

**April 15, 2024**  
**Virginia Farm Bureau**  
**Auditorium**  
**12580 W. Creek Parkway**  
**Richmond, VA 23238**  
**10:00 a.m.**

**Agenda**  
**Board of Veterinary Medicine and State Veterinarian**  
**Veterinarian Shortage Study Workgroup**

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**Call to Order – Leslie Knachel, Executive Director, Board of Veterinary Medicine**

- Welcome
- Emergency Egress Procedures
- Introductions

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**Ordering of Agenda – Ms. Knachel**

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**Public Comment – Ms. Knachel**

The Board will receive public comment related to the scope of work of the workgroup.

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**Discussion**

**Pages 1-120**

- Background information
    - Review of legislation (pages 1-2) – **Erin Barrett**
    - 2023 Healthcare Workforce Data Center Reports (pages 3-62) – **Yetty Shobo**
      - Veterinarians (pages 3-32)
      - Veterinary Technicians (pages 33 -62)
    - Review of current applicable laws, regulations, and guidance documents (pages 63-71) **Ms. Knachel**
      - Veterinary Technician Scope of Practice (page 63)
      - Definition of veterinary-client-patient relationship (VCPR) (pages 65-67)
      - 150-25 Guidance for Telehealth in the Practice of Veterinary Medicine (pages 68-70)
      - 150-2 Guidance on Expanded Duties for Licensed Veterinary Technicians (page 71)
    - Completed Studies – **Dr. Charles Broaddus**
      - 2010 Virginia Department of Agriculture and Consumer Services (pages 72-73)
      - 2023 Kentucky (pages 74-103)
    - Reimbursement Programs (104-120) – **Dr. Broaddus**
      - American Veterinary Medical Association State Veterinary Medicine Loan Repayment Programs (pages 104-116)
      - Veterinary Training Program for Rural Kansas (page 117)
      - Rural Iowa Veterinarian Loan Repayment Program (pages 118-120)
  - Top solution suggestions – **Dr. Broaddus**
  - Workgroup meeting structure – **Ms. Knachel**
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**New Business – Ms. Knachel**

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9960 Mayland Drive, Suite 300  
Henrico, VA 23233-1463

**Email:** [vetbd@dhp.virginia.gov](mailto:vetbd@dhp.virginia.gov)  
**Phone:** (804) 597-4133  
**Fax:** (804) 767-1011  
**Website:** <https://www.dhp.virginia.gov/Boards/VetMed/>

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**Next Meeting – Ms. Knachel**

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**Meeting Adjournment – Ms. Knachel**

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This information is in **DRAFT** form and is subject to change.

24104615D

SENATE JOINT RESOLUTION NO. 15

Senate Amendments in [ ] - February 12, 2024

Requesting the Board of Veterinary Medicine, in consultation with the State Veterinarian, to study the shortage of large animal veterinarians. Report.

Patron Prior to Engrossment—Senator Hackworth

Referred to Committee on Rules

WHEREAS, as of 2023, the shortage of rural veterinarians has reached an all-time high as 500 counties in 46 states have been deemed to have a critical shortage of large animal veterinarians; and

WHEREAS, only three to four percent of new veterinary graduates have entered food animal-related practice over the past 20 years; and

WHEREAS, by providing preventative care, disease treatment, and strategies for herd health and productivity, large animal veterinarians are a critical resource for farmers; large animal veterinarians can help prevent large-scale loss of herds or flocks when a highly transmissible disease sweeps through an area; and

WHEREAS, if the current downward trend in large animal veterinarians continues, there will be cause for concern for a safe food supply, the potential for widespread animal disease outbreaks, and a decline in the economic vitality of rural communities; and

WHEREAS, while the State Veterinarian designates areas of the Commonwealth that have a shortage of large animal veterinarians so students from such areas can apply for partial federal loan forgiveness programs, the current program fails to attract students in such areas of most need; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Board of Veterinary Medicine, in consultation with the State Veterinarian, be requested to study the shortage of large animal veterinarians.

In conducting the study, the Board of Veterinary Medicine and the State Veterinarian shall (i) identify ways to strengthen existing debt repayment programs for veterinarians, including making recommendations on how to simplify application criteria, exploring state matching loan repayment programs, limiting barriers for participation, and improving methods for consistent identification of veterinary shortage areas to better target rural communities in need; (ii) examine options for developing programs that offer business support to provide incentives or low-interest business loans for large animal private practices; (iii) identify programs that support a strong pipeline of veterinary students from rural backgrounds and help such students navigate post-secondary education to increase retention; (iv) examine other possible solutions for increasing the number of large animal veterinarians in the Commonwealth, such as expanding veterinary technician-type or physician assistant-type programs to allow large animal veterinarians to expand their scope of practice in rural areas; and (v) reexamine the recommendations from the 2010 study on the shortage of large animal veterinarians published pursuant to House Joint Resolution 730 (2009).

Technical assistance shall be provided to the Board of Veterinary Medicine and the State Veterinarian by the Virginia-Maryland College of Veterinary Medicine at Virginia Polytechnic Institute and State University, the Lincoln Memorial University College of Veterinary Medicine, the Virginia Farm Bureau Federation, the Virginia Veterinary Medical Association, the Virginia Academy of Food Animal Practitioners, the Virginia Agribusiness Council, the Virginia Department of Business Assistance, Virginia Department of Health, the Virginia Economic Development Partnership, and the Virginia Tobacco Region Revitalization Commission and a member of the House of Delegates appointed by the Speaker of the House of Delegates and a member of the Senate of Virginia appointed by the Senate Committee on Rules. All agencies of the Commonwealth shall provide assistance to the Board of Veterinary Medicine for this study, upon request.

[ Upon completion of the study, the Board of Veterinary Medicine shall submit this report to the House Committees on Agriculture, Chesapeake and Natural Resources and Education and the Senate Committees on Agriculture, Conservation and Natural Resources and Education and Health, and these standing committees shall review the findings and recommendations of the report for appropriate legislative, policy, and budgetary implications and actions, and make such recommendations as necessary. ]

The Board of Veterinary Medicine shall complete its meetings for the first year by November 30, 2024, and for the second year by November 30, 2025, and the Board of Veterinary Medicine shall submit to the Governor and the General Assembly an executive summary and report of its findings and recommendations for publication as a House or Senate document for each year. The executive

ENGROSSED

S15E

2/22/24 22:14

**59** summaries and reports shall be submitted as provided in the procedures of the Division of Legislative  
**60** Automated Systems for the processing of legislative documents and reports no later than the first day of  
**61** the next Regular Session of the General Assembly and shall be posted on the General Assembly's  
**62** website.

**DRAFT**

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# *Virginia's Veterinarian Workforce: 2023*

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Healthcare Workforce Data Center

February 2024

Virginia Department of Health Professions  
Healthcare Workforce Data Center  
Perimeter Center  
9960 Mayland Drive, Suite 300  
Henrico, VA 23233  
804-597-4213, 804-527-4434 (fax)  
E-mail: [HWDC@dhp.virginia.gov](mailto:HWDC@dhp.virginia.gov)

Follow us on Tumblr: [www.vahwdc.tumblr.com](http://www.vahwdc.tumblr.com)

Get a copy of this report from:

<https://www.dhp.virginia.gov/PublicResources/HealthcareWorkforceDataCenter/ProfessionReports/>

*More than 4,000 veterinarians voluntarily participated in this survey. Without their efforts, the work of the center would not be possible. The Department of Health Professions, the Healthcare Workforce Data Center, and the Board of Veterinary Medicine express our sincerest appreciation for their ongoing cooperation.*

***Thank You!***

***Virginia Department of Health Professions***

**Arne W. Owens, MS**  
*Director*

**James L. Jenkins, Jr., RN**  
*Chief Deputy Director*

*Healthcare Workforce Data Center Staff:*

**Yetty Shobo, PhD**  
*Director*

**Barbara Hodgdon, PhD**  
*Deputy Director*

**Rajana Siva, MBA**  
*Data Analyst*

**Christopher Coyle, BA**  
*Research Assistant*

# Virginia Board of Veterinary Medicine

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Thomas B. Massie, Jr., DVM  
*Washington*

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Patricia Seeger, LVT, BBA  
*Hampton*

## ***Executive Director***

Leslie L. Knachel

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# The Veterinarian Workforce: At a Glance:

## The Workforce

Licenses:	5,086
Virginia's Workforce:	3,750
FTEs:	3,342

## Background

Rural Childhood:	28%
HS Diploma in VA:	37%
Prof. Degree in VA:	33%

## Current Employment

Employed in Prof.:	95%
Hold 1 Full-Time Job:	66%
Satisfied?:	92%

## Survey Response Rate

All Licenses:	85%
Renewing Practitioners:	92%

## Education

DVM/VMD:	76%
Masters or PhD:	12%

## Job Turnover

Switched Jobs:	7%
Employed Over 2 Yrs.:	64%

## Demographics

Female:	74%
Diversity Index:	23%
Median Age:	45

## Finances

Median Inc.:	\$110k-\$120k
Health Insurance:	53%
Under 40 w/ Ed. Debt:	65%

## Time Allocation

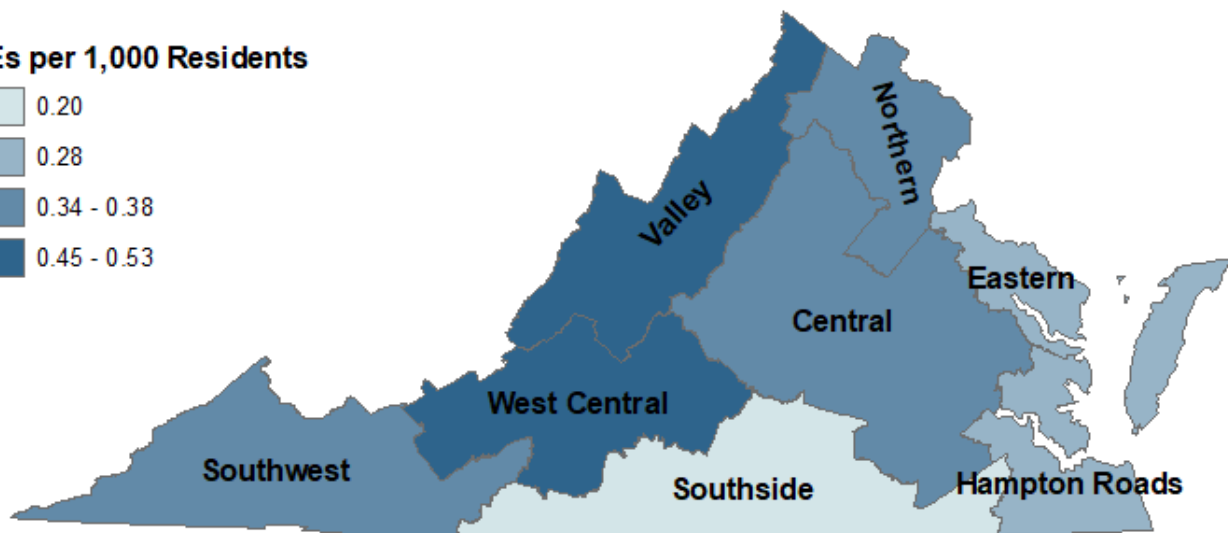
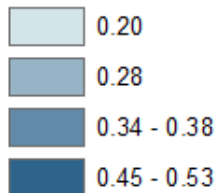
Patient Care:	90%-99%
Administration:	1%-9%
Patient Care Role:	85%

Source: Va. Healthcare Workforce Data Center

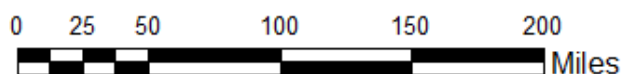
## Full-Time Equivalency Units Provided by Veterinarians per 1,000 Residents by Virginia Performs Region

Source: Va Healthcare Workforce Data Center

### FTEs per 1,000 Residents



Annual Estimates of the Resident Population: July 1, 2022  
Source: U.S. Census Bureau, Population Division



This report contains the results of the 2023 Veterinarian Workforce survey. There were 4,328 veterinarians who voluntarily participated in this survey. The Virginia Department of Health Professions' Healthcare Workforce Data Center (HWDC) administers the survey during the license renewal process, which takes place every December for veterinarians. These survey respondents represent 85% of the 5,086 veterinarians licensed in the state and 92% of renewing practitioners.

The HWDC estimates that 3,750 veterinarians participated in Virginia's workforce during the survey period, which is defined as those veterinarians who worked at least a portion of the year in the state or who live in the state and intend to return to work as a veterinarian at some point in the future. During the past year, Virginia's veterinarian workforce provided 3,342 "full-time equivalency units," which the HWDC defines simply as working 2,000 hours per year.

Nearly three out of every four veterinarians are female, including 84% of those who are under the age of 40. In a random encounter between two veterinarians, there is a 23% chance that they would be of different races or ethnicities, a measure known as the diversity index. For those veterinarians who are under the age of 40, the diversity index increases to 29%. For Virginia's overall population, the comparable diversity index is 60%. Nearly three out of every ten veterinarians grew up in a rural area, and 17% of veterinarians who grew up in a rural area currently work in a non-metro area of the state. In total, 9% of all veterinarians work in a non-metro area of Virginia.

Among all veterinarians, 95% are currently employed in the profession, 66% hold one full-time position, and 36% work between 40 and 49 hours per week. Among all veterinarians, 47% are employed in a group practice, while another 39% work in a solo practice or partnership. The typical veterinarian earns between \$110,000 and \$120,000 per year, and 71% of veterinarians receive this income in the form of a salary. In addition, 70% of veterinarians receive at least one employer-sponsored benefit, including 53% who have access to health insurance. Among all veterinarians, 92% are satisfied with their current work situation, including 56% who indicated that they are "very satisfied."

## Summary of Trends

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In this section, all statistics for the current year are compared to the 2018 Veterinarian workforce. The number of licensed veterinarians in Virginia has increased by 14% (5,086 vs. 4,470). In addition, the size of Virginia's veterinary workforce has risen by 13% (3,750 vs. 3,322), and the number of FTEs provided by this workforce has grown by 7% (3,342 vs. 3,119). Virginia's renewing veterinarians are also more likely to respond to this survey (92% vs. 77%).

Overall, the percentage of veterinarians who are female has increased. (74% vs. 70%). However, this percentage has fallen slightly among those veterinarians who are under the age of 40 (84% vs. 85%). The diversity index of Virginia's veterinarians has increased (23% vs. 20%), and this is also true among those veterinarians who are under the age of 40 (29% vs. 26%). This has occurred during a time in which Virginia's overall population has also become more diverse (60% vs. 57%). Veterinarians are slightly less likely to have grown up in a rural area (28% vs. 29%), and veterinarians who grew up in a rural area are also slightly less likely to work in a non-metro area of the state (17% vs. 18%).

Veterinarians are relatively more likely to hold two or more positions simultaneously (17% vs. 14%) than to hold one full-time position (66% vs. 69%). In addition, veterinarians are also relatively more likely to work between 30 and 39 hours per week (27% vs. 19%) than to work between 40 and 70 hours per week (53% vs. 61%). At the same time, veterinarians are less likely to have been employed at their primary work location for more than two years (64% vs. 67%). Although veterinarians are less likely to carry education debt (43% vs. 45%), the median outstanding balance among those veterinarians with education debt has increased (\$160k-\$170k vs. \$110k-\$120k).

The median annual income of Virginia's veterinarian workforce has increased (\$110k-\$120k vs. \$90k-\$100k), and veterinarians are more likely to receive this income in the form of a salary (71% vs. 69%) than as business income (12% vs. 16%). Although the percentage of veterinarians who indicated that they are satisfied with their current work location has not changed (92%), the percentage who indicated that they are "very satisfied" has fallen (56% vs. 59%).

A Closer Look:

Licensees		
License Status	#	%
Renewing Practitioners	4,466	88%
New Licensees	364	7%
Non-Renewals	256	5%
<b>All Licensees</b>	<b>5,086</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

*HWDC surveys tend to achieve very high response rates. Among all renewing veterinarians, 92% submitted a survey. These respondents represent 85% of the 5,086 veterinarians who held a license at some point in the past year.*

Response Rates			
Statistic	Non Respondents	Respondents	Response Rate
<b>By Age</b>			
Under 30	106	233	69%
30 to 34	134	576	81%
35 to 39	91	608	87%
40 to 44	85	563	87%
45 to 49	67	502	88%
50 to 54	63	425	87%
55 to 59	55	426	89%
60 and Over	157	995	86%
<b>Total</b>	<b>758</b>	<b>4,328</b>	<b>85%</b>
<b>New Licenses</b>			
Issued in Past Year	181	183	50%
<b>Metro Status</b>			
Non-Metro	52	314	86%
Metro	414	2,692	87%
Not in Virginia	292	1,322	82%

Source: Va. Healthcare Workforce Data Center

Definitions

- The Survey Period:** The survey was conducted in December 2023.
- Target Population:** All veterinarians who held a Virginia license at some point between January 2023 and December 2023.
- Survey Population:** The survey was available to veterinarians who renewed their licenses online. It was not available to those who did not renew, including some veterinarians newly licensed in 2023.

Response Rates	
Completed Surveys	4,328
Response Rate, All Licensees	85%
Response Rate, Renewals	92%

Source: Va. Healthcare Workforce Data Center

At a Glance:

Licensed Veterinarians

Number: 5,086  
 New: 7%  
 Not Renewed: 5%

Response Rates

All Licensees: 85%  
 Renewing Practitioners: 92%

Source: Va. Healthcare Workforce Data Center

## At a Glance:

### Workforce

Veterinarian Workforce: 3,750  
 FTEs: 3,342

### Utilization Ratios

Licensees in VA Workforce: 74%  
 Licensees per FTE: 1.52  
 Workers per FTE: 1.12

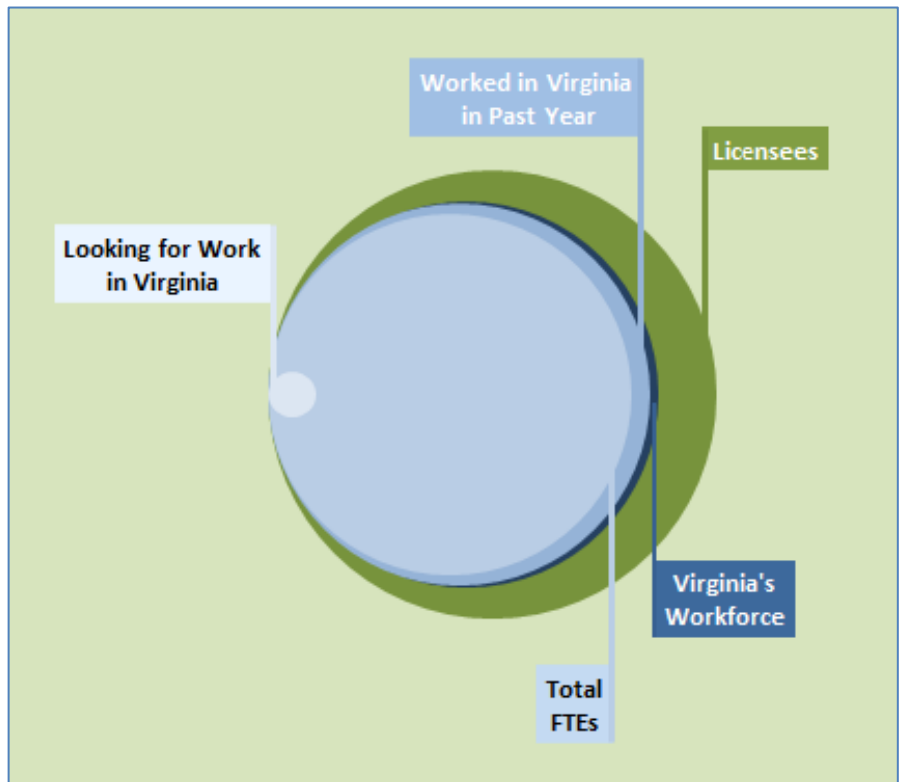
Source: Va. Healthcare Workforce Data Center

## Definitions

- 1. Virginia’s Workforce:** A licensee with a primary or secondary work site in Virginia at any time between January 2023 and December 2023 or who indicated intent to return to Virginia’s workforce at any point in the future.
- 2. Full-Time Equivalency Unit (FTE):** The HWDC uses 2,000 (40 hours for 50 weeks) as its baseline measure for FTEs.
- 3. Licensees in VA Workforce:** The proportion of licensees in Virginia’s Workforce.
- 4. Licensees per FTE:** An indication of the number of licensees needed to create 1 FTE. Higher numbers indicate lower licensee participation.
- 5. Workers per FTE:** An indication of the number of workers in Virginia’s workforce needed to create 1 FTE. Higher numbers indicate lower utilization of available workers.

Veterinarian Workforce		
Status	#	%
Worked in Virginia in Past Year	3,694	99%
Looking for Work in Virginia	56	1%
Virginia's Workforce	3,750	100%
Total FTEs	3,342	
Licensees	5,086	

Source: Va. Healthcare Workforce Data Center



Source: Va. Healthcare Workforce Data Center

*Weighting is used to estimate the figures in this report.*

*Unless otherwise noted, figures refer to the Virginia Workforce only. For more information on the HWDC’s methodology, visit:*

*<https://www.dhp.virginia.gov/PublicResources/HealthcareWorkforceDataCenter/>*

A Closer Look:

Age & Gender						
Age	Male		Female		Total	
	#	% Male	#	% Female	#	% in Age Group
Under 30	42	16%	225	84%	267	9%
30 to 34	77	17%	388	83%	465	16%
35 to 39	70	16%	362	84%	432	15%
40 to 44	55	15%	307	85%	362	12%
45 to 49	88	28%	231	73%	319	11%
50 to 54	78	30%	184	70%	262	9%
55 to 59	89	36%	161	64%	250	9%
60 and Over	275	48%	302	52%	577	20%
<b>Total</b>	<b>775</b>	<b>26%</b>	<b>2,159</b>	<b>74%</b>	<b>2,934</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

Race & Ethnicity					
Race/Ethnicity	Virginia*	Veterinarians		Veterinarians Under 40	
	%	#	%	#	%
White	59%	2,572	88%	976	84%
Black	18%	64	2%	30	3%
Asian	7%	106	4%	55	5%
Other Race	1%	24	1%	5	0%
Two or More Races	5%	61	2%	36	3%
Hispanic	10%	102	3%	61	5%
<b>Total</b>	<b>100%</b>	<b>2,929</b>	<b>100%</b>	<b>1,163</b>	<b>100%</b>

\* Population data in this chart is from the U.S. Census, Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for the United States, States, and Counties: July 1, 2022.

Source: Va. Healthcare Workforce Data Center

Among the 40% of veterinarians who are under the age of 40, 84% are female. In addition, the diversity index among veterinarians who are under the age of 40 is 29%.

At a Glance:

**Gender**

% Female: 74%  
% Under 40 Female: 84%

**Age**

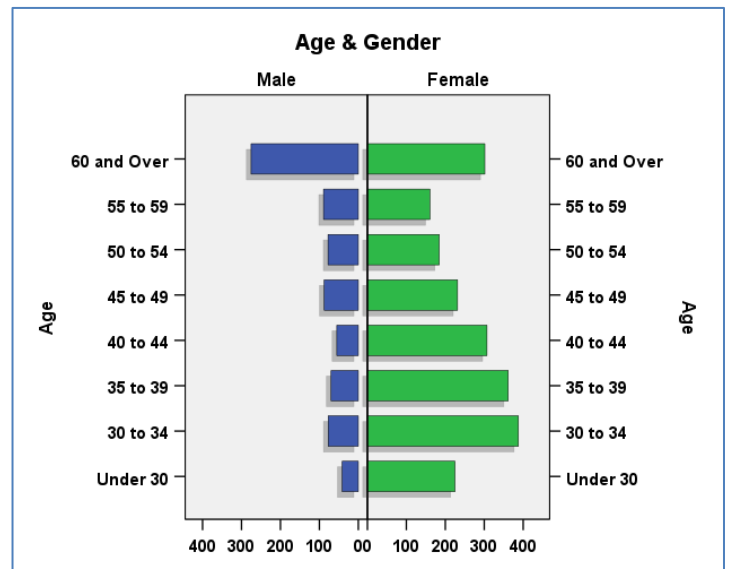
Median Age: 45  
% Under 40: 40%  
% 55 and Over: 28%

**Diversity**

Diversity Index: 23%  
Under 40 Div. Index: 29%

Source: Va. Healthcare Workforce Data Center

In a random encounter between two veterinarians, there is a 23% chance that they would be of different races or ethnicities (a measure known as the diversity index).



Source: Va. Healthcare Workforce Data Center

## At a Glance:

### Childhood

Urban Childhood: 9%  
 Rural Childhood: 28%

### Virginia Background

HS in Virginia: 37%  
 Prof. Degree in VA: 33%  
 HS or Prof. Edu. in VA: 46%

### Location Choice

% Rural to Non-Metro: 17%  
 % Urban/Suburban to Non-Metro: 6%

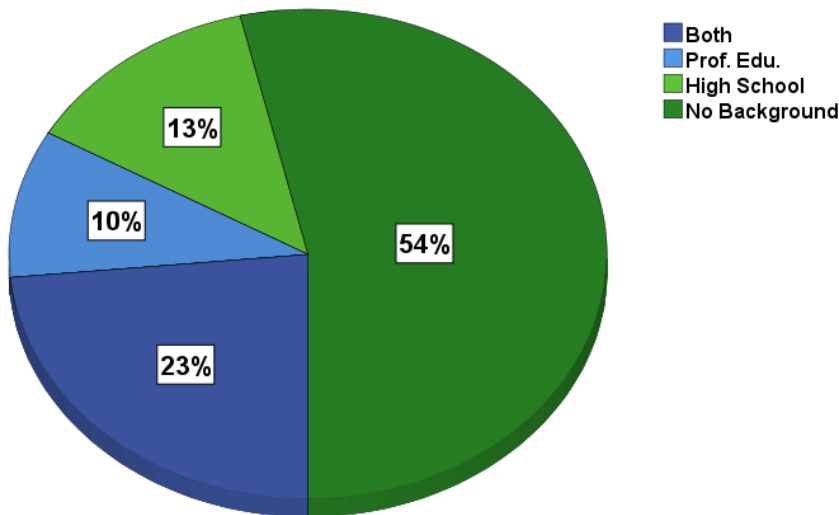
Source: Va. Healthcare Workforce Data Center

## A Closer Look:

Primary Location: USDA Rural Urban Continuum		Rural Status of Childhood Location		
Code	Description	Rural	Suburban	Urban
<b>Metro Counties</b>				
1	Metro, 1 Million+	21%	70%	10%
2	Metro, 250,000 to 1 Million	36%	58%	6%
3	Metro, 250,000 or Less	42%	50%	8%
<b>Non-Metro Counties</b>				
4	Urban, Pop. 20,000+, Metro Adjacent	48%	48%	4%
6	Urban, Pop. 2,500-19,999, Metro Adjacent	48%	46%	7%
7	Urban, Pop. 2,500-19,999, Non-Adjacent	73%	27%	0%
8	Rural, Metro Adjacent	45%	46%	9%
9	Rural, Non-Adjacent	65%	35%	0%
<b>Overall</b>		<b>28%</b>	<b>63%</b>	<b>9%</b>

Source: Va. Healthcare Workforce Data Center

### Educational Background in Virginia



Source: Va. Healthcare Workforce Data Center

Nearly three out of every ten veterinarians grew up in a self-described rural area, and 17% of veterinarians who grew up in a rural area currently work in a non-metro area of the state. In total, 9% of all veterinarians currently work in a non-metro county.

## Top Ten States for Veterinarian Recruitment

Rank	All Veterinarians			
	High School	#	Professional School	#
1	Virginia	1,070	Virginia	951
2	Maryland	194	Outside U.S./Canada	348
3	New York	147	Alabama	130
4	Pennsylvania	124	Pennsylvania	118
5	New Jersey	124	Ohio	113
6	Outside U.S./Canada	122	North Carolina	113
7	North Carolina	102	Tennessee	109
8	Florida	80	Georgia	107
9	California	77	New York	99
10	Ohio	77	Florida	74

Source: Va. Healthcare Workforce Data Center

*Among all veterinarians, 37% received their high school degree in Virginia, and 33% received their initial professional degree in the state.*

*Among veterinarians who obtained their initial license in the past five years, 34% received their high school degree in Virginia, while 26% received their initial professional degree in the state.*

Rank	Licensed in the Past Five Years			
	High School	#	Professional School	#
1	Virginia	279	Virginia	209
2	Outside U.S./Canada	41	Outside U.S./Canada	129
3	Maryland	38	Tennessee	44
4	New York	36	Alabama	33
5	Pennsylvania	36	Illinois	33
6	New Jersey	31	Pennsylvania	29
7	North Carolina	30	North Carolina	27
8	Florida	28	New York	23
9	Illinois	25	Ohio	23
10	California	23	Florida	23

Source: Va. Healthcare Workforce Data Center

*More than one-quarter of licensed veterinarians did not participate in the state's veterinarian workforce. Among these licensees, 87% worked at some point in the past year, including 81% who currently work as veterinarians.*

### At a Glance:

#### Not in VA Workforce

Total:	1,337
% of Licensees:	26%
Federal/Military:	9%
Va. Border State/DC:	20%

Source: Va. Healthcare Workforce Data Center

A Closer Look:

Education		
Degree	#	% of Workforce
Bachelor of Science	2,103	56%
Other Bachelor's Degree	351	9%
Graduate Certificate	73	2%
Master's Degree	391	10%
PhD	64	2%
DVM/VMD	2,859	76%

Source: Va. Healthcare Workforce Data Center

*More than two out of every five veterinarians carry education debt, including 65% of those who are under the age of 40. For those with education debt, their median debt amount is between \$160,000 and \$170,000.*

## At a Glance:

**Education**  
 DVM/VMD: 76%  
 Masters or PhD: 12%

**Education Debt**  
 Carry Debt: 43%  
 Under Age 40 w/ Debt: 65%  
 Median Debt: \$160k-\$170k

**Training Program**  
 Surgery: 2%  
 Internal Medicine: 1%  
 Public Health: 1%

Source: Va. Healthcare Workforce Data Center

Other Education/Training		
Residency/Specialty Training	#	% of Workforce
Surgery	67	2%
Internal Medicine	53	1%
Public Health	47	1%
Canine and Feline Practice	42	1%
Equine Practice	39	1%
Laboratory Animal Medicine	32	1%
Critical Care/Emergency	31	1%
Sports Medicine and Rehabilitation	26	1%
Dentistry	23	1%
At Least One	519	14%
Other Education	#	% of Workforce
Preventative Medicine	268	7%
Therigenology	85	2%
Other	223	6%
At Least One	504	13%

Source: Va. Healthcare Workforce Data Center

Education Debt				
Amount Carried	All Veterinarians		Veterinarians Under 40	
	#	%	#	%
None	1,419	57%	355	35%
Less than \$20,000	60	2%	19	2%
\$20,000-\$39,999	110	4%	29	3%
\$40,000-\$59,999	86	3%	28	3%
\$60,000-\$79,999	71	3%	29	3%
\$80,000-\$99,999	70	3%	30	3%
\$100,000-\$119,999	40	2%	28	3%
\$120,000-\$139,999	29	1%	22	2%
\$140,000-\$159,999	46	2%	30	3%
\$160,000-\$179,999	51	2%	34	3%
\$180,000-\$199,999	53	2%	45	4%
\$200,000 or More	445	18%	367	36%
<b>Total</b>	<b>2,480</b>	<b>100%</b>	<b>1,016</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center



## At a Glance:

### Employment

Employed in Profession: 95%  
 Involuntarily Unemployed: < 1%

### Positions Held

1 Full-Time: 66%  
 2 or More Positions: 17%

### Weekly Hours

40 to 49: 36%  
 60 or More: 8%  
 Less than 30: 14%

Source: Va. Healthcare Workforce Data Center

## A Closer Look:

Current Work Status		
Status	#	%
Employed, Capacity Unknown	1	< 1%
Employed in a Veterinary-Related Capacity	2,746	95%
Employed, NOT in a Veterinary-Related Capacity	34	1%
Not Working, Reason Unknown	0	0%
Involuntarily Unemployed	2	< 1%
Voluntarily Unemployed	47	2%
Retired	50	2%
<b>Total</b>	<b>2,881</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

*Among all veterinarians, 95% are currently employed in the profession, 66% hold one full-time job, and 36% work between 40 and 49 hours per week.*

Current Positions		
Positions	#	%
No Positions	99	3%
One Part-Time Position	360	13%
Two Part-Time Positions	110	4%
One Full-Time Position	1,883	66%
One Full-Time Position & One Part-Time Position	272	10%
Two Full-Time Positions	35	1%
More than Two Positions	73	3%
<b>Total</b>	<b>2,832</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

Current Weekly Hours		
Hours	#	%
0 Hours	99	4%
1 to 9 Hours	71	3%
10 to 19 Hours	103	4%
20 to 29 Hours	214	8%
30 to 39 Hours	742	27%
40 to 49 Hours	999	36%
50 to 59 Hours	348	12%
60 to 69 Hours	138	5%
70 to 79 Hours	44	2%
80 or More Hours	39	1%
<b>Total</b>	<b>2,797</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

**A Closer Look:**

Annual Income		
Income Level	#	%
<b>Volunteer Work Only</b>	22	1%
<b>Less than \$40,000</b>	148	6%
<b>\$40,000-\$59,999</b>	131	6%
<b>\$60,000-\$79,999</b>	185	8%
<b>\$80,000-\$99,999</b>	269	12%
<b>\$100,000-\$119,999</b>	395	17%
<b>\$120,000-\$139,999</b>	326	14%
<b>\$140,000-\$159,999</b>	275	12%
<b>\$160,000-\$179,999</b>	150	7%
<b>\$180,000-\$199,999</b>	99	4%
<b>\$200,000 or More</b>	283	12%
<b>Total</b>	<b>2,283</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

## At a Glance:

**Earnings**  
Median Income: \$110k-\$120k

**Benefits**  
Health Insurance: 53%  
Retirement: 55%

**Satisfaction**  
Satisfied: 92%  
Very Satisfied: 56%

Source: Va. Healthcare Workforce Data Center

*The median annual income of Virginia's veterinarians is between \$110,000 and \$120,000. In addition, 70% of all veterinarians receive at least one employer-sponsored benefit, including 53% who have access to health insurance.*

Job Satisfaction		
Level	#	%
<b>Very Satisfied</b>	1,577	56%
<b>Somewhat Satisfied</b>	1,006	36%
<b>Somewhat Dissatisfied</b>	172	6%
<b>Very Dissatisfied</b>	52	2%
<b>Total</b>	<b>2,807</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

Employer-Sponsored Benefits			
Benefit	#	%	% of Wage/Salary Employees
<b>Paid Vacation</b>	1,638	60%	69%
<b>Retirement</b>	1,506	55%	62%
<b>Health Insurance</b>	1,447	53%	59%
<b>Dental Insurance</b>	1,175	43%	49%
<b>Paid Sick Leave</b>	1,169	43%	50%
<b>Group Life Insurance</b>	692	25%	30%
<b>Signing/Retention Bonus</b>	445	16%	20%
<b>At Least One Benefit</b>	<b>1,933</b>	<b>70%</b>	<b>79%</b>

\*From any employer at time of survey.  
Source: Va. Healthcare Workforce Data Center

**A Closer Look:**

Employment Instability in the Past Year		
In The Past Year, Did You . . . ?	#	%
Experience Involuntary Unemployment?	25	1%
Experience Voluntary Unemployment?	155	4%
Work Part-Time or Temporary Positions, but Would Have Preferred a Full-Time/Permanent Position?	46	1%
Work Two or More Positions at the Same Time?	553	15%
Switch Employers or Practices?	249	7%
<b>Experience at Least One?</b>	<b>834</b>	<b>22%</b>

Source: Va. Healthcare Workforce Data Center

*Only 1% of veterinarians experienced involuntary unemployment at some point in the past year. By comparison, Virginia's average monthly unemployment rate was 2.9% during the same time period.<sup>1</sup>*

Location Tenure				
Tenure	Primary		Secondary	
	#	%	#	%
<b>Not Currently Working at This Location</b>	56	2%	48	8%
Less than 6 Months	217	8%	100	16%
6 Months to 1 Year	219	8%	71	12%
1 to 2 Years	502	18%	116	19%
3 to 5 Years	536	20%	115	19%
6 to 10 Years	403	15%	51	8%
More than 10 Years	787	29%	109	18%
<b>Subtotal</b>	<b>2,718</b>	<b>100%</b>	<b>608</b>	<b>100%</b>
Did Not Have Location	65		3,110	
Item Missing	967		32	
<b>Total</b>	<b>3,750</b>		<b>3,750</b>	

Source: Va. Healthcare Workforce Data Center

*More than 70% of all veterinarians either receive a salary or work on commission at their primary work location.*

**At a Glance:**

**Unemployment Experience**

Involuntarily Unemployed: 1%  
Underemployed: 1%

**Turnover & Tenure**

Switched Jobs: 7%  
New Location: 22%  
Over 2 Years: 64%  
Over 2 Yrs., 2<sup>nd</sup> Location: 45%

**Employment Type**

Salary/Commission: 71%  
Business/Practice Income: 12%

Source: Va. Healthcare Workforce Data Center

*Among all veterinarians, 64% have worked at their primary work location for more than two years.*

Employment Type		
Primary Work Site	#	%
<b>Salary/Commission</b>	1,528	71%
Hourly Wage	255	12%
By Contract/Per Diem	91	4%
Business/Practice Income	248	12%
Unpaid	17	1%
<b>Subtotal</b>	<b>2,139</b>	<b>100%</b>
Did Not Have Location	65	
Item Missing	1,547	

Source: Va. Healthcare Workforce Data Center

<sup>1</sup> As reported by the U.S. Bureau of Labor Statistics. The non-seasonally adjusted monthly unemployment rate fluctuated between a low of 2.5% and a high of 3.3%. At the time of publication, the unemployment rate for December 2023 was still preliminary.

