former veterinary job.

Summary of Career Focus Switching Behaviors

- **Respondents were asked to identify their former veterinary occupation and their current veterinary occupation (e.g., food animal, mixed practice, companion animal, government, industry, etc.) and, if they had made a significant change in their veterinary occupation in the last five years**
- **Approximately 17% (n=423) of respondents changed their veterinary occupational area in the last five years.**
- **Of the 17% of all veterinarians that switched occupational areas in the last five years, 17% were food animal veterinarians.**
- **The 17% of food animal veterinarians that changed areas were most likely to switch to companion animal (29%) or government (26%) jobs.**
- **If they changed their occupational areas, companion animal veterinarians were most likely to switch to government (33%) or industry (33%) jobs.**

Distribution of Senior Veterinarians That Have Changed Occupational Areas

Among veterinarians with six or more years of work experience



Q3: Have you made a significant change in your veterinary occupation in the last five years?

Percentage Switching Out of Occupational Area

Among the 423 veterinarians with six or more years of work experience who have switched

Original Occupational Area	% in original area switching to new area
Food Animal	17 %
Mixed animal	36 %
Companion animal	26 %
University	10 %
Government/Public	5%
Industry	6%

From – To Occupational Area Switching Analysis

Among the 423 veterinarians with six or more years of work experience who have switched

Original Area	Most common new area	Second most common new area
Food Animal	Companion (29%)	Government (26%)
Mixed animal	Government (20%)	University (14%)
Companion animal	Government (33%)	Industry (33%)
University	Companion (50%)	Industry (25%)
Government/Public	Companion (38%)	University (31%)
Industry	Companion (38%)	University (38%)

Analysis of responses to Q1 (Which category best describes your current veterinary occupation?) and Q4 (What was your former veterinary occupation?)

Former Employment Challenges

Among veterinarians with six or more years of work experience

- **Senior veterinarians were asked nineteen questions about variables that were central in their decision to change occupational areas in veterinary medicine.**
 - **The majority of senior veterinarians that changed occupational areas thought they received adequate health care benefits, worked for a financially stable employer that practiced high quality medicine, and were able to use their medical/surgical skills in their former jobs.**
 - **The majority (85%) did not need to relocate to a new area (75%), did not retire (92%), and did not open their own practice (84%) when they left their former employer.**
 - **Most veterinarians (92%) did not report living in an undesirable rural area and had enough hands-on work with animals (91%) in their former position.**
 - **Veterinarians did not think the work was too physically demanding (75%), or that there was excessive travel in their former position (78%).**
 - **Many reported leaving their former job for a very attractive alternative employment opportunity (61%).**
-

Percentage Distribution of Major Practice Management Employment Challenges in Former Job Among Senior Career Veterinarians

Variables	Percent Agree	Percent Disagree	Mean	Standard Deviation
Compensation was extremely low in my old position.	42	58	3.56	2.04
Verbal promises made at hiring were ignored.	31	69	3.22	2.12
Poor relationship with supervisor.	33	67	3.13	2.21
Inadequate retirement benefits.	35	65	3.40	2.20
Inadequate health care benefits.	28	72	3.05	2.08
Uncertain financial stability of employer.	22	78	2.77	2.00
I retired.	8	92	1.76	1.68
Position was terminated.	8	92	1.96	1.71
Not enough use of my medical/surgical skills.	9	91	2.66	2.08
Poor quality medicine being practiced.	18	82	2.38	1.82
Lack of clear path for advancement.	47	53	3.51	2.32
I had a very attractive alternative employment opportunity.	61	39	4.38	2.30

Percentage Distribution of Major Lifestyle Employment Challenges in Former Job Among Senior Career Veterinarians

Variables	Percent Agree	Percent Disagree	Mean	Standard Deviation
Needed to relocate to new geographic area.	25	75	2.91	2.11
Lack of flexible work hours.	47	53	3.77	2.23
Excessive travel in my old occupation.	22	78	2.54	1.94
I opened my own practice.	16	84	2.20	2.05
Undesirable rural area in which to live.	8	92	1.82	1.51
Not enough hands-on work with animals.	9	91	1.88	1.59
Work was too physically demanding.	25	75	2.67	1.94
Heavy time demands from on-call hours.	47	53	3.58	2.39

Current Employment Challenges

Among veterinarians with six or more years of work experience

- **The respondents were asked 29 questions about their current jobs. The majority (89%) report they have good recreational/cultural activities where they live, good quality affordable housing (81%), and adequate career opportunities for their spouses (84%).**
- **Eighty-eight percent of the respondents have not experienced a reduction in income due to a drop in demand for services and have a large enough client base to make a good income.**
- **Most veterinarians (84%) do not think the job is too demanding, believe there are good jobs in food animal medicine (74%), and do not mind getting dirty at work (94%).**
- **The majority have been able to form lasting business relationships with clients (88%) and professional relationships with DVM colleagues (72%).**
- **The majority of respondents do not want more contact with companion animals (91%), and are pleased with the application of their veterinary skills in a challenging way (85%).**
- **Most respondents have not experienced too much competition in the geographic area they work (72%), or have any difficulty dealing with members of the opposite gender on a professional basis (91%).**

