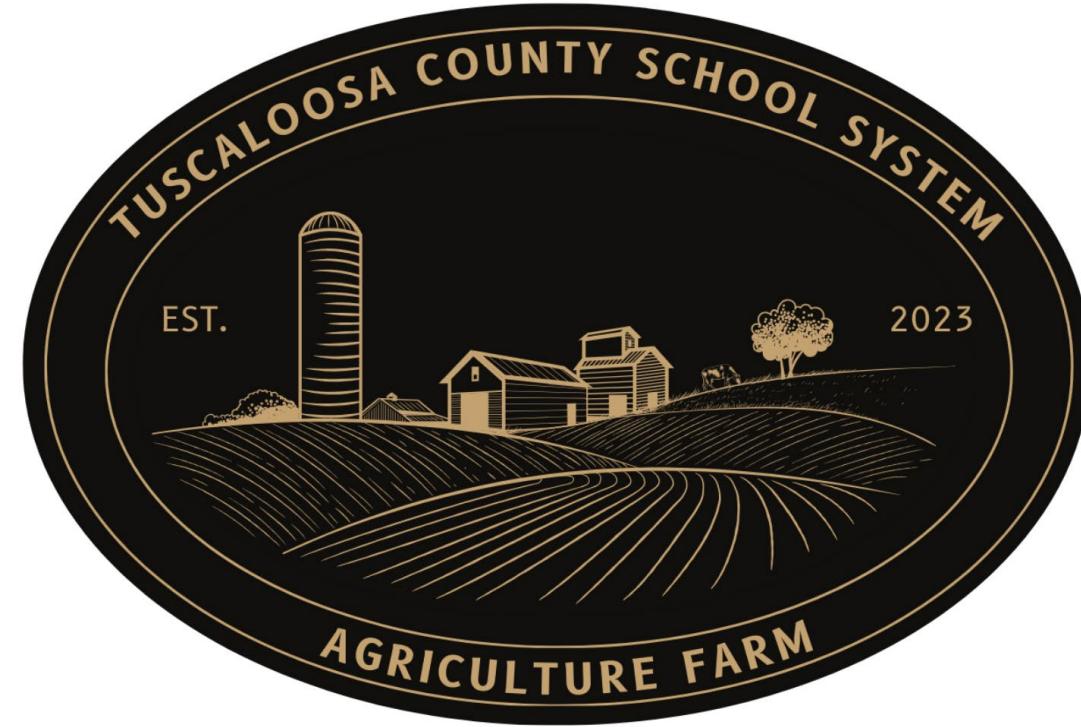


# TCSS K-12 Ag Farm



## **Secondary AG Education: Who We Are and What We Do**

- Students enrolled at the Northport Career Tech Annex are given the opportunity to take classes in the General Agriscience cluster. Classes taught include Fundamentals of Agriscience, Introduction to Animal and Dairy Science, Fish and Wildlife Management, Turf Management and Forestry.



# Live Work for Students



# *Rural Vet Teaching High School Students*



# **Co-Op Program at Work**

## **Ag Class Observing Vet**



# **Greer Williams**

- **Greer Williams** grew up in south Walker County on the Black Warrior River. He earned his B.S. in Physical Education from The University of Alabama. With a career in education spanning more than 23 years, he has dedicated his life to serving students and the community through the Tuscaloosa County School System.
- For 13 of those years, Greer coached football, using the sport as a platform to teach teamwork, discipline, and leadership. A decade ago, he shifted his focus to career and technical education, specializing in agriscience—a diverse field that includes farming, wildlife management, fisheries, turf management, and environmental stewardship. This transition was more than a professional shift; it was the realization of a lifelong passion for hands-on learning, working outdoors, and sharing practical knowledge with students.
- Two years ago, Greer envisioned transforming unused school property into a working outdoor classroom. That vision became reality with the development of a first-of-its-kind, 100-acre teaching farm, now home to livestock, orchards, vegetable gardens, and honeybees. Each week, Greer teaches over 100 students on the farm and mentors five co-op students who help operate it daily.
- Outside the classroom, Greer enjoys spending time outdoors with his wife and kids, often fishing or enjoying time on the water. His deep-rooted commitment to education, agriculture, and family continues to shape the lives of those around him.