## At a Glance:

### Concentration

Top Region:	35%
Top 3 Regions:	72%
Lowest Region:	1%

### Locations

2 or More (Past Year):	23%
2 or More (Now*):	20%

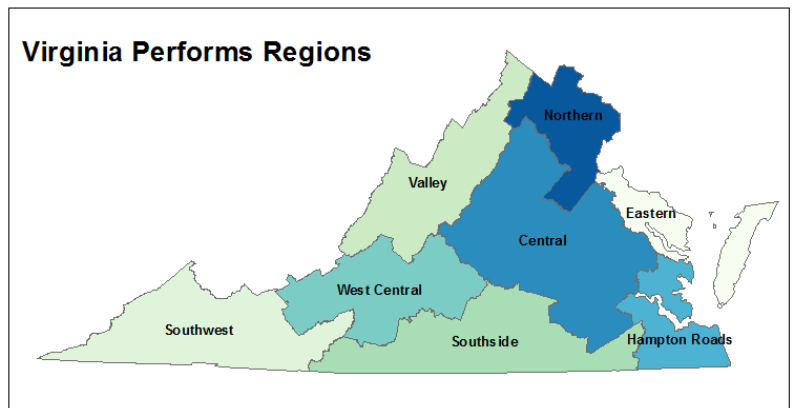
Source: Va. Healthcare Workforce Data Center

Nearly three out of every four veterinarians in the state work in Northern Virginia, Central Virginia, and Hampton Roads.

## A Closer Look:

Regional Distribution of Work Locations				
Virginia Performs Region	Primary Location		Secondary Location	
	#	%	#	%
Central	554	20%	92	15%
Eastern	34	1%	9	1%
Hampton Roads	439	16%	112	18%
Northern	953	35%	195	31%
Southside	53	2%	15	2%
Southwest	103	4%	18	3%
Valley	190	7%	42	7%
West Central	319	12%	61	10%
Virginia Border State/D.C.	25	1%	23	4%
Other U.S. State	36	1%	65	10%
Outside of the U.S.	0	0%	1	0%
<b>Total</b>	<b>2,706</b>	<b>100%</b>	<b>633</b>	<b>100%</b>
Item Missing	979		9	

Source: Va. Healthcare Workforce Data Center



Source: Va. Healthcare Workforce Data Center

While 20% of veterinarians currently have multiple work locations, 23% have had multiple work locations over the past year.

Number of Work Locations				
Locations	Work Locations in Past Year		Work Locations Now*	
	#	%	#	%
0	56	2%	98	4%
1	2,074	75%	2,108	76%
2	393	14%	354	13%
3	130	5%	128	5%
4	35	1%	28	1%
5	20	1%	10	0%
6 or More	61	2%	42	2%
<b>Total</b>	<b>2,769</b>	<b>100%</b>	<b>2,769</b>	<b>100%</b>

\*At the time of survey completion, Dec. 2023.

Source: Va. Healthcare Workforce Data Center

**A Closer Look:**

Location Sector				
Sector	Primary Location		Secondary Location	
	#	%	#	%
<b>For-Profit</b>	2,307	89%	509	88%
<b>Non-Profit</b>	101	4%	39	7%
<b>State/Local Government</b>	89	3%	18	3%
<b>Veterans Administration</b>	1	0%	0	0%
<b>U.S. Military</b>	23	1%	7	1%
<b>Other Federal Government</b>	59	2%	7	1%
<b>Total</b>	<b>2,580</b>	<b>100%</b>	<b>580</b>	<b>100%</b>
<b>Did Not Have Location</b>	65		3,110	
<b>Item Missing</b>	1,106		61	

Source: Va. Healthcare Workforce Data Center

## At a Glance: (Primary Locations)

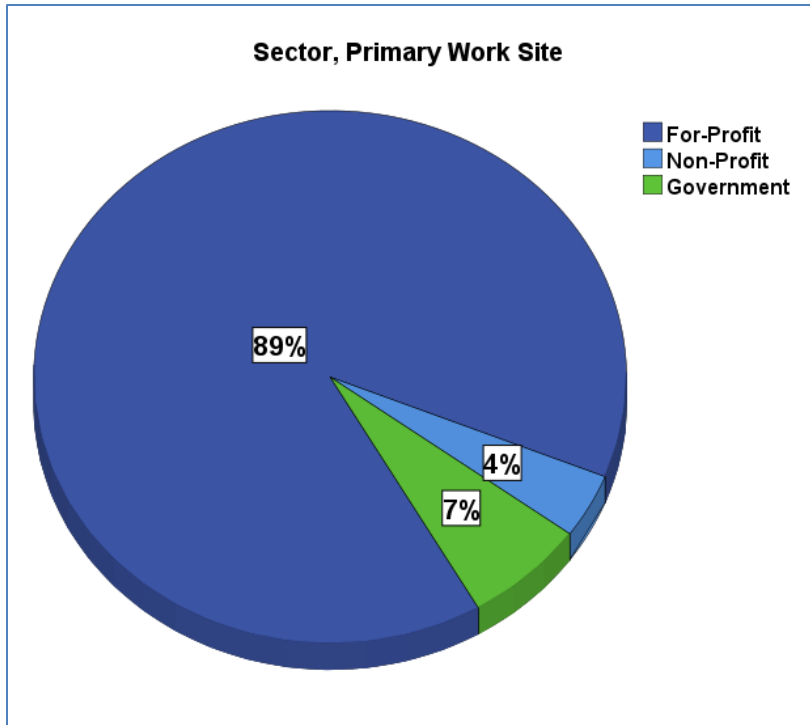
**Sector**

For-Profit:	89%
Federal:	3%

**Top Establishments**

Group Practice:	47%
Solo Practice:	39%
Veterinary Edu. Program:	3%

Source: Va. Healthcare Workforce Data Center



Source: Va. Healthcare Workforce Data Center

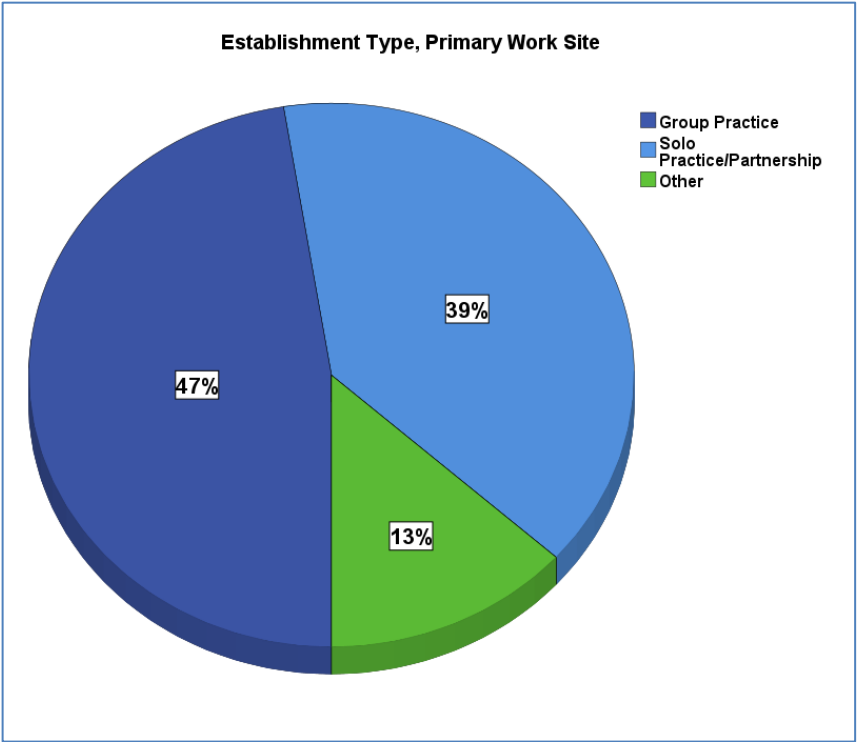
*Among all veterinarians, 93% work in the private sector, including 89% who are employed in the for-profit sector. Another 3% of veterinarians work for state or local governments.*

Location Type				
Establishment Type	Primary Location		Secondary Location	
	#	%	#	%
Group Practice	1,211	47%	236	42%
Solo Practice/Partnership	1,000	39%	219	39%
Veterinary Education Program	65	3%	14	2%
Public Health Program	41	2%	10	2%
Non-Veterinary Education Program	6	0%	6	1%
Veterinary Technology Education Program	6	0%	4	1%
Supplier Organization	6	0%	2	0%
Other Practice Setting	217	9%	70	12%
<b>Total</b>	<b>2,552</b>	<b>100%</b>	<b>561</b>	<b>100%</b>
<b>Did Not Have a Location</b>	65		3,110	

Source: Va. Healthcare Workforce Data Center

*Among all veterinarians, 47% work at a group practice as their primary work location, while another 39% work at a solo practice/partnership.*

*Among those veterinarians who also have a secondary work location, 42% work at a group practice, and 39% work at a solo practice/partnership.*



Source: Va. Healthcare Workforce Data Center

## At a Glance: (Primary Locations)

### Languages Offered

Spanish:	18%
French:	2%
Chinese:	1%

### Means of Communication

Other Staff Member:	74%
Respondent:	26%
Virtual Translation:	15%

Source: Va. Healthcare Workforce Data Center

## A Closer Look:

Languages Offered		
Language	#	% of Workforce
Spanish	672	18%
French	63	2%
Chinese	39	1%
Korean	38	1%
Arabic	29	1%
Hindi	29	1%
Vietnamese	22	1%
Persian	20	1%
Tagalog/Filipino	19	1%
Urdu	17	0%
Amharic, Somali, or Other Afro-Asiatic Languages	11	0%
Pashto	11	0%
Others	67	2%
<b>At Least One Language</b>	<b>746</b>	<b>20%</b>

Source: Va. Healthcare Workforce Data Center

Nearly one out of every five veterinarians are employed at a primary work location that offers Spanish language services for patients.

## Means of Language Communication

Provision	#	% of Workforce with Language Services
<b>Other Staff Member is Proficient</b>	552	74%
<b>Respondent is Proficient</b>	197	26%
<b>Virtual Translation Service</b>	113	15%
<b>Onsite Translation Service</b>	20	3%
<b>Other</b>	19	3%

Source: Va. Healthcare Workforce Data Center

Nearly three out of every four veterinarians who are employed at a primary work location that offers language services for patients provide it by means of a staff member who is proficient.

## At a Glance: (Primary Locations)

### Typical Time Allocation

Patient Care: 90%-99%  
Administration: 1%-9%

### Roles

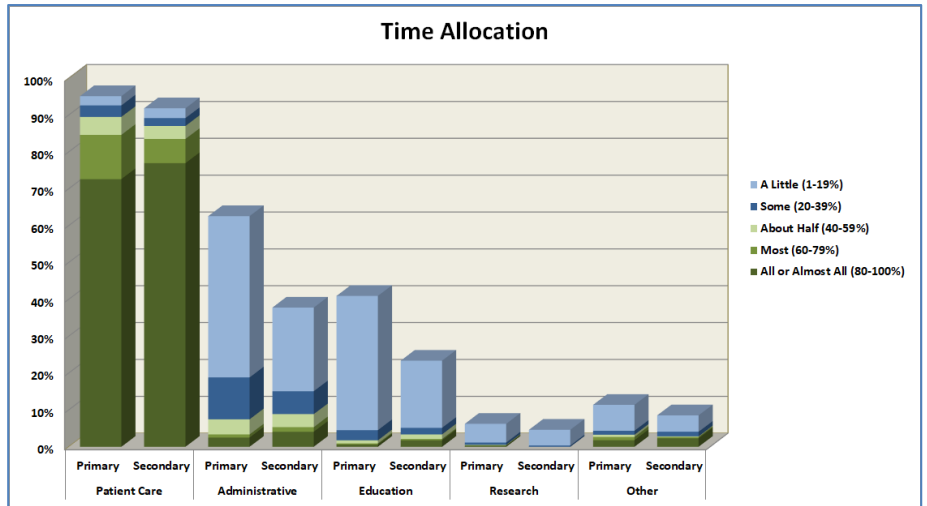
Patient Care: 85%  
Administration: 3%  
Education: 1%

### Patient Care Veterinarians

Median Admin. Time: 1%-9%  
Avg. Admin. Time: 1%-9%

Source: Va. Healthcare Workforce Data Center

## A Closer Look:



Source: Va. Healthcare Workforce Data Center

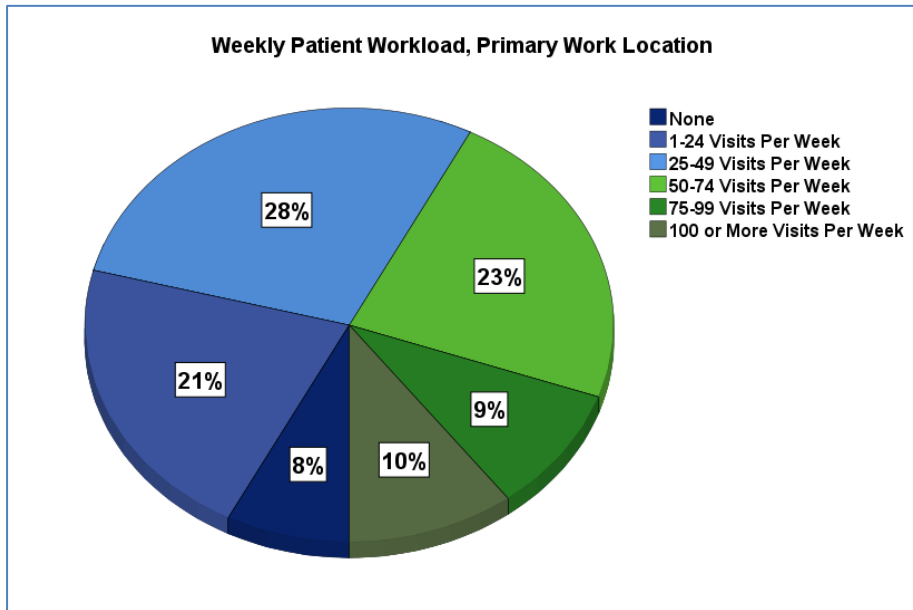
*Veterinarians spend most of their time treating patients. In fact, 85% of veterinarians fill a patient care role, defined as spending 60% or more of their time on patient care activities.*

Time Allocation										
Time Spent	Patient Care		Admin.		Education		Research		Other	
	Pri. Site	Sec. Site	Pri. Site	Sec. Site	Pri. Site	Sec. Site	Pri. Site	Sec. Site	Pri. Site	Sec. Site
<b>All or Almost All (80-100%)</b>	73%	77%	3%	4%	1%	2%	0%	0%	2%	2%
<b>Most (60-79%)</b>	12%	7%	1%	1%	0%	0%	0%	0%	1%	0%
<b>About Half (40-59%)</b>	5%	4%	4%	4%	1%	1%	0%	0%	1%	0%
<b>Some (20-39%)</b>	3%	2%	11%	6%	3%	2%	1%	0%	1%	1%
<b>A Little (1-19%)</b>	3%	3%	44%	23%	36%	18%	5%	4%	7%	4%
<b>None (0%)</b>	5%	8%	37%	62%	59%	77%	94%	95%	89%	91%

Source: Va. Healthcare Workforce Data Center



A Closer Look:



Source: Va. Healthcare Workforce Data Center

## At a Glance:

### Patient Workload (Median)

Primary Location: 25-49  
Secondary Location: 1-24

Source: Va. Healthcare Workforce Data Center

*The median workload for veterinarians at their primary work location is between 25 and 49 patients per week. For veterinarians who also have a secondary work location, the median workload is between 1 and 24 patients per week.*

Patient Care Visits				
# of Patients Per Week	Primary		Secondary	
	#	%	#	%
<b>None</b>	195	8%	65	11%
<b>1-24</b>	553	22%	279	48%
<b>25-49</b>	733	28%	142	25%
<b>50-74</b>	587	23%	48	8%
<b>75-99</b>	241	9%	24	4%
<b>100-124</b>	152	6%	8	1%
<b>125-149</b>	42	2%	2	0%
<b>150-174</b>	24	1%	5	1%
<b>175-199</b>	6	0%	1	0%
<b>200 or More</b>	39	2%	4	1%
<b>Total</b>	<b>2,572</b>	<b>100%</b>	<b>578</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

**A Closer Look:**

Retirement Expectations				
Expected Retirement Age	All Veterinarians		Veterinarians 50 and Over	
	#	%	#	%
<b>Under Age 50</b>	68	3%	-	-
<b>50 to 54</b>	124	5%	8	1%
<b>55 to 59</b>	262	11%	54	6%
<b>60 to 64</b>	528	22%	147	17%
<b>65 to 69</b>	717	30%	267	31%
<b>70 to 74</b>	324	13%	166	19%
<b>75 to 79</b>	130	5%	83	10%
<b>80 or Over</b>	51	2%	33	4%
<b>I Do Not Intend to Retire</b>	205	9%	95	11%
<b>Total</b>	<b>2,409</b>	<b>100%</b>	<b>853</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

**At a Glance:**

**Retirement Expectations**

**All Veterinarians**

Under 65: 41%  
Under 60: 19%

**Veterinarians 50 and Over**

Under 65: 25%  
Under 60: 7%

**Time Until Retirement**

Within 2 Years: 7%  
Within 10 Years: 22%  
Half the Workforce: By 2048

Source: Va. Healthcare Workforce Data Center

*More than two out of every five veterinarians expect to retire by the age of 65. Among veterinarians who are already at least age 50, 25% still expect to retire by age 65.*

*Within the next two years, 7% of Virginia's veterinarians expect to pursue additional educational opportunities, and 6% plan to increase their patient care hours.*

**Future Plans**

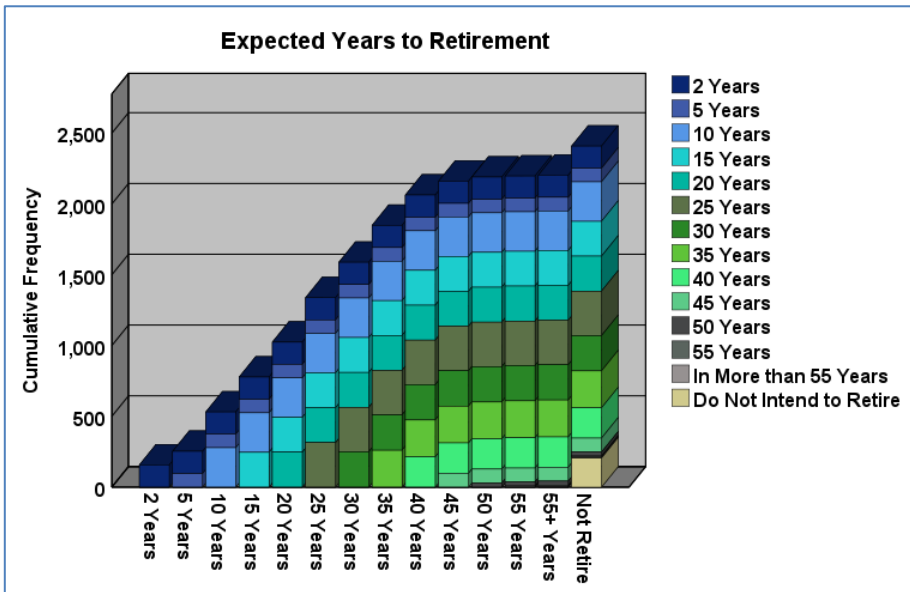
Two-Year Plans:	#	%
<b>Decrease Participation</b>		
<b>Leave Profession</b>	58	2%
<b>Leave Virginia</b>	103	3%
<b>Decrease Patient Care Hours</b>	357	10%
<b>Decrease Teaching Hours</b>	17	0%
<b>Increase Participation</b>		
<b>Increase Patient Care Hours</b>	207	6%
<b>Increase Teaching Hours</b>	113	3%
<b>Pursue Additional Education</b>	278	7%
<b>Return to the Workforce</b>	14	0%

Source: Va. Healthcare Workforce Data Center

By comparing retirement expectations to age, we can estimate the maximum years to retirement for veterinarians. While only 7% of veterinarians expect to retire in the next two years, 22% plan to retire within the next decade. More than half of the current workforce expect to retire by 2048.

Time to Retirement			
Expect to Retire Within . . .	#	%	Cumulative %
2 Years	157	7%	7%
5 Years	96	4%	11%
10 Years	279	12%	22%
15 Years	246	10%	32%
20 Years	247	10%	43%
25 Years	314	13%	56%
30 Years	250	10%	66%
35 Years	261	11%	77%
40 Years	214	9%	86%
45 Years	98	4%	90%
50 Years	29	1%	91%
55 Years	8	0%	91%
In More Than 55 Years	6	0%	92%
Do Not Intend to Retire	205	9%	100%
<b>Total</b>	<b>2,409</b>	<b>100%</b>	

Source: Va. Healthcare Workforce Data Center



Source: Va. Healthcare Workforce Data Center

Using these estimates, retirement will begin to reach over 10% of the current workforce every five years by 2033. Retirement will peak at 13% of the current workforce around 2048 before declining to under 10% of the current workforce again around 2063.

## At a Glance:

### FTEs

Total: 3,342  
 FTEs/1,000 Residents<sup>2</sup>: 0.385  
 Average: 0.91

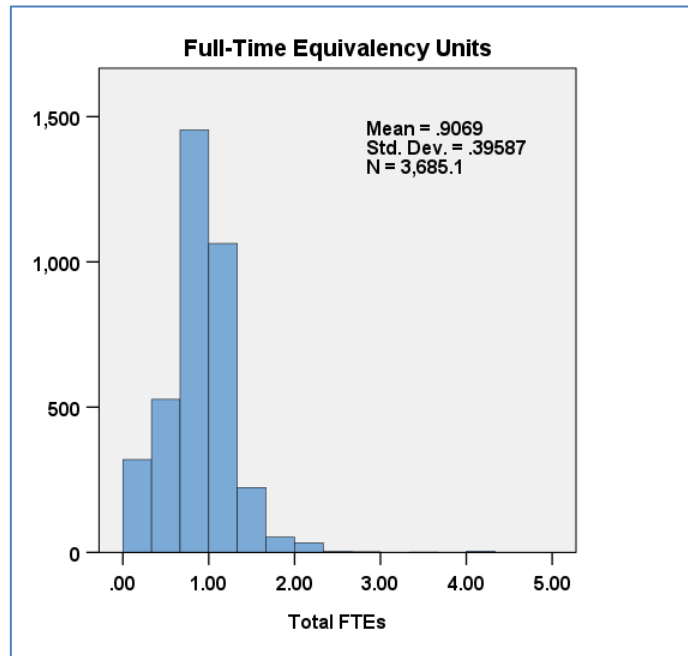
### Age & Gender Effect

Age, *Partial Eta*<sup>2</sup>: Small  
 Gender, *Partial Eta*<sup>2</sup>: Negligible

*Partial Eta*<sup>2</sup> Explained:  
*Partial Eta*<sup>2</sup> is a statistical  
 measure of effect size.

Source: Va. Healthcare Workforce Data Center

## A Closer Look:

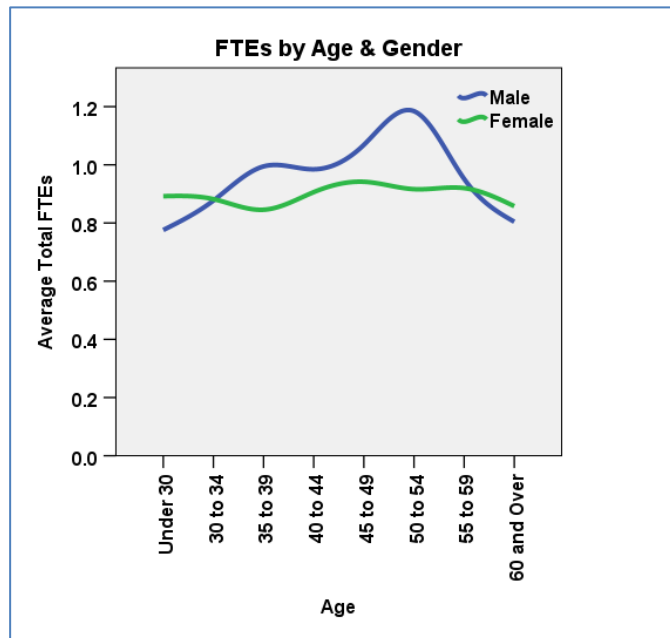


Source: Va. Healthcare Workforce Data Center

*The typical veterinarian provided 0.93 FTEs in the past year, or approximately 37 hours per week for 50 weeks. Although FTEs appear to vary by age and gender, statistical tests did not verify that a difference exists.<sup>3</sup>*

Full-Time Equivalency Units		
Age	Average	Median
<b>Age</b>		
Under 30	0.87	0.91
30 to 34	0.93	1.03
35 to 39	0.85	0.81
40 to 44	0.93	0.99
45 to 49	0.96	0.93
50 to 54	0.91	0.77
55 to 59	0.99	1.05
60 and Over	0.86	0.93
<b>Gender</b>		
Male	0.93	0.99
Female	0.89	0.93

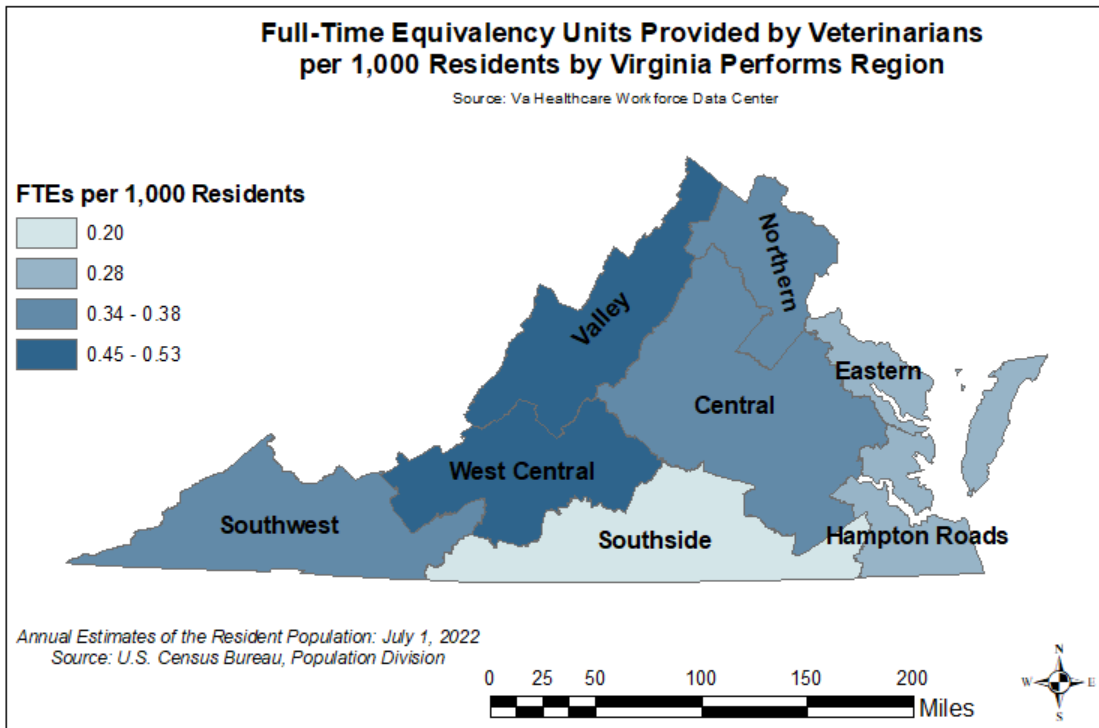
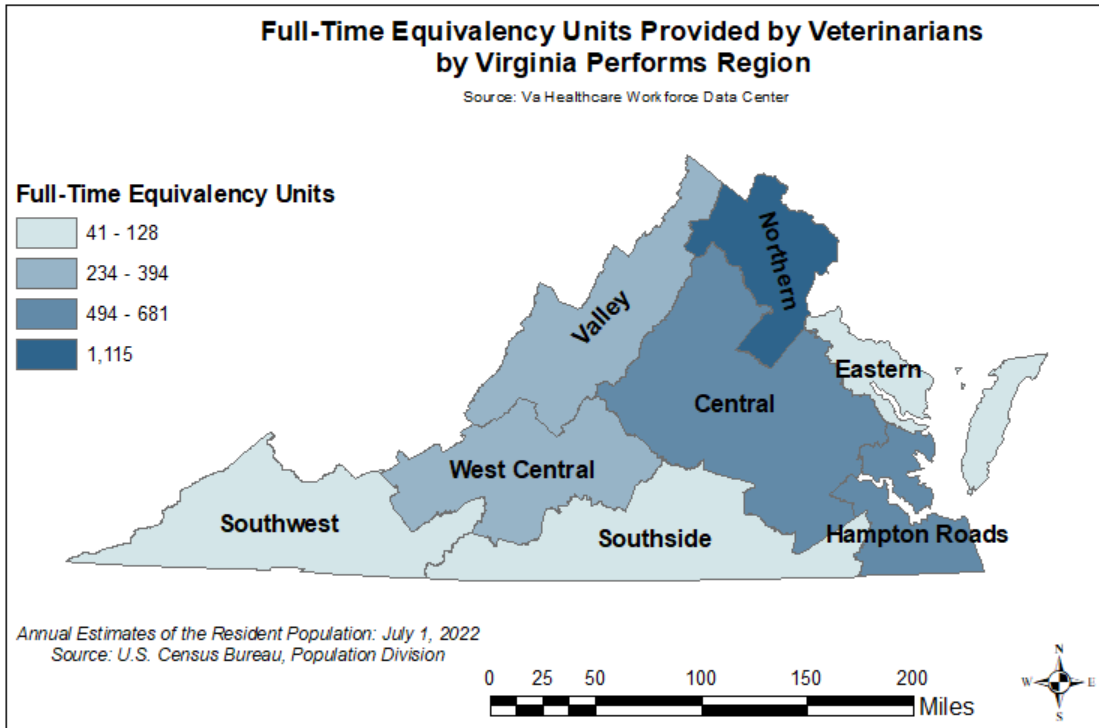
Source: Va. Healthcare Workforce Data Center

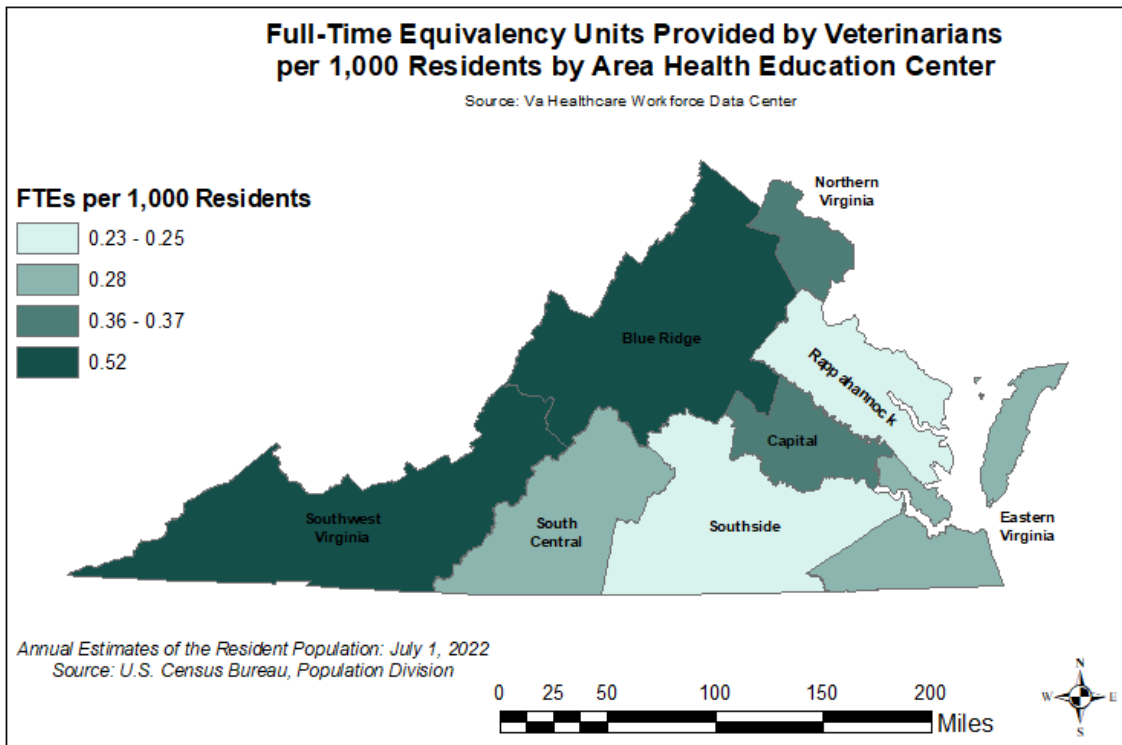
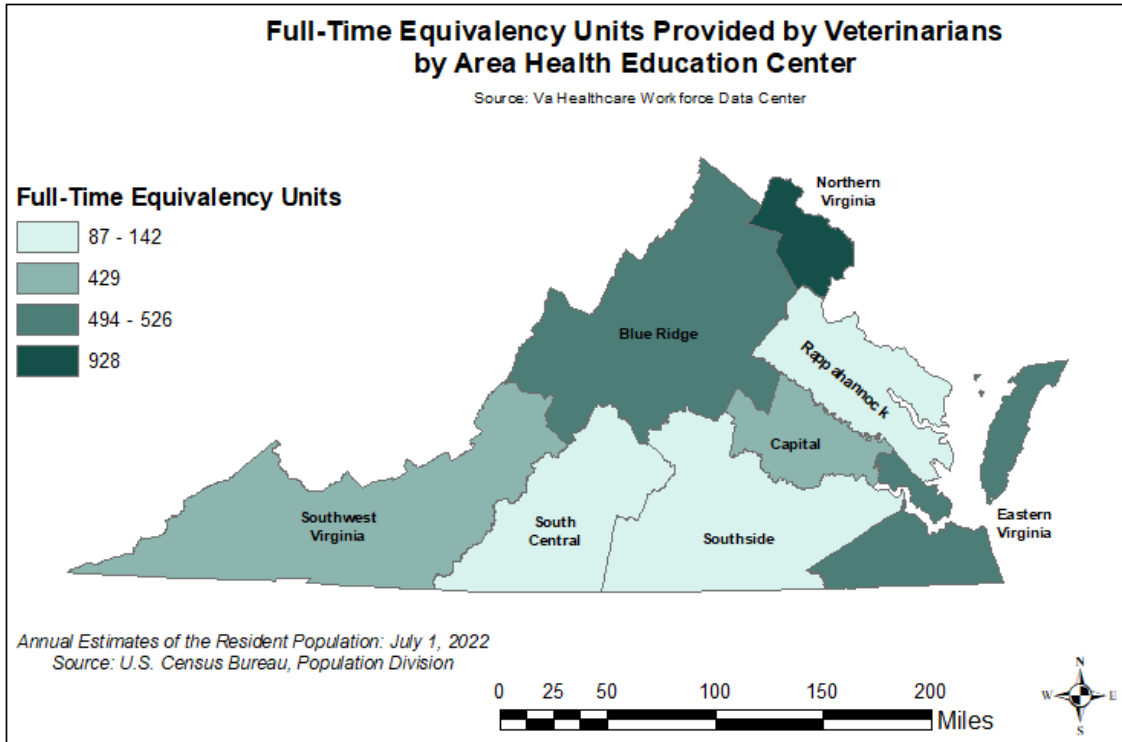