Percentage Distribution of Major Lifestyle and Time Management Employment Challenges in Current Job Among Senior Career Veterinarians

Variables	Percent Agree	Percent Disagree	Mean	Standard Deviation
There are very limited recreational and cultural activities where I live	11	89	2.12	1.54
There is a lack of good quality, affordable housing near my work	19	81	2.54	1.74
There are very limited career opportunities for my spouse where we live	16	84	2.35	1.74
It is difficult for me to arrange time off from work for parental/family responsibilities	35	65	3.33	1.94
I want a better balance in my life between work and family	53	47	4.25	1.93
It is difficult for me to get time off from work for vacations	38	62	3.49	2.00
I am very frustrated by a lack of retail stores and restaurants in the area where I live	8	92	1.91	1.34
I spend too much time working evenings or weekends	48	52	3.74	2.03

Percentage Distribution of Major Income/Benefit Employment Challenges in Current Job Among Senior Career Veterinarians

Variables	Percent Agree	Percent Disagree	Mean	Standard Deviation
I am critically concerned about my future salary potential	36	64	3.45	1.97
I think that my current income level is much too low	43	57	3.86	1.92
Managing debt from my veterinary education is a major challenge	19	21	2.37	2.00
Maintaining affordable health care benefits for me and my family is very difficult	43	57	3.65	2.11
I worry that I will not receive needed retirement benefits	49	51	3.91	2.10
A reduction in demand for veterinary services has greatly reduced my income	12	88	2.16	1.60
My clients expect me to charge very low fees	33	67	3.02	2.05
The client base is too small where I practice to make a good income	12	88	2.18	1.66

Percentage Distribution of Major Practice Management Employment Challenges Among Senior Career Veterinarian

Variables	Percent Agree	Percent Disagree	Mean	Standard Deviation
There are too few good jobs in food animal veterinary medicine	26	74	2.53	2.18
My job is too physically demanding	16	84	2.52	1.61
I hate how dirty I get in my line of work	6	94	2.00	1.36
It is very difficult to form lasting business relationships with my clients	12	88	2.26	1.57
I do not use my medical/surgical skills as much as I would like	35	65	3.19	1.90
I have not formed strong, professional relationships with other DVM colleagues	28	72	2.93	1.84
I would like to have far more contact with companion animals than I currently have	9	91	2.08	1.59
The veterinarian skills required in my job are too narrow to challenge my abilities	14	85	2.34	1.61
There is too much veterinary competition in my geographic area	28	72	2.86	1.92
It is very difficult to deal with the opposite gender on a professional basis	9	91	2.00	1.41
The management quality in my company/practice is very poor	28	72	2.95	1.96
It is very difficult to attract high quality employees to my company/practice	46	54	3.56	2.09

Occupational Commitment

Among veterinarians with six or more years of work experience

- **Respondents were asked about their level of commitment to their current occupational area in veterinary medicine.**
- **Ninety-five percent of the respondents are proud to be in the veterinary medicine profession and like being in their particular area of veterinary medicine.**
- **The majority (89%) are enthusiastic about their area in veterinary medicine and feel a responsibility to continue in it (82%).**
- **Most respondents feel they have invested too much in their occupational area to change occupations (67%).**

Percentage Distribution of Veterinary Occupational Commitment Among Senior Veterinarians

Variables	Percent Agree	Percent Disagree	Mean	Standard Deviation
I am proud to be in the occupational area in veterinary medicine	95	5	6.12	1.33
I like being in my occupational area in veterinary medicine	94	6	6.03	1.41
I am enthusiastic about my occupational area in veterinary medicine	89	11	5.78	1.54
I feel a responsibility to continue in my occupational area in veterinary medicine	82	18	5.48	1.65
I would feel guilty if I left my occupational area in veterinary medicine	51	49	4.16	1.91
I am in my occupational area in veterinary medicine because of a sense of loyalty to it	45	55	3.91	1.85

Percentage Distribution of Veterinary Occupational Commitment Among Senior Veterinarians (cont)