VETERINARY MEDICINE  
EXTENSION

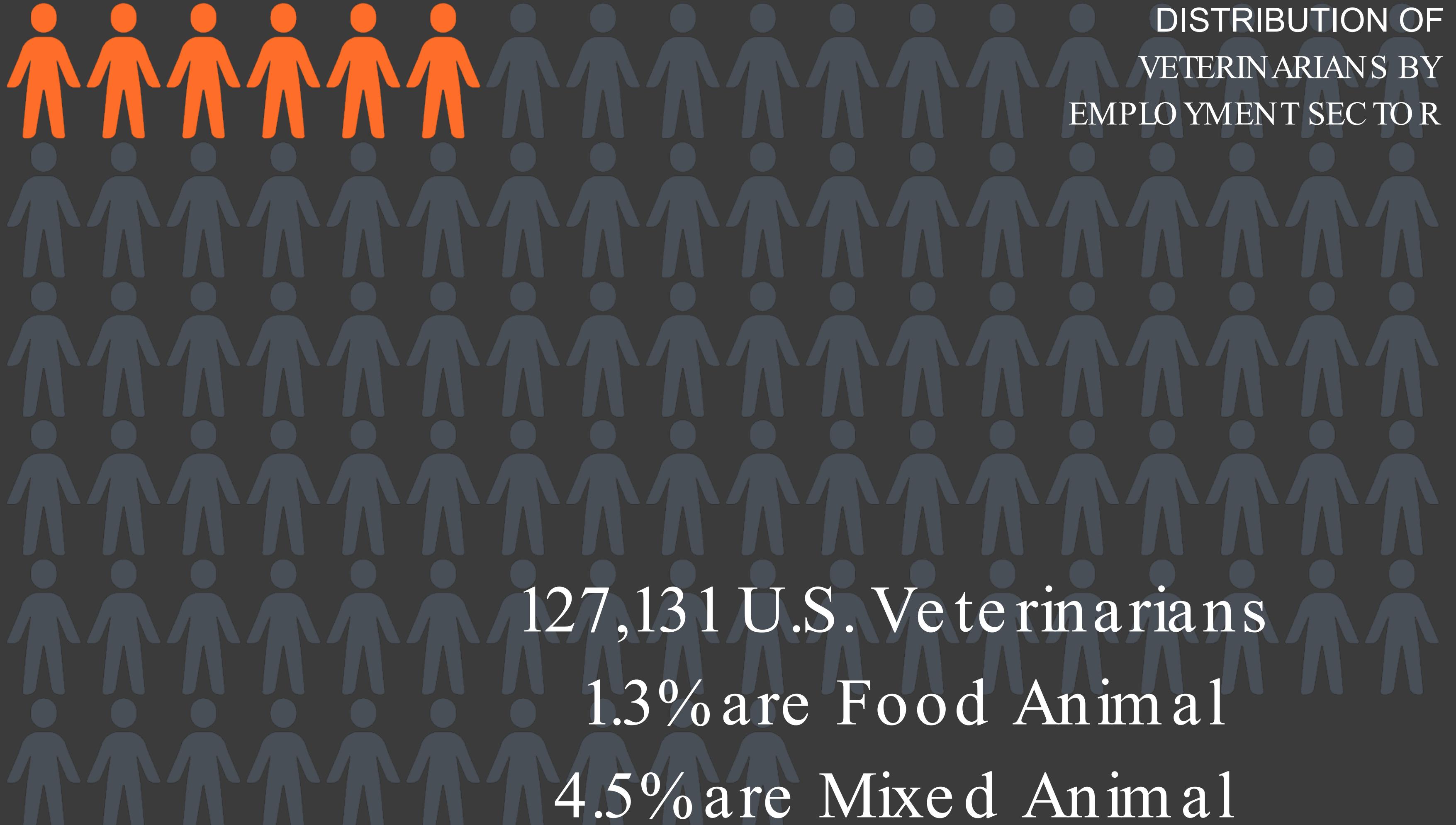
# Rural Veterinary Medicine: Challenges and Opportunities