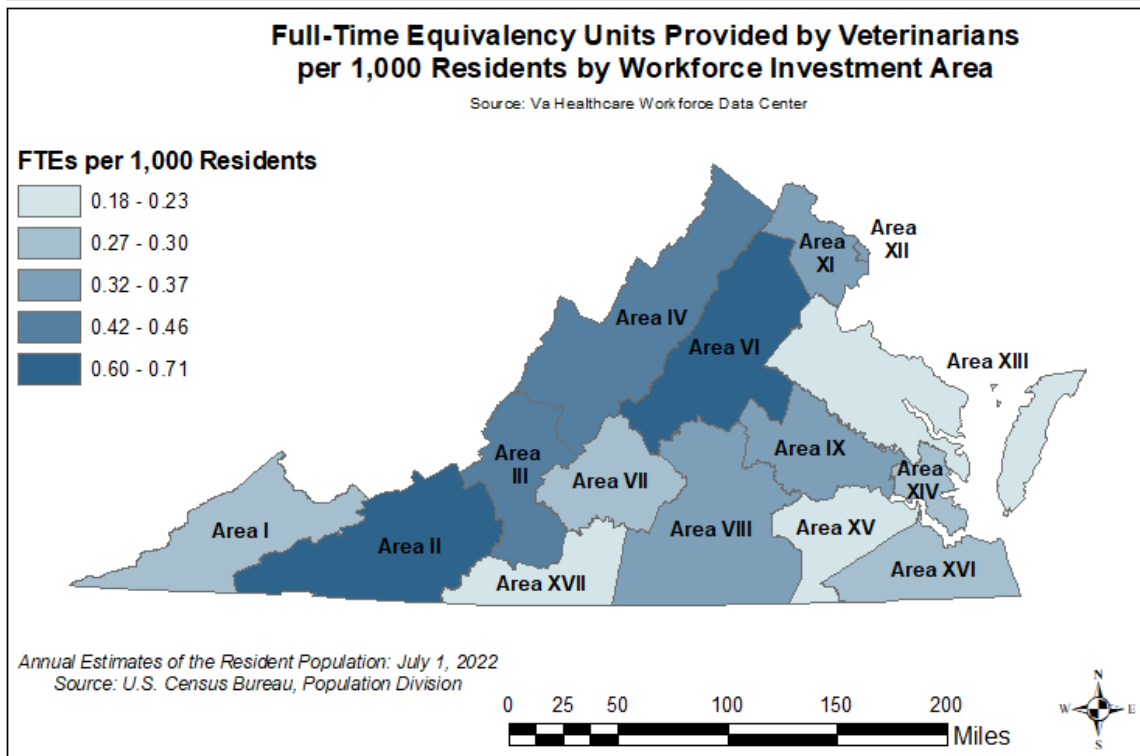
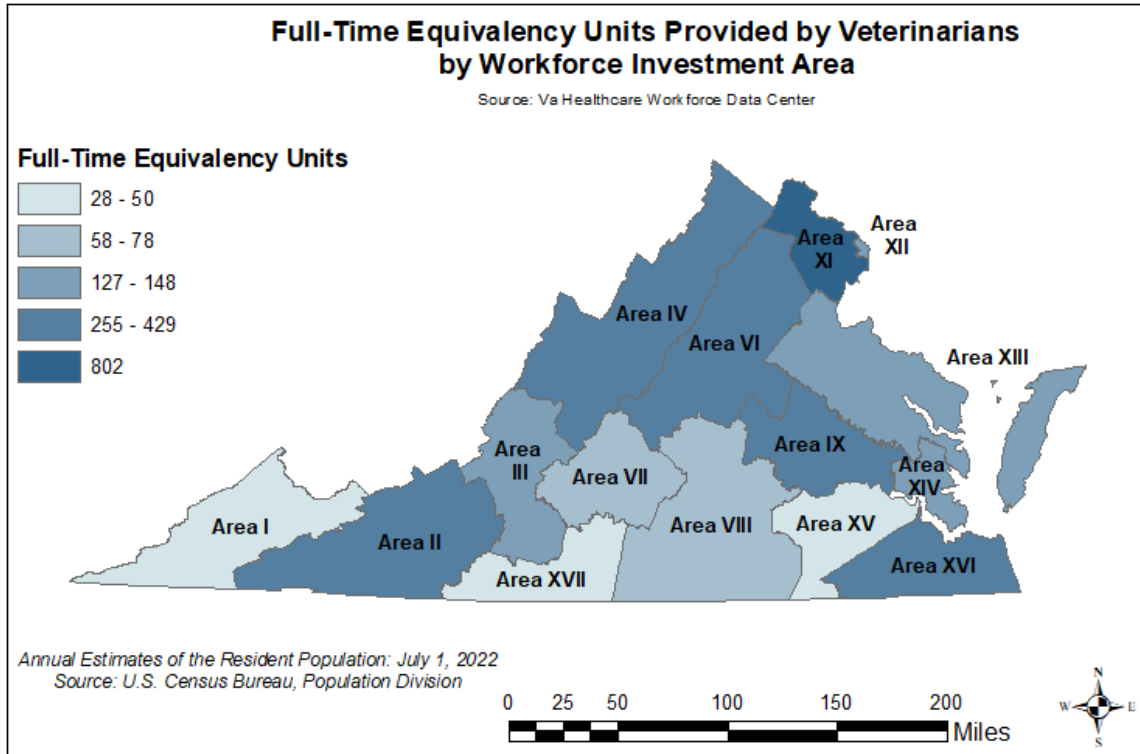
Source: Va. Healthcare Workforce Data Center

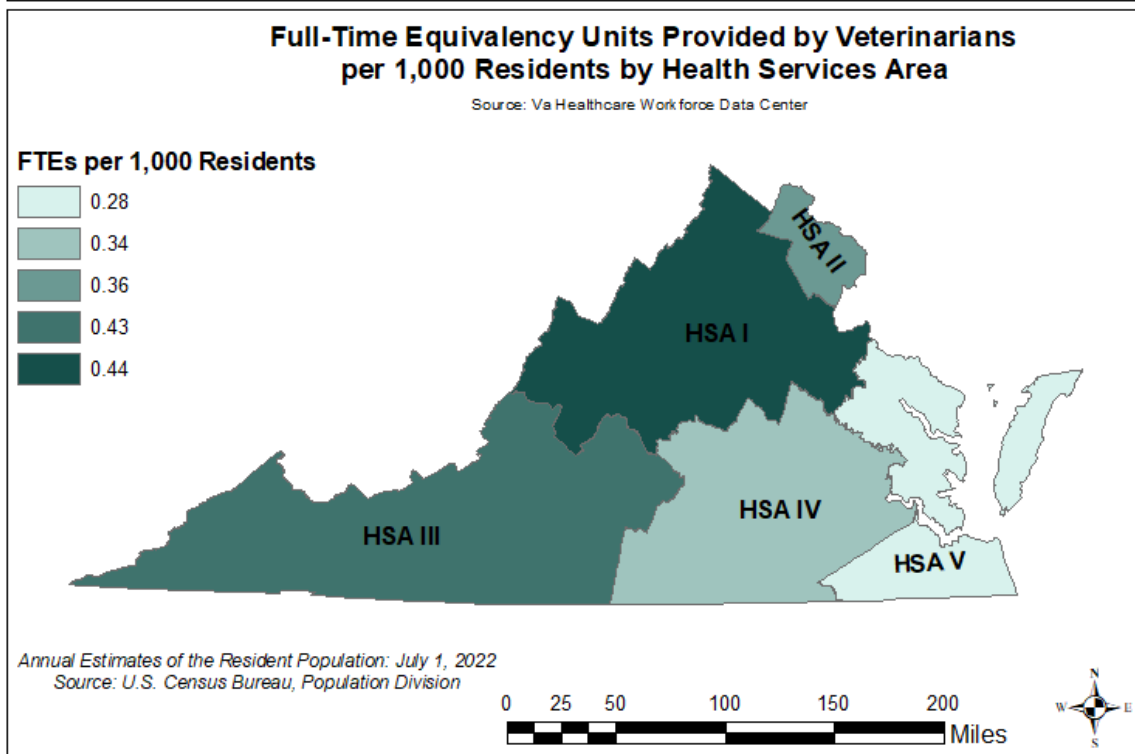
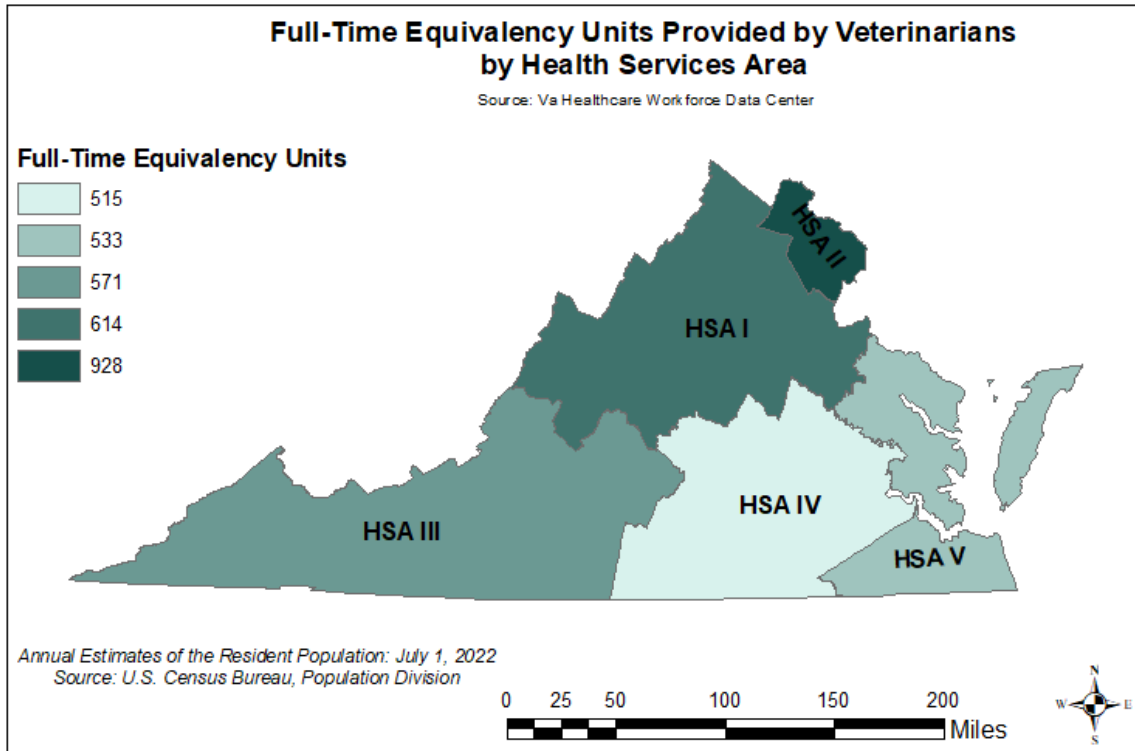
<sup>2</sup> Number of residents in 2022 was used as the denominator.

<sup>3</sup> Due to assumption violations in Mixed between-within ANOVA (Levene's Test and Interaction Effect were significant).

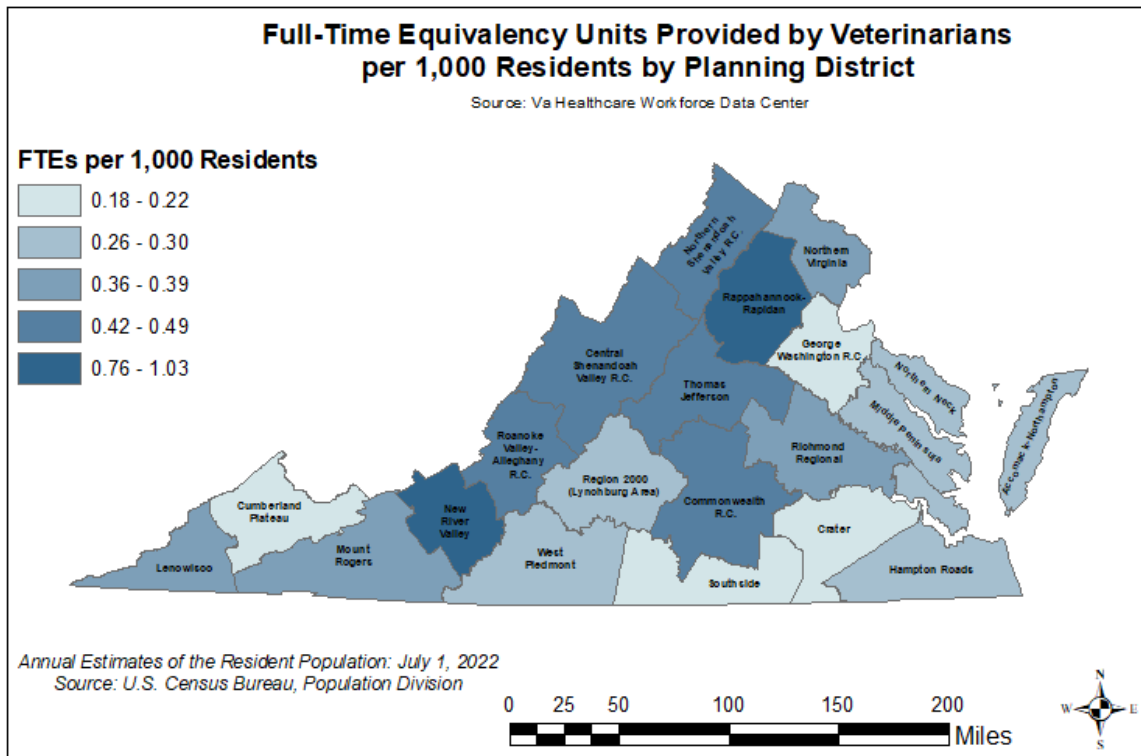
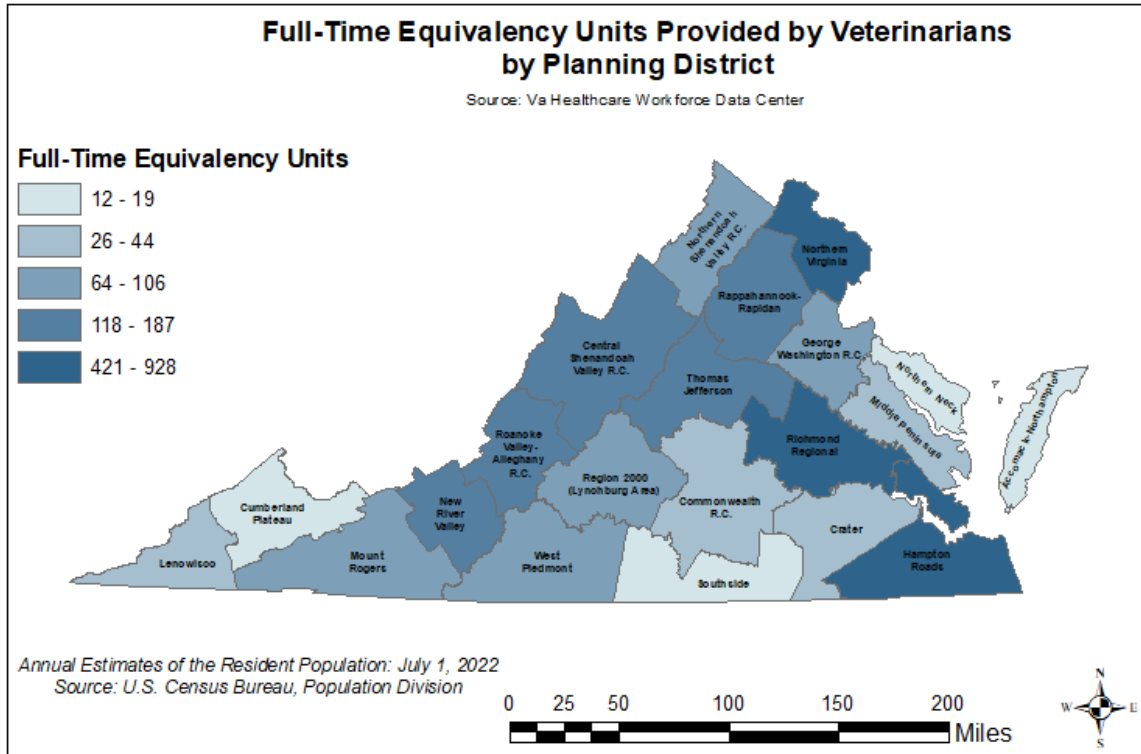












## Appendices

### Appendix A: Weights

Rural Status	Location Weight			Total Weight	
	#	Rate	Weight	Min.	Max.
<b>Metro, 1 Million+</b>	2,264	86.75%	1.153	1.108	1.427
<b>Metro, 250,000 to 1 Million</b>	259	87.64%	1.141	1.096	1.413
<b>Metro, 250,000 or Less</b>	583	85.93%	1.164	1.118	1.441
<b>Urban, Pop. 20,000+, Metro Adj.</b>	34	82.35%	1.214	1.171	1.503
<b>Urban, Pop. 20,000+, Non-Adj.</b>	0	NA	NA	NA	NA
<b>Urban, Pop. 2,500-19,999, Metro Adj.</b>	157	86.62%	1.154	1.109	1.429
<b>Urban, Pop. 2,500-19,999, Non-Adj.</b>	56	91.07%	1.098	1.055	1.359
<b>Rural, Metro Adj.</b>	94	88.30%	1.133	1.088	1.402
<b>Rural, Non-Adj.</b>	25	64.00%	1.563	1.501	1.935
<b>Virginia Border State/D.C.</b>	751	83.62%	1.196	1.149	1.481
<b>Other U.S. State</b>	863	80.42%	1.244	1.195	1.540

Source: Va. Healthcare Workforce Data Center

Age	Age Weight			Total Weight	
	#	Rate	Weight	Min.	Max.
<b>Under 30</b>	339	68.73%	1.455	1.359	1.935
<b>30 to 34</b>	710	81.13%	1.233	1.152	1.639
<b>35 to 39</b>	699	86.98%	1.150	1.074	1.529
<b>40 to 44</b>	648	86.88%	1.151	1.075	1.530
<b>45 to 49</b>	569	88.22%	1.133	1.059	1.199
<b>50 to 54</b>	488	87.09%	1.148	1.073	1.527
<b>55 to 59</b>	481	88.57%	1.129	1.055	1.501
<b>60 and Over</b>	1,152	86.37%	1.158	1.082	1.539

Source: Va. Healthcare Workforce Data Center

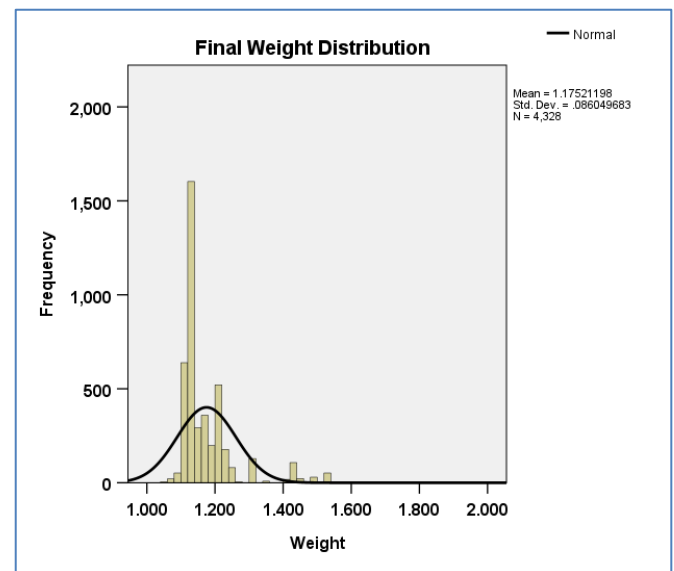
See the Methods section on the HWDC website for details on HWDC methods:

<https://www.dhp.virginia.gov/PublicResources/HealthcareWorkforceDataCenter/>

Final weights are calculated by multiplying the two weights and the overall response rate:

$$\text{Age Weight} \times \text{Rural Weight} \times \text{Response Rate} = \text{Final Weight.}$$

**Overall Response Rate: 0.850963**



Source: Va. Healthcare Workforce Data Center

**DRAFT**

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# *Virginia's Veterinary Technician Workforce: 2023*

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Healthcare Workforce Data Center

February 2024

Virginia Department of Health Professions  
Healthcare Workforce Data Center  
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Get a copy of this report from:

<https://www.dhp.virginia.gov/PublicResources/HealthcareWorkforceDataCenter/ProfessionReports/>

*Nearly 2,500 Veterinary Technicians voluntarily participated in this survey. Without their efforts, the work of the center would not be possible. The Department of Health Professions, the Healthcare Workforce Data Center, and the Board of Veterinary Medicine express our sincerest appreciation for their ongoing cooperation.*

***Thank You!***

***Virginia Department of Health Professions***

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# The Veterinary Technician Workforce At a Glance:

## The Workforce

Licensees:	2,745
Virginia's Workforce:	2,409
FTEs:	1,859

## Background

Rural Childhood:	37%
HS Diploma in VA:	70%
Prof. Degree in VA:	69%

## Current Employment

Employed in Prof.:	85%
Hold 1 Full-Time Job:	67%
Satisfied?:	91%

## Survey Response Rate

All Licensees:	90%
Renewing Practitioners:	99%

## Education

Associate:	89%
Baccalaureate:	9%

## Job Turnover

Switched Jobs:	8%
Employed Over 2 Yrs.:	57%

## Demographics

Female:	95%
Diversity Index:	22%
Median Age:	37

## Finances

Median Income:	\$40k-\$50k
Retirement Benefits:	65%
Under 40 w/ Ed. Debt:	40%

## Time Allocation

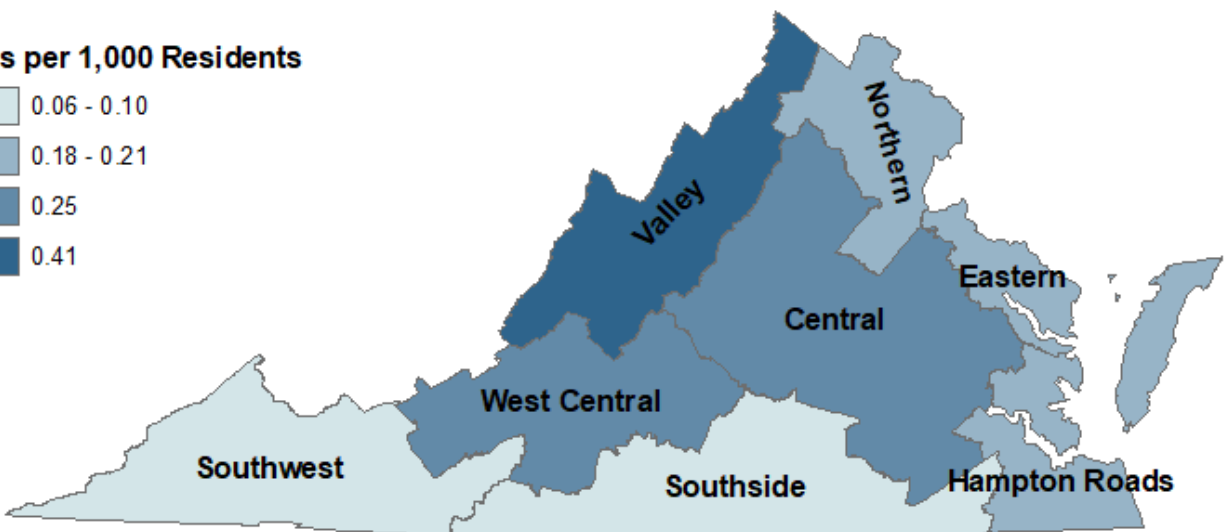
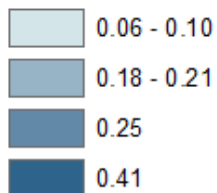
Patient Care:	80%-89%
Administration:	1%-9%
Patient Care Role:	71%

Source: Va. Healthcare Workforce Data Center

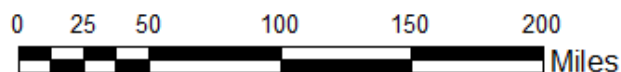
## Full-Time Equivalency Units Provided by Veterinary Technicians per 1,000 Residents by Virginia Performs Region

Source: Va Healthcare Workforce Data Center

### FTEs per 1,000 Residents



Annual Estimates of the Resident Population: July 1, 2022  
Source: U.S. Census Bureau, Population Division



This report contains the results of the 2023 Veterinary Technician Workforce survey. In total, 2,467 veterinary technicians voluntarily participated in this survey. The Virginia Department of Health Professions' Healthcare Workforce Data Center (HWDC) administers this survey during the license renewal process, which takes place every December for veterinary technicians. These survey respondents represent 90% of the 2,745 veterinary technicians who are licensed in the state and 99% of renewing practitioners.

The HWDC estimates that 2,409 veterinary technicians participated in Virginia's workforce during the survey period, which is defined as those veterinary technicians who worked at least a portion of the year in the state or who live in the state and intend to return to work as a veterinary technician at some point in the future. During the past year, Virginia's veterinary technician workforce provided 1,859 "full-time equivalency units," which the HWDC defines simply as working 2,000 hours per year.

The percentage of all veterinary technicians who are female is 95%, and the median age of this workforce is 37. In a random encounter between two veterinary technicians, there is a 22% chance that they would be of different races or ethnicities, a measure known as the diversity index. This diversity index increases to 25% for those veterinary technicians who are under the age of 40. For Virginia's overall population, the comparable diversity index is 60%. More than one-third of all veterinary technicians grew up in a rural area, and 13% of veterinary technicians who grew up in a rural area currently work in a non-metro area of Virginia. In total, 6% of all veterinary technicians currently work in a non-metro area of the state.

Among all veterinary technicians, 85% are currently employed in the profession, 67% hold one full-time position, and 39% work between 40 and 49 hours per week. More than nine out of every ten veterinary technicians work in the private sector, including 86% who work in the for-profit sector. The median annual income for this workforce is between \$40,000 and \$50,000, and 79% receive this income in the form of an hourly wage. At the same time, 31% of veterinary technicians carry education debt, and the median outstanding balance among those with education debt is between \$20,000 and \$30,000. More than nine out of every ten veterinary technicians indicated that they are satisfied with their current work situation, including 49% who indicated that they are "very satisfied."

## Summary of Trends

---

In this section, all statistics for the current year are compared to the 2018 veterinary technician workforce. The number of licensed veterinary technicians in Virginia has increased by 18% (2,745 vs. 2,334). In addition, the size of Virginia's veterinary technician workforce has increased by 17% (2,409 vs. 2,060), and the number of FTEs provided by this workforce has grown by 7% (1,859 vs. 1,745). Virginia's renewing veterinary technicians are more likely to respond to this survey (99% vs. 94%).

While the overall percentage of veterinary technicians who are female has fallen slightly (95% vs. 96%), the median age of this workforce has risen (37 vs. 36). The diversity index of Virginia's veterinary technicians has increased (22% vs. 18%), a trend that has also occurred among veterinary technicians who are under the age of 40 (25% vs. 21%). The percentage of all veterinary technicians who work in a non-metro area of the state has fallen slightly (6% vs. 7%).

Veterinary technicians are slightly less likely to be employed in the profession (85% vs. 86%). At the same time, veterinary technicians are relatively more likely to work between 30 and 39 hours per week (35% vs. 32%) than to work between 40 and 49 hours per week (39% vs. 43%). Veterinary technicians are less likely to have been employed at their primary work location for more than two years (57% vs. 60%). Veterinary technicians are more likely to be employed in a solo practice/partnership (53% vs. 52%) than in a group practice (29% vs. 30%). The median annual income of Virginia's veterinary technician workforce has increased (\$40k-\$50k vs. \$30k-\$40k). Although veterinary technicians are less likely to carry education debt (31% vs. 35%), the median outstanding balance among those with education debt has increased (\$20k-\$30k vs. \$10k-\$20k). Veterinary technicians are less likely to indicate that they are satisfied with their current work situation (91% vs. 92%), including those who indicated that they are "very satisfied" (49% vs. 53%).



A Closer Look:

Licensees		
License Status	#	%
Renewing Practitioners	2,382	87%
New Licensees	191	7%
Non-Renewals	172	6%
<b>All Licensees</b>	<b>2,745</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

*HWDC surveys tend to achieve very high response rates. Among all renewing veterinary technicians, 99% submitted a survey. These represent 90% of the 2,745 veterinary technicians who held a license at some point in the past year.*

Response Rates			
Statistic	Non Respondents	Respondents	Response Rate
<b>By Age</b>			
Under 30	80	394	83%
30 to 34	63	489	89%
35 to 39	45	487	92%
40 to 44	30	367	92%
45 to 49	19	232	92%
50 to 54	11	201	95%
55 to 59	12	126	91%
60 and Over	18	171	91%
<b>Total</b>	<b>278</b>	<b>2,467</b>	<b>90%</b>
<b>New Licenses</b>			
Issued in Past Year	92	99	52%
<b>Metro Status</b>			
Non-Metro	15	191	93%
Metro	195	1,964	91%
Not in Virginia	68	311	82%

Source: Va. Healthcare Workforce Data Center

Definitions

- The Survey Period:** The survey was conducted in December 2023.
- Target Population:** All veterinary technicians who held a Virginia license at some point between January 2023 and December 2023.
- Survey Population:** The survey was available to veterinary technicians who renewed their licenses online. It was not available to those who did not renew, including some veterinary technicians newly licensed in 2023.

Response Rates	
Completed Surveys	<b>2,467</b>
Response Rate, All Licensees	<b>90%</b>
Response Rate, Renewals	<b>99%</b>

Source: Va. Healthcare Workforce Data Center

At a Glance:

Licensed Veterinary Tech.

Number: 2,745  
 New: 7%  
 Not Renewed: 6%

Response Rates

All Licensees: 90%  
 Renewing Practitioners: 99%

Source: Va. Healthcare Workforce Data Center

## At a Glance:

### Workforce

Veterinary Tech. Workforce: 2,409  
 FTEs: 1,859

### Utilization Ratios

Licensees in VA Workforce: 88%  
 Licensees per FTE: 1.48  
 Workers per FTE: 1.30

Source: Va. Healthcare Workforce Data Center

## Definitions

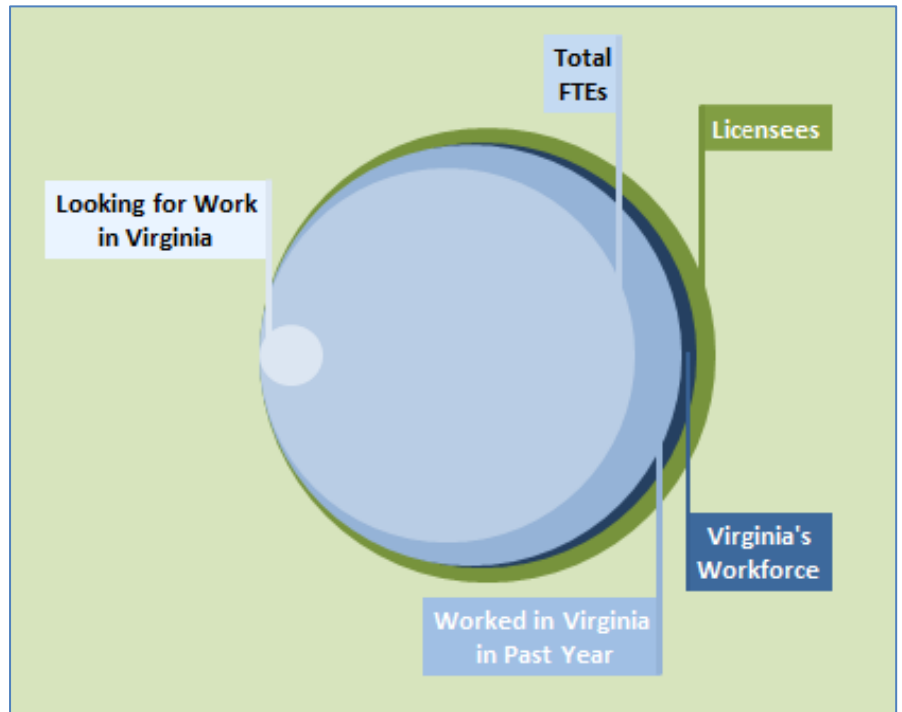
- 1. Virginia’s Workforce:** A licensee with a primary or secondary work site in Virginia at any time between January 2023 and December 2023 or who indicated intent to return to Virginia’s workforce at any point in the future.
- 2. Full-Time Equivalency Unit (FTE):** The HWDC uses 2,000 (40 hours for 50 weeks) as its baseline measure for FTEs.
- 3. Licensees in VA Workforce:** The proportion of licensees in Virginia’s Workforce.
- 4. Licensees per FTE:** An indication of the number of licensees needed to create 1 FTE. Higher numbers indicate lower licensee participation.
- 5. Workers per FTE:** An indication of the number of workers in Virginia’s workforce needed to create 1 FTE. Higher numbers indicate lower utilization of available workers.