Variables	Percent Agree	Percent Disagree	Mean	Standard Deviation
It would be very costly for me, income wise, to switch from my occupational area in veterinary medicine	59	41	4.52	1.99
I have too much invested (e.g., education, personal effort) in my occupational area in veterinary medicine to change occupations at this time	67	33	4.69	1.89
Changing from my occupational area in veterinary medicine to another area would be emotionally difficult for me	61	39	4.44	1.86
Given my background and experience, there are attractive alternatives available to me outside of my occupational area in veterinary medicine	54	46	4.22	1.84
I would have many options if I decided to change my occupational area in veterinary medicine	51	49	4.12	1.80
If I leave my occupational area in veterinary medicine, I have desirable options to pursue	51	49	4.11	1.80

Job Satisfaction and Turnover Intentions

Among veterinarians with six or more years of work experience

- **Respondents were asked about their degree of satisfaction with their current occupational area and their intentions to leave their current occupational area in veterinary medicine.**
- **Regardless of veterinary specialty, ninety-one percent of the respondents are satisfied with their current occupation in veterinary medicine.**
- **Eighty-eight percent of the senior veterinarians are satisfied with their present occupation when compared to jobs in other areas of veterinary medicine and 86% are satisfied with their current position in light of their career expectations.**
- **Most respondents do not think about leaving their occupational area in veterinary medicine (77%) and have not applied for a position outside of their current occupational area in veterinary medicine in the last year (93%).**
- **The majority of senior veterinarians predict they will be in their current occupational area two years from now (88%) and are not actively seeking a substitute for their current job in veterinary medicine (90%).**

Percentage Distribution of Veterinary Job Satisfaction and Turnover Intentions Among Senior Veterinarians

Variables	Percent Agree	Percent Disagree	Mean	Standard Deviation
My current occupation in veterinary medicine is satisfying	91	9	5.88	1.34
I am satisfied with my present occupation in light of my veterinary career expectations	86	14	5.62	1.57
I am satisfied with my present occupation when I compare it to occupations in other areas of veterinary medicine	88	12	5.84	1.38
I am satisfied with the chance my occupation gives me to perform what I do best	88	12	5.79	1.44
I think a lot about leaving my occupational area in veterinary medicine	23	77	2.65	1.85
I am actively seeking a substitute for my current occupational area in veterinary medicine	10	90	2.04	1.55
I intend to leave my current occupational area in veterinary medicine in the next two years	12	88	2.09	1.67
I have applied for a position outside of my current occupational area in veterinary medicine in the last year	7	93	1.68	1.44

Occupational Stress

Among veterinarians with six or more years of work experience

- **Six questions asked about the way people feel about their current occupational area in veterinary medicine.**
- **Eighty-nine percent of the respondents feel their clients truly value their assistance.**
- **The majority (62%) feel rather exhausted at the end of a working day, but do not feel burned out from trying to meet client expectations (58%).**
- **Most respondents do not feel indifferent toward clients (57%), and do not want to be left alone when they come home from work (66%).**

Percentage Distribution of Occupational Stress Among Senior Veterinarians

Variables	Percent Agree	Percent Disagree	Mean	Standard Deviation
I feel indifferent toward some of my clients.	43	57	3.40	1.93
I feel my clients truly value my assistance.	89	11	5.07	1.95
I feel burned out from trying to meet client expectations.	42	58	3.47	1.94
Due to my occupation in veterinary medicine, I feel rather exhausted at the end of a working day.	62	38	4.40	1.79
When I come home, I must be left alone for a while.	34	66	3.36	1.86
After a working day, I frequently feel too fatigued to engage in any other activity.	46	54	3.77	1.91

MANOVA of Satisfaction, Turnover Intentions, Occupational Commitment, Employment Challenges and Job Stress by Current Occupational Area

Among veterinarians with six or more years of work experience

- **Several multivariate analysis of variance models were conducted to see if there were significant differences between satisfaction variables, turnover intentions, occupational commitment, employment challenges, job stress, based upon the veterinary occupational area of focus.**
- **The models were significant at ($p < 0.0001$) based on Hotelling's Trace criterion.**
- **Each multivariate analysis of variance was followed by Schffee multiple comparison tests to identify specific significant differences between the variables by occupational area of focus ($p < .05$).**

Multiple Comparison Tests of Satisfaction and Turnover Intentions by Current Occupational Area

Among veterinarians with six or more years of work experience

- **Schffee multiple comparison tests were used to identify specific significant differences between the satisfaction and turnover intention variables by occupational area of focus. Attention is focused on food animal positions in comparison to other veterinary occupational areas.**
- **Senior veterinarians report that when comparing food animal positions with veterinarians in other occupational areas:**
 - **There is a high degree of satisfaction among veterinarians in general and there are no significant differences between any area in veterinary medicine and satisfaction with their current occupation in terms of career expectations.**
 - **Industrial veterinarians report slightly greater satisfaction than food, companion animal, and government veterinarians when they compare their work with other areas.**
 - **Although retention and turnover are infrequent issues, industrial veterinarians are slightly less likely than food animal veterinarians to think about leaving their current occupational area.**