ROSSLYN S. BIGGS, DVM

DIRECTOR CENTER FOR RURAL VETERINARY MEDICINE

DIRECTOR OF CONTINUING EDUCATION

BEEF CATTLE EXTENSION SPECIALIST



## DISTRIBUTION OF VETERINARIANS BY EMPLOYMENT SECTOR

127,131 U.S. Veterinarians

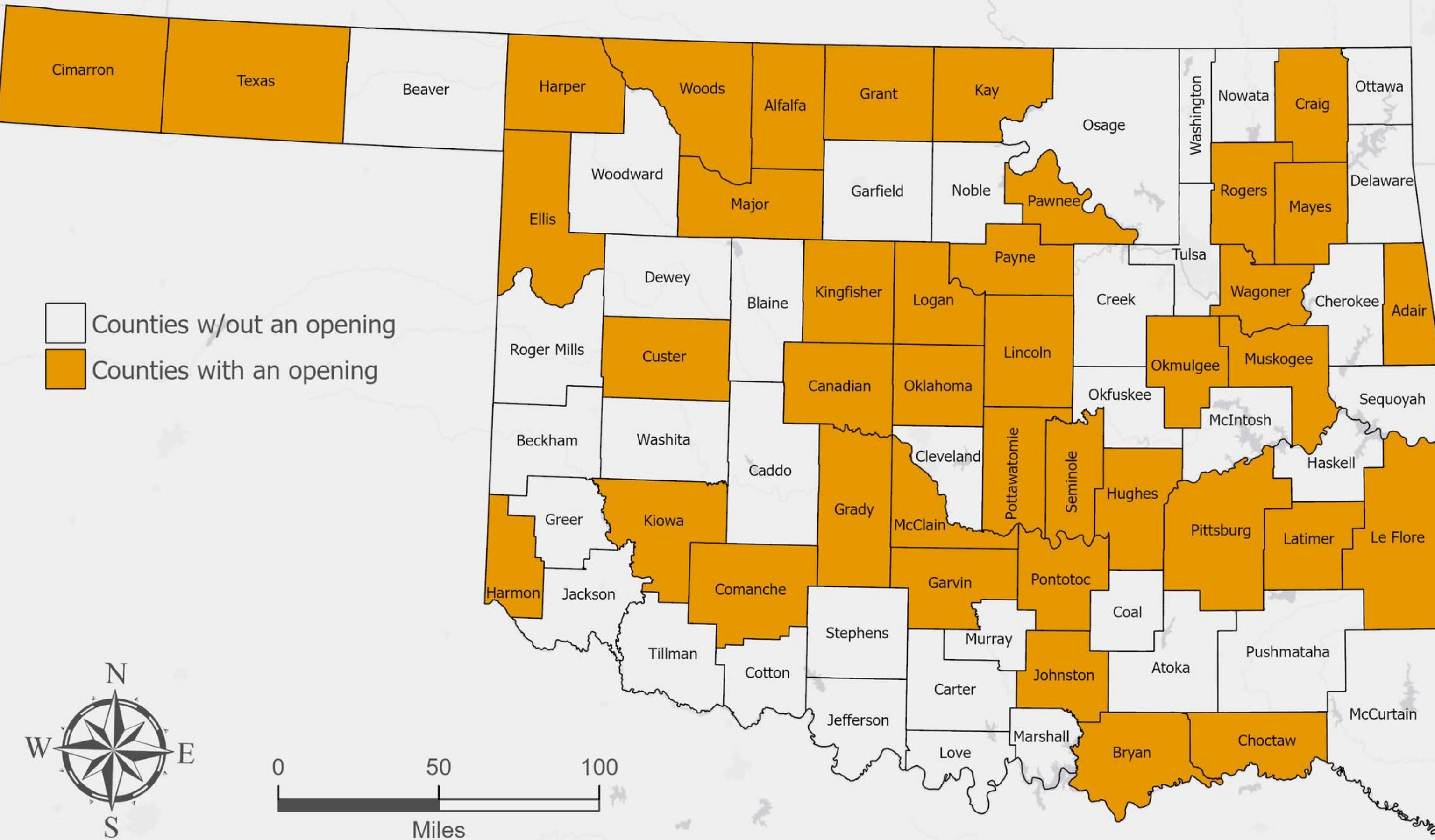
1.3% are Food Animal

4.5% are Mixed Animal

## Counties with a Job Opening for a Veterinarian in Oklahoma (2020-2021)

# OSU Integrated Beef Cattle Program Survey of OSU CVM Students Bios | Unpublished Data

# Biggs Unpublished Data





# OSU: College of Veterinary Medicine

## Class of 2028

- 570 Applicants
- 146 Oklahoma Resident Applicants
- 111 Accepted
- 58 Oklahoma Residents Accepted
- Cumulative GPA 3.67
- First Year In-state Cost \$49,680
- First Year Out-of-state Cost \$76,280

[vetmed.okstate.edu](http://vetmed.okstate.edu)

Nationally



- 72.9% Companion Animal
- 9.6% Mixed Animal
- 5.9% Equine
- 3.3% Food Animal



## Nationally

- 16.7% No debt
- Mean debt \$168,979
- No debt removed, average debt is \$202,647
- Mean debt-to-income ratio 1.57
- Above DVM debt only



EXTENSION

# Oklahoma Legislative Efforts

1 Veterinary Medicine  
Authority HB 2863 (2023)

.....  
State agency for funding  
directly to OSU Veterinary  
Teaching Hospital

2 Dr. Lee Denney Act  
HB 3196 (2024)

.....  
Scholarships to OSU CVM  
veterinary students and rural  
large animal practitioners in  
exchange for service

3 Transformational  
Appropriations  
(2025)

.....  