### Veterinary Technician Workforce

Status	#	%
Worked in Virginia in Past Year	2,357	98%
Looking for Work in Virginia	52	2%
Virginia's Workforce	2,409	100%
Total FTEs	1,859	
Licensees	2,745	

Source: Va. Healthcare Workforce Data Center

*Weighting is used to estimate the figures in this report. Unless otherwise noted, figures refer to the Virginia Workforce only. For more information on the HWDC’s methodology, visit: <https://www.dhp.virginia.gov/PublicResources/HealthcareWorkforceDataCenter/>*



Source: Va. Healthcare Workforce Data Center

A Closer Look:

Age & Gender						
Age	Male		Female		Total	
	#	% Male	#	% Female	#	% in Age Group
Under 30	18	6%	304	95%	321	19%
30 to 34	19	5%	368	95%	387	22%
35 to 39	15	5%	321	95%	336	19%
40 to 44	9	4%	221	96%	230	13%
45 to 49	7	5%	143	95%	151	9%
50 to 54	8	7%	115	93%	123	7%
55 to 59	0	0%	76	100%	76	4%
60 and Over	7	6%	104	94%	111	6%
<b>Total</b>	<b>84</b>	<b>5%</b>	<b>1,651</b>	<b>95%</b>	<b>1,735</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

Race & Ethnicity					
Race/ Ethnicity	Virginia*	Veterinary Technicians		Vet. Tech. Under 40	
	%	#	%	#	%
White	59%	1,547	88%	907	86%
Black	18%	33	2%	24	2%
Asian	7%	12	1%	10	1%
Other Race	1%	12	1%	4	0%
Two or More Races	5%	55	3%	39	4%
Hispanic	10%	92	5%	68	6%
<b>Total</b>	<b>100%</b>	<b>1,751</b>	<b>100%</b>	<b>1,052</b>	<b>100%</b>

\*Population data in this chart is from the U.S. Census, Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for the United States, States, and Counties: July 1, 2022.

Source: Va. Healthcare Workforce Data Center

At a Glance:

**Gender**

% Female: 95%  
% Under 40 Female: 95%

**Age**

Median Age: 37  
% Under 40: 60%  
% 55 and Over: 11%

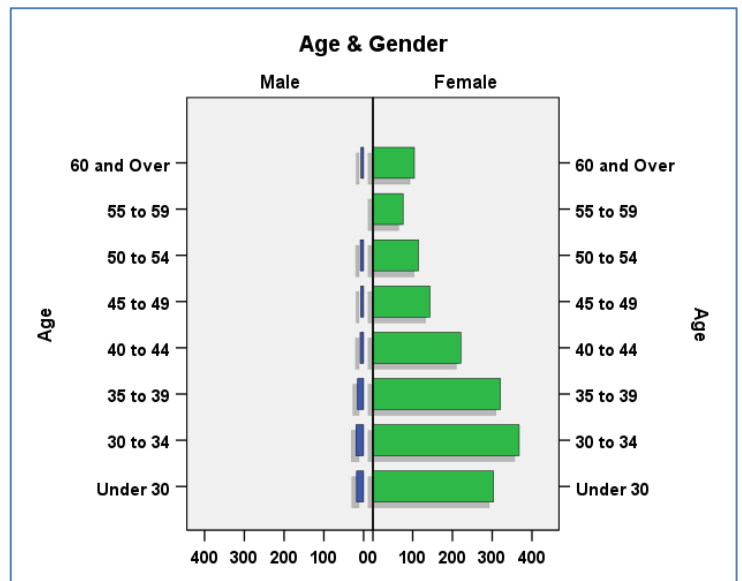
**Diversity**

Diversity Index: 22%  
Under 40 Div. Index: 25%

Source: Va. Healthcare Workforce Data Center

*In a chance encounter between two veterinary technicians, there is a 22% chance that they would be of different races or ethnicities (a measure known as the diversity index).*

*Among the 60% of veterinary technicians who are under the age of 40, 95% are female. In addition, the diversity index among veterinary technicians who are under the age of 40 is 25%.*



Source: Va. Healthcare Workforce Data Center

## At a Glance:

### Childhood

Urban Childhood: 7%  
 Rural Childhood: 37%

### Virginia Background

HS in Virginia: 70%  
 Prof. Edu. in Virginia: 69%  
 HS or Prof. Edu. in VA: 80%

### Location Choice

% Rural to Non-Metro: 13%  
 % Urban/Suburban to Non-Metro: 3%

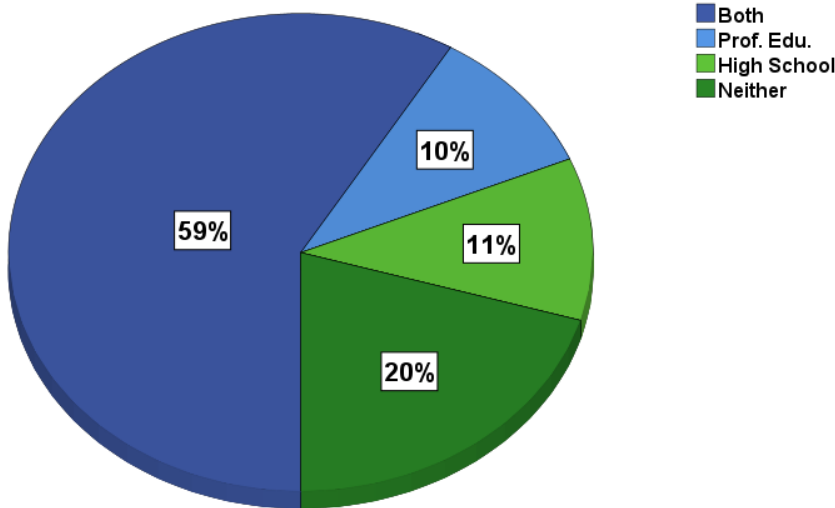
Source: Va. Healthcare Workforce Data Center

## A Closer Look:

Primary Location: USDA Rural Urban Continuum		Rural Status of Childhood Location		
Code	Description	Rural	Suburban	Urban
<b>Metro Counties</b>				
1	Metro, 1 Million+	28%	65%	8%
2	Metro, 250,000 to 1 Million	52%	46%	2%
3	Metro, 250,000 or Less	52%	42%	6%
<b>Non-Metro Counties</b>				
4	Urban, Pop. 20,000+, Metro Adjacent	50%	17%	33%
6	Urban, Pop. 2,500-19,999, Metro Adjacent	75%	21%	5%
7	Urban, Pop. 2,500-19,999, Non-Adjacent	87%	7%	7%
8	Rural, Metro Adjacent	93%	7%	0%
9	Rural, Non-Adjacent	22%	78%	0%
<b>Overall</b>		<b>37%</b>	<b>57%</b>	<b>7%</b>

Source: Va. Healthcare Workforce Data Center

**Educational Background in Virginia**



Source: Va. Healthcare Workforce Data Center

*Among the 37% of veterinary technicians who grew up in a rural area, 13% currently work in a non-metro area of the state. In total, 6% of all veterinary technicians currently work in a non-metro area of Virginia.*

## Top Ten States for Veterinary Technician Recruitment

Rank	All Veterinary Technicians			
	High School	#	Professional School	#
1	Virginia	1,210	Virginia	1,182
2	Pennsylvania	57	Pennsylvania	78
3	New York	54	Texas	65
4	Maryland	42	Colorado	43
5	North Carolina	28	New York	41
6	Florida	28	New Mexico	30
7	Ohio	26	Florida	30
8	West Virginia	26	North Carolina	27
9	California	23	California	22
10	New Jersey	21	Tennessee	21

Source: Va. Healthcare Workforce Data Center

*Among all veterinary technicians, 70% received their high school degree in Virginia, and 69% received their initial professional degree in the state.*

*Among veterinary technicians who have obtained their initial license in the past five years, 59% received their high school degree in Virginia, and 59% also received their initial professional degree in the state.*

Rank	Licensed in the Past Five Years			
	High School	#	Professional School	#
1	Virginia	327	Virginia	322
2	New York	23	Pennsylvania	27
3	Pennsylvania	18	Texas	20
4	North Carolina	16	California	16
5	Maryland	15	New York	16
6	California	14	Florida	15
7	Florida	13	Colorado	14
8	New Jersey	13	Tennessee	12
9	Ohio	12	North Carolina	12
10	Tennessee	9	Ohio	10

Source: Va. Healthcare Workforce Data Center

*Among all veterinary technicians who held a license, 12% did not participate in the state's veterinary technician workforce. Among these licensees, 86% worked at some point in the past year, including 60% who currently work as veterinary technicians.*

### At a Glance:

#### Not in VA Workforce

Total:	336
% of Licensees:	12%
Federal/Military:	5%
VA Border State/DC:	14%

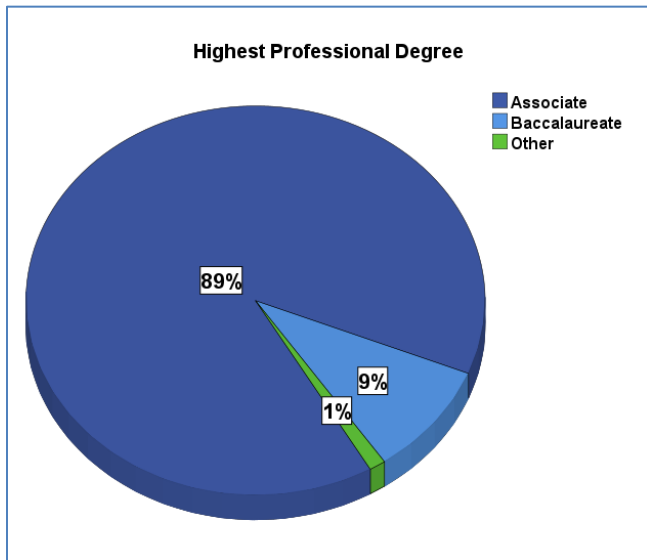
Source: Va. Healthcare Workforce Data Center

A Closer Look:

Highest Professional Degree		
Degree	#	%
Associate Degree	1,528	89%
Baccalaureate Degree	161	9%
Other	20	1%
<b>Total</b>	<b>1,709</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

Nearly one-third of all veterinary technicians carry education debt, including 40% of those who are under the age of 40. For those with education debt, the median outstanding balance is between \$20,000 and \$30,000.



Source: Va. Healthcare Workforce Data Center

Certifications		
Certification	#	%
Veterinary Emergency and Critical Care Technicians	14	1%
Veterinary Technicians in Anesthesia and Analgesia	10	0%
Internal Medicine for Veterinary Technicians	8	0%
Laboratory Animal Veterinary Technicians and Nurses	7	0%
Veterinary Dental Technicians	6	0%
<b>At Least One Certification</b>	<b>46</b>	<b>2%</b>

Source: Va. Healthcare Workforce Data Center

## At a Glance:

**Education**  
 Associate: 89%  
 Baccalaureate: 9%

**Education Debt**  
 Carry Debt: 31%  
 Under Age 40 w/ Debt: 40%  
 Median Debt: \$20k-\$30k

Source: Va. Healthcare Workforce Data Center

Amount Carried	All Vet. Tech.		Veterinary Tech. Under 40	
	#	%	#	%
None	979	69%	523	60%
Less than \$10,000	120	8%	94	11%
\$10,000-\$19,999	102	7%	87	10%
\$20,000-\$29,999	84	6%	63	7%
\$30,000-\$39,999	38	3%	30	3%
\$40,000-\$49,999	32	2%	25	3%
\$50,000-\$59,999	28	2%	22	3%
\$60,000-\$69,999	12	1%	8	1%
\$70,000-\$79,999	10	1%	9	1%
\$80,000-\$89,999	7	0%	3	0%
\$90,000-\$99,999	2	0%	0	0%
\$100,000 or More	14	1%	8	1%
<b>Total</b>	<b>1,428</b>	<b>100%</b>	<b>872</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

## At a Glance:

### Employment

Employed in Profession: 85%  
 Involuntarily Unemployed: < 1%

### Positions Held

1 Full-Time: 67%  
 2 or More Positions: 15%

### Weekly Hours:

40 to 49: 39%  
 60 or More: 3%  
 Less than 30: 12%

Source: Va. Healthcare Workforce Data Center

## A Closer Look:

Current Work Status		
Status	#	%
Employed, Capacity Unknown	1	< 1%
Employed in a Veterinary Technician-Related Capacity	1,467	85%
Employed, NOT in a Veterinary Technician-Related Capacity	143	8%
Not Working, Reason Unknown	0	0%
Involuntarily Unemployed	6	< 1%
Voluntarily Unemployed	81	5%
Retired	23	1%
<b>Total</b>	<b>1,722</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

*Among all veterinary technicians, 85% are currently employed in the profession, 67% hold one full-time job, and 39% work between 40 and 49 hours per week.*

Current Positions		
Positions	#	%
No Positions	110	6%
One Part-Time Position	208	12%
Two Part-Time Positions	40	2%
One Full-Time Position	1,135	67%
One Full-Time Position & One Part-Time Position	184	11%
Two Full-Time Positions	9	1%
More than Two Positions	17	1%
<b>Total</b>	<b>1,703</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

Current Weekly Hours		
Hours	#	%
0 Hours	110	7%
1 to 9 Hours	33	2%
10 to 19 Hours	75	4%
20 to 29 Hours	93	6%
30 to 39 Hours	581	35%
40 to 49 Hours	650	39%
50 to 59 Hours	85	5%
60 to 69 Hours	24	1%
70 to 79 Hours	11	1%
80 or More Hours	8	0%
<b>Total</b>	<b>1,670</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

**A Closer Look:**

Annual Income		
Income Level	#	%
Volunteer Work Only	27	2%
Less than \$20,000	122	9%
\$20,000-\$29,999	107	8%
\$30,000-\$39,999	237	18%
\$40,000-\$49,999	310	24%
\$50,000-\$59,999	260	20%
\$60,000 or More	246	19%
<b>Total</b>	<b>1,309</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

Job Satisfaction		
Level	#	%
Very Satisfied	831	49%
Somewhat Satisfied	699	42%
Somewhat Dissatisfied	121	7%
Very Dissatisfied	32	2%
<b>Total</b>	<b>1,684</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

## At a Glance:

**Earnings**  
Median Income: \$40k-\$50k

**Benefits**  
Health Insurance: 61%  
Retirement: 65%

**Satisfaction**  
Satisfied: 91%  
Very Satisfied: 49%

Source: Va. Healthcare Workforce Data Center

*The typical veterinary technician earns between \$40,000 and \$50,000 per year. In addition, 84% of all veterinary technicians receive at least one employer-sponsored benefit, including 61% who have access to health insurance.*

Employer-Sponsored Benefits			
Benefit	#	%	% of Wage/Salary Employees
Paid Vacation	1,136	77%	76%
Retirement	957	65%	64%
Health Insurance	899	61%	60%
Dental Insurance	802	55%	54%
Paid Sick Leave	734	50%	50%
Group Life Insurance	446	30%	30%
Signing/Retention Bonus	185	13%	13%
<b>At Least One Benefit</b>	<b>1,226</b>	<b>84%</b>	<b>81%</b>

\*From any employer at time of survey.

Source: Va. Healthcare Workforce Data Center



**A Closer Look:**

Employment Instability in the Past Year		
In The Past Year, Did You . . . ?	#	%
Experience Involuntary Unemployment?	32	1%
Experience Voluntary Unemployment?	112	5%
Work Part-Time or Temporary Positions, but Would Have Preferred a Full-Time/Permanent Position?	62	3%
Work Two or More Positions at the Same Time?	322	13%
Switch Employers or Practices?	196	8%
<b>Experience At Least One?</b>	<b>581</b>	<b>24%</b>

Source: Va. Healthcare Workforce Data Center

*Only 1% of Virginia’s veterinary technicians experienced involuntary unemployment at some point in the past year. By comparison, Virginia’s average monthly unemployment rate was 2.9% during the same time period.<sup>1</sup>*

Location Tenure				
Tenure	Primary		Secondary	
	#	%	#	%
<b>Not Currently Working at This Location</b>	67	4%	29	9%
<b>Less than 6 Months</b>	118	7%	50	16%
<b>6 Months to 1 Year</b>	176	11%	49	15%
<b>1 to 2 Years</b>	328	20%	61	19%
<b>3 to 5 Years</b>	339	21%	60	19%
<b>6 to 10 Years</b>	265	17%	34	11%
<b>More than 10 Years</b>	310	19%	35	11%
<b>Subtotal</b>	<b>1,602</b>	<b>100%</b>	<b>317</b>	<b>100%</b>
<b>Did Not Have Location</b>	92		2,061	
<b>Item Missing</b>	715		30	
<b>Total</b>	<b>2,409</b>		<b>2,409</b>	

Source: Va. Healthcare Workforce Data Center

*Nearly four out of every five veterinary technicians receive an hourly wage at their primary work location.*

**At a Glance:**

**Unemployment Experience**

Involuntarily Unemployed: 1%  
Underemployed: 3%

**Turnover & Tenure**

Switched Jobs: 8%  
New Location: 25%  
Over 2 Years: 57%  
Over 2 Yrs., 2<sup>nd</sup> Location: 41%

**Employment Type**

Hourly Wage: 79%  
Salary/Commission: 18%

Source: Va. Healthcare Workforce Data Center

*Among all veterinary technicians, 57% have worked at their primary work location for more than two years.*

Employment Type		
Primary Work Site	#	%
<b>Salary/Commission</b>	209	18%
<b>Hourly Wage</b>	914	79%
<b>By Contract/Per Diem</b>	8	1%
<b>Business/Practice Income</b>	8	1%
<b>Unpaid</b>	16	1%
<b>Subtotal</b>	<b>1,153</b>	<b>100%</b>
<b>Did Not Have Location</b>	92	
<b>Item Missing</b>	1,164	

Source: Va. Healthcare Workforce Data Center

<sup>1</sup> As reported by the U.S. Bureau of Labor Statistics. The non-seasonally adjusted monthly unemployment rate fluctuated between a low of 2.5% and a high of 3.3%. At the time of publication, the unemployment rate for December 2023 was still preliminary.

## At a Glance:

### Concentration

Top Region:	31%
Top 3 Regions:	76%
Lowest Region:	1%

### Locations

2 or More (Past Year):	21%
2 or More (Now*):	17%

Source: Va. Healthcare Workforce Data Center

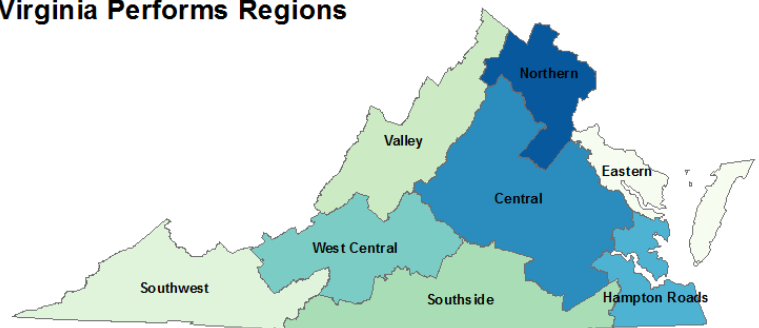
More than three out of every four veterinary technicians work in Northern Virginia, Central Virginia, and Hampton Roads.

## A Closer Look:

Regional Distribution of Work Locations				
Virginia Performs Region	Primary Location		Secondary Location	
	#	%	#	%
Central	377	24%	75	22%
Eastern	20	1%	3	1%
Hampton Roads	329	21%	78	23%
Northern	498	31%	96	28%
Southside	18	1%	3	1%
Southwest	40	3%	3	1%
Valley	150	9%	28	8%
West Central	142	9%	35	10%
Virginia Border State/D.C.	7	0%	6	2%
Other U.S. State	12	1%	14	4%
Outside of the U.S.	0	0%	0	0%
<b>Total</b>	<b>1,593</b>	<b>100%</b>	<b>341</b>	<b>100%</b>
Item Missing	725		5	

Source: Va. Healthcare Workforce Data Center

### Virginia Performs Regions



Source: Va. Healthcare Workforce Data Center

While 17% of veterinary technicians currently have multiple work locations, 21% of all veterinary technicians have had multiple work locations over the past year.

Number of Work Locations				
Locations	Work Locations in Past Year		Work Locations Now*	
	#	%	#	%
0	54	3%	111	7%
1	1,254	76%	1,259	76%
2	229	14%	195	12%
3	93	6%	83	5%
4	13	1%	6	0%
5	7	0%	0	0%
6 or More	5	0%	2	0%
<b>Total</b>	<b>1,656</b>	<b>100%</b>	<b>1,656</b>	<b>100%</b>

\*At the time of survey completion, Dec. 2023.

Source: Va. Healthcare Workforce Data Center

**A Closer Look:**

Sector	Location Sector			
	Primary Location		Secondary Location	
	#	%	#	%
<b>For-Profit</b>	1,292	86%	250	86%
<b>Non-Profit</b>	83	6%	24	8%
<b>State/Local Government</b>	108	7%	15	5%
<b>Veterans Administration</b>	3	0%	0	0%
<b>U.S. Military</b>	3	0%	1	0%
<b>Other Federal Government</b>	7	0%	1	0%
<b>Total</b>	<b>1,496</b>	<b>100%</b>	<b>291</b>	<b>100%</b>
<b>Did Not Have Location</b>	92		2,061	
<b>Item Missing</b>	822		56	

Source: Va. Healthcare Workforce Data Center

## At a Glance: (Primary Locations)

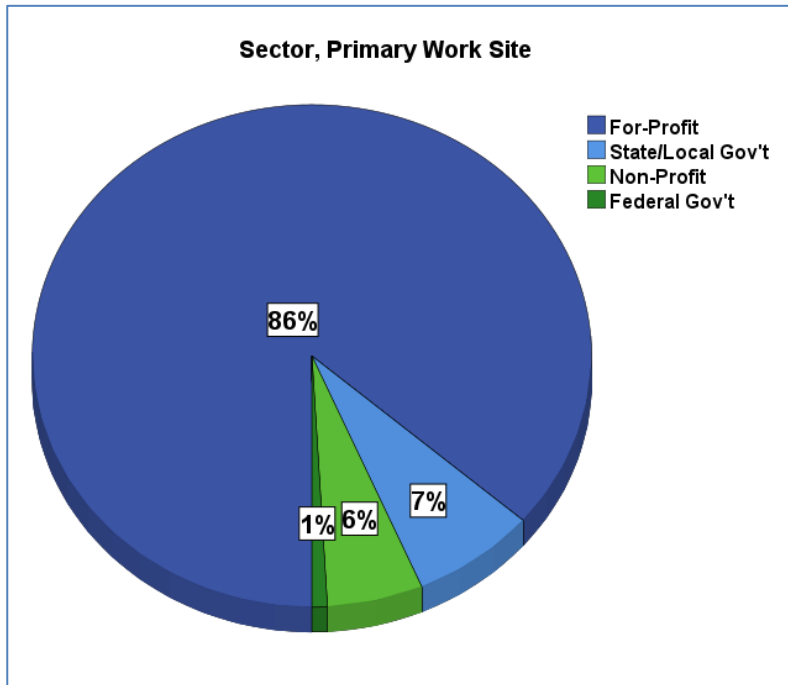
**Sector**

For-Profit:	86%
Federal:	1%

**Top Establishments**

Solo Practice:	53%
Group Practice:	29%
Public Health Program:	1%

Source: Va. Healthcare Workforce Data Center



Source: Va. Healthcare Workforce Data Center

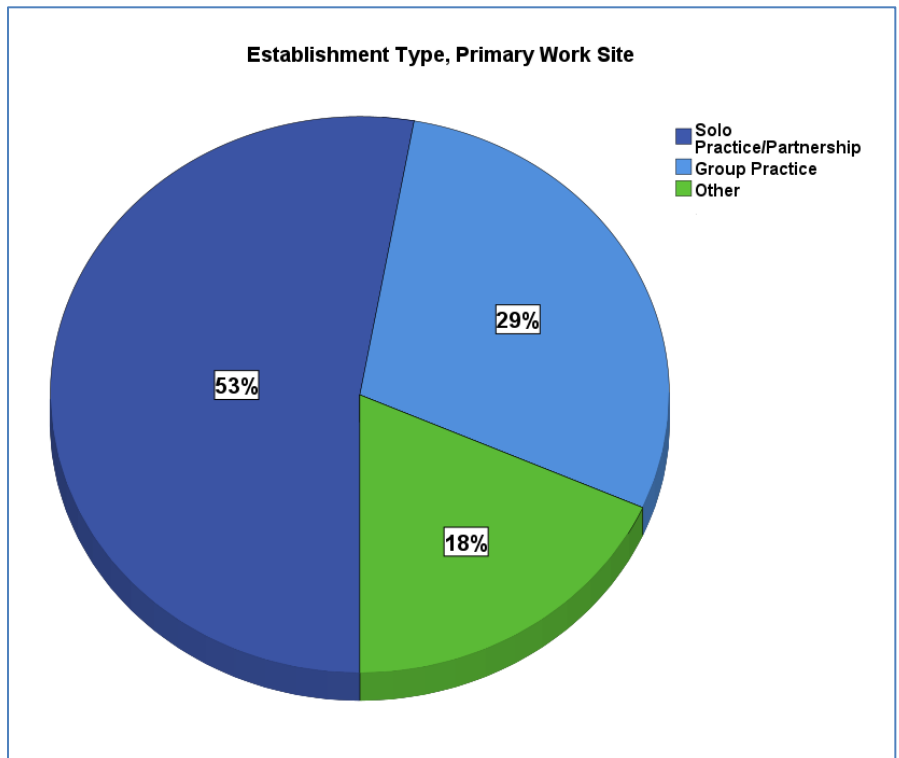
*More than nine out of every ten veterinary technicians work in the private sector, including 86% who are employed in the for-profit sector.*

Location Type				
Establishment Type	Primary Location		Secondary Location	
	#	%	#	%
Solo Practice/Partnership	783	53%	147	51%
Group Practice	427	29%	82	29%
Public Health Program	20	1%	4	1%
Veterinary Education Program, Community College	16	1%	3	1%
Supplier Organization	9	1%	2	1%
Veterinary Technology Program, Technical School	6	0%	3	1%
Other Practice Setting	222	15%	45	16%
<b>Total</b>	<b>1,483</b>	<b>100%</b>	<b>286</b>	<b>100%</b>
Did Not Have a Location	92		2,061	

Source: Va. Healthcare Workforce Data Center

*More than half of all veterinary technicians work at a solo practice or partnership as their primary work location, while another 29% work at a group practice.*

*Among those veterinary technicians who also have a secondary work location, 51% work at a solo practice or partnership, and 29% work at a group practice.*



Source: Va. Healthcare Workforce Data Center

## At a Glance: (Primary Locations)

### Languages Offered

Spanish:	18%
French:	2%
Chinese:	2%

### Means of Communication

Other Staff Member:	84%
Virtual Translation:	20%
Respondent:	10%

Source: Va. Healthcare Workforce Data Center

## A Closer Look:

Languages Offered		
Language	#	% of Workforce
Spanish	422	18%
French	44	2%
Chinese	37	2%
Korean	32	1%
Arabic	29	1%
Vietnamese	25	1%
Hindi	18	1%
Persian	15	1%
Amharic, Somali, or Other Afro-Asiatic Languages	13	1%
Tagalog/Filipino	11	0%
Pashto	10	0%
Urdu	9	0%
Others	53	2%
<b>At Least One Language</b>	<b>440</b>	<b>18%</b>

Source: Va. Healthcare Workforce Data Center

Nearly one-fifth of all veterinary technicians are employed at a primary work location that offers Spanish language services for patients.

More than four out of every five veterinary technicians who are employed at a primary work location that offers language services for patients provide it by means of a staff member who is proficient.

## Means of Language Communication

Provision	#	% of Workforce with Language Services
Other Staff Member is Proficient	369	84%
Virtual Translation Service	86	20%
Respondent is Proficient	46	10%
Onsite Translation Service	27	6%
Other	15	3%

Source: Va. Healthcare Workforce Data Center

## At a Glance: (Primary Locations)

### Typical Time Allocation

Patient Care: 80%-89%  
Administration: 1%-9%

### Roles

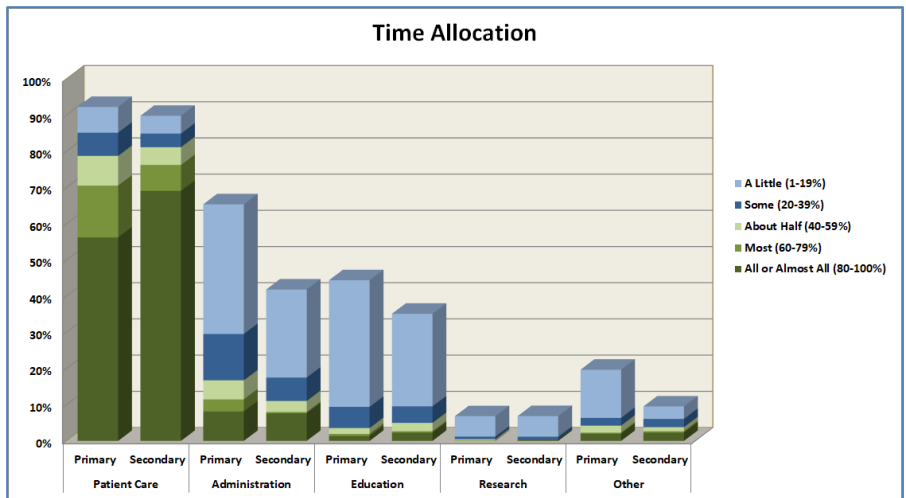
Patient Care: 71%  
Administration: 11%  
Education: 2%

### Patient Care Vet. Tech.

Median Admin. Time: 1%-9%  
Avg. Admin. Time: 1%-9%

Source: Va. Healthcare Workforce Data Center

## A Closer Look:



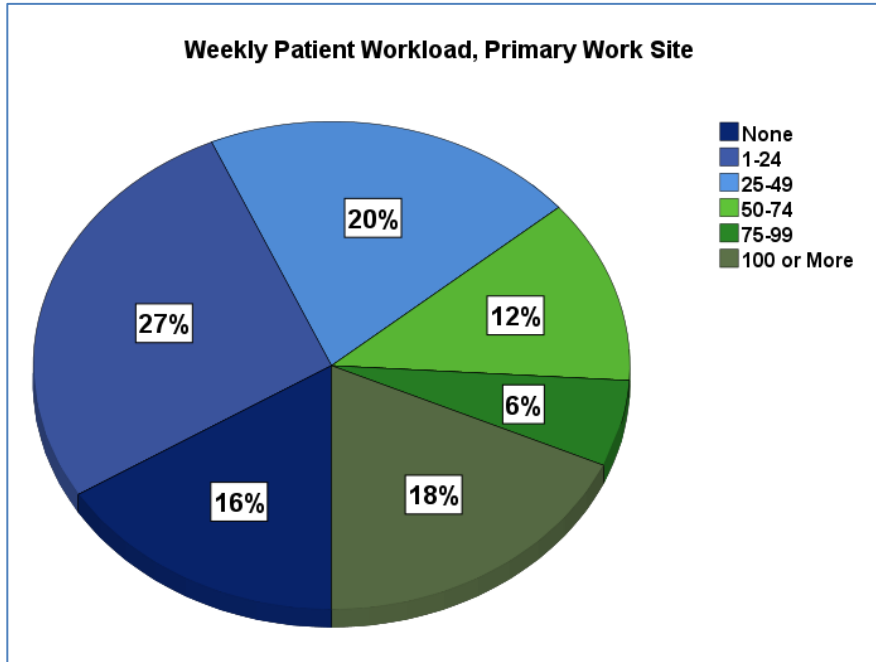
Source: Va. Healthcare Workforce Data Center

*Veterinary technicians spend most of their time treating patients. In fact, 71% of veterinary technicians fill a patient care role, defined as spending 60% or more of their time on patient care activities.*

Time Allocation										
Time Spent	Patient Care		Admin.		Education		Research		Other	
	Pri. Site	Sec. Site	Pri. Site	Sec. Site	Pri. Site	Sec. Site	Pri. Site	Sec. Site	Pri. Site	Sec. Site
<b>All or Almost All (80-100%)</b>	56%	69%	8%	8%	1%	2%	0%	0%	2%	2%
<b>Most (60-79%)</b>	14%	7%	3%	0%	1%	0%	0%	0%	0%	0%
<b>About Half (40-59%)</b>	8%	5%	5%	3%	2%	2%	0%	0%	2%	1%
<b>Some (20-39%)</b>	6%	4%	13%	6%	6%	5%	1%	1%	2%	2%
<b>A Little (1-19%)</b>	7%	5%	36%	24%	35%	25%	6%	6%	13%	3%
<b>None (0%)</b>	8%	10%	35%	58%	56%	64%	93%	93%	80%	90%

Source: Va. Healthcare Workforce Data Center

A Closer Look:



Source: Va. Healthcare Workforce Data Center

**At a Glance:**

**Patient Workload (Median)**  
 Primary Location: 25-49  
 Secondary Location: 1-24

Source: Va. Healthcare Workforce Data Center

*The median workload for veterinary technicians at their primary work location is between 25 and 49 patients per week. For veterinary technicians who also have a secondary work location, the median workload is between 1 and 24 patients per week.*

Patient Care Visits				
# of Patients Per Week	Primary		Secondary	
	#	%	#	%
<b>None</b>	239	16%	65	22%
<b>1-24</b>	404	27%	110	38%
<b>25-49</b>	302	20%	49	17%
<b>50-74</b>	181	12%	23	8%
<b>75-99</b>	85	6%	9	3%
<b>100-124</b>	79	5%	15	5%
<b>125-149</b>	50	3%	3	1%
<b>150-174</b>	41	3%	4	1%
<b>175-199</b>	20	1%	1	0%
<b>200 or More</b>	81	5%	12	4%
<b>Total</b>	<b>1,482</b>	<b>100%</b>	<b>291</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

**A Closer Look:**

Retirement Expectations				
Expected Retirement Age	All Vet. Tech.		Vet. Tech. 50 and Over	
	#	%	#	%
<b>Under Age 50</b>	253	18%	-	-
<b>50 to 54</b>	127	9%	3	1%
<b>55 to 59</b>	175	13%	25	11%
<b>60 to 64</b>	292	21%	73	31%
<b>65 to 69</b>	241	17%	68	29%
<b>70 to 74</b>	84	6%	26	11%
<b>75 to 79</b>	20	1%	8	3%
<b>80 or Over</b>	16	1%	3	1%
<b>I Do Not Intend to Retire</b>	169	12%	27	12%
<b>Total</b>	<b>1,378</b>	<b>100%</b>	<b>233</b>	<b>100%</b>

Source: Va. Healthcare Workforce Data Center

**At a Glance:**

**Retirement Expectations**

**All Veterinary Technicians**

Under 65: 61%

Under 60: 40%

**Veterinary Tech. 50 and Over**

Under 65: 43%

Under 60: 12%

**Time Until Retirement**

Within 2 Years: 5%

Within 10 Years: 13%

Half the Workforce: By 2048

Source: Va. Healthcare Workforce Data Center

*More than three out of every five veterinary technicians expect to retire by the age of 65. Among veterinary technicians who are age 50 and over, 43% still expect to retire by the age of 65.*

*Within the next two years, 16% of Virginia's veterinary technicians expect to pursue additional educational opportunities, and 4% expect to increase their patient care hours.*