Differences in Satisfaction and Turnover Intentions by Current Occupational Area Among Senior Veterinarians

Variables	Occupational Area				
	Food Animal	Companion Animal	University	Government	Industry
My current occupation in veterinary medicine is satisfying	5.93 ^a	5.82 ^a	6.03 ^a	5.73 ^a	6.07 ^a
I am satisfied with my present occupation in light of my veterinary career expectations	5.61 ^a	5.57 ^a	5.77 ^a	5.49 ^a	5.87 ^a
I am satisfied with my present occupation when I compare it to occupations in other areas of veterinary medicine	5.78 ^a	5.82 ^a	5.93 ^{ab}	5.73 ^a	6.17 ^b
I am satisfied with the chance my occupation gives me to perform what I do best	5.78 ^a	5.81 ^a	5.98 ^a	5.37 ^b	6.01 ^a
I think a lot about leaving my occupational area in veterinary medicine	2.91 ^a	2.66 ^{ab}	2.38 ^b	2.35 ^{ab}	2.66 ^b
I am actively seeking a substitute for my current occupational area in veterinary medicine	2.14 ^a	1.98 ^a	1.94 ^a	2.31 ^a	1.93 ^a
I have applied for a position outside of my current occupational area in veterinary medicine in the last year	1.71 ^a	1.56 ^a	1.67 ^a	2.11 ^b	1.73 ^{ab}
I intend to leave my current occupational area in veterinary medicine in the next two years	2.22 ^{ab}	2.00 ^a	1.95 ^a	2.45 ^b	2.01 ^{ab}

Within a row, means with the *same* superscript are not significantly ($p < .05$) different from each other.

Multiple Comparison Tests of Occupational Commitment by Current Occupational Area

Among veterinarians with six or more years of work experience

- **Schffee multiple comparison tests were used to identify specific significant differences between the occupational area commitment variables by occupational area of focus. Attention is focused on food animal positions in comparison to other veterinary occupational areas.**
- **Senior veterinarians report that when comparing food animal positions with other veterinarians:**
 - **Food animal veterinarians express more pride and enthusiasm for their occupational area than veterinarians in government and industry.**
 - **Food animal veterinarians would feel more guilt about leaving their occupational area than those in government or industry and are more loyal to food animal medicine.**
 - **Companion animal veterinarians are more likely to have too much invested in their occupational area to change areas, have fewer attractive career alternatives, and fewer desirable options to pursue.**

Differences in Veterinary Occupational Commitment by Current Occupational Area Among Senior Veterinarians

Variables	Occupational Area				
	Food Animal	Companion Animal	University	Government	Industry
I am proud to be in my occupational area in veterinary medicine	6.25 ^a	6.24 ^a	6.18 ^a	5.69 ^b	5.83 ^b
I like being in my occupational area in veterinary medicine	6.15 ^a	6.11 ^a	6.24 ^a	5.58 ^b	5.73 ^b
I am enthusiastic about my occupational area in veterinary medicine	5.76 ^a	5.82 ^a	6.07 ^a	5.37 ^b	5.65 ^{ab}
I feel a responsibility to continue in my occupational area in veterinary medicine	5.53 ^{ab}	5.46 ^{ab}	5.79 ^a	5.21 ^b	5.24 ^b
I would feel guilty if I left my occupational area in veterinary medicine	4.49 ^a	4.22 ^a	4.22 ^{ab}	3.77 ^{bc}	3.58 ^c
I am in my occupational area in veterinary medicine because of a sense of loyalty to it	4.29 ^a	3.87 ^b	3.85 ^b	3.81 ^b	3.56 ^b

Within a row, means with the *same* superscript are not significantly ($p < .05$) different from each other.

Differences in Veterinary Occupational Commitment by Current Occupational Area Among Senior Veterinarians (cont)

Variables	Occupational Area				
	Food Animal	Companion Animal	University	Government	Industry
It would be very costly for me, income wise, to switch from my occupational area in veterinary medicine	4.28 ^{ab}	4.88 ^b	4.23 ^a	4.03 ^a	4.81 ^b
I have too much invested (e.g., education, personal effort) in my occupational area in veterinary medicine to change occupations at this time	4.35 ^a	5.15 ^b	4.82 ^b	4.17 ^a	4.19 ^a
Changing from my occupational area in veterinary medicine to another area would be emotionally difficult for me	4.44 ^a	4.74 ^a	4.41 ^{ac}	3.82 ^b	3.90 ^{bc}
Given my background and experience, there are attractive alternatives available to me outside of my occupational area in veterinary medicine	4.56 ^a	3.95 ^b	4.54 ^a	4.33 ^{ab}	4.27 ^{ab}
I would have many options if I decided to change my occupational area in veterinary medicine	4.45 ^a	3.91 ^b	4.46 ^a	4.12 ^{ab}	4.12 ^{ab}
If I leave my occupational area in veterinary medicine, I have desirable options to pursue	4.42 ^a	3.88 ^b	4.38 ^a	4.23 ^{ab}	4.00 ^{ab}

Within a row, means with the *same* superscript are not significantly ($p < .05$) different from each other.