\$250M to build a new OSU  
Veterinary Teaching Hospital



# Other NGO and Federal Programs

## 1 Oklahoma Farm Bureau

Scholarships for graduates serving rural communities

## 2 USDA VMLRP

\$25,000 per year for 3 years for serving in designated areas. Can be renewed.

## 3 USDA VSGP

Education, Extension and Training Projects

Rural Practice Enhancement Projects

# Collaborative Partnerships

Veterinary Workforce Solutions Program

Critical Needs   Career Guidance   Partnerships   Thought Leadership   News & Events   Contact >

## Addressing the Critical Shortage of Rural and Food-Systems Veterinarians in America

A NATIONAL PROGRAM OF  
**FARMJOURNAL** FOUNDATION

### Systems Solutions Designed to Scale for Impact:

Farm Journal Foundation provides a series of tangible solutions to address the structural challenges facing the food-animal veterinary industry, including expanding the role of universities and partners to increase opportunities for supporting a robust pipeline of veterinary professionals. Above all, the underlying spirit of this proposal and project framework is based upon centralizing knowledge and resources to enable collaboration across sectors.

Farm Journal Foundation:  
[ruralveterinaryworkfreesolutions.org](http://ruralveterinaryworkfreesolutions.org)

# OSU Center for Rural Veterinary Medicine



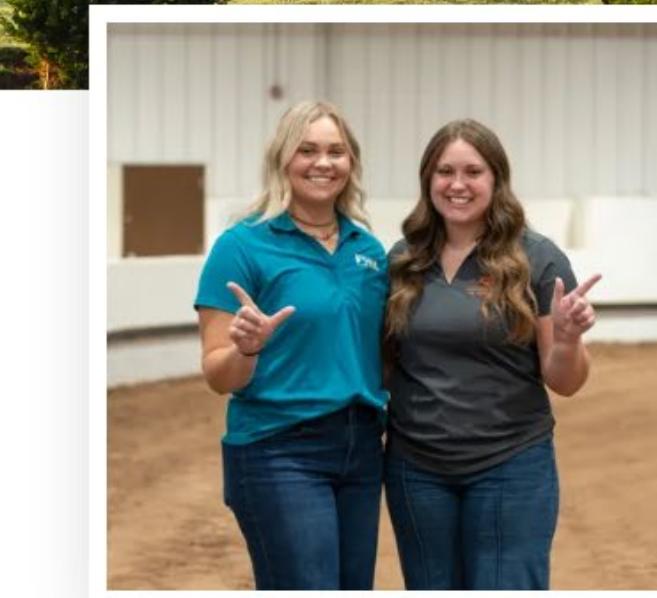
Interested in learning more? Click on the link that applies to you!