**Future Plans**

Two-Year Plans:	#	%
<b>Decrease Participation</b>		
<b>Leave Profession</b>	110	5%
<b>Leave Virginia</b>	74	3%
<b>Decrease Patient Care Hours</b>	138	6%
<b>Decrease Teaching Hours</b>	13	1%
<b>Increase Participation</b>		
<b>Increase Patient Care Hours</b>	108	4%
<b>Increase Teaching Hours</b>	116	5%
<b>Pursue Additional Education</b>	393	16%
<b>Return to the Workforce</b>	16	1%

Source: Va. Healthcare Workforce Data Center

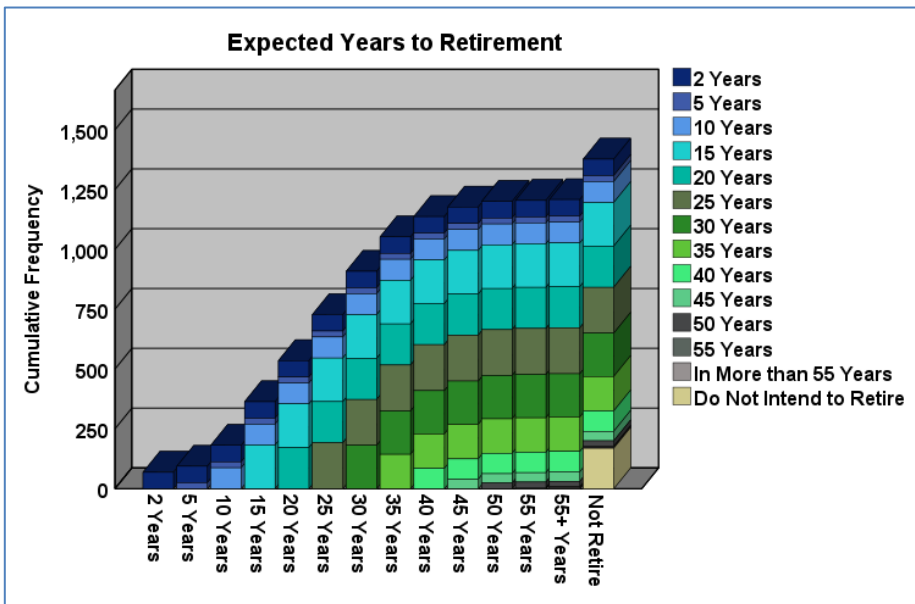


*By comparing retirement expectations to age, we can estimate the maximum years to retirement for veterinary technicians. While only 5% of veterinary technicians expect to retire in the next two years, 13% plan to do so within the next decade. More than half of the current workforce expect to retire by 2048.*

### Time to Retirement

Expect to Retire Within . . .	#	%	Cumulative %
2 Years	69	5%	5%
5 Years	25	2%	7%
10 Years	87	6%	13%
15 Years	182	13%	26%
20 Years	172	12%	39%
25 Years	192	14%	53%
30 Years	181	13%	66%
35 Years	144	10%	76%
40 Years	85	6%	83%
45 Years	40	3%	85%
50 Years	23	2%	87%
55 Years	5	0%	87%
In More than 55 Years	3	0%	88%
Do Not Intend to Retire	169	12%	100%
<b>Total</b>	<b>1,378</b>	<b>100%</b>	

Source: Va. Healthcare Workforce Data Center



Source: Va. Healthcare Workforce Data Center

*Using these estimates, retirement will begin to reach 10% of the current workforce every five years by 2038. Retirement will peak at 14% of the current workforce around 2048 before declining to under 10% of the current workforce again by 2063.*

## At a Glance:

### FTEs

Total: 1,859  
 FTEs/1,000 Residents<sup>2</sup>: 0.214  
 Average: 0.80

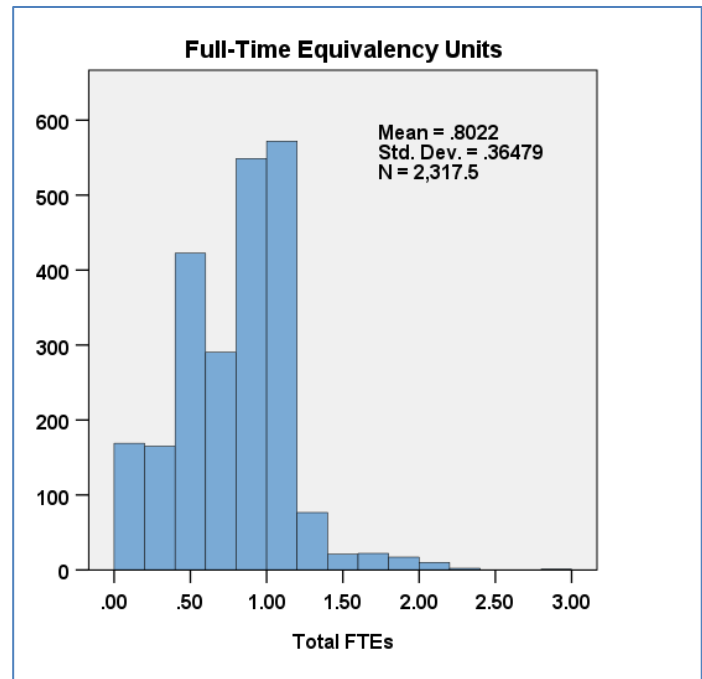
### Age & Gender Effect

Age, *Partial Eta*<sup>2</sup>: Small  
 Gender, *Partial Eta*<sup>2</sup>: None

*Partial Eta*<sup>2</sup> Explained:  
*Partial Eta*<sup>2</sup> is a statistical  
 measure of effect size.

Source: Va. Healthcare Workforce Data Center

## A Closer Look:

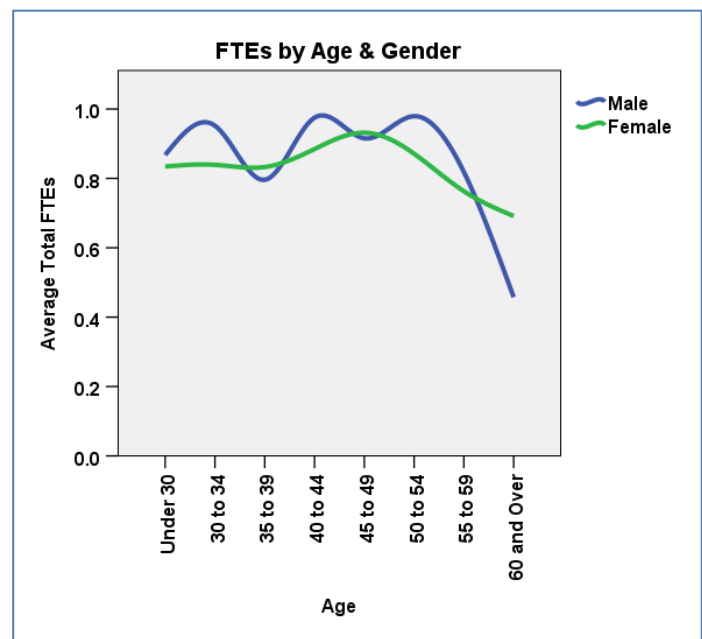


Source: Va. Healthcare Workforce Data Center

*The typical veterinary technician provided 0.87 FTEs in the past year, or approximately 35 hours per week for 50 weeks. Although FTEs appear to vary by age, statistical tests did not verify that a difference exists.<sup>3</sup>*

Full-Time Equivalency Units		
Age	Average	Median
Under 30	0.83	0.80
30 to 34	0.78	0.81
35 to 39	0.75	0.65
40 to 44	0.95	1.07
45 to 49	0.74	0.81
50 to 54	0.91	0.96
55 to 59	0.90	1.06
60 and Over	0.55	0.43
Gender		
Male	0.87	0.96
Female	0.84	0.93

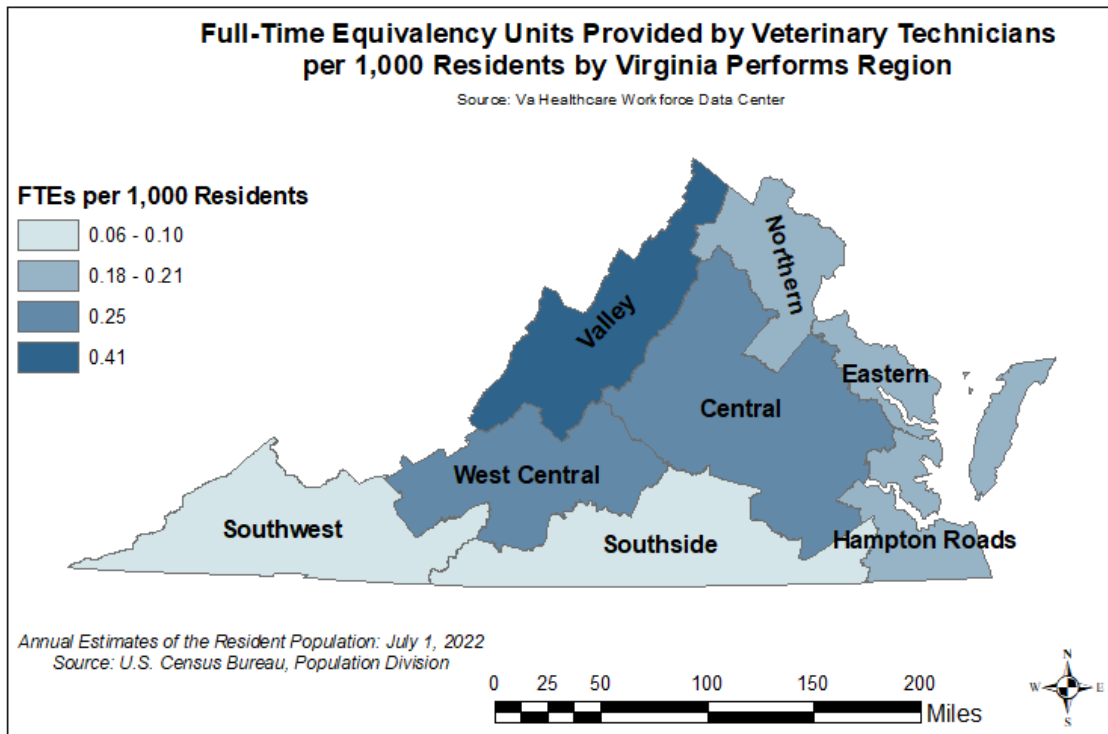
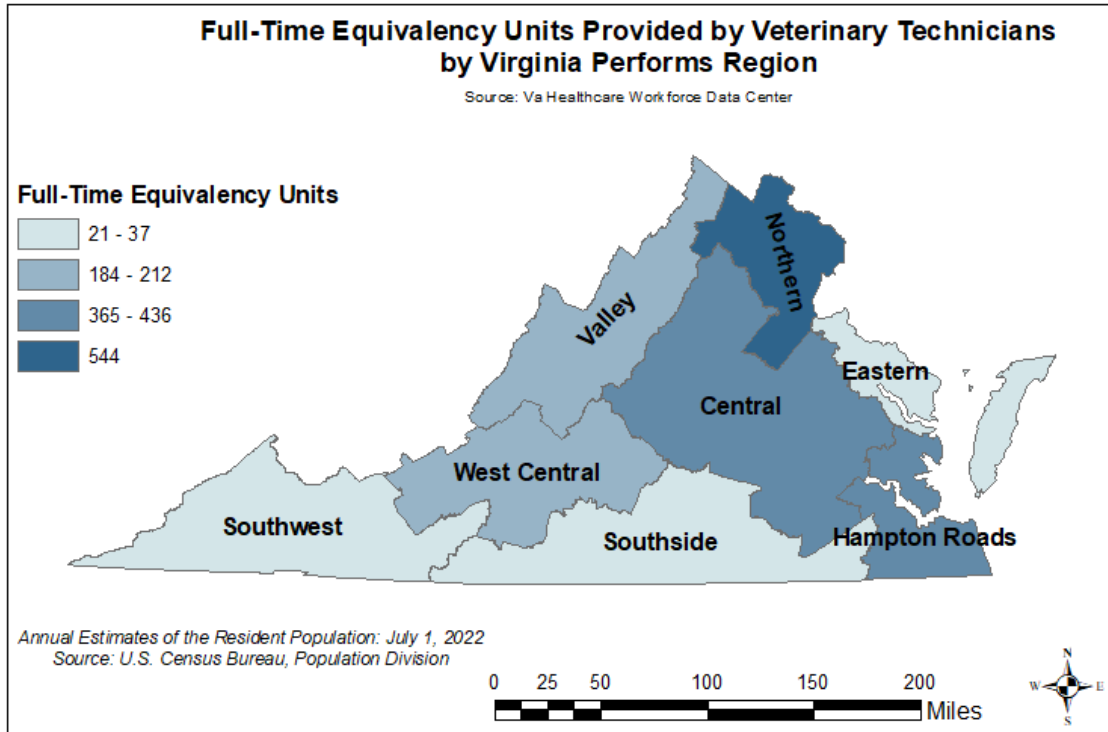
Source: Va. Healthcare Workforce Data Center

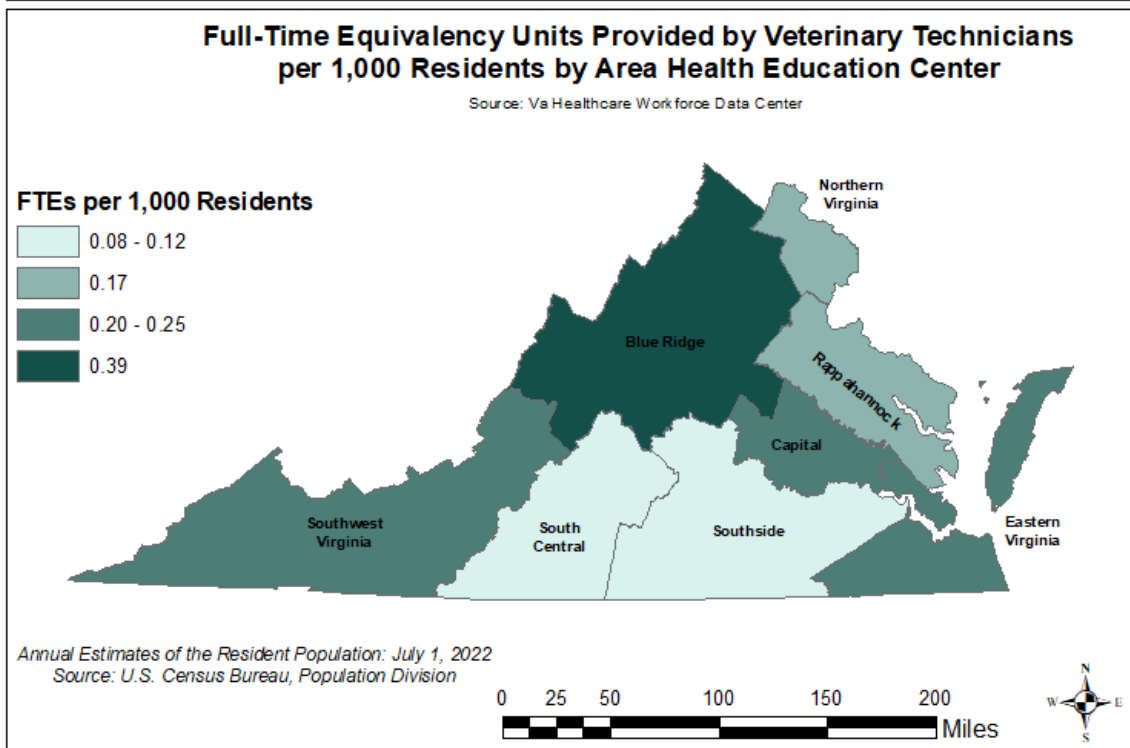
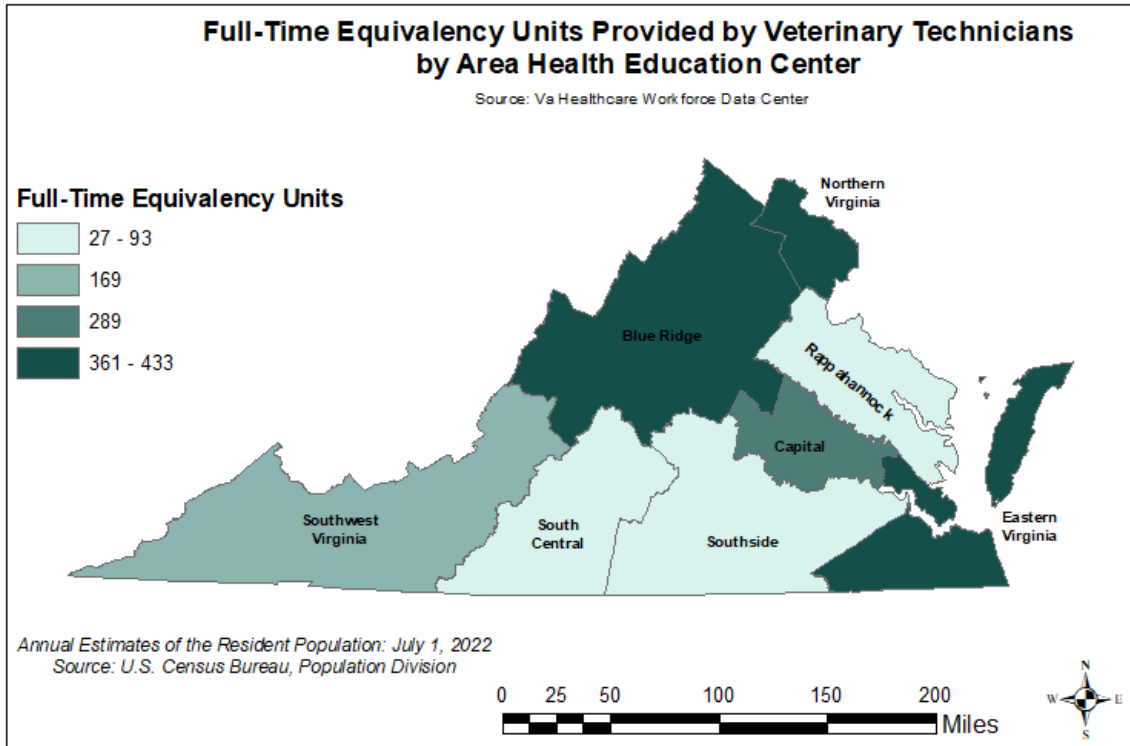


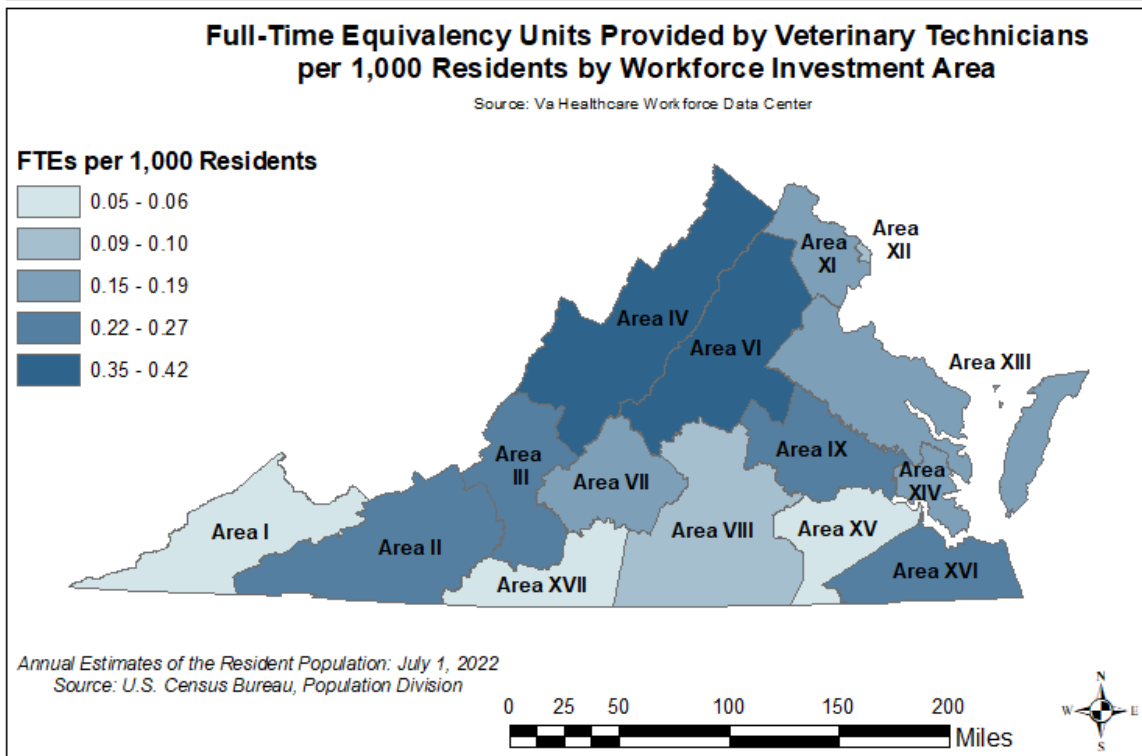
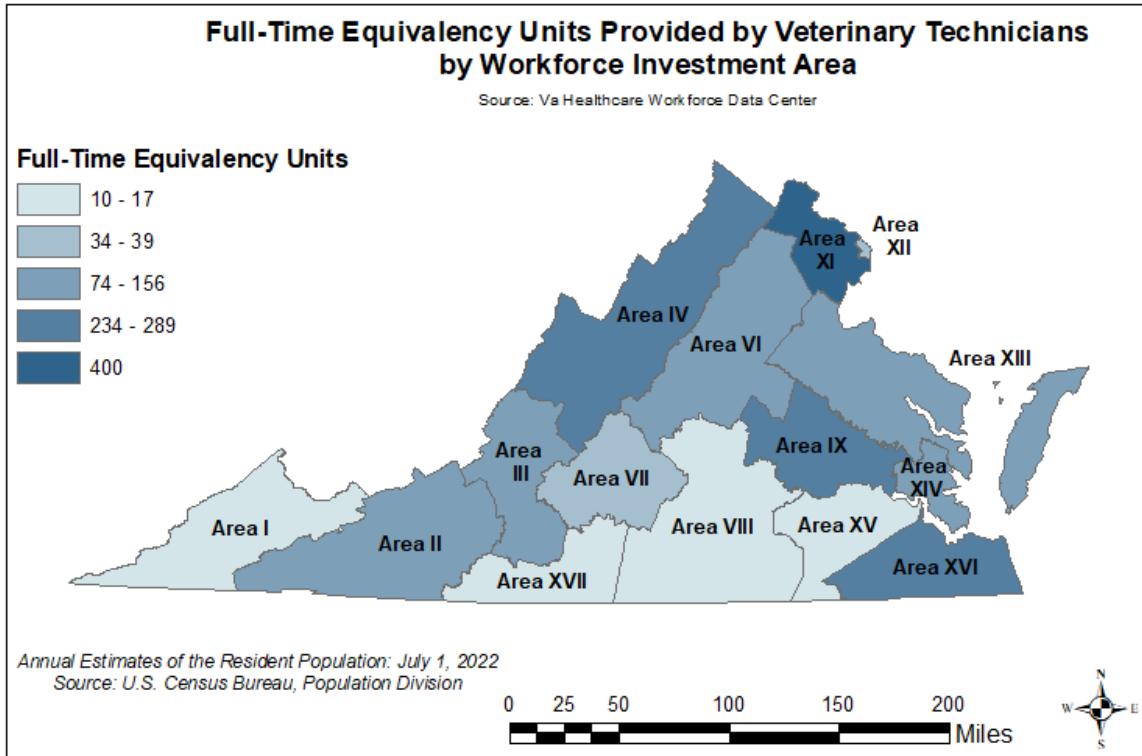
Source: Va. Healthcare Workforce Data Center

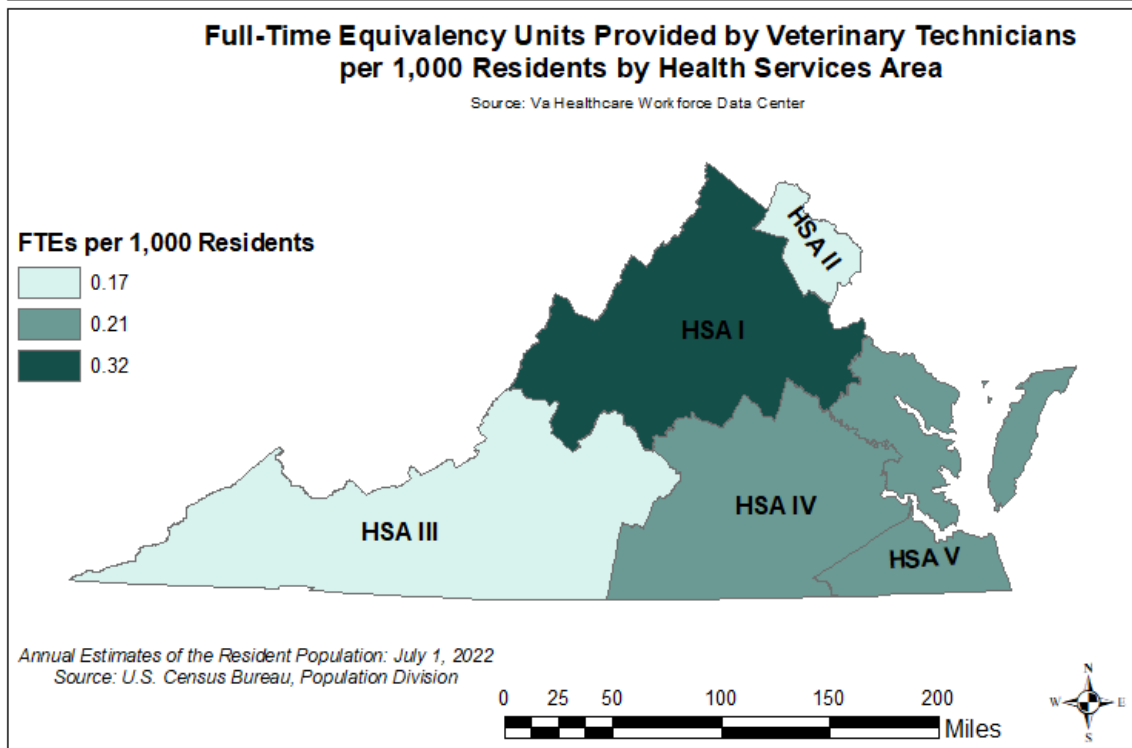
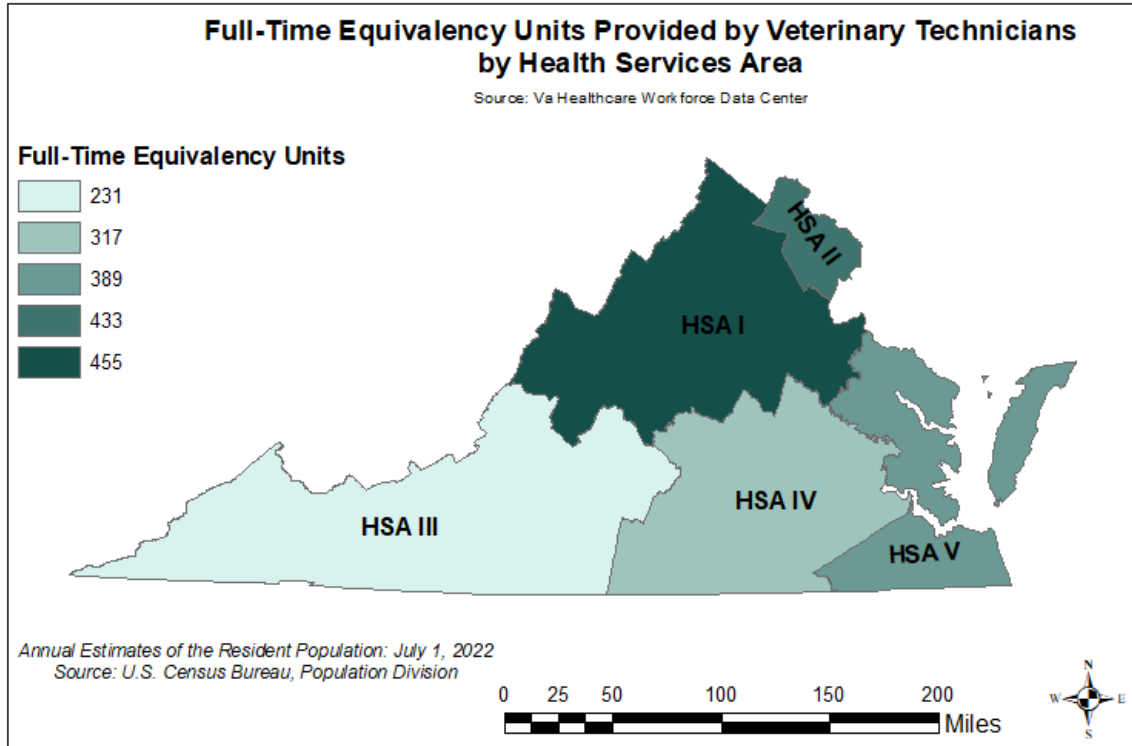
<sup>2</sup> Number of residents in 2022 was used as the denominator.

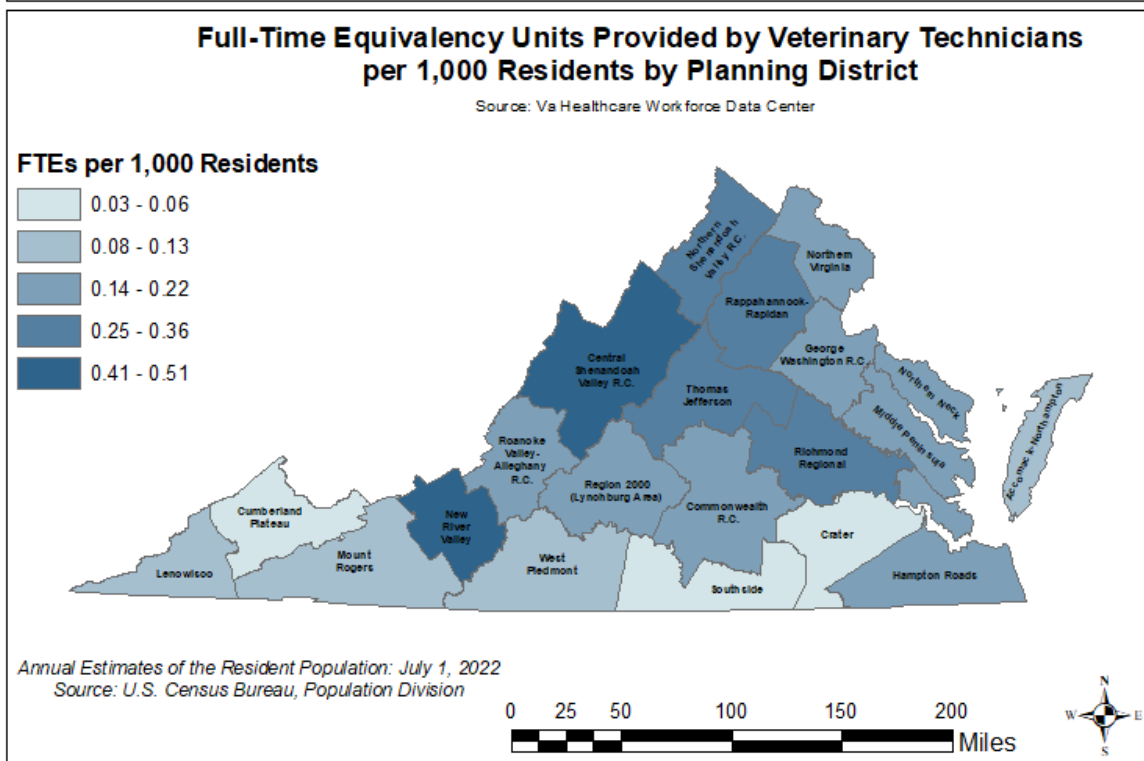
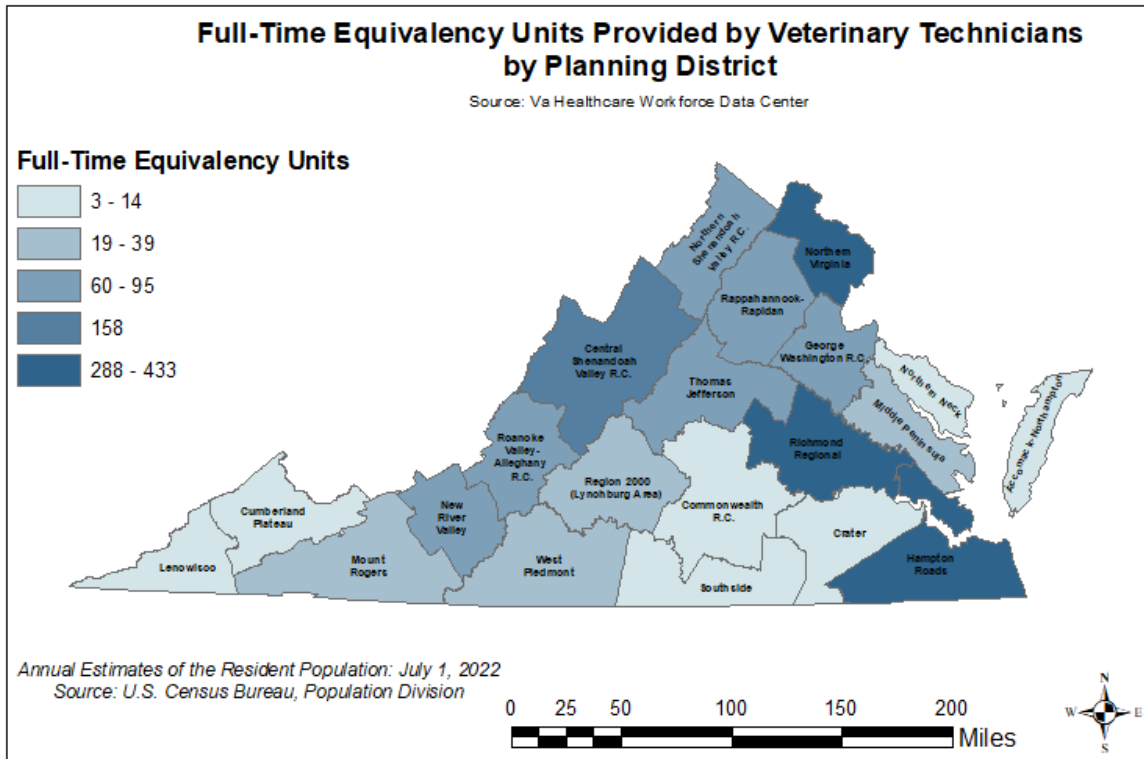
<sup>3</sup> Due to assumption violations in Mixed between-within ANOVA (Levene's Test was significant).