Multiple Comparison Tests of Income and Job Benefits by Current Occupational Area

Among veterinarians with six or more years of work experience

- **Schffee multiple comparison tests were used to identify specific significant differences between the income and job benefit variables by occupational area of focus. Attention is focused on food animal positions in comparison to other veterinary occupational areas.**
- **Senior veterinarians report that when comparing food animal positions with other veterinarians:**
 - **There are no differences between food animal and companion animal veterinarians on concerns about future salary potential, managing debt from veterinary school, clients expecting to be charged low fees or having too small of a client base to make a good income.**
 - **Companion animal veterinarians were more likely than food animal veterinarians to think their current income level is too low, have difficulty maintaining affordable health care benefits, and worry about retirement benefits.**

Differences in Income/Benefit Challenges by Current Occupational Area Among Senior Career Veterinarians

Variables	Occupational Area				
	Food Animal	Companion Animal	University	Government	Industry
I am critically concerned about my future salary potential	3.41 ^a	3.62 ^a	3.52 ^a	3.53 ^a	2.88 ^b
I think that my current income level is much too low	3.74 ^a	4.09 ^b	3.88 ^{ab}	4.10 ^{ab}	3.09 ^c
Managing debt from my veterinary education is a major challenge	2.25 ^{ab}	2.57 ^a	2.21 ^{ab}	2.46 ^{ab}	1.95 ^b
Maintaining affordable health care benefits for me and my family is very difficult	3.99 ^a	4.40 ^b	2.72 ^c	2.50 ^c	2.50 ^c
I worry that I will not receive needed retirement benefits	3.82 ^a	4.65 ^b	3.13 ^c	3.11 ^c	2.82 ^c
A reduction in demand for veterinary services has greatly reduced my income	2.66 ^a	2.36 ^b	1.68 ^c	1.57 ^c	1.50 ^c
My clients expect me to charge very low fees	3.50 ^a	3.53 ^a	2.60 ^b	2.08 ^c	1.57 ^c
The client base is too small where I practice to make a good income	2.56 ^a	2.36 ^a	1.96 ^b	1.60 ^{bc}	1.36 ^c

Within a row, means with the *same* superscript are not significantly ($p < .05$) different from each other.

Multiple Comparison Tests of Lifestyle and Time Management Issues by Current Occupational Area

Among veterinarians with six or more years of work experience

- **Schffee multiple comparison tests were used to identify specific significant differences between the lifestyle and time management variables by occupational area of focus. Attention is focused on food animal positions in comparison to other veterinary occupational areas.**
- **Senior veterinarians report that when comparing food animal positions with other veterinarians:**
 - **Substantively, the mean values suggest few major differences between groups on exposure to recreational and cultural activities, affordable housing, career opportunities for spouses, or availability of retail stores.**
 - **Those in food animal veterinary positions are no more likely to report desiring a better balance between work and family, or having difficulty getting time off for vacations or parental/family responsibilities when compared to companion animal veterinarians.**
 - **Government and industry positions, when compared to food animal respondents, report less difficulty arranging time off work, a better balance between work and family, and less time working evening or weekends.**

Differences in Major Lifestyle and Time Management Issues by Current Occupational Area Among Senior Career Veterinarians

Variables	Occupational Area				
	Food Animal	Companion Animal	University	Government	Industry
There are very limited recreational and cultural activities where I live	2.42 ^a	2.03 ^b	2.19 ^{ab}	2.07 ^{ab}	2.07 ^{ab}
There is a lack of good quality, affordable housing near my work	2.16 ^a	2.60 ^{bc}	2.65 ^{bc}	2.88 ^b	2.21 ^{ac}
There are very limited career opportunities for my spouse where we live	2.65 ^a	2.18 ^b	2.67 ^a	2.42 ^{ab}	2.32 ^{ab}
It is difficult for me to arrange time off from work for parental/family responsibilities	3.71 ^a	3.59 ^a	3.10 ^b	2.83 ^b	2.57 ^b
I want a better balance in my life between work and family	4.43 ^a	4.44 ^a	4.21 ^{ab}	3.82 ^b	3.91 ^b
It is difficult for me to get time off from work for vacations	3.86 ^a	3.75 ^a	3.17 ^b	2.84 ^b	2.76 ^b
I am very frustrated by a lack of retail stores and restaurants in the area where I live	2.15 ^a	1.81 ^b	1.93 ^{ab}	1.87 ^{ab}	1.90 ^{ab}
I spend too much time working evenings or weekends	4.00 ^a	3.91 ^a	3.97 ^a	3.06 ^b	3.24 ^b

Within a row, means with the *same* superscript are not significantly ($p < .05$) different from each other.