→ [Pre-Veterinary Prospects](#)



→ [Current DVM Students](#)



→ [Producers and Practitioners](#)



# VETERINARY MEDICINE



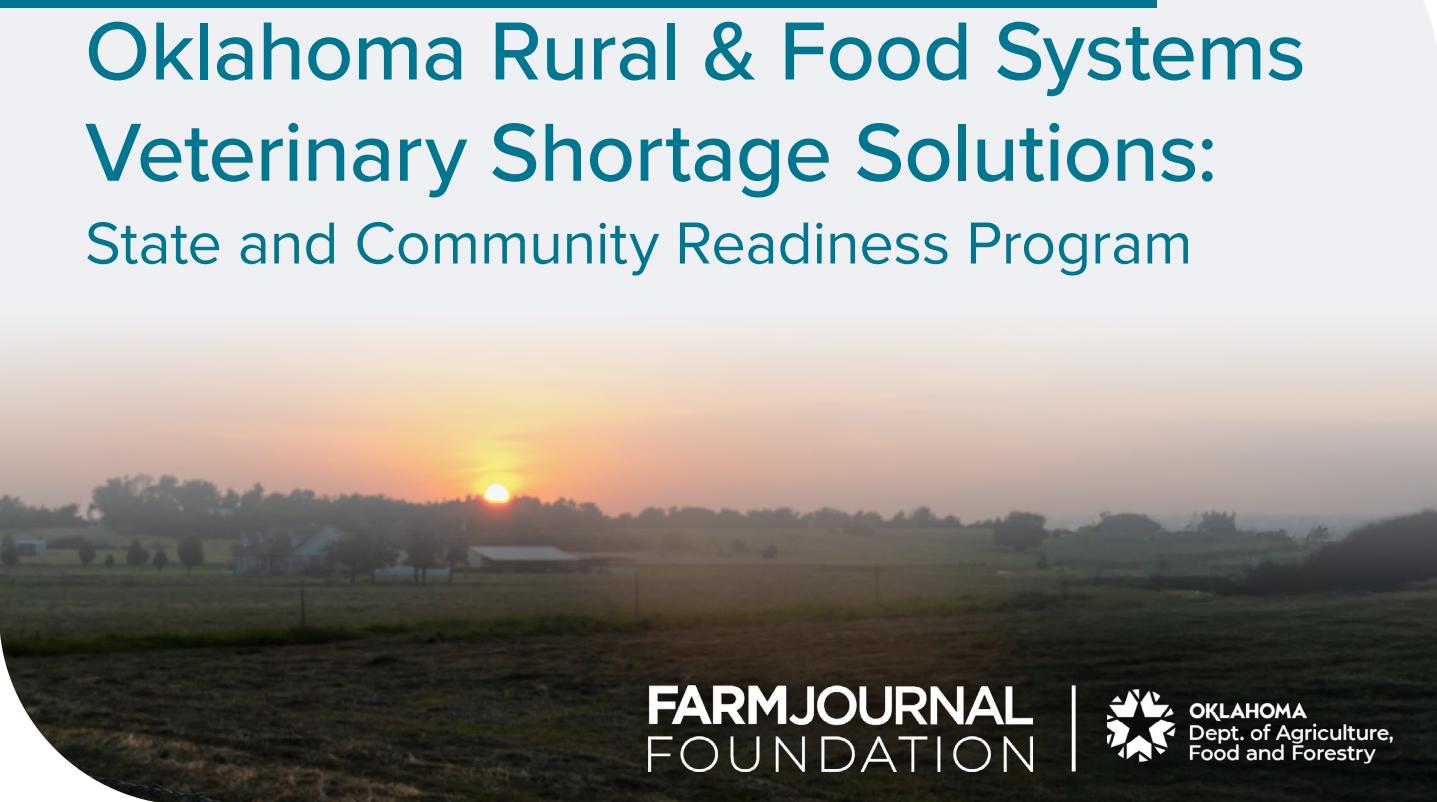
Rosslyn S. Biggs, DVM

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## FARM JOURNAL FOUNDATION ASSESSMENT REPORT

# Oklahoma Rural & Food Systems Veterinary Shortage Solutions: State and Community Readiness Program



FARM JOURNAL  
FOUNDATION



OKLAHOMA  
Dept. of Agriculture,  
Food and Forestry

The Farm Journal Foundation is honored to provide this report to Secretary Blayne Arthur and the Oklahoma State Department of Agriculture, Food and Forestry. Thanks to the leadership of Secretary Arthur, Oklahoma is the first of three pilot states for the State and Community Readiness Program.

The State and Community Readiness Program is designed to take a comprehensive, fact-based approach to identify the root causes of the shortage of rural, food-systems veterinarians and to develop a wide variety of possible solutions to address those causes. Simply put, you need to know and understand the cause of the shortage before you can begin to address it.

This report summarizes the data provided by organizations in Oklahoma impacted by the shortage of rural, food-systems veterinarians and should be considered the starting point for the conversations and the work to identify the causes of the rural and food systems veterinarian shortage. Contributing organizations include:

**The data findings and assessment are reported in the following sections:**

- ▶ Oklahoma farm and livestock data
- ▶ Available federal assistance programs
- ▶ Veterinary licensing and practice data
- ▶ Veterinary workforce and education data
- ▶ Closing and next steps



## SECTION 1: Oklahoma Farm and Livestock Data

### USDA - NASS

Trends in the four main food animal species over the past 20 years show a decline in overall numbers, including the number of farms. In line with the nationwide trends, Oklahoma is seeing a growth in small farms, 9 acres or less and in large farms over 2,000 acres. All the size categories in the middle have declined in numbers between 2002 and 2022.

Table 1. 20-Year Comparison of Farm and Animal Numbers

		2022	2012	2002
Number of Farms		70,378	80,245	83,300
Cattle & Calves Inventory	Farms	43,223	51,043	59,155
	Animals	4,512,794	4,245,970	5,324,240