## Appendices

### Appendix A: Weights

Rural Status	Location Weight			Total Weight	
	#	Rate	Weight	Min.	Max.
<b>Metro, 1 Million+</b>	1,575	90.10%	1.110	1.052	1.200
<b>Metro, 250,000 to 1 Million</b>	172	93.02%	1.075	1.019	1.162
<b>Metro, 250,000 or Less</b>	412	93.45%	1.070	1.014	1.157
<b>Urban, Pop. 20,000+, Metro Adj.</b>	9	100.00%	1.000	0.972	1.081
<b>Urban, Pop. 20,000+, Non-Adj.</b>	0	NA	NA	NA	NA
<b>Urban, Pop. 2,500-19,999, Metro Adj.</b>	109	92.66%	1.079	1.023	1.167
<b>Urban, Pop. 2,500-19,999, Non-Adj.</b>	20	95.00%	1.053	0.998	1.138
<b>Rural, Metro Adj.</b>	61	90.16%	1.109	1.051	1.199
<b>Rural, Non-Adj.</b>	7	100.00%	1.000	0.948	1.015
<b>Virginia Border State/D.C.</b>	218	83.03%	1.204	1.142	1.302
<b>Other U.S. State</b>	161	80.75%	1.238	1.174	1.339

Source: Va. Healthcare Workforce Data Center

Age	Age Weight			Total Weight	
	#	Rate	Weight	Min.	Max.
<b>Under 30</b>	474	83.12%	1.203	1.081	1.339
<b>30 to 34</b>	552	88.59%	1.129	1.015	1.256
<b>35 to 39</b>	532	91.54%	1.092	0.982	1.216
<b>40 to 44</b>	397	92.44%	1.082	0.972	1.204
<b>45 to 49</b>	251	92.43%	1.082	0.972	1.204
<b>50 to 54</b>	212	94.81%	1.055	0.948	1.174
<b>55 to 59</b>	138	91.30%	1.095	0.984	1.219
<b>60 and Over</b>	189	90.48%	1.105	0.993	1.230

Source: Va. Healthcare Workforce Data Center

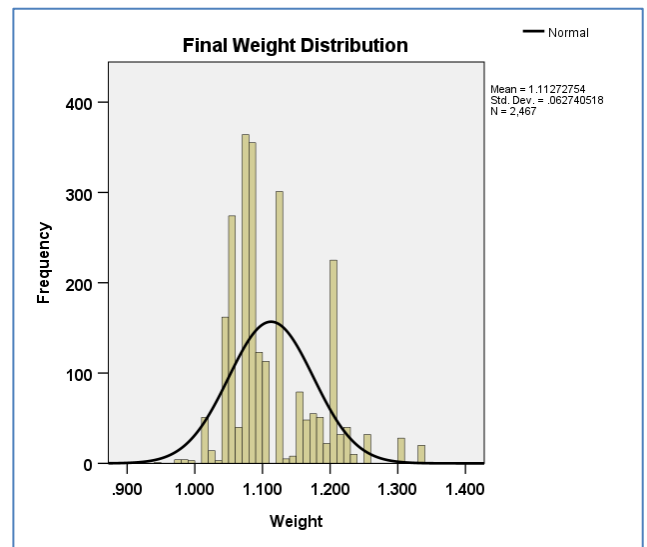
See the Methods section on the HWDC website for details on HWDC methods:

<https://www.dhp.virginia.gov/PublicResources/HealthcareWorkforceDataCenter/>

Final weights are calculated by multiplying the two weights and the overall response rate:

$$\text{Age Weight} \times \text{Rural Weight} \times \text{Response Rate} = \text{Final Weight.}$$

**Overall Response Rate: 0.898725**



Source: Va. Healthcare Workforce Data Center



Excerpts from the [Laws Governing Veterinary Medicine](#)

**§ 54.1-3800. Practice of veterinary medicine.**

Any person shall be regarded as practicing veterinary medicine within the meaning of this chapter who represents himself, directly or indirectly, publicly or privately, as a veterinary doctor or uses any title, words, abbreviation or letters in a manner or under circumstances which may reasonably induce the belief that the person using them is qualified to practice veterinary medicine.

Any person shall be deemed to be practicing veterinary medicine who performs the diagnosis, treatment, correction, change, relief or prevention of animal disease, deformity, defect, injury, or other physical or mental conditions; including the performance of surgery or dentistry, the prescription or administration of any drug, medicine, biologic, apparatus, application, anesthetic, or other therapeutic or diagnostic substance or technique, and the use of any manual or mechanical procedure for embryo transfer, for testing for pregnancy, or for correcting sterility or infertility, or to render advice or recommendation with regard to any of the above.

Nothing in this chapter shall prohibit persons permitted or authorized by the Department of Wildlife Resources to do so from providing care for wildlife as defined in § [29.1-100](#), provided that the Department determines that such persons are in compliance with its regulations and permit conditions.

**§ 54.1-3805. License required.**

No person shall practice veterinary medicine or as a veterinary technician in this Commonwealth unless such person has been licensed by the Board.

**§ 54.1-3801. Exceptions.**

This chapter shall not apply to:

1. The owner of an animal and the owner's full-time, regular employee caring for and treating the animal belonging to such owner, except where the ownership of the animal was transferred for the purpose of circumventing the requirements of this chapter;
2. Veterinarians licensed in other states called in actual consultation with veterinarians licensed in the Commonwealth who do not open an office or appoint a place to practice within the Commonwealth;
3. Veterinarians employed by the United States or by the Commonwealth while actually engaged in the performance of their official duties, with the exception of those engaged in the practice of veterinary medicine, pursuant to § [54.1-3800](#), as part of a veterinary medical education program accredited by the American Veterinary Medical Association Council on Education and located in the Commonwealth;

4. Veterinarians providing free care in underserved areas of Virginia who (i) do not regularly practice veterinary medicine in Virginia, (ii) hold a current valid license or certificate to practice veterinary medicine in another state, territory, district, or possession of the United States, (iii) volunteer to provide free care in an underserved area of the Commonwealth under the auspices of a publicly supported all volunteer, nonprofit organization that sponsors the provision of health care to populations of underserved people, (iv) file copies of their licenses or certificates issued in such other jurisdiction with the Board, (v) notify the Board at least five business days prior to the voluntary provision of services of the dates and location of such service, and (vi) acknowledge, in writing, that such licensure exemption shall only be valid, in compliance with the Board's regulations, during the limited period that such free health care is made available through the volunteer, nonprofit organization on the dates and at the location filed with the Board. The Board may deny the right to practice in Virginia to any veterinarian whose license has been previously suspended or revoked, who has been convicted of a felony, or who is otherwise found to be in violation of applicable laws or regulations. However, the Board shall allow a veterinarian who meets the above criteria to provide volunteer services without prior notice for a period of up to three days, provided the nonprofit organization verifies that the practitioner has a valid, unrestricted license in another state; or

5. Persons purchasing, possessing, and administering drugs and biological products in a public or private animal shelter as defined in § [3.2-6500](#), provided that such purchase, possession, and administration is in compliance with § [54.1-3423](#).

**§ 54.1-3806. Licensed veterinary technicians.**

The Board may license a veterinary technician to perform acts relating to the treatment or the maintenance of the health of any animal under the immediate and direct supervision of a person licensed to practice veterinary medicine in the Commonwealth or a veterinarian who is employed by the United States or the Commonwealth while actually engaged in the performance of his official duties. No person licensed as a veterinary technician may perform surgery, diagnose, or prescribe medication for any animal.



Guidance document: 150-13

Revised: March 11, 2021

Effective: May 13, 2021

## Virginia Board of Veterinary Medicine

### Controlled Substances (Schedule II-VI) in Veterinary Practice

Veterinarians are allowed to prescribe, administer, and dispense controlled substances in keeping with the requirements of the Virginia Drug Control Act, specifically § [54.1-3409](#) of the *Code of Virginia*, and the statutes and regulations governing the practice of veterinary medicine. A bona fide veterinarian-client-patient relationship (VCPR) as set forth in § [54.1-3303](#) of the Code of Virginia, must first exist before drugs may be prescribed by a veterinarian.

#### Veterinary prescriptions

The Board of Veterinary Medicine often receives questions regarding what is required of a veterinarian in prescribing or dispensing a prescription for controlled substances. **In Virginia, the term “controlled substances” is defined as any prescription drug including Schedule VI drugs.** The most frequently asked questions are the following:

1. What authority does a veterinarian have to prescribe?
2. Does a veterinarian have a right to refuse to provide a prescription?
3. May a veterinarian charge a fee for writing the prescription?
4. What information is required on a prescription and in what format?
5. Are there any prescription requirements specific to a Schedule II drug?
6. Does a veterinarian have to honor a prescription request by a pharmacy sent via telephone or fax?
7. What is required of a pharmacist in filling a prescription?
8. May one veterinary establishment “fill a prescription” for a patient seen by a veterinarian at another establishment?
9. May a veterinarian purchase controlled substances for the purpose of reselling?
10. May a veterinarian or veterinary establishment donate an expired or unexpired controlled substance (Schedule II – VI)?
11. May an owner return or donate an unused Schedule II – V drug to a veterinarian that was dispensed to an animal or a human?
12. May an owner return or donate an unused Schedule VI drug to a veterinarian that was dispensed to an animal or a human?
13. May a veterinarian provide a general stock of controlled drugs (Schedule II – VI) for administering or dispensing by a pet store establishment or boarding kennel?
14. May a veterinarian prescribe cannabis oil?
15. May a veterinarian prescribe opioids?
16. Does a veterinarian have a requirement to report to the Prescription Monitoring Program (PMP) when controlled substances are dispensed from a veterinary establishment?
17. Are there special recordkeeping requirements for feline buprenorphine and canine butorphanol?
18. What schedule is gabapentin?
19. Does the Drug Enforcement Administration (DEA) have guidance documents?



Guidance document: 150-13

Revised: March 11, 2021

Effective: May 13, 2021

## 1. What authority does a veterinarian have to prescribe?

Veterinarians are authorized to prescribe Schedule II through VI drugs by federal and state law. While not a comprehensive listing of all relevant federal and state law, the Virginia Drug Control Act provides:

### **§ 54.1-3409. Professional use by veterinarians.**

*A veterinarian may not prescribe controlled substances for human use and shall only prescribe, dispense or administer a controlled substance in good faith for use by animals within the course of his professional practice. He may prescribe, on a written prescription or on oral prescription as authorized by § [54.1-3410](#). . . Such a prescription shall be dated and signed by the person prescribing on the day when issued, and shall bear the full name and address of the owner of the animal, and the species of the animal for which the drug is prescribed and the full name, address and registry number, under the federal laws of the person prescribing, if he is required by those laws to be so registered.*

However, the following portions of §§54.1-3408 and 54.1-3303 also apply, and they detail what is required to render a **valid** prescription.

### **§ 54.1-3408. Professional use by practitioners.**

*A. A practitioner of ... veterinary medicine... shall only prescribe, dispense, or administer controlled substances in good faith for medicinal or therapeutic purposes within the course of his professional practice.*

*B. The prescribing practitioner's order may be on a written prescription or pursuant to an oral prescription as authorized by this chapter...*

### **§ 54.1-3303. Prescriptions to be issued and drugs to be dispensed for medical or therapeutic purposes only.**

*A. A prescription for a controlled substance may be issued only by a practitioner of . . . veterinary medicine who is authorized to prescribe controlled substances...*

*B. A prescription shall be issued only to persons or animals with whom the practitioner has a bona fide practitioner-patient relationship or veterinarian-client-patient relationship.*

*For purposes of this section, a bona fide veterinarian-client-patient relationship is one in which a veterinarian, another veterinarian within the group in which he practices, or a veterinarian with whom he is consulting has assumed the responsibility for making medical judgments regarding the health of and providing medical treatment to an animal as defined in § [3.2-6500](#), other than an equine as defined in § [3.2-6200](#), a group of agricultural animals as defined in § [3.2-6500](#), or bees as defined in § [3.2-4400](#), and a client who is the owner or other caretaker of the animal, group of agricultural animals, or bees has consented to such treatment and agreed to follow the instructions of the veterinarian. Evidence that a veterinarian has assumed responsibility for making medical judgments regarding the health of and providing medical*



Guidance document: 150-13

Revised: March 11, 2021

Effective: May 13, 2021

*treatment to an animal, group of agricultural animals, or bees shall include evidence that the veterinarian (A) has sufficient knowledge of the animal, group of agricultural animals, or bees to provide a general or preliminary diagnosis of the medical condition of the animal, group of agricultural animals, or bees; (B) has made an examination of the animal, group of agricultural animals, or bees, either physically or by the use of instrumentation and diagnostic equipment through which images and medical records may be transmitted electronically or has become familiar with the care and keeping of that species of animal or bee on the premises of the client, including other premises within the same operation or production system of the client, through medically appropriate and timely visits to the premises at which the animal, group of agricultural animals, or bees are kept; and (C) is available to provide follow-up care.*

## 2. Does the veterinarian have the right to refuse to provide a prescription?

The *Regulations Governing the Practice of Veterinary Medicine*, 18VAC150-20-140(6) and (12), provide that it is unprofessional conduct to violate any state law, federal law, or board regulation pertaining to the practice of veterinary medicine and to refuse to release a copy of a valid prescription upon request from a client. **The Board has held consistently that it is unprofessional conduct for a veterinarian to refuse to provide a prescription to a client if he would have dispensed the medication for the patient from his own animal facility.** This does not mean that the veterinarian is compelled to release a prescription when requested if there are medical reasons for not releasing it and he would not dispense the medication from his own practice.

Prior to issuance of a refill authorization of a prescription, the decision to require an examination of the animal is at the discretion of the professional judgment of the treating veterinarian.

## 3. May a veterinarian charge a fee for writing the prescription?

There is nothing in statute or regulation to prohibit a practitioner from charging a reasonable fee for writing the prescription if he so chooses.

## 4. What information is required on a prescription and in what format?

### *§ 54.1-3408.01. Requirements for prescriptions.*

*A. The written prescription referred to in § 54.1-3408 shall be written with ink or individually typed or printed. The prescription shall contain the name, address, and telephone number of the prescriber. A prescription for a controlled substance other than one controlled in Schedule VI shall also contain the federal controlled substances registration number assigned to the prescriber. The prescriber's information shall be either preprinted upon the prescription blank, electronically printed, typewritten, rubber stamped, or printed by hand.*

*The written prescription shall contain the first and last name of the patient for whom the drug is prescribed. The address of the patient shall either be placed upon the written prescription by the prescriber or his agent, or by the dispenser of the prescription...If not otherwise prohibited by law, the dispenser may record the address of the patient in an electronic prescription dispensing record for that patient in lieu of recording it on the prescription. Each written prescription shall be dated*

## Virginia Board of Veterinary Medicine

### Guidance for Telehealth in the Practice of Veterinary Medicine

1. What is telehealth?

Telehealth may be defined as the use of telecommunications and information technologies for delivery of veterinary medicine professional services by linking a patient (to include owner) and a veterinarian for assessment, intervention and treatment.

2. May a practitioner licensed in another state provide services to a patient located in Virginia?

In order to provide veterinary services to a patient in the Commonwealth of Virginia via telehealth, a practitioner must hold a current, active Virginia license and comply with relevant laws and regulations governing practice.

3. Is a veterinarian located in another state consulting with a Virginia licensee via telehealth required to be licensed?

The Code of Virginia states the following:

**§ 54.1-3805. License required.**

*No person shall practice veterinary medicine or as a veterinary technician in this Commonwealth unless such person has been licensed by the Board.*

**§ 54.1-3801. Exceptions.**

*This chapter shall not apply to: ...*

*2. Veterinarians licensed in other states called in actual consultation with veterinarians licensed in the Commonwealth who do not open an office or appoint a place to practice within the Commonwealth; ...*

4. Are there any regulations specific to providing veterinary services via telehealth?

Using telehealth technologies in veterinary practice is considered a method of service delivery. The current, applicable regulations apply to all methods of service delivery, including telehealth. The licensee is responsible for using professional judgment to determine if the type of service can be delivered via telehealth at the same standard of care as in-person service.

5. How does a Virginia licensed veterinarian establish a bona fide veterinarian-client-patient relationship for the purpose of prescribing?

**§ 54.1-3303. Prescriptions to be issued and drugs to be dispensed for medical or therapeutic purposes only.**

- A. A prescription for a controlled substance may be issued only by a practitioner of . . . veterinary medicine who is authorized to prescribe controlled substances...
- B. A prescription shall be issued only to persons or animals with whom the practitioner has a *bona fide* practitioner-patient relationship or veterinarian-client-patient relationship.

*For purposes of this section, a **bona fide** veterinarian-client-patient relationship is one in which a veterinarian, another veterinarian within the group in which he practices, or a veterinarian with whom he is consulting has assumed the responsibility for making medical judgments regarding the health of and providing medical treatment to an animal as defined in § [3.2-6500](#), other than an equine as defined in § [3.2-6200](#), a group of agricultural animals as defined in § [3.2-6500](#), or bees as defined in § [3.2-4400](#), and a client who is the owner or other caretaker of the animal, group of agricultural animals, or bees has consented to such treatment and agreed to follow the instructions of the veterinarian. Evidence that a veterinarian has assumed responsibility for making medical judgments regarding the health of and providing medical treatment to an animal, group of agricultural animals, or bees shall include evidence that the veterinarian (A) has sufficient knowledge of the animal, group of agricultural animals, or bees to provide a general or preliminary diagnosis of the medical condition of the animal, group of agricultural animals, or bees; (B) has made an examination of the animal, group of agricultural animals, or bees, either physically or by the use of instrumentation and diagnostic equipment through which images and medical records may be transmitted electronically or has become familiar with the care and keeping of that species of animal or bee on the premises of the client, including other premises within the same operation or production system of the client, through medically appropriate and timely visits to the premises at which the animal, group of agricultural animals, or bees are kept; and (C) is available to provide follow-up care.*

6. In order to provide the same standard of care as in-person service, what are some of the responsibilities of a practitioner when providing veterinary services via telehealth?
- To determine the appropriateness of providing assessment, intervention and treatment services via telehealth for each patient and each situation;
  - To ensure confidentiality and privacy of patients (to include owners) and their transmissions;
  - To maintain appropriate documentation including informed consent for use of telehealth;
  - To be responsible for the performance and activities of any unlicensed assistant or facilitator who may be used at the patient site, in accordance with Virginia [laws and regulations](#);
  - To ensure that equipment used for telehealth is in good working order and is properly maintained at both site locations;
  - To comply with Virginia requirements regarding maintenance of patient records and confidentiality of client information; and

- To ensure that confidential communications obtained and stored electronically cannot be recovered and accessed by unauthorized individuals when the licensee disposes of electronic equipment and data.
7. What factors should be considered when determining if telehealth is appropriate to use? Factors to consider include, but are not limited to:
- The quality of electronic transmissions should be equally appropriate for the provision of telehealth as if those services were provided in person;
  - The practitioner should only utilize technology for which he/she has been trained and is competent;
  - The practitioner should consider the patient's (to include owner's) behavioral, physical and cognitive abilities in determining appropriateness;
  - The practitioner should assess the ability of the owner or facilitator to safely and competently use electronic transmission equipment; and
  - The scope, nature and quality of services provided via telehealth should be comparable to those provided during in-person appointments.
8. May a practitioner licensed in Virginia provide services to a patient and its owner located in another state?

The Virginia Board does not have jurisdiction over practice in another state. A veterinarian seeking to practice via telehealth with a patient and its owner in another jurisdiction should contact the board for the other state to determine its licensure requirements.

9. Can a practitioner charge professional fees for services provided by telehealth?

The Board has no jurisdiction over billing, payment, or reimbursement for veterinary services.



## VIRGINIA BOARD OF VETERINARY MEDICINE

### Guidance on Expanded Duties for Licensed Veterinary Technicians

**Q:** Does the extraction of single rooted teeth by a licensed veterinary technician LVT, allow the extraction of a multi-rooted tooth that has been sectioned (by the supervising veterinarian) into single-rooted portions?

**R:** The Board determined that once the tooth has been sectioned by the veterinarian, then it would be considered routine and would be acceptable for an LVT to extract.

**Q:** Since many veterinarians do not use skin sutures and close the skin with a subcuticular pattern and possible surgical adhesive, does the suturing of skin include subcuticular closure as an allowable duty for an LVT?

**R:** The Board determined that routine closure is limited to the skin and that subcuticular closure would not be permissible for an LVT to perform.

**Q:** Are LVT's allowed to place indwelling subcutaneous catheters and suture them in place? General anesthesia and a small incision similar to a cut down sometimes used for venipuncture are necessary for the placement.

**R:** The Board's answer to this question is no. An LVT may not place indwelling subcutaneous catheter and suture them in place.

**Q:** May an LVT perform cystocentesis?

**R:** The Board's answer to this question is yes. An LVT may perform Cystocentesis.

**Q:** May an LVT perform home treatments prescribed more than 36 hours previously by a veterinarian within the practice that an LVT is employed?

**R:** The Board determined that home therapies performed by an LVT based on an order or a prescription written by a veterinarian meets the requirements of the 36 hours because the veterinarian has made the diagnosis and ordered or prescribed that the patient needs ongoing treatment.

**Q:** May an LVT perform a simple, single layer closure of a previously created gingival flap?

**R:** Per the definition of surgery found in the *Regulations Governing the Practice of Veterinary Medicine*, surgery does not include skin closures performed by an LVT. The Board determined that oral mucosa is not skin, therefore, an LVT would not be permitted to perform closure of a previously created gingival flap.

**Q:** May an LVT perform fine needle aspirants or biopsies?

**R:** Fine Needle Aspirants – The Board determined that fine needle aspirants may or may not meet the definition of surgery depending on the location and circumstances of aspirant. Therefore, the performance of fine needle aspirants by an LVT is left up to the professional judgment of the veterinarian. Biopsies – The Board determined that biopsies meet the definition of surgery. Therefore, biopsies may not be performed by an LVT.

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## REPORTS TO THE GENERAL ASSEMBLY

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### HD7 - Shortage of Large Animal Veterinarians in Virginia (HJR 730, 2009)

**Published:** 2010

**Author:** Virginia-Maryland Regional College of Veterinary Medicine

**Enabling Authority:** House Joint Resolution 730 (Regular Session, 2009)

#### **Executive Summary:**

Food and fiber production is critical to the welfare, security and future of the United States and the Commonwealth of Virginia. The number of individuals supporting this system, including veterinarians who provide health care to the associated animals, is declining nationwide. A moderate to severe shortage of food animal veterinarians in private and public sectors over the next 20 years has been predicted. To that end, the 2009 Virginia General Assembly passed HJR 730. The resolution requested the Virginia-Maryland Regional College of Veterinary Medicine lead a study to review the current and projected shortage of food animal veterinarians in the Commonwealth and make recommendations to alleviate the shortage.

#### Key Findings

- Multiple regions of the Commonwealth, broadly described as Southside, Central, and far Southwest Virginia have potential shortages of food animal veterinarians.

- \* The availability of food animal veterinarians in the Commonwealth is highest in areas with high cattle density, especially dairy cattle; these regions are well-served today

- \* Rural regions tend to be served by multi-species practices or practitioners, which adds to the complexity of the business model and expertise needed by veterinarians serving these regions

- \* Rural veterinary practices that serve distributed farming operations have difficulty becoming and remaining profitable

- \* The current shortage, especially in rural areas, will worsen unless such practices can be made economically viable

- The lack of rural medical professionals is not unique to the veterinary profession; similar shortages exist in human medicine.

- \* Rural development depends on the provision of quality health care, including veterinary medicine

- \* Rural professionals tend to come from rural backgrounds; thus, recruitment and development of those individuals in their communities is essential

- Public health depends on veterinary professionals that are active in the private and public sectors throughout the Commonwealth. The human health risks from rabies, brucellosis and bovine tuberculosis have been dramatically reduced by the actions of veterinarians. Conversely, severe acute respiratory syndrome (SARS), monkey pox, and influenzas demonstrate that pathogens continue to cross species barriers and continue to place the public at risk.

- Many young veterinarians are burdened with a significant debt load after graduation but the debt load is not unique to food animal veterinarians; it is a burden for all veterinary, human medical, and dentistry students after graduation. The ability to service this debt has direct influence on the choice of jobs after graduation.

#### Potential Solutions

Solutions to address the current and projected shortage of food animal veterinarians need to be varied and tailored to the

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location. In addition, flexibility and creativity are to be encouraged. In simple terms, one statewide solution will not solve this challenge.

The long term availability of large animal veterinarians in rural, underserved areas of the Commonwealth will depend on

- Veterinary students who desire to work with livestock in rural Virginia
- An adaptive veterinary curriculum that provides the skills, knowledge, and mentorship necessary to succeed in rural practice,
- An economically viable livestock industry that supports rural food animal veterinarians

The Study Group proposes the following solutions:

- To address the shortage of food animal veterinary practices in the Commonwealth, localities, organizations and businesses need to
  - \* Encourage veterinary access to economic development initiatives such as local Industrial Development / Economic Development Authority Assistance and business parks
  - \* Encourage veterinary access to grants from the Tobacco Indemnification and Community Revitalization Commission in eligible rural communities
  - \* Provide business mentorship for rural veterinary practices
- Increase state funding to support growth and expansion of the Virginia-Maryland Regional College of Veterinary Medicine to serve a larger student body
- Legislative and Executive support for ongoing federal initiatives
  - \* The Federal Veterinary Medical Loan Repayment Program that was authorized by the National Veterinary Medical Service Act
  - \* HR 3519, S1709: Veterinarian Services Investment Act. Introduced 7/31/2009. Congressman Bob Goodlatte (VA-6) is a cosponsor. This bill would establish a grant program to promote efforts to develop, implement, and sustain veterinary services
  - \* HR 2999: Veterinary Public Health Workforce and Education Act. Introduced 6/23/2009. This bill would establish fellowships for on-the-job training of veterinarians in food systems security and public health and increase faculty teaching in veterinary public health



**A Report from the  
Veterinary Shortage Working Group**  
on the Large and Food Animal  
Veterinarian Shortage

December 20, 2023



Dear Friends,

On behalf of the Veterinary Shortage Working Group (VSWG) members, I am pleased to provide this report. For the past nine months, the VSWG members, along with others serving on the committees, have diligently worked to identify and develop solutions to address the large and food animal veterinarian shortage. As you will find, there is not one or two simple answers. It will take many approaches, programs, and organizations, along with time, to address a problem that has been developing for more than a decade.

Kentucky is not alone in this problem. In 2021, USDA identified more than 500 counties in the U.S. as veterinarian shortage areas. For more than a decade, leaders in Kentucky have worked on various solutions. I believe our efforts, which started in the spring of 2022, have for the first time taken a comprehensive look at the facts that led to this problem and worked to identify the wide variety of possibilities to resolve it.

The VSWG created four committees to look at a particular period in the life of a veterinarian:

- Developing a strong pipeline of Kentucky students to veterinary school;
- Opportunities in veterinary school, what should Kentucky focus on to assist;
- From veterinary school to rural/large animal practice, Kentucky's role; and
- Keeping veterinarians in rural/large animal practice, what can we do.

The information and recommendations in this report come from each of those four committees.

Some of the ideas in this report will require government action. Without question, there is a role for state and federal governments to assist in solving this issue. However, others can be termed as self-help with the veterinary and agriculture communities working together, in some cases on a case-by-case or in local efforts. Some of the tools to aid in these efforts have already been developed.

I extend a special thank you to the Kentucky Veterinary Medical Association's Executive Director Debra Hamelback and the Kentucky Board of Veterinary Examiner's Executive Director Michelle Shane for their dedication and leadership on this effort since we began this journey in the spring of 2022. One of the success stories in our efforts has been the involvement of those two organizations and veterinarians all across the commonwealth.

As I close out my term as Commissioner of Agriculture, I hope the work we have accomplished over the past 18 months along with this report provide a foundation for the leadership in our veterinarian and agricultural communities to advance the work that has begun.

Sincerely,

Dr. Ryan F. Quarles  
Commissioner of Agriculture



## **Veterinary Shortage Working Group Members**

The Veterinary Shortage Working Group (VSWG) was appointed by Commissioner of Agriculture, Dr. Ryan F. Quarles on February 3, 2023. Made up of agriculture industry stakeholders, the VSWG was charged with the task of looking for solutions to Kentucky's large animal veterinarian shortage. Those named to the group and who they represent are:

- Dr. Ryan F. Quarles, Commissioner of Agriculture, Kentucky Department of Agriculture
- Dustin Blosser, Kentucky Alternative Livestock Association
- Sarah E. Coleman, Kentucky Horse Council
- Dr. Randall Evans, Lincoln Memorial University
- Sharon Furches, Kentucky Farm Bureau
- Dr. Tim Gardner, Kentucky Board of Veterinary Examiners
- Becky Gilpatrick, Kentucky Higher Education Assistance Authority
- Dr. Beth Johnson, Kentucky Sheep & Goat Development Office
- Dr. Gordon Jones, Kentucky Agriculture Development Board
- Dr. Jon Laster, Kentucky Veterinary Medical Association
- Dennis Liptrap, Kentucky Pork Producers
- Dr. James MacLeod, University of Kentucky, College of Agriculture, Food and Environment
- Dave Maples, Kentucky Cattlemen Association
- Aaron Miller, Kentucky Poultry Federation
- Caleb Ragland, Kentucky Livestock Coalition and Kentucky Soybean Association
- Mark Reding, State Board of Agriculture
- Dr. Debbie Reed, Breathitt Veterinary Center and Murray State University
- Dr. Andy Roberts, Kentucky Association of Equine Practitioners
- Glen Sellers, Auburn University College of Veterinary Medicine
- Dr. Andrea Sexten, Eastern Kentucky University
- Dr. Charles Townsend, Kentucky Dairy Development Council
- Dr. R. Steve Velasco, State Veterinarian, Kentucky Department of Agriculture, Office of State Veterinarian

The staff that supported the VSWG and its committees were:

- Debra Hamelback, Executive Director, Kentucky Veterinary Medical Association
- Michelle Shane, Executive Director, Kentucky Board of Veterinary Examiners
- Keith L. Rogers, Chief of Staff, Kentucky Department of Agriculture
- Haley V. Buchanan, Executive Administrative Asst., Office of the Commissioner, KDA

A special thanks to the Farm Journal Foundation's Todd Greenwood and Tricia Beal, for their support of the VSWG and work on the national level to address the shortage of large animal veterinarians.

## **Actions and Accomplishments in the past 18 months**

For the past eighteen months, the members and organizations involved in the Veterinary Shortage Working Group (VSWG) have actively worked in identifying solutions to the large and food animal veterinarian shortage through public dialogues, new programs, and education. All of the members of the VSWG have recognized the vast shortage of large and food animal veterinarians in Kentucky and especially in rural areas. The following is a summary of the actions to date:

- In the spring of 2022, the Kentucky Board of Examiners (KBVE) completed its first “Licensee Demographics report” examining veterinarians and their offered services in Kentucky. Of the more than 2,500 active veterinarian licensees, only approximately 1,660 identified a Kentucky mailing address. Of those Kentucky practitioners, 39% were identified as 55 years or older, possibly within 10 years of retirement age. The report also identified that fewer than 3% of Kentucky veterinarians who dedicated 70% or more of their time to large/food animal work. It was this data that helped ignite the conversation surrounding the veterinary shortages issue.
- On June 15, 2022, Commissioner Quarles, the KBVE, and Kentucky Veterinary Medical Association (KVMA) took the first step in bringing attention to the issue by hosting the first Stakeholder’s Dialogue on the Status of Large Animal Veterinarians at the Kentucky State University Research farm. Presentations were provided by the State Veterinarian, KBVE, KVMA, Kentucky Agricultural Finance Corporation (KAFC), and Auburn University College of Veterinary Medicine (AUCVM). The meeting was hailed as a great success with 66 people attending from more than 25 organizations.
- In early summer of 2022, the Kentucky Agricultural Finance Corporation (KAFC), Board of Directors reviewed and updated the guidelines for its Large/Food Animal Veterinary Loan Program (LFAVLP). The KAFC, part of the KDA, is staffed by the Kentucky Office of Agricultural Policy. The purpose of the LFAVLP is to assist individuals licensed to practice veterinary medicine in Kentucky who desire to construct, expand, equip or buy into a practice serving large farm animal producers, including goat, sheep, swine, and other smaller food animals. The updated guidelines help veterinarians early in their career access the program even if they are carrying high levels of debt. These loans can help lower the overall interest rates, to date five loans have been approved.
- On October 4, 2022, representatives of the KVMA, KBVE, and KDA traveled to Auburn University to launch the first Kentucky Day at Auburn and kickoff the establishment of the KVMA Student Chapter. KVMA sponsored a dinner that evening for Kentucky students with presentations from those organizations attending. The purpose of the chapter, it has allowed for open communication and networking for students interested in working in Kentucky. By doing so, it will allow Kentucky to showcase what it has to offer along with helping establish relationships not only with students, but also with the faculty as well.

- In October of 2022, the Kentucky Agricultural Development Board (KADB) approved the Large and Food Animal Veterinary Incentives Program to provide grant funding to veterinarians to increase service to large and food animals. A first of its kind program for KADB, it uses state funds to match county funds in a 5:1 state/county ratio. Applicants are limited to 75% for eligible expenditures not to exceed more than \$100,000 in state and county funds. This program can be used in conjunction with the KAFC loan program.
- With the success of the first Dialogue in June, the KDA, KVMA, and KBVE hosted the second Stakeholder's Dialogue on the Status of Large Animal Veterinarians in Louisville during the North American International Livestock Exposition on November 14, 2022. The focus of the event was to dig a little deeper into the relationships between veterinarians and farmers. The location of the meeting allowed for several producers to partake in the meeting and to hear firsthand presentations from KADB, Lincoln Memorial University (LMU), AUCVM, and a panel of veterinarians and producers. The consensus from the participants was to create a working group to advance the ideas and conversations identified during the two Dialogues.
- Early in 2023, Commissioner Quarles received nominations for the creation of the working group identified at the second Dialogue. In February, he appointed 20 members to the Veterinary Shortage Working Group (VSWG), representing 23 organizations. The VSWG was charged with the task to further identify and develop actions to address the veterinarian shortage.
- February 28, 2023, was the first meeting of the VSWG. This organizational meeting reviewed the material from the dialogues and other sources, and established the intentions and plans for its work. In addition to the VSWG members, others were invited to participate in one of the four committees established to focus on the different stages of a veterinarian's career. The VSWG went on to meet three more times in 2023, with several more committee meetings as it worked to develop its final report. The material and resources identified and reviewed by the VSWG have been placed in a digital library for anyone to access at:  
[https://drive.google.com/drive/folders/196YISE3oIH1YzDtBccnAUObIPZef8CS?usp=drive\\_link](https://drive.google.com/drive/folders/196YISE3oIH1YzDtBccnAUObIPZef8CS?usp=drive_link)
- During the 2023 legislative session of the Kentucky General Assembly, KBVE worked with Senator Jason Howell and Representative Matt Koch to pass House Bill 167, a complete modernization of the Kentucky Veterinary Medicine Practice Act, including a new program to offer educational awards to entice practitioners to work in veterinary shortage areas in the commonwealth.
- In May of 2023, AUCVM was awarded \$64,800 from the KADB for a two year preceptorship and externship program. AUCVM had a similar program funded by a USDA grant that ended in 2022. The match for the KADB funds were provided by



AUCVM and KVMA. Mr. Glen Sellers, director of the program, has worked closely with Kentucky veterinarians and agriculture leaders for several years. The purpose of the program is to aid in the recruitment and support of veterinarians in rural Kentucky. As part of the preceptorship program AUCVM senior students participate in an eight-week training experience to learn different aspects of practice management, finances, client relations, personnel supervision, and housekeeping under the direct supervision of a practicing veterinarian. The externship program is open to all students at AUCVM and give students a two-week hands-on training experience in a clinical practice environment.