Multiple Comparison Tests of Practice Management Issues by Current Occupational Area

Among veterinarians with six or more years of work experience

- **Schffee multiple comparison tests were used to identify specific significant differences between the practice management variables by occupational area of focus. Attention is focused on food animal positions in comparison to other veterinary occupational areas.**
- **Senior veterinarians report that when comparing food animal positions with other veterinarians:**
 - **There were no significant differences between the food animal and companion animal veterinarians for having difficulty attracting high quality employees, dealing with the opposite gender on a professional basis, or forming lasting business relationships with clients.**
 - **Work associated with food animal veterinary positions was seen as more physically demanding and inherently more dirty when compared to companion animal positions.**

Differences in Major Practice Management Issues by Current Occupational Area Among Senior Career Veterinarians

Variables	Occupational Area				
	Food Animal	Companion Animal	University	Government	Industry
There are too few good jobs in food animal veterinary medicine	2.97 ^a	2.44 ^b	2.45 ^b	2.54 ^{ab}	2.31 ^{ab}
My job is too physically demanding	3.26 ^a	2.53 ^b	2.27 ^{bc}	2.11 ^{cd}	1.79 ^d
I hate how dirty I get in my line of work	2.43 ^{ab}	2.00 ^b	1.86 ^{bc}	1.86 ^{bc}	1.52 ^c
It is very difficult to form lasting business relationships with my clients	2.29 ^{ab}	2.48 ^b	2.11 ^{ac}	1.98 ^{ac}	1.83 ^c
I do not use my medical/surgical skills as much as I would like	3.34 ^a	2.92 ^b	2.96 ^{ab}	3.95 ^c	3.28 ^{ab}
I have not formed strong, professional relationships with other DVM colleagues	2.94 ^a	3.36 ^b	2.31 ^c	2.72 ^{ac}	2.39 ^c
I would like to have far more contact with companion animals than I currently have	2.26 ^a	2.01 ^a	2.11 ^a	2.28 ^a	1.89 ^a
The veterinarian skills required in my job are too narrow to challenge my abilities	2.64 ^a	2.16 ^b	2.21 ^b	2.92 ^a	2.22 ^b
There is too much veterinary competition in my geographic area	3.05 ^a	3.54 ^b	2.29 ^c	1.83 ^{cd}	1.68 ^d
It is very difficult to deal with the opposite gender on a professional basis	2.91 ^a	2.09 ^{ab}	1.82 ^{bc}	1.75 ^c	1.68 ^c
The management quality in my company/practice is very poor	2.76 ^a	3.15 ^b	2.99 ^{ab}	3.04 ^{ab}	2.59 ^a
It is very difficult to attract high quality employees to my company/practice	3.56 ^{ab}	3.92 ^b	3.36 ^a	3.50 ^{ab}	2.58 ^c

Within a row, means with the *same* superscript are not significantly ($p < .05$) different from each other.

Multiple Comparison Tests of Occupational Stress by Current Occupational Area

Among veterinarians with six or more years of work experience

- **Schffee multiple comparison tests were used to identify specific significant differences between the occupational stress variables by occupational area of focus. Attention is focused on food animal positions in comparison to other veterinary occupational areas.**
- **Senior veterinarians report that when comparing food animal positions with other veterinarians:**
 - **There were no significant differences between the food animal and companion animal veterinarians for feeling indifferent toward clients or feeling valued by clients.**
 - **Companion animal veterinarians were more likely to feel exhausted and too fatigued after work when compared to food animal veterinarians.**

Differences in Stress by Current Occupational Area Among Senior Veterinarians

Variables	Occupational Area				
	Food Animal	Companion Animal	University	Government	Industry
I feel indifferent toward some of my clients.	3.66 ^a	3.94 ^a	3.06 ^b	2.55 ^c	2.36 ^c
I feel my clients truly value my assistance.	5.50 ^a	5.68 ^a	4.67 ^b	3.64 ^c	4.11 ^c
I feel burned out from trying to meet client expectations.	3.60 ^{ab}	3.97 ^b	3.25 ^a	2.71 ^c	2.39 ^c
Due to my occupation in veterinary medicine, I feel rather exhausted at the end of a working day.	4.41 ^a	4.88 ^b	4.19 ^{ac}	3.85 ^{cd}	3.57 ^d
When I come home, I must be left alone for a while.	3.13 ^a	3.74 ^b	3.21 ^a	3.08 ^a	2.70 ^a
After a working day, I frequently feel too fatigued to engage in any other activity.	3.46 ^{ac}	4.19 ^b	3.72 ^c	3.48 ^{ac}	3.02 ^a

Within a row, means with the *same* superscript are not significantly ($p < .05$) different from each other.