Hogs & Pigs Inventory	Farms	2,219	1,947	2,491
	Animals	2,157,879	2,304,740	2,246,926
Layers Inventory	Farms	10,258	6,760	4,085
	Animals	3,407,879	3,121,799	4,200,104
Broilers (Sold)	Farms	670	606	871
	Animals	220,548,594	211,214,930	231,877,714

## SECTION 2: Available Federal Assistance Programs

### Veterinary Medicine Loan Repayment Program (VMLRP)

The USDA's National Institute of Food and Agriculture's Veterinary Medicine Loan Repayment Program (VMLRP) is the leading federal program designed to address shortages of food animal veterinarians. The VMLRP assists qualified veterinarians in educational loan repayment in exchange for the individual's practice in a nominated shortage area. Historically, each award is \$25,000 per year and a veterinarian may apply and receive a maximum of three awards. For 2025, the award has been increased to \$40,000. Oklahoma is allotted seven shortage nominations annually based on state land area and total farm-gate value of animals and animal products. Nominations are submitted by the State Veterinarian, Rod Hall, DVM.

During the past 5 years:

**35**

Shortage areas have been nominated (7 areas annually)

**32**

Applications received by USDA (applications were not received for every area)

**20**

New awards (average of 4 awards each year)

Annually, the VMLRP receives about 150 applications and awards approximately 70, for a 46.6% national award rate. Oklahoma over the past five years has exceeded this percentage with a 62.5% award rate.

Table 2. VMLRP Applications and Awards for the Three Most Recent Years Available

	Oklahoma			Total USDA		
	2023	2022	2021	2023	2022	2021
Applications	8	4	6	136	130	144
New Awards	6	3	3	68	73	67
Renewals	0	0	1	20	16	11
Award Rate %	75.0%	75.0%	66.6%	64.7%	68.4%	78.0%

## Veterinary Services Grant Program (VSGP)

Authorized in the 2014 Farm Bill, the Veterinary Services Grant Program (VSGP) is designed to address veterinarian shortage situations and support veterinary services. There are two types of grants 1) Rural Practice Enhancement (RPE) and 2) Education, Extension, and Training (EET). The RPE grants are made to establish or expand veterinary practices in rural areas. The EET grants are available to develop, implement, and sustain veterinary services through education, training, recruitment, placement, and retention of veterinarians, veterinary technicians, students, and technology.