- In the summer of 2023, AUCVM received a National Institute of Food and Agriculture (NIFA) grant from USDA to start the Auburn Veterinary Student Mentorship Program. Dr. Cris Young, Principal Investigator, from AUCVM, immediately went to the Kentucky Cattlemen's Association and partnered with them. KCA's Director of Education, Bradon Burks and Dr. Cris Young are leading this program designed exclusively for rising high school juniors or seniors that have a sincere desire to become a Food Animal Veterinarian. The identified applicants were ten high school upper-class students with strong academic credentials, emotional maturity, motivation, dedication, and ability to complete the veterinary medical curriculum. These students have been joined by seven third- and fourth-year college of veterinary medicine students to establish a mentoring relationship. The high school students are provided four different opportunities to meet and work alongside faculty from AUCVM as well as veterinarians from the KDA, and USDA APHIS Veterinary Services. With this program it not only educated the high school students on what to expect for veterinary school, but it also greatly helped with fostering a network between high schools and the veterinary school.
- On September 22, 2023, during the KVMA annual convention in Louisville at the Galt House Hotel the KVMA hosted its second open dialogue aimed at the rural veterinarian shortage and issues associated with it. Attended by more than 80 individuals, it included attendees from KVMA, KBVE, AUCVM, KDA, LMU, and many veterinarians. This meeting served as a great opportunity for discussion, proposed solutions, and garnered insight from all angles including private practice, industry groups, academia, and government.
- One of the duties of the State Veterinarian is to submit the recommendations for the USDA Veterinary Medicine Loan Repayment Program (VMLRP). With the assistance of universities, industry, KVMA, and KBVE, the State Veterinarian identifies the shortage areas in Kentucky that may include counties, livestock species, and government positions. The recommendations are due each fall, in recent years Kentucky has been allocated five awards with all five awarded, the 2023 requests have been submitted, the awards are not complete at this time.
- The Kentucky General Assembly's, Interim Joint Committee on Agriculture met on October 19, 2023, with the entire meeting focused on the discussion of how to address

Kentucky's Veterinarian Shortage. Presentations were made by KDA, KBVE, KVMA, AUCVM, and Murray State University.

- The University of Kentucky and Kentucky Horse Council, with support from Morehead State University, Eastern Kentucky University and multiple industry partners, have announced an event for February 17, 2024, that will provide undergraduate students insight into the exciting field of veterinary medicine. Morning seminar topics will include pre-veterinary preparation and application information, current veterinary medicine issues, and exploration of the diversity of career opportunities available. A panel discussion with current veterinary professionals will debate functional ways of navigating industry concerns and conclude morning activities. The afternoon sessions will allow students to learn more about particular professional domains within veterinary medicine with focus areas including: Small/Companion Animal, Equine, Livestock, and Corporate/Government/Academic.

### **Attention on the National Level:**

On the national level, there has been recent action taken to bring awareness to the veterinarian shortage. Many expect the new Farm Bill in 2024 to address the veterinarian shortage issue. Some of the recent actions include:

On August 10, 2023, The U.S. Senate established a Veterinary Medicine Caucus for the first time in its history. The caucus will focus on increasing awareness toward veterinary-related matters in Congress, educating lawmakers and their staff about the challenges facing the profession, and advancing legislation that benefits the veterinary community.

This fall after months of collaborative work by the American Veterinary Medical Association, other stakeholder organizations, and congressional offices, the Rural Veterinary Workforce Act, was introduced in both the House and Senate in Washington DC. The Rural Veterinary Workforce Act would end the federal taxation on VMLRP awards, which would encourage more veterinarians to participate in a program that offers up to \$75,000 over three years for student loan repayment.

The Farm Journal Foundation (FJF) has been a great resource for Kentucky and the VSWG. In the spring of 2022, the FJF received a grant from the Zoetis Foundation to conduct a research study on veterinary shortages. That report completed by Clinton Neill, Ph.D., an Assistant Professor in Veterinary Economics at the Cornell Center of Veterinary Business and Entrepreneurship, was provided to Congress in December of 2022. The report and support of the FJF staff was one of the main resources for the VSWG. The FJF has partnered with the National Association of State Departments of Agriculture (NASDA) and the KDA to raise awareness, education, and develop material to address the shortage. KDA has participated in the FJF solutions mapping working group which is developing the material and implementation strategy to address the rural veterinary shortage.

**Veterinary Shortage Working Group**  
Report on the Large and Food Animal Veterinarian Shortage  
Executive Summary

Over the past 18 months, Commissioner of Agriculture, Dr. Ryan F. Quarles has led efforts bringing together agricultural, commodity, and veterinarian stakeholders with the objective, to investigate the reasons behind the decline in access to rural veterinary care in Kentucky and propose effective solutions. Four working committees were formed, each focusing on specific time in a veterinarian's career. These committees worked to establish actions and benchmarks to reach specific goals and address the shortages of large and rural animal veterinarians.

**I. Cultivating Future Large Animal/Rural Veterinarians by Developing a Strong Pipeline of Kentucky Students to Veterinary School**

- a. Commence the veterinary recruitment pipeline at an earlier age and enhance robust educational programs within Kentucky's agricultural community. Educate primary and secondary school students, especially in rural communities, on veterinary medicine and associated animal medical and production careers in agriculture.
- b. Establish student awareness of the importance for strong academic preparation, especially in STEM disciplines, during secondary school (grades 7-12) for success as an undergraduate pre-veterinary student and subsequently in veterinary school.
- c. Support and prioritize academic rigor during secondary school (grades 7-12), to occur in parallel to their exposure to veterinary and associated animal medical and production careers in agriculture. This should include encouraging high school students to complete Advanced Placement (AP), International Baccalaureate (IB), and/or college dual enrollment coursework.
- d. Encourage pre-veterinary advisors in Kentucky's colleges and universities to develop programs that allow prospective veterinary students to gain animal production experiences and exposure to rural veterinary practice.
- e. Offer personal finance training and mental health support programs to assist prospective veterinary students achieve basic financial literacy and develop strategies to maintain mental/emotional well-being and a healthy work-life balance.

**II. Bridging the Network by Developing Opportunities in Veterinary School**

- a. Create a team approach to develop, support, promote, and retain ongoing relationships between veterinary schools, their students, and Kentucky's agriculture industry.
- b. Assist in developing and funding preceptorship and externship programs to provide students with opportunities to work in rural Kentucky while attending veterinary school.
- c. Expand Kentucky's out of state veterinary school contract seat spaces at Auburn and other Colleges of Veterinary Medicine.

### **III. Kentucky's Role to Assist Students from Veterinary School to Rural and Large Animal Practice, Forging Sustainable Connections with Producers**

- a. Elevate rural community collaboration by establishing a network of key community and agricultural organizations in each county, district, or shared community region.
- b. Leverage local agricultural and community organizations to connect, educate, and support practitioners.
- c. Develop and support student loan debt repayment opportunities for new veterinary graduates.
- d. Leverage community partnerships to sustain large and food animal practices in rural areas.
- e. Register all veterinary facilities to track data regarding services offered and regions covered by each practice.
- f. Create centralized cooperative haul-in veterinary facility locations in key rural Kentucky communities.

### **IV. Sustainability for the Future of Rural Veterinary Medicine, Keeping Veterinarians in Rural and Large Animal Practices**

- a. Offer new business models for veterinarians and producers.
- b. Develop new financial support structures encouraging investment in sustainable rural veterinarian practices.
- c. Create a state-level educational loan forgiveness program like the Federal Veterinary Medicine Loan Repayment Program.

The Commissioner and all Veterinary Shortage Working Group contributors earnestly aspire to see this comprehensive report implemented to the best of Kentucky's capabilities. The group members are confident that the goals and achievements outlined in this report are within reach, and they believe that this collaborative effort will unite the veterinary community with commodity groups and producers, contributing to the development of a more robust and sustainable Kentucky for everyone.

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**COMMITTEE ONE**  
**DEVELOPING A STRONG PIPELINE OF KENTUCKY**  
**STUDENTS TO VETERINARY SCHOOL**  
“Cultivating future large animal/rural veterinarians”

*Chair: Dr. Randall “Randy” Evans*

*Staff Liaison: Haley V. Buchanan*

*Members: Dr. Jamie MacLeod, Dave Maples, Laurie Mays, Sarah Coleman,  
Dr. Gordon Jones, Dr. Debbie Reed, and Dr. Cris Young*

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### **Summary Statement**

This group shall strive to bridge the information gap between young students and veterinary medicine careers while trying to reduce the academic and financial barriers that prevent students from entering this career pathway with determination to keep all veterinary medicine minded students, especially the rural students, a top priority.

### **Background**

People often develop an initial curiosity and interest in the profession of veterinary medicine during childhood. For rural students in agricultural communities, the veterinary profession offers the opportunity to leverage a sincere love of animals and working on the farm with a rewarding career path that is valued and respected by society. Yet in today’s rural and agricultural communities, there is a profound shortage of veterinarians in clinical practice, especially for large and production animal species. This first section of the Veterinary Shortage Working Report focuses on the critical issues of developing, supporting, and preparing a strong pipeline of Kentucky students for success in veterinary school, with a special emphasis on students with rural and agricultural backgrounds.

Recommendations and strategies are presented to inform students in grade school about veterinary medicine and associated animal medical and production career opportunities. On an ongoing basis through high school and college, the veterinary-related interests of these students should be encouraged and supported through dedicated mentoring, well-informed academic advising, and optimized experiential learning opportunities – especially in areas of large and production animal species. The objective is to substantially expand the number of Kentucky students who are well informed about the exciting career opportunities in veterinary medicine, while simultaneously enhancing their academic, emotional, and experiential (animal agriculture) preparation for success.

### **Goals, Actions, Benchmarks**

#### **Goal #1**

Start the veterinary recruitment pipeline sooner and grow the strong Kentucky agricultural community programs for educating primary and secondary school students about veterinary medicine and agriculture.

## **Action**

Develop and secure funding for the appropriate modules for each strategic group and find the best methods for module delivery to industry and community stakeholders.

## **Benchmarks**

- Provide High School Guidance counselors the appropriate materials and encourage them to promote Veterinary Medicine as a career emphasizing the academic requirements for success in completing a veterinary medical college curriculum.
  - Expand the collaborative programs such as what AUCVM's Dr. Young and KCA's Bradon Burks has developed between veterinary school students and high school students.
- Provide guaranteed funding of undergraduate animal production units and Pre-veterinary Medicine Undergraduate Programs.
  - Support educational programs such as AgDiscovery Program at Kentucky State University.
  - Expand and fund Pre-Veterinary Medicine Experience Days with universities/colleges and veterinary industry leaders such as KVMA, KAEP, Kentucky Horse Council, Kentucky Cattleman Association, 4-H and FFA.
- Explore the development of a program similar to Iowa State University's College of Agriculture and Life Sciences called Production Animal – Veterinary Early Acceptance Program. This program's goal is to educate, recruit and retain more students that wish to practice production animal medicine.
- Outreach to home school networks.

## **Goal #2**

Financial literacy training and mental health support programs to reduce financial barriers and to assist in wellness.

## **Action - #1**

Create a Kentucky Pre-Veterinary Medicine Financial Literacy Guide similar to the University of Florida Veterinary Medicine Basic Financial Literacy Guide (For Pre-Veterinary Students).

## **Benchmarks**

- Understand veterinary college debt and personal finance.
- Understand veterinary college Cost of Attendance=Tuition + Cost of Living.
- Understand Total Cost of Attendance + Accrued Interest.
- Manage debt by:
  - Budgeting
  - Scholarships, grants, loans
  - Part-time work
  - Limiting pets that veterinary students are financially responsible during educational career.
  - Calculate future projected salary

### **Action - #2**

Enlist Kentucky veterinarians to offer financial guidance and support to aspiring veterinarians.

### **Benchmarks**

- Financially support aspiring veterinarians through paid internships with competitive pay and benefits at the practice and throughout the veterinary profession.
- Offer financial literacy training to future veterinarians.

### **Action - #3**

Encourage Pre-veterinary medical students to gain financial literacy skills by utilizing resources such as the AVMA “My Veterinary Life” website.

### **Benchmarks**

- Survey pre-veterinary medical students to assess financial literacy acumen.
- Inform students that Medical knowledge + Financial health = Successful Career.
- Advise students that financial decisions made during undergraduate and veterinary school will affect financial health and life satisfaction in the future.
- Promote the available grants, funding, scholarships, and all financial resources to interested students at various stages of their educational career.

### **Action - #4**

Provide mental health support programs throughout academic career.

### **Benchmarks**

- Increase awareness and decrease stigma of these programs.
- Offer free mental health screenings.
- Include well-being practices in coursework and student activities.
- Increase accessibility of mental health counseling to 24/7.

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**COMMITTEE TWO**  
**OPPORTUNITIES IN VETERINARY SCHOOL,**  
**WHAT SHOULD KENTUCKY FOCUS ON TO ASSIST**

“Bridging the Network”

*Chair: Bradon Burks*

*Staff Liaison: Keith L. Rogers*

*Members: Dr. Fernanda Camargo, Dr. Tim Gardner, Becky Gilpatrick,  
Dr. Pedro DePedro, and Dr. Robert Stout*

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## **Summary Statement**

Strive to help broaden and build the relationships between veterinary schools, their students, and Kentucky agriculture through various means of outreach and support through various partnerships that establish long-lasting relationships while supporting students during veterinary school and recruiting them to work in rural Kentucky after graduation.

## **Background**

Following acceptance into a college of veterinary medicine (CVM), individuals begin their nine-semester journey through an intense veterinary medicine academic program. Providing support during their tenure as students becomes a vital factor in their success. This is particularly true for students with an interest or desire to launch their career in rural or large animal work. Veterinary students in AVMA Council on Education (COE) accredited schools receive training in all animal species. However, the job offers extended upon graduation are most frequently from small animal private and corporate practices. To best ensure an adequate supply of new veterinarians are entering into large animal and rural practice, we need to connect students with opportunities in large animal and rural practices prior to graduation.

Recruitment should also begin while individuals are still in their academic programs. Part of the recruitment strategy must be consideration of access to housing during any extern or preceptorship. Students cite access to housing as a key component of their consideration on where to spend this portion of their education.

## **Goals, Actions, Benchmarks**

### **Goal - #1**

For Kentucky’s agricultural leadership and organizations to create a team approach to develop, support, and retain an ongoing relationship with veterinary schools. Promote the school’s student chapters and its students while seizing the opportunity to showcase Kentucky agriculture and the vast opportunities and careers in rural large animal care that lie waiting in Kentucky.

### **Action**

Build and maintain relationships within the veterinary student community, to include the students, parents, and faculty.



## **Benchmarks**

- Inform students of the opportunities that Kentucky has to offer through the means of having networking opportunities for students and industry partners.
- Offer trade and career events to advocate for Kentucky agriculture and recruit interest in related careers.
- Establish collegiate programs that correlate with current groups that will help connect interested students with rural Kentucky while helping to better prepare students for a career as large animal and rural veterinarian.
- Develop a mentorship program for current university pre-vet advisors that assists them in better understanding Kentucky agriculture and the opportunities for rural veterinarians so they can better equip potential students.

## **Goal - #2**

Kentucky's agricultural leadership and organizations will assist in the development and funding for preceptorships and externships programs to provide students an opportunity to work in rural Kentucky during veterinary school.

## **Action - #1**

Analyze current preceptorship and externship programs for the positive impact on Kentucky agriculture and then work with veterinary schools to expand the opportunities available to veterinary students in rural Kentucky.

## **Benchmarks**

- Identify the individuals and organizations in Kentucky agriculture to lead this effort.
- Build upon the AUCVM program recently funded by the KADB, and match from KVMA.
- Identify the areas in Kentucky that have an interest in long-term recruitment of a rural veterinarian and help design a program that includes preceptorships and externships for students that target that community.
- Engage local communities interested in long-term recruitment of rural veterinarians to identify the steps they may take to secure an interested veterinary student. Such as assistance in housing, engagement in the community, and possible financial support.

## **Action - #2**

The Kentucky Department of Agriculture and Office of State Veterinarian, will actively recruit interns from veterinary schools and under graduate students interested in veterinary school for its summer internship program.

## **Benchmarks**

- KDA will work with AUCVM and LMU to identify Kentucky students currently enrolled in veterinary schools interested in regulatory medicine and actively recruit them.

- KDA will work with pre-vet advisors at universities and colleges in Kentucky to identify students with an interest in veterinary school and potential regulatory medicine careers and provide them information about the KDA internship program.

### **Goal - #3**

Build on to our preexisting relationship at AUCVM to expand the number of state supported student positions while at the same time exploring opportunities with other veterinary schools for similar positions for Kentucky students.

### **Action - #1**

Strengthen and increase funding for new positions at AUCVM.

### **Benchmark**

- Work with Kentucky's General Assembly and Kentucky Higher Education Assistance Authority to pursue additional funding and positions.

### **Action - #2**

Explore and evaluate the opportunities with other veterinary schools to create new partnerships with potential state supported veterinary student positions.

### **Benchmark**

- Identify a team of veterinarian and agriculture leaders to focus on this task.

### **Action - #3**

Identify and evaluate the current opportunities at undergraduate universities that are offering pre-vet programs.

### **Benchmarks**

- Identify all Kentucky undergraduate schools that offer a pre-vet program.
- Evaluate the recent graduates that entered a veterinary school from these pre-vet programs and their area of focus.
- Meet with pre-vet advisors and faculty to explore what can be done to create interest in rural, large or food animal veterinarian careers.
- Develop a program to educate pre-vet advisors and faculty on the opportunities and programs that Kentucky has and how they benefit veterinary students that wish to practice in rural areas.
- With the assistance of the pre-vet advisors and faculty, offer workshops to expose pre-vet students to careers and opportunities in rural, large and food animal practice.

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**COMMITTEE THREE**  
**FROM VETERINARY SCHOOL TO RURAL AND LARGE ANIMAL PRACTICE,**  
**KENTUCKY'S ROLE**

*Chair: Glen Sellers*

*Staff Liaison: Michelle Shane*

*Members: Dr. Chance Armstrong, Dustin Blosser, Sharon Furches,  
Todd Greenwood, Dr. John Laster, Dennis Liptrap, Dr. Andy Roberts,  
Dr. Charles Townsend and Dr. R. Steve Velasco III*

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## **Summary Statement**

Assisting new graduate veterinarians with connecting with and transitioning to working with rural and large animal producers, and veterinarians in Kentucky.

## **Background**

Rural food animal veterinarians are needed to ensure the health and safety of the nation's food supply and are imperative to protecting against animal diseases. Rural food animal veterinarians possess the knowledge and skills to improve, protect, and sustain the agricultural economy of the United States, yet these food animal veterinarians comprise only 5% of the veterinary profession. The USDA National Institute of Food and Agriculture (NIFA) has identified 47 states experiencing a "veterinarian shortage situation." The physical demands of food animal work the long hours, student debt, quality of life concerns, lack of mentorship, and practice profitability and sustainability in rural areas contribute to the rural veterinary shortage.

Furthermore, rural veterinary practice for all species is in decline. Many new graduates bypass rural communities for work in urban areas where they can make a larger salary and often receive significant sign-on bonuses. Since veterinary students today graduate with an average of \$250,000 in debt, a graduate's ability to pay back their student loans is paramount in considering employment opportunities.

Increasing the number of rural food animal and rural practitioners by assisting new graduate veterinarians with connecting and transitioning to working with rural and large animal veterinarians and producers in Kentucky will require the entire community's effort, including animal owners, producers, schools, government officials, and industry leaders.

## **Goals, Actions, Benchmarks**

### **Goal #1**

Rural Community Involvement at the local level – Outreach to the local community is critical in affecting change. Buy-in is necessary from local officials and community leaders to ensure awareness and promotion of the critical veterinary shortage issue. (See additional considerations in Appendix.) Key community influencers include:

- State Senators and Representatives in their various districts
- County judge executives and magistrates
- Local elected officials
- Area Development Districts (ADDs)
- County Agriculture Development Boards
- County Agricultural Development Councils
- Community banks, and agricultural businesses, and civic organizations.

### **Action - #1**

Identify the key community organization points of contact (POCs) in each county, district, or shared community region.

### **Benchmarks**

- Develop a complete list of community POCs for each region and their contact information.
- Number of community POCs that have been contacted in each county or region.
- Number of counties or regions where this has occurred.

### **Action - #2**

Outreach to community POCs to build relationships.

### **Benchmarks**

- Number of one-on-one or group meetings reaching each community POC to identify local needs and existing resources.
- Number of action items created with each community group.
- Number of implemented action items completed with each community group.

### **Goal #2**

Role of Local Agricultural Organizations – Agricultural organizations and their members are powerful resources for producers and their communities. Establishing relationships with these organizations at the local level is an essential element of success in fostering programs to entice veterinarians to stay in the community. (See additional considerations in Appendix.) Key agricultural organizations include:

- UK Extension Offices and Extension Agents
- Farmer touch points, including equipment companies, fertilizer companies, nutrition companies, wholesaler distributors, drug suppliers, etc.
- Commodity Groups
  - Kentucky Farm Bureau (KFB) and its county Farm Bureaus
  - Kentucky Cattlemen’s Association (KCA)
  - Kentucky Pork Producers Association (KPPA)
  - Many others (see [Kentucky Agricultural Council](#) Member Organizations)

- Species-specific groups who are talking to producers
  - Consignors
  - Breed Associations
  - Stockyards / Livestock Sales Barns
  - Keeneland
  - Fasig-Tipton
- Kentucky State Fair
- Kentucky 4-H and Kentucky FFA

### **Action - #1**

Identify the key agricultural organization points of contact (POCs) in each county, district, or shared community region.

### **Benchmarks**

- Develop a complete list of agricultural organization POCs for each region and their contact information.
- Number of agricultural organization POCs contacted in each county or region
- Number of counties or regions where this has occurred.

### **Action - #2**

Outreach to agricultural organization POCs to build relationships and help them understand the value of building and maintaining relationships with veterinarians.

### **Benchmarks**

- Number of one-on-one or group meetings reaching each agricultural organization POC to identify local needs and existing resources.
- Number of action items created with each agricultural organization.
- Number of implemented action items completed with each agricultural organization.
- Number of agricultural organizations that send educational materials on the veterinary shortage issue to their membership.

### **Action - #3**

Leverage state and local agricultural organization meetings to connect with their membership.

### **Benchmarks**

- Identify local community events that touch on agriculture or veterinary medicine.
- Number of local meetings at which exhibited or presented about the ties between veterinarians and animal producers.

### **Goal #3**

Leverage local veterinary organizations and meetings – Both federal and state law require that a relationship exists between a veterinarian and their client in order to provide diagnosis and prescriptions. This relationship is called the veterinarian-client-patient relationship (VCPR) and must be renewed with an in-person visit at least once every 12 months.

There are many established veterinary organizations at the state and local level which hold periodic meetings where communities may develop relationships with veterinarians. Keeping veterinarians informed of the needs of the community is a vital step to ensuring the profession is aware of the community's needs. Key veterinarian organizations and meetings include:

- Kentucky Veterinary Medical Association (KVMA) and its local chapters
- American Association of Bovine Practitioners (AABP)
- Kentucky Association of Equine Practitioners (KAEP)
- American Association of Small Ruminant Practitioners (AASRP)
- Colleges of Veterinary Medicine (CVMs)
  - Auburn
  - Lincoln Memorial University
  - Tuskegee
- UK Summer Food Animal Conference
- UK Winter Food Animal Conference
- Buffalo Trace VMA Morehead Clinic Days
- Others

### **Action - #1**

Identify the key veterinarian organizations and meetings points of contact (POCs) in each county, district, or shared community region.

### **Benchmarks**

- Develop a complete list of veterinarian organizations and meetings POCs for each region and their contact information.
- Number of veterinarian organizations and meetings POCs that have been contacted in each county or region.
- Number of counties or regions where this has occurred.

### **Action - #2**

Coordinate meet-and-greets between community veterinarians and agricultural groups to encourage relationship-building.

### **Benchmarks**

- Number of community events bringing together producers and veterinarians.
- Number of participating veterinarians.

- Number of participating producers.
- Number of participating CVM students.

## Goal #4

Student Loan Debt Support / Repayment – A factor in a new graduate’s decision about where to work is the amount of student loan debt they carry. In the past, recent graduates would purchase shares in an established veterinary business and become a part of an existing community. Today, student loan debt makes it more difficult for many newly licensed veterinarians. Creating and leveraging programs for new graduates to offset or forgive their student loans will open up more options for these veterinarians, including working in rural areas and in food animal medicine. Debt support programs will encourage and enable them to buy into local veterinary practices so that they stay in the community.

There are both federal and state-level programs that address this issue. For example, in 2022 the Kentucky Office of Agricultural Policy modified their loan program to make loans easier and more accessible to veterinarians. However, students and new graduates often need county support to complete the application processes. Some critical organizations and programs include:

- Kentucky Office of Agricultural Policy (KOAP)
  - **Large and Food Animal Veterinary Incentives Program**  
Provides funding for Kentucky veterinarians to increase service to large and food animals in the state. Applicants may receive up to 75 percent reimbursement for eligible expenditures not to exceed more than \$100,000 in state and county funds as a lifetime limit.
- Kentucky Agricultural Finance Corporation (KAFC)
  - **Large/Food Animal Veterinary Loan Program (LFAVLP)**  
Designed to assist individuals licensed to practice veterinary medicine in Kentucky who desire to construct, expand, equip, or buy into a practice serving large animal producers, including goat, sheep, swine, and other food animals.
- Kentucky Board of Veterinary Examiners (KBVE)
  - **Educational Awards Program**  
Established in KRS 321.235, this program is currently under development. Following the passage of administrative regulations governing the program, contract awards of \$10,000 - \$25,000 will be offered to veterinarians willing to work in veterinary shortage areas in Kentucky.
- USDA National Institute of Food and Agriculture (NIFA)
  - **Veterinary Medicine Loan Repayment Program (VMLRP)**  
Nationally competitive opportunity for qualified veterinarians to reduce their educational debt by agreeing to provide professional veterinary services for three years in designated, high priority, veterinary food supply shortage situations throughout the US and its insular areas. NIFA releases a Federal Register Notice soliciting nominations for veterinary shortage situations from

all State Animal Health Officials and appropriate Federal Animal Health Official(s). This is a highly competitive application.

### **Action - #1**

Educate community POCs and agricultural organization POCs about the need for their involvement in the application processes and how their match counts toward attracting and maintaining veterinarian services in the local area.

### **Benchmarks**

- Number of POC meetings held.
- Number of community and agricultural organizations that agree to participate and support veterinarians.

### **Action - #2**

Assist veterinarians with applications for loan and repayment programs.

### **Benchmarks**

- Number of veterinarians assisted.
- Number of applications completed within loan and repayment programs.
- Number of active veterinarian recipients participating in loan and repayment programs.

### **Goal #5**

Leverage partnerships to improve veterinary business success in rural areas. The traditional way of operating a veterinary practice solely focused on food and large animal medicine is not sustainable in modern society. New graduate veterinarians are demanding a better work-life balance and not to be on call 24/7. The pricing structure for food animal services makes it challenging to individually sustain businesses dedicated to only food animal species. Just as many Kentucky farming operations are managed by producers who work off the farm, many veterinarians need to incorporate mixed animal practice to sustain themselves in rural communities. Leveraging partnerships to create sustainable large and food animal work in rural areas is essential to ensuring access to veterinary services for rural communities.

### **Action - #1**

Coordinate partnerships between key organizations to fund continued work with Auburn University on a specialized version of the Auburn College of Veterinary Medicine (CVM) Veterinary Practice Management Group (VPMG) program focusing on food animal work in Kentucky. (See more information in Appendix)

### **Benchmarks**

- Number of organizations in partnership.
- Amount of funding available.



- Number of years VPMG program offered.

### **Action - #2**

Implement the Veterinary Practice Management Group (VPMG) food animal program in rural Kentucky.

### **Benchmarks**

- Number of CVM students participating in externships (2-week experience).
- Number of CVM students participating in preceptorships (8-week experience).
- Number of practices that participated in VPMG assessments.

### **Action - #3**

Encourage the development of employment relationships following CVM student graduation.

### **Benchmarks**

- Number of CVM students offered rural jobs following graduation.
- Number of CVM students accepting rural jobs following graduation.
- Number of the CVM students that accepted rural jobs who are still in a rural or large animal practice after 5 and 10 years.

### **Goal #6**

Veterinary facility registrations – A key factor in understanding shortages is having good data on available services to inform decisions about programming. In 2023, the Kentucky General Assembly passed a modernized Kentucky Veterinary Medicine Practice Act, KRS Chapter 321, under the governing authority of the Kentucky Board of Veterinary Examiners (KBVE). One of the new programs in the updated Act is a requirement for all veterinary facilities to register with the KBVE. Requiring registration for all veterinary facilities in Kentucky will allow the licensing agency to collect and maintain current information on critical metrics related to veterinary shortage areas. KBVE shall gather metrics that will inform the General Assembly, commodity groups, and constituents about regional veterinary services, including counties served, species served, services offered, number of mobile units, etc. All veterinary facilities shall be registered no later than June 30, 2025.

### **Action**

Veterinarian facility registrations.

### **Benchmark**

- Number of registered veterinary facilities in rural areas.
- Number of registered veterinary facilities in veterinary shortage service areas.
- Number of registered veterinary mobile units serving rural areas.
- Number of facilities that offer services to food animal species.

## **Goal #7**

Build Centralized Haul-in Veterinary Facility Locations in Key Rural Communities – Business models need to change. Veterinarians entering rural practice face the challenge of ensuring they have the right equipment and enough resources, while obtaining enough business to support their work in the community. To sustain their business in rural areas, veterinarian business models have shifted from veterinarians specializing in only food animal ambulatory practice to mixed animal practice in fixed facility locations. Often, mixed practices require their food animal clients to haul-in animals for veterinary services. As business models shift, it is important to consider new and innovative ways to offer a veterinarian enough business to sustain their community services. (See additional considerations in Appendix.)

### **Action - #1**

Form cooperatives amongst farmers for shared veterinary services on a sustainable contract.

### **Benchmarks**

- Number of producers participating in the cooperative.
- Number of cooperatives.
- Number of participating veterinarians.

### **Action - #2**

Build centralized fixed veterinary facility locations in key rural communities for producers to haul-in livestock (less hauling distance and less fuel costs)

### **Benchmarks**

- Number of producers served by a central veterinary facility.
- Number of central veterinary facilities.
- Number of participating veterinarians.

## **Appendix:**

### **Goal #1 & #2 - Important Notes for Consideration:**

- Sustainability. Consider how to handle elements of turnover, changes related to elected personnel, retirements, etc.
- Obstacles. In discussions with POCs, learn more about community obstacles and areas of resistance.

### **Goal #5 - Important Background Notes on Auburn University CVM's program:**

Cooperation between Auburn University College of Veterinary Medicine (AUCVM), Kentucky Veterinary Medical Assoc. (KVMA), and the Kentucky Ag Development Board (KADB).

The recruitment and support of veterinarians in underserved areas of Kentucky are critical to maintaining the infrastructure necessary for agricultural endeavors to flourish and ensure a safe and wholesome food supply. Auburn University, KVMA, and the KY Ag Development Board seek to support current veterinarians by facilitating professional relationships and purposefully recruiting interested graduating veterinarians through strategic and timely networking. The proposed activities directly and strategically develop, implement, and sustain veterinary services and facilitate the relief of veterinary shortage situations in Kentucky. This is a collaborative effort between the Auburn University College of Veterinary Medicine (AUCVM), the Kentucky Department of Agriculture (KDA), the Kentucky Office of the State Veterinarian (OSV), the Kentucky Veterinary Medical Association (KVMA), and various rural veterinary practitioners throughout the Commonwealth of Kentucky. This collaborative effort will bring veterinary students to work in rural practices in Kentucky through the AUCVM extern and preceptorship programs. Additionally, The Auburn University Practice Management rotation will engage in practice assessments with veterinary students to seek ways to increase rural practice profitability and efficiency.

The AUCVM's preceptorship program is a longstanding capstone educational experience for veterinary students. The preceptorship program has allowed students to obtain in-depth knowledge and engagement from practicing veterinarians. The preceptorship program is an eight-week training experience in a viable clinical practice situation under the direct supervision of a practicing veterinarian. The program's primary objectives are to acquaint senior veterinary students with the scope and pace of clinical practice and to teach students aspects of management, finances, client relations, personnel supervision, and housekeeping, as can best be found in a practice situation. The AUCVM currently has 347 active preceptor locations, with 56 located within the Commonwealth of Kentucky.

In addition, AUCVM assists students interested in externship opportunities. These externships offer students a two-week training experience in a clinical practice environment under the direct supervision of a practicing veterinarian. These externships provide students in all years of the curriculum (vs. preceptorships being restricted to the end of the senior year) with a hands-on, realistic view of clinical veterinary practice in rural areas.

The AUCVM offers the Veterinary Practice Management rotations to veterinary students in the fourth year of the veterinary curriculum. The Veterinary Practice Management rotation, also referred to as the Veterinary Practice Management Group (VPMG), encompasses the study, understanding, and application of pertinent business disciplines guiding the veterinary clinical leadership team's decision-making responsibilities that seek to improve profitability and efficiency, allowing for a competitive advantage and long-term sustainability.

Listed proposal objectives:

- Connect veterinarians with AUCVM veterinary students.
- Provide quality educational opportunities for veterinary students in business management and sustainability in veterinary practice.

- Provide business management education and practice sustainability consultation.
- Provide written assessment reports to participating practices.
- Facilitate a capstone educational experience in rural underserved areas for students interested in working with target species via preceptorship and externship opportunities.
- Enable skilled clinical students to assist veterinarians with providing veterinary care in underserved areas via preceptorship and externship opportunities.
- Facilitate and create networking opportunities that assist graduating veterinarians in transitioning into sustainable careers.

A similar project supported by the US Department of Agriculture (USDA) and executed by the AUCVM from the fall of 2017 to the summer of 2022 was highly successful in supporting activities to assist veterinarians serving in underserved rural Kentucky and 40 AUCVM students (20 preceptor students and 20 externship students) in gaining invaluable experience and transitioning into sustainable careers in underserved rural areas. The first and second-year student externship training connected students with rural practitioners and began educating students on rural veterinary practice. The externship training prepares early veterinary students for a successful preceptorship experience and transition into a productive career in rural veterinary practice. The USDA supported fourth-year veterinary student preceptee training connected and assisted 95% of those preceptorship students with securing jobs in rural mixed animal practices after graduation.

Additionally, this USDA grant provided funding for multiple veterinary students and rural practice owners to learn from a business consultant focused on rural veterinary business (the Practice Management Director) through the process of completing an in-depth, on-site practice assessment report. The AUCVM VMPPG visited 26 veterinary practices and completed 23 on-site assessments. Each on-site practice assessment culminated with a debriefing with the rural clinic owner, where students confidentially discussed the assessment results.

Summary thoughts:

- Having the students come into practices has been a huge benefit
- Need a list of preceptors to communicate about shortage areas
- High rate of job offers following preceptorships

**Goal #7 – Important considerations regarding shared veterinary facility**

- Cooperative to buy goods at a discounted price
- Funding for build / ownership of facility
- Liability for injury on property
- Could a community foundation (4-H, extension, etc.) take on this project?
- Producer legacy and sustaining contribution
- Disease management considerations

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**COMMITTEE FOUR**  
**KEEPING VETERINARIANS IN RURAL AND LARGE ANIMAL PRACTICE, WHAT CAN**  
**THIS WORKING GROUP DO**

“Sustainability for the future of rural veterinary practice”

*Chair: Caleb Ragland*

*Staff Liaison: Debra Hamelback*

*Members: Dr. Beth Johnson, Aaron Miller, Mark Reding, and Dr. Andrea Sexten*

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## **Summary Statement**

From financial support to relationship building, this committee looked at how to keep veterinarians both short and long-term in rural areas of Kentucky. Additionally, customize this report to benefit the veterinarian and producer to ensure the health and well-being of their livestock. Lastly, this report creates a sustainable plan to allow veterinarians to make a livable wage while meeting the needs of food-animal producers and livestock, while reviewing other states’ student loan repayment programs.