Factor Analysis of Career Constructs

- **Principal components analysis was performed on all job satisfaction, occupational commitment, employment challenges, occupational stress, and career switching construct questions in order to reduce the large number of items into a smaller set of homogeneous factors.**
- **Nine multi-item factors emerged from this analysis that illustrated adequate factor structure (e.g., high factor loadings and minimal cross-loadings), acceptable Cronbach alpha levels, and logical substantive meaning across items.**
- **Factor constructs are subsequently used in a stepwise multiple regression analysis to predict career switching intentions.**

Factor Analysis of Career Constructs

The nine factors emerging from the PCA.

**Job
Satisfaction**

**Balanced
Lifestyle**

**Limited
Activities**

**Enthusiastic
Pride**

Burnout

**Career
Options**

Income/Pricing

Loyalty

**Turnover
Intentions**

Factor Analysis of Career Constructs

Survey items comprising Balanced Lifestyle factor



Balanced Lifestyle

- **It is difficult for me to arrange time off from work for parental/family responsibilities.**
- **It is difficult for me to get time off from work for vacations.**
- **I want a better balance in my life between work and family.**
- **I spend too much time working evenings or weekends.**

Factor Analysis of Career Constructs

Survey items comprising Income/Pricing factor

Income/Pricing

- **My clients expect me to charge very low fees.**
- **There is too much veterinary competition in my geographic area**
- **A reduction in demand for my veterinary services has greatly reduced my income.**
- **I have very limited flexibility in pricing my veterinary services**

Factor Analysis of Career Constructs

Survey items comprising Limited Activities factor



Limited Activities

- **There are very limited recreational and cultural activities where I live.**
- **I am very frustrated by a lack of retail stores and restaurants in the area where I live.**

Factor Analysis of Career Constructs

Survey items comprising Enthusiastic Pride factor



Enthusiastic Pride

- **I like being in my occupational area in veterinary medicine**
- **I am enthusiastic about my occupational area in veterinary medicine**
- **I am proud to be in my occupational area in veterinary medicine**

Factor Analysis of Career Constructs

Survey items comprising Loyalty factor



Loyalty

- **I am in my occupational area in veterinary medicine because of a sense of loyalty to it**
- **I would feel guilty if I left my occupational area in veterinary medicine**

Factor Analysis of Career Constructs

Survey items comprising Career Options factor



Career Options

- **If I leave my occupational area in veterinary medicine, I have desirable options to pursue**
- **Given my background and experience, there are attractive alternatives available to me outside of my occupational area in veterinary medicine**
- **I would have many options if I decided to change my occupational area in veterinary medicine**

Factor Analysis of Career Constructs

Survey items comprising Job Satisfaction factor



Job Satisfaction

- **My current occupation in veterinary medicine is satisfying**
- **I am satisfied with my present occupation in light of my veterinary career expectations**
- **I am satisfied with my present occupation when I compare it to occupations in other areas of veterinary medicine**
- **I am satisfied with the chance my occupation gives me to perform what I do best**

Factor Analysis of Career Constructs

Survey items comprising Turnover Intentions factor



Turnover Intentions

- **I am actively seeking a substitute for my current occupational area in veterinary medicine**
- **I think a lot about leaving my current occupational area in veterinary medicine**
- **I intend to leave my current occupational area in veterinary medicine in the next two years**
- **I have applied for a position outside of my current occupational area in veterinary medicine in the last year**

Factor Analysis of Career Constructs

Survey items comprising Burnout factor



Burnout

- **After a working day, I frequently feel too fatigued to engage in any other activity**
- **Due to my occupation in veterinary medicine, I feel rather exhausted at the end of a working day**
- **When I come home, I must be left alone for a while**

Regression Analysis Predicting Career Switching

Independent variables

- **Regression models are tested using eight of the factors identified in the principle components analysis as independent variables.**
- **The eight independent factors included in the initial stepwise multiple regression equation were job satisfaction, enthusiastic pride, loyalty, limited activities, income/pricing, career options, burnout, and balanced lifestyle.**

Dependent variable

- **The dependent variable was the Turnover Intentions construct among senior career veterinarians.**

Regression Analysis Predicting Career Switching

Stepwise multiple regression model using the Turnover Intentions construct as a dependent variable

Those who are most likely to switch from a food animal veterinary medicine career:

- **are less satisfied with their current occupation in food animal medicine**
- **have many attractive career alternatives within veterinary medicine**
- **are less likely to be enthusiastic about their veterinary work and have pride in their job**
- **experience more stress and burnout in their current veterinary job**
- **desire a more balanced lifestyle between work and family**
- **desire more income and want to charge higher prices for veterinary services**