In 2020 and 2021, Oklahoma received RPE grants to assist clinics expand access to large animal care.

## SECTION 3: Veterinary Licensing and Practice Data

### Demographics of Oklahoma's Licensed Veterinarians

One of the key factors to consider in evaluating the current situation is the make-up of the licensed veterinarians in Oklahoma. The following charts give you a quick look at the statistics.

**1,599** Total active licensees that reside in Oklahoma

Table 3. Overview of Age and Gender Demographics for Licensed Veterinarians

Decade of Birth	Number	Percentage of total licensees	Male Number/Percentage	Female Number/Percentage
1930-1939	13	<1%	12 (92%)	1 (8%)
1940-1949	83	5.19%	74 (89%)	9 (11%)
1950-1959	257	16.07%	184 (2%)	73 (28%)
1960-1969	276	17.26%	137 (50%)	139 (50%)
1970-1979	270	16.88%	119 (44%)	151 (56%)
1980-1989	374	23.38%	102 (27%)	272 (73%)
1990-1999	324*	20.26%	74 (23%)	247 (77%)
2000-2009	2	<1%		2 (100%)
<b>TOTAL</b>	<b>1,599</b>		<b>702 (44%)</b>	<b>894 (56%)</b>

\*3 licensees were not identified.

### Interesting observations

- Age of eldest licensed: Male – 92 / Female – 86
- 354 or 22 % of practitioners are age 65 or older
- 276 or 17% of practitioners are age 55 to 64, within 10 years of retirement age
- In total 630 or 39% of practitioners are at or will be at retirement age within 10 years

Oklahoma is experiencing an overall increase in the number of licensed veterinarians in recent years. Table 4 on the next page provides an annual breakdown. To summarize, the average number of new licenses issued over the past five years is 136, with 88 expired or non-renewable licenses, for an average gain of 48 licensed veterinarians annually.

**Table 4. The Number of New and Expired/Non-Renewed Licensed Oklahoma Veterinarians**

	2020	2021	2022	2023	2024
New License	126	123	129	145	157
Expired or non-renewals	78	101	88	83	92
Gain in # of licensees	48	22	41	62	65

## Veterinary Practice Findings

The information available on the types of practice performed by licensed veterinarians is limited to self-reporting when renewing their licenses. Veterinarians are asked to list their field type and can check multiple areas of practice (i.e., 3,907 types reported for 1,599 licensees). Table 5 will provide a snapshot of the type of practice with a focus on production agriculture and comparison to small animal. Information related to the percentage of time spent on each area is not collected.

**Table 5. Types of practice performed by licensed veterinarians per self-reporting**

Type of practice	Number of veterinarians who selected this type of practice	Percentage of total veterinarians*
Bovine	368	23%
Equine	481	30%
Large Animal	34	2%
Sheep/Goats	298	19%
Swine	253	16%
Small Animal	1,216	76%

\* Total % will not equal 100% to respondents selecting more than one type of practice.

## SECTION 4: Veterinary Workforce and Education Data

### Oklahoma State University College of Veterinary Medicine Findings

Just as the need for the veterinary sector to meet consumer demands is much different today than a few decades ago, so is today's veterinary student. In short, few students entering veterinary school do so planning to practice in any part of production agriculture.

As table 3 shows of Oklahoma licensed veterinarians there has been an increase in the number of females over males which is consistent with the larger demographic shift within the industry. The same applies for Oklahoma vet school students. Looking at the 6-year period from 2019 to 2024.