## **Background**

One element of sustainable practice is profitability. According to the American Veterinary Medical Association (AVMA), in 2022 the average student debt (excluding graduates who got through their schooling without taking out any educational loans), the average debt balance for those who did have loans was \$179,505. Rural and large animal practitioners in Kentucky cannot expect a starting annual salary of more than \$80,000. Given this income ratio to debt balance, Kentucky needs to focus on ways of mitigating the cost of education. This is especially true if we want students to buy into rural practices and remain long term in rural communities.

## **Goals, Actions, Benchmarks**

### **Goal #1**

From Veterinarian to Producer – Collaborating for Partnership

### **Action**

Business models that benefit both farmers and veterinarians.

### **Benchmarks**

- View the veterinarian as a consultant, being a partner for success.
- Create an animal health plan dependent on the size of herd and veterinary needs.
  - Set up a retainer for one year.
  - Establish veterinarian-client-patient-relationship with yearly herd assessment.
  - Create model to include emergency calls, farm calls, and product inventory.
  - Establish what the veterinary clinics LVT may be able to do to assist with animal health needs.

- Purchasing - buying group aspect from multiple producers to veterinarian to take advantage of discounts by manufacturers and distributors.
- Haul in cattle/ livestock to reduce costs and drive time for DVM.
- Explore contracted state regional veterinary hubs – Team of Vets – Specialties/ Relational – identify areas of need.
  - 2 persons per species – Cattle/Small Ruminant/ Poultry/ Pork
    - Eastern Hub
    - Western Hub
    - Central Hub
  - Be mindful of safety for DVM’s when traveling to rural areas for late night calls.

## Goal #2

Financial support possibilities.

### Actions:

Expanding business support for rural and startup veterinarian clinics.

### Benchmarks:

- [Review the KSFTC \(KY Selling Farmer Tax Credit\)](#) program and inquire if this can be developed for rural independent existing clinics to sell to younger DVM’s for ownership.
  - Retiring Vet to get a tax break to sell his practice to sell to a younger DVM.
- **KY Agriculture Finance Corporation**
  - [LARGE/FOOD ANIMAL VETERINARY LOAN PROGRAM \(LFAVLP\)](#) is designed to assist individuals licensed to practice veterinary medicine in Kentucky who desire to construct, expand, equip, or buy into a practice serving large animal producers, including goat, sheep, swine, and other food animals. Loan up to \$250,000 at a 2.75% rate, able to borrow up to 50% of student loan debt.
  - “The Kentucky Agricultural Finance Corporation (KAFC) established the Large Animal Veterinary Loan Program (LAVLP) with the following purpose: to assist individuals licensed to practice veterinary medicine in Kentucky who desire to construct, expand, equip or buy into a practice serving large animal producers. This program substantially reduces the interest expenses associated with the acquisition, establishment, and/or renovation of capital assets needed by veterinarians with limited resources who want to serve Kentucky farmers. Furthermore, the LAVLP encourages lenders to structure loans in participation with the KAFC that may carry a higher level of risk due to the applicant’s prior education related debt.”

- **KY Agriculture Development Fund**
  - [LARGE AND FOOD ANIMAL VETERINARY INCENTIVES PROGRAM](#) -Large and Food Animal Veterinary Incentives Program provides funding for Kentucky veterinarians to increase service to large and food animals in the state. Applicants may receive up to 75 percent reimbursement for eligible expenditures not to exceed more than \$100,000 in state and county funds as a lifetime limit.
- **CAIP – Program -County Agriculture Investment Program**
  - CAIP provides Kentucky agricultural producers with cost-share assistance on practices to allow them to improve and diversify their current farm operations. CAIP covers a wide variety of agricultural enterprises in its 11 investment areas, including, but not limited to, bees and honey, equine, forage, beef and dairy cattle, goats and sheep, horticulture, poultry, swine, timber, and technology, as well as energy efficiency and production, farm infrastructure and water enhancement, marketing, and value-added production.
- **County Extension Office**
- **Kentucky Farm Bureau**
- **Kentucky Cattlemen’s Association**
- **Kentucky Poultry Federation**
- **Kentucky Pork Producers Association**
- **Local government and Chamber of Commerce**
- **Economic Development Authority**
- **Regional Stockyard Support**
- **State Funded Rural Vet Clinics** in areas where there are no veterinarians.
- **State Contract** – work at this facility that is built – haul in and out.

### **Goal #3**

Review Veterinary contract seats.

### **Benchmarks**

- Auburn CVM – 38 seats per year – 152 seats total for 4 years.
  - [Auburn CVM Contract Seats – Full report and history](#)
- Tuskegee CVM – 3 seats per year – 12 seats total for 4 years.
  - Tuskegee has been filling only 50% of their seats for the past 5 years.
- [Veterinary Working Group Report – 2018](#)
- Possibility of expanding veterinary contract seats.
  - Georgia CVM – 10 seats per year available starting in Fall of 2024 dependent on KY legislation.
    - [Georgia CVM Contract Seat Proposal and Information](#)
  - Lincoln Memorial University – not available through SREB at this time.
    - [LMU CVM Contract Seat Proposal and Information](#)

## Goal #4

Create a Kentucky veterinary medicine loan repayment program.

### Action:

Incentivize through student loan forgiveness, encouraging graduates to return to rural areas.

### Benchmarks

- **Currently the only student loan forgiveness is the USDA's VMLRP. (Veterinary Medicine Loan Repayment Program) Kentucky is awarded 2-3 per year.**
  - Provides participating veterinarians up to \$25,000 a year for student loan repayment in exchange for their service in one of the U.S. Department of Agriculture's (USDA) designated rural veterinary shortage areas. The USDA declared 237 shortage areas in 47 states for 2023—the highest total ever recorded.
  - Legislation on the national level titled Rural Veterinary Workforce Act will eliminate the federal taxation of VMLRP loans. Also addresses the challenges that ranchers and farmers in rural communities' face in obtaining essential veterinary services.
- **Design a student loan forgiveness program based off successful models in the following states.**
  - [Summary of state funded veterinary student loan forgiveness programs.](#)
    - [2023 update from AVMA on state funded student loan forgiveness programs.](#)
  - [Iowa – Rural Iowa Veterinary Loan Repayment Program \(RIVLRP\)](#)
    - 2021 - \$300,000 in state funding
      - 41 applicants
      - 5 awards of up to \$60,000 each (\$15,000/yr. @ 4 years)
    - 2022- \$400,000
      - 30 applicants
      - 6 awards of up to \$60,000 each (\$15,000/yr. @ 4 years)
    - 2023 – \$700,000 + \$40,000 (from previous balance)
      - 28 applicants
      - 13 awards of up to \$60,000 each (\$15,000/yr. @ 4 years)
      - **Average federal student loan debt of recipients: \$130,432**
  - [Kansas – Veterinary Training Program for Rural Kansas \(VTPRK\)](#)
    - VTPRK was established in 2006 to provide financial incentive to veterinary graduates to practice in rural Kansas.
    - If selected, receive a 4-year scholarship of \$25,000 each year for a minimum of 5 years.
  - [Missouri – Large Animal Veterinary Student Loan Program.](#)
    - **Available up to 12 veterinary students each year.**
      - For each year of obligated services, the department may pay up to \$30,000 for each academic year on behalf of the individual for loans not to exceed \$120,000. Students must remain in good standing.
  - [Hawaii – Student Debt Relief Program](#)
  - [Minnesota – Rural Veterinarian Loan Repayment Program](#)



## Appendix (Links referenced are active as of December 20, 2023)

- Kentucky Cabinet for Economic Development (2023) The KY Selling Farmer Tax Credit <https://ced.ky.gov/Entrepreneurship/KSFTC#:~:text=Farmers%20wanting%20to%20sell%20agri cultural,and%20a%20%24100%2C000%20lifetime%20cap.>
- The Kentucky Agricultural Finance Corporation (2023) Large/Food Animal Veterinary Loan Program [https://www.kyagr.com/agpolicy/documents/AFC\\_Loans\\_guidelines\\_vet.pdf](https://www.kyagr.com/agpolicy/documents/AFC_Loans_guidelines_vet.pdf)
- The Kentucky Agricultural Development Fund (2023) Large/Food Animal Veterinary Incentives Program <https://www.kyagr.com/agpolicy/Kentucky-Agricultural-Development-Fund-Applicants.html>
- The Auburn CVM contract seats report and history (2023) <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3Ab3dd263d-fbf8-3ad3-a4db-f89ea70718b7>
- Veterinary Contract Space Working Group Report (2018) <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3A243b81a2-69ea-3e37-9c6c-2eb99ab2234f>
- Georgia CVM Contract Seat Proposal to Kentucky <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3A80bf307c-dc60-3c35-a826-9051e59b6618>
- Lincoln Memorial University Contract Seat Proposal to Kentucky (2023) <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3A9b9ee5c7-b009-3588-8d83-cd8f041f8166>
- Summary of state funded veterinary student loan forgiveness programs <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3A2cc59719-ca52-32e4-b71b-849901220773>
- 2023 Update from AVMA on state funded student loan forgiveness programs <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3Aa7d369a9-8b02-3a44-a97d-bd019218c21b>
- Iowa Rural Veterinary Repayment Program (2022) <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3A00f484c9-7537-32fe-8529-4c50442888e8>
- Kansas Veterinary Training Program for rural Kansas <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3A19fd8073-8173-319d-aa6a-e53e42bcb6cd>
- Missouri Large Animal Student Loan Program <https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:da206d12-cd4e-3fab-af20-b9986a58f89f>
- Hawaii Student Debt Relief Program <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Ascds%3AUS%3Ae5fe332a-1aeb-3ab0-8ff2-e94d8e188b9f>
- Minnesota Rural Veterinarian Loan Repayment Program <https://www.ohe.state.mn.us/mPg.cfm?pageID=2329>

### State Veterinary Medicine Loan Rayment Programs

State	Statute/Regulation	Number of Recipients	Award Allocated	Type of Medicine Practiced
Arizona	Ariz. Rev. Stat. Ann. § 15-1650.06	TBD	If the board determines that the veterinarian satisfied the terms of the agreement described in subsection D of this section, the board shall distribute to the veterinarian from the Arizona veterinary loan assistance fund an amount that is equal to the amount of the veterinarian's outstanding veterinary college educational loan balance or \$100,000, whichever is less.	<p>To participate in the program, the board shall require an applicant to sign an agreement to both:</p> <ol style="list-style-type: none"> <li>1. Remain and work as a full-time veterinarian in this state for the following four years.</li> <li>2. Work in one of the following practice areas for at least two of the four years:               <ol style="list-style-type: none"> <li>(a) Agricultural practice in an area designated by the United States department of agriculture as having a shortage.</li> <li>(b) A nonprofit, county or municipal shelter.</li> </ol> </li> </ol>

<p><b>Arkansas</b></p>	<p>A.C.A. § 6-81-1105: Veterinary medicine loans</p> <p>A.C.A. § 2-16-215: Scholarships — Degree programs related to agriculture —Post- graduate degree programs related to agriculture or veterinary medicine</p> <p>A.C.A. § 17-101- 205: Rural Veterinary Student Scholarship Program</p>	<p>TBD</p>	<p>Veterinary medicine loans: The loan repayment amount shall not exceed the amount of tuition assistance provided under the Southern Regional Education Compact program.</p> <p>Scholarships Post-graduate degree programs related to agriculture or veterinary medicine: TBD</p> <p>Rural Veterinary Student Scholarship Program: TBD</p>	<p>Veterinary medicine loans: Participants in the loan repayment program are required to practice food supply veterinary medicine in Arkansas for up to 5 consecutive years.</p> <p>Scholarships Post-graduate degree programs related to agriculture or veterinary medicine: Recipients must obtain degree from a school in Arkansas within six years of award and work full- time inside the state for two years after their graduation.</p> <p>Rural Veterinary Student Scholarship Program: Recipients must complete a veterinary medicine degree program, all required advanced training, an externship and mentoring requirement with a licensed and accredited veterinarian in rural Arkansas, engage in the full-time practice of veterinary medicine [practice must be in a county with fewer than 40,000 people and registered veterinary premises under a licensed veterinarian if food-animal patients make up at least 50% of the veterinarian's practice at the time the person entered into the Rural Veterinary Student Scholarship Program agreement), must practice within those requirements for 12 continuous months for each year the participant received a scholarship award, and must commence practice within 90 days of completing their education program.</p>
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<p><b>Colorado</b></p>	<p>C.R.S.A. § 23-31-1009</p>	<p>TBD</p>	<p>(a) Upon completion of six months of the first year of service under the program, ten thousand dollars;  (b) Upon completion of a second year of service under the program, an additional fifteen thousand dollars;  (c) Upon completion of a third year of service under the program, an additional twenty thousand dollars; and  (d) Upon completion of a fourth year of service under the contract, an additional twenty-five thousand dollars.  (3) A veterinarian is not entitled to receive more than seventy thousand dollars under the program.</p>	
<p><b>Connecticut</b></p>	<p>C.G.S.A. § 10a-19g</p>	<p>(b) The president of The University of Connecticut shall establish and administer the Kirklyn M. Kerr program to support the veterinary medicine education of not more than 5 veterinary students per cohort. Each cohort may be funded for a 4-year period.</p>	<p>TBD</p>	<p>Residents pursuing degrees</p>

<p><b>Georgia</b></p>	<p>Ga. Code Ann., § 20-3-518.4</p>	<p>(b) The board shall not enter into new loan purchase agreements with more than 5 persons per year; provided, however, that the total sum of loan purchases from state appropriations for which the board contractually obligates itself in any fiscal year shall not exceed the amount of funds for such loan purchase purposes specified in annual appropriations Acts. Funds in the loan purchase fund account that are not expended or contractually obligated by the board for loan purchases during any fiscal year shall lapse.</p>	<p>(a)(1) Persons whose applications are approved and enter into a loan purchase agreement with the board shall receive a loan purchase in a total amount to be determined by the board, but not exceeding \$80,000.00 per person, as provided by Code Section 20-3-518.3. The loan purchases shall be paid in such manner as the board shall determine.</p>	<p>(b) Only persons whose veterinary medicine practices in this state include food animal specialties shall be eligible for loan purchases under this part.</p>
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<p><b>Illinois</b></p>	<p>110 ILCS 995/20</p>	<p>(c) Subject to appropriation and upon recommendation of the College, the University may enter into a program agreement with up to 4 veterinary students during the first year of operation of the Program; up to 8 veterinary students during the 2nd year of operation of the Program; up to 12 veterinary students during the 3rd year of operation of the Program; and up to 16 veterinary students during the 4th year of operation of the Program and every year thereafter until the expiration of the Program, as set forth in Section 40 of this Act. Preference must be given to those students who are Illinois residents.</p>	<p>Each student entering into a program agreement shall receive a loan in the amount of \$20,000 per year to cover tuition, books, supplies and other school expenses and travel and training expenses incurred by the student in pursuing a veterinary medicine degree. A student may be the recipient of a loan under the Program for no more than 4 years.</p>	<p>(2) complete all advanced training in public health, livestock biosecurity, foreign animal disease diagnosis, regulatory veterinary medicine and zoonotic disease and complete an externship and mentorship with a licensed, accredited veterinarian in Illinois who practices in one of the areas of veterinary service need identified in this Act and as required by the University; (3) engage in the full-time practice of veterinary medicine in any of the identified areas of veterinary service need identified in this Act;</p>
<p><b>Iowa</b></p>	<p>Iowa Code Ann. § 261.120 (West)</p>	<p>b. Subject to the availability of funding for this purpose, the commission shall enter into at least five program agreements annually.</p>	<p>a. Unless the agreement entered into under subsection 4 stipulates otherwise, the amount of loan repayment an individual who enters into an agreement shall receive if in compliance with obligations under the agreement shall not exceed fifteen thousand dollars annually for an eligible loan. Payments under this section may be made for each year of eligible practice during a period of four consecutive years and shall not exceed a total of sixty thousand dollars or the amount of outstanding eligible loans, whichever amount is less.</p>	<p>a. When possible, the commission shall enter into agreements under subsection 4 with individuals who agree to practice in areas in the following priority order:  (1) Private practice food supply veterinary medicine in any veterinary shortage area.  (2) Private practice food supply veterinary medicine in a city in Iowa with a population of less than twenty-six thousand that is located more than twenty miles from a city with a population of fifty thousand or more, especially in remote or economically depressed rural areas.  (3) Animal veterinary medicine in a rural service commitment area.</p>

<p><b>Kansas</b></p>	<p>KANSAS STATUTES ANNOTATED 76-4,112.</p>	<p>Five first-year veterinary students</p>	<p>(c) Subject to the provisions of appropriation acts, each student entering into a program agreement under this section shall receive a loan in an amount not to exceed \$25,000 per year for not more than four years for tuition, books, supplies and other school expenses, and travel and training expenses incurred by the student in pursuing a veterinary medicine degree.</p>	<p>(A) In any county in Kansas that has a population not exceeding 40,000 or a registered veterinary premises under a licensed veterinarian if food animal patients make up at least 50% of such veterinarian's practice at the time the person entered into the program agreement; and  (B) for a period of at least 12 continuous months for each separate year a student receives a loan under the program, unless such obligation is otherwise satisfied as provided in this section;  (4) commence such full-time practice of veterinary medicine within 90 days after completion of such person's degree program, or if such person enters a post-degree training program such as a graduate school or internship or residency program, within 90 days after completion of such post-degree training program;</p>
<p><b>Louisiana</b></p>	<p>LSA-R.S. 17:3042.62</p>	<p>The commission may receive and accept funds from public and private sources to meet administrative and other expenses of the implementation of this Chapter.</p>	<p>A. A loan may be made by the commission pursuant to this Chapter for not in excess of the amount of actual tuition charges to be paid by the student to a school of veterinary medicine, provided such loan is used to defray the tuition of any such applicant at a school of veterinary medicine. Such a loan shall be made at such time, in such amounts, and in such increments as the commission shall determine and as shall be provided in the contract with the applicant as provided in this Chapter.</p>	<p>(1) Is a bona fide citizen and resident of the state. However, first priority shall be given to students who have been residents of the state for at least two years.  (2) Has been accepted to enroll in a school of veterinary medicine.  (3) Intends to acquire a doctor of veterinary medicine degree from a school of veterinary medicine.  (4) Intends to practice as a food animal veterinarian in the state of Louisiana.  (5) Meets such other qualifications as the commission may prescribe by rule.</p>

<p><b>Maine</b></p>	<p>Me. Rev. Stat. tit. 20-A, § 12122</p>	<p>Beginning January 1, 2023, the chief executive officer shall, as resources allow, award up to 8 loans annually up to an aggregate of 32.</p>	<p>The maximum loan amount available under the program to each participant is \$35,000 per year for a period of up to 4 years.</p>	<p>At least half, and no fewer than 2, of the annual loans awarded must be awarded to applicants who have demonstrated a likelihood to practice livestock veterinary medicine in the State unless the authority does not receive enough qualified applicants to meet this requirement, in which case the chief executive officer may award the remaining loans to other eligible applicants. Loans are available to Maine residents enrolled in a school of veterinary medicine.</p>
<p><b>Minnesota</b></p>	<p>M.S.A. § 136A.1795</p>	<p>Subd. 4. Loan forgiveness. (a) The commissioner may select a maximum of 5 applicants each year for participation in the loan forgiveness program, within the limits of available funding. Applicants are responsible for securing their own qualified educational loans.</p>	<p>(c) The commissioner must make annual disbursements directly to the participant of \$15,000 or the balance of the participant's qualifying educational loans, whichever is less, for each year that a participant meets the service obligation required under subdivision 3, paragraph (b), up to a maximum of 5 years.</p>	<p>Subd. 2. Establishment; administration. (a) The commissioner shall establish and administer a loan forgiveness program for large animal veterinarians who:</p> <p>(1) agree to practice in designated rural areas that are considered underserved; and</p> <p>(2) work full time in a practice that is at least 50% involved with the care of food animals.</p> <p>(b) Appropriations made to the program do not cancel and are available until expended.</p>



<p><b>Missouri</b></p>	<p>V.A.M.S. 340.335</p>	<p>2. Up to 6 qualified applicants per academic year may be awarded loans under the provisions of sections 340.381 to 340.396. Priority for loans shall be given to eligible students who have established financial need. All financial assistance shall be made from funds credited to the veterinary student loan payment fund.</p>	<p>2. For each year of obligated services that an individual contracts to serve in an area of defined need, the department may pay up to twenty thousand dollars on behalf of the individual for loans described in subsection 1 of this section.</p>	<p>(D) Area of defined need means a geographic area within Missouri with at least 1 of the following characteristics and approved by the director or the director's designated agent:</p> <ol style="list-style-type: none"> <li>1. Large animal populations/producers sufficient to potentially sustain/employ a large animal veterinarian;</li> <li>2. Employment opportunity as a large animal veterinarian;</li> <li>3. Veterinary population in region is diminishing;</li> <li>4. Economics of area adequate to support veterinarian;</li> <li>5. Presence of livestock markets; and</li> <li>6. Requests from individual, groups, organizations, and communities;</li> </ol>
<p><b>Nebraska</b></p>	<p>Neb.Rev.St. § 54-504</p>	<p>Each year the department shall select from a pool of applicants up to 4 veterinarians to participate in the program.</p>	<p>The selected veterinarians are eligible to receive up to \$80,000 under the program as an incentive to locate in rural Nebraska and practice food supply animal veterinary medicine.</p>	<p>(c) Enter into a contract with the department to provide full-time veterinary medicine services as a food supply animal veterinarian in a food supply animal veterinary practice or in a rural mixed animal veterinary practice for 4 years in one or more communities approved by the department; and</p> <p>(d) Be accredited by the United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services to provide services relating to food supply animals by the end of the 1st year of service.</p>

<b>New Jersey</b>	Introduced a bill in 2021-2022/ Reintroduced for 2023-2024 session			
<b>North Dakota</b>	NDCC, 43-29.1-01	The number of applicants that the council may select for participation in the loan repayment program is limited only by the moneys available to support the program, as provided for in this chapter.	The selected applicants are eligible to receive up to \$80,000 in loan repayment funds.	<p>2. An applicant selected to receive loan repayment funds under this chapter must:</p> <p>a. Have graduated from an accredited college of veterinary medicine; and</p> <p>b. Be licensed to practice veterinary medicine in this state.</p> <p>3. A selected applicant shall contract to provide full-time veterinary medicine services for 2, 3, or 4 years in one or more selected communities.</p>
<b>Ohio</b>	R.C. § 4741.40	TBD	(1) The veterinarian agrees to provide large animal veterinary services or to provide veterinary services necessary to implement or enforce the law or to protect public health, as applicable, in a veterinary resource shortage area identified in the letter of intent for at least 2 years or 1 year per \$10,000 of repayment agreed to under division (B)(3) of this section, whichever is greater.	<p>(2) When providing veterinary services in the veterinary resource shortage area, the veterinarian agrees to do both of the following:</p> <p>(a) Provide veterinary services for a minimum of forty hours per week;</p> <p>(b) Devote not less than 60% of total monthly veterinary services to large animal veterinary services or veterinary services necessary to implement or enforce the law or to protect public health, as applicable.</p>

<p><b>Oklahoma</b></p>	<p>59 Okl.St. Ann. § 698.33</p>	<p>Subject to available funds, each year the Veterinary Center may enter into program agreements with up to 3 1st year veterinary students or currently practicing large animal veterinarians with qualifying school loans, as determined by the Veterinary Center.</p>	<p>C. Subject to available funds, each student or large animal veterinarian entering into a program agreement under this section shall receive assistance in an amount not to exceed \$20,000 per year for not more than 4 years for tuition, books, supplies, and other school expenses, and travel and training expenses incurred by the student in pursuing a veterinary medicine degree.</p>	<p>3. Engage in the full-time practice of veterinary medicine in any community in Oklahoma which has a population not exceeding 25,000 as determined by the most recent Federal Decennial Census at the time the person entered into the program agreement for a period of at least 12 continuous months for each separate year a student receives assistance under the program, unless the obligation is otherwise satisfied as provided in this section. If, after the date a program agreement was entered into by the parties, a community no longer meets the maximum population requirements provided in this paragraph, a person engaging in the full-time practice of veterinary medicine pursuant to the program agreement shall continue to practice in that designated community.</p>
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<p>Pennsylvania</p>	<p>24 P.S. § 5198.3</p>	<p>TBD</p>	<p>(c) Maximum forgiveness.--No more than \$2,000 shall be forgiven in any year, and no more than \$10,000 shall be forgiven for any applicant. Awards shall be made in accordance with the procedures established by the agency.</p>	<p>(1) Holds:  (i) a degree in a field related to the production of agricultural products from an accredited college or university;  (ii) a current certification under the Department of Education's Certification and Staffing Policies and Guidelines Number 30-Agriculture Certification or a successor document; or  (iii) a degree in the field of veterinary medicine, from an accredited college or university.  (2) Has commenced:  (i) the first year of full-time employment or work on a family farm on or after July 1, 1991;  (ii) the first year of full-time employment teaching an agricultural curriculum at the elementary or secondary level in a public or private school on or after the effective date of this subparagraph; or  (iii) the practice of veterinary medicine, a portion of which activity must be for the protection and enhancement of agricultural animal health and productivity, on or after July 1, 1991.  (3) Has:  (i) borrowed through the agency-administered Guaranteed Student Loan Programs for an educational institution located in this Commonwealth; or  (ii) for individuals who have commenced work under paragraph (2)(i) or practice under paragraph (2)(iii), borrowed through the agency-administered Guaranteed Student Loan Programs for an accredited college or university.</p>
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<p><b>Texas</b></p>	<p>Texas Education Code Chapter 56, Subchapter G*</p> <p>*County population amended by TX H.B. 2026, sent to Governor 5/30/2023 but not signed as of 6/15/2023.</p>	<p>TBD</p>	<p>TBD</p>	<p>It may be any type of practice, but the program is targets large or food animal practice. Applicants are eligible if they are practicing in any county with 150,000 or fewer people. Program requires participants to practice veterinary medicine in a rural county for one calendar year for each academic year for which the participant receives financial support under the program.</p>
<p><b>Vermont</b></p>	<p>6 V.S.A. § 20</p>	<p>TBD</p>	<p>(c) The Agency shall administer the Fund, and the Secretary of Agriculture, Food and Markets shall have the discretion to provide annual student loan repayment awards to licensed, qualified veterinarians who are significantly dedicated to treating food animals in the State.</p>	<p>The Secretary may determine the level of service that qualifies as “significantly dedicated” to treating food animals, may establish additional eligibility requirements, and may create program requirements for all fund recipients. The Agency may contract with a Vermont nonprofit entity for administration of the program, which shall administer awards in compliance with the requirements of Section 108(f) of the Internal Revenue Code.</p>

<p><b>Washington</b></p>	<p>West's RCWA 28B.121.020</p>	<p>(1) To select, in consultation with the college, up to 2 students each year to receive conditional scholarships;</p>	<p>The university may award conditional scholarships to eligible students from the funds appropriated to the university for this purpose, or from any private donations, or any other funds given to the university for this program. The amount of the conditional scholarship awarded an individual may not exceed the amount of resident tuition and fees at the college, as well as the cost of room, board, laboratory fees and supplies, and books, incurred by an eligible student and approved by a financial aid administrator at the university. Participants are eligible to receive conditional scholarships for a maximum of 5 years.</p>	<p>To remain an eligible student and receive continuing disbursements under the program, a participant must be considered by the college to be making satisfactory academic progress.</p>
<p><b>Wyoming</b></p>	<p>W.S.1977 § 11-18-119</p>	<p>(c) The selection of Recipients is at the sole discretion of the Board. (d) The total amount of the Loan Repayment Grant is at the sole discretion of the Board.</p>	<p>(ii) Provide that the veterinarian shall be repaid up to 100% of the total amount of outstanding educational loans the veterinarian has acquired as a direct result of undergraduate or postgraduate educational training directly related to providing food animal veterinary services, not to exceed \$30,000 per year, including the matching funds specified in subsection (d) of this section, in exchange for practicing his profession under the terms of this section;</p>	<p>(iii) Require the veterinarian to practice food animal veterinary services for a minimum of 3 years under the agreement;</p>

## **Veterinary Training Program for Rural Kansas**

In 2006, the Kansas Legislature initially passed the Veterinary Training Program for Rural Kansas (VTPRK), which provides financial incentive for veterinary students to practice in rural Kansas upon their graduation from the four-year professional DVM program. Through this program, underserved counties throughout Kansas are provided with passionate, knowledgeable and dedicated veterinarians eager to help serve unique communities across the Sunflower State.

Upgraded by HB 2605 in 2022, the program provides for up to seven students selected each year during their first year in the DVM program to receive a loan of \$25,000 per year for four years to help cover tuition and other school-related expenses.

After graduating from the DVM program, for each year that the graduate works full-time in a veterinary practice in a Kansas county with fewer than 40,000 residents, or in a full-time veterinary practice if food animal patients make up at least 50% of the practice, a year of loans is forgiven. In addition to completing the four-year DVM curriculum, students selected in their first year for the VTPRK spend additional time during the summer months learning about public health, rural sociology, natural disaster preparedness, and foreign animal diseases.

Application for the VTPRK is open only to Kansas State College of Veterinary Medicine students and the application cycle opens by announcement in the first year of the DVM program.

# Rural Iowa Veterinarian Loan Repayment Program

The Rural Iowa Veterinarian Loan Repayment Program was established to address critical veterinarian shortages in rural Iowa communities. The program provides loan repayment incentives to individuals that practice in specified locations for up to four years. The maximum award for this program is \$60,000, which is paid in four increments toward outstanding Federal Subsidized Stafford, Unsubsidized Stafford, and Graduate PLUS balances at the end of each 12 month employment period. Details on the taxability of loan repayment benefits can be found on the [IRS website](#).

## Eligibility Criteria

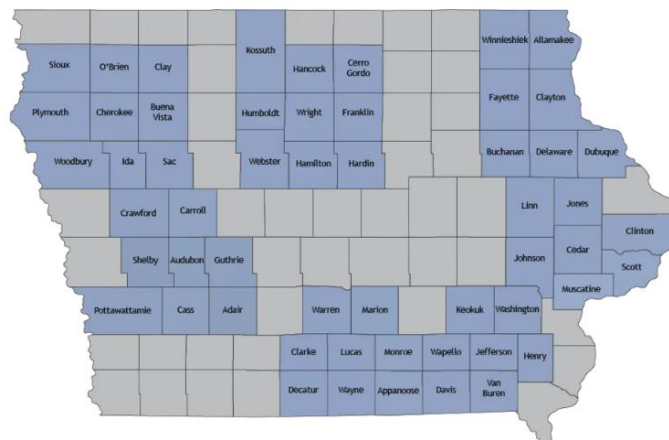
An individual is eligible to apply to enter into a program agreement if he or she:

- Is in the final year of, or has completed within the past five years, a doctor of veterinary medicine degree program.
- Has not participated in or received loan repayment awards through the National Veterinary Medicine Loan Repayment Program administered by the National Institute of Food and Agriculture.
- Will receive or possess a license to practice veterinary medicine in Iowa.
- Will secure full-time employment in an eligible area and practice full-time for a period of four consecutive years after entering into the program agreement.

## Eligible Areas

An eligible applicant must work full-time for four consecutive years in a veterinary shortage area or service commitment area.

- **Veterinary Shortage Area** (blue areas on the map)
  - A veterinary shortage area is a service area in Iowa published by the United States Department of Agriculture.
  - The Veterinary Shortage Areas below were established for 2024.



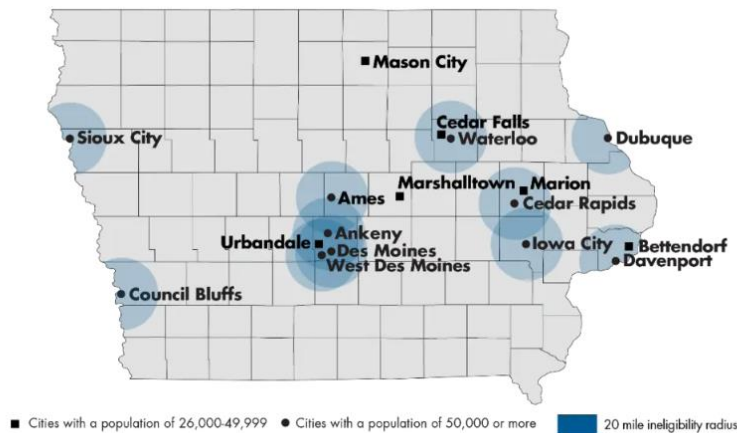


If the applicant is *NOT* going to work full-time in a Veterinary Shortage Area (map above), the individual can still qualify as long as they plan to work in a Rural Service Commitment Area (map below). Although, the Rural Service Commitment Area must agree to provide a matching contribution equal to 12.5 percent of the veterinarian's eligible federal student loan balance.

- **Rural Service Commitment Area** (gray areas on the map)
  - A rural service commitment area is an Iowa city with a population less than 26,000 located more than 20 miles from a city with a population of at least 50,000.
  - Service commitment areas must provide a matching contribution equal to 12.5% of the veterinarian's eligible student loan balance to a trust fund held by the state of Iowa that will fund future recipient awards.

### Eligible Service Commitment Areas

Current eligible service commitment areas appear in gray on the map below (based on 2019 U.S. Census population estimates). In addition to those indicated below, cities with a population of 26,000 or more are also ineligible service commitment areas



### Program Agreement

An individual who meets the above eligibility requirements, and is selected to sign a program agreement must fulfill the following requirements:

- Become licensed and employed in the practice of veterinary medicine in a veterinary shortage area or rural service commitment area in Iowa within one year of signing a program agreement or completing the doctor of veterinary medicine degree, whichever is most recent.
- Work for a minimum of four consecutive years in an eligible area.

### Priority for Awards

In the event that all on-time eligible applicants cannot be funded with available appropriations, program agreements will be prioritized as follows:

- Eligible applicants who will practice as private practice food supply veterinarians in a **veterinary shortage area** and who graduated from an Iowa high school; followed by eligible applicants who will practice as private practice food supply veterinarians in a **veterinary shortage area** and who did not graduate from an Iowa high school.
- Eligible applicants who will practice as private practice food supply veterinarians in a **service commitment area** and who graduated from an Iowa high school; followed by eligible applicants who will practice as private practice food supply veterinarians in a **service commitment area** and who did not graduate from an Iowa high school.
- Eligible applicants who will practice as veterinarians in a service commitment area and who graduated from an Iowa high school; followed by eligible applicants who will practice as veterinarians in a service commitment area and who did not graduate from an Iowa high school.
- Eligible applicants within each priority category will be prioritized by the date the application is received by Iowa College Aid.

### **Process**

Up to \$15,000 can be paid annually toward eligible student loan balances upon successful completion of each 12-month employment period. Federal loans eligible for repayment include all Subsidized Stafford, Unsubsidized Stafford, and Graduate PLUS. If an applicant signs an agreement but fails to meet the program criteria prior to receiving a loan repayment award, the applicant has no further employment requirement under the agreement.

### **How to Apply**

The 2024-25 application cycle has closed.

The 2025-26 application cycle will begin Feb. 1, 2025. The application link will be accessible on this webpage at that time.

<https://educate.iowa.gov/higher-ed/financial-aid/loan-repayment/rural-iowa-veterinarian-loan-repayment-program>