Principal Component Analysis within Current Employment Challenges

Scale Items	Balanced Lifestyle	Income/Pricing	Limited Activities
Difficulty arranging time off work for parental/family responsibilities	0.846		
Difficulty finding time off work for vacations	0.842		
Need better balance between work and family	0.835		
Spend too much time working evenings and weekends	0.699		
Clients expect me to charge very low fees		0.785	
There is too much veterinary competition in my geographic area		0.762	
Reduction in demand for veterinary services has greatly reduced my income		0.760	
Very limited flexibility in pricing my veterinary services		0.728	
Very limited recreational and cultural activities where I live			0.873
Frustrated by a lack of retail stores and restaurants where I live			0.866
Variance accounted for (%)	27.07	24.42	15.77
Eigenvalues	3.80	1.57	1.35
Scale Mean Values	3.69	3.99	2.01
Cronbach's Alpha	0.841	0.779	0.710

Principal Component Analysis within Veterinary Occupational Commitment

Scale Items	Enthusiastic Pride	Career Options	Loyalty
I like being in my occupational area in veterinary medicine	0.923		
I am proud to be in my occupational area in veterinary profession	0.905		
I am enthusiastic about my occupational area in veterinary medicine	0.898		
If I leave my occupational area in veterinary medicine, I have desirable options to pursue		0.898	
I would have many options if I decided to change my occupational area in veterinary medicine		0.895	
Given my background and experience, there are attractive alternatives available to me outside of my occupational area in veterinary medicine		0.887	
I am in my occupational area in veterinary medicine because of a sense of loyalty to it			0.892
I would feel guilty if I left my occupational area in veterinary medicine			0.881
Variance accounted for (%)	32.23	30.63	20.53
Eigenvalues	3.48	1.92	1.26
Scale Mean Values	5.97	4.15	4.04
Cronbach's Alpha	0.919	0.887	0.772

Principal Component Analyses within Veterinary Medical Education and Continuing Veterinary Education Needs

Scale Items	Information Exposure	Food Animal Curriculum	Continuing Education
I wish I had received more information about a FSVM career during my veterinary education	0.826		
I would be more confident in my ability if I had more exposure to food supply practice during veterinary school	0.825		
Veterinary medical students need more career mentoring by faculty	0.624		
Veterinary medical college places too much emphasis on companion animal practice		0.827	
Veterinary college should offer more courses on food supply and public health		0.797	
I would be better prepared for a career in food supply veterinary medicine if I had received more in-depth courses rather than broad exposure to many areas		0.629	
I am very likely to enroll in a distance education food supply veterinary medicine course offered by a veterinary college			0.825
I am very interested in obtaining a masters degree in food supply veterinary medicine			0.745
I would attend a five day continuing education course on food supply veterinary medicine topics			0.739
Variance accounted for (%)	31.39	31.26	59.40
Eigenvalues	1.88	1.87	1.78
Scale Mean Values	4.86	5.49	4.50
Cronbach's Alpha	0.695	0.653	0.655

Principal Component Analyses within Veterinary Burnout, Job Satisfaction, and Veterinary Turnover Intentions

Scale Items	Burnout	Job Satisfaction	Turnover Intentions
After a working day, I frequently feel too fatigued to engage in any other activity	0.889		
Due to my occupation in veterinary medicine, I feel rather exhausted at the end of a working day	0.852		
When I come home, I must be left alone for a while	0.838		
My current occupation in veterinary medicine is satisfying		0.922	
I am satisfied with my present occupation in light of my veterinary career expectations		0.913	
I am satisfied with my present occupation when I compare it to occupations in other areas of veterinary medicine		0.908	
I am satisfied with the chance my occupation gives me to perform what I do best		0.820	
I am actively seeking a substitute for my current job in food supply veterinary medicine			0.910
I think a lot about leaving food supply veterinary medicine			0.870
I intend to leave food supply veterinary medicine in the next year			0.856
Variance accounted for (%)	74.57	79.49	77.27
Eigenvalues	2.23	3.18	2.31
Scale Mean Values	3.84	5.78	2.26
Cronbach's Alpha	0.772	0.912	0.889

Stepwise Regression Analysis of Work Conditions, Job Satisfaction, and Occupational Commitment on Veterinary Turnover Intentions

Factor Dimensions	Beta Weight	t-value	Significance Level
Job Satisfaction	-0.371	-18.626	.000
Career Options	0.210	12.641	.038
Enthusiastic Pride	-0.209	-10.536	.000
Burnout	0.128	6.663	.000
Balanced Lifestyle	0.104	5.381	.000
Income/Pricing	0.056	3.080	.002
Dependent Variable :Turnover Intentions			
R-Square	0.370		
Adjusted R-square	0.369		
F-Statistic	242.339		
Significance Level	.000		