**Table 6. Gender of Oklahoma State University Graduates 2019 – 2024 (Three DVM Classes)**

Number of Graduates	Male	Female	Male Percentage	Female Percentage
575	106	469	18.4%	81.6%

**Table 7. Graduating Class Intended Career Plans, 2019-2023**

	2023	2022	2021	2020	2019
Small Animal	55%	67%	58%	58%	64%
Mixed Animal	28%	21%	32%	37%	27%
Large/Food Animal	5%	12%	10%	3%	9%
Unspecified/other	12%	0%	0%	2%	0%
Number of Students	76	81	74	62	70

Veterinarian student debt continues to be a reason many choose to enter private and small or mixed animal practice. Nationwide, the typical cost of vet school exceeds \$200,000.

**Table 8. Comparison of the Average Debt and Starting Salaries of Oklahoma And Graduates Nationally**

	Educational Debt of Indebted Graduates	Educational Debt of All Graduates (Including Those with No Debt)	Starting Salaries	Debt-to-Income Ratio of All Graduates
Oklahoma State University	\$171,573	\$135,819	\$105,031	1.29
Nationally (2023)	\$185,486	\$154,451	\$124,295	1.24

## Youth Education, Extension, and Veterinary Education Programming

### FFA

Both FFA and 4-H have robust large animal programs in Oklahoma. FFA provides introductory courses with a large animal emphasis to over 15,000 students and advanced courses to 2,294 students. The chapter and state FFA contests provide additional educational opportunities. There are 14 large animal proficiency awards, and the Veterinary Science Career Development Event hosted 195 individuals and 51 teams in 2024.

### 4-H

In 2023, 4-H reported to have hosted numerous events involving 88,136 youth in large animal care and 1,169 in Veterinary Science. The 4-H Veterinary Science Short Course hosted 90 participants in 6 meetings.

### Oklahoma State University Extension

Oklahoma State University Extension provides a number of programs for producers focused on educational opportunities for animal health and management. Some of these include webinars, online modules, county meetings, and targeted audiences. The majority of these focused on cattle and equine.

### Oklahoma State University College of Veterinary Medicine

The OSU College of Veterinary Medicine delivered over 20,000 Continuing Education hours in 2023, in a variety of programs that include online and in-person opportunities.

### Current State Programs to Address the Veterinary Shortage

In recent years, Oklahoma has established a couple programs to address the shortage. First, in 2008 with the Large Animal Veterinarian Incentive Act, with funding provided in 2014 and 2015. In 2022, a one-time appropriation for a Rural Oklahoma Food Animal Veterinary Grant program. This year, HB 3196 amended the Oklahoma Veterinary Practice Act, allowing large animal students to receive up to \$25,000 in assistance.

## Closing and Next Steps

The efforts across the country, and within Oklahoma, have clearly demonstrated there is not one or two simple answers to address the veterinarian shortage. It will take several approaches, programs, and organizations, along with time to address a problem that has been developing for more than a decade. Without question, there is a role for state and federal governments to assist in solving this issue. However, other solutions can be termed as self-help with the veterinary and agriculture communities working together, in some cases on a case-by-case basis or in local efforts.

From this assessment report, the Farm Journal Foundation looks forward to collaborating with Secretary Arthur and the key stakeholders in Oklahoma to:

- ▶ Advance the knowledge of the key statistics and factors impacting the veterinarian shortage,
- ▶ Identify gaps in programs and resources,
- ▶ Identify technical assistance opportunities,
- ▶ Building on the great work that has already been accomplished and developing a long-lasting plan of action to resolve the shortage.



Scan to learn more about our work, partners, education resource hub, ambassadors, and state partners.

Or contact us:

**Todd Greenwood**

Farm Journal Foundation, VP of Strategic Partnerships  
tgreenwood@farmjournalfoundation.org

# Center for Rural Veterinary Medicine



## Our Mission

To combat veterinary workforce shortages, strengthen local economies, and promote sustainable practices that improve the lives of rural populations across Oklahoma, the nation, and the world.



## Rosslyn Biggs, DVM

Director of Center for Rural Veterinary Medicine

Dr. Biggs is an assistant professor and director of the Center for Rural Veterinary Medicine at Oklahoma State University. She leads statewide efforts to strengthen veterinary care in rural areas through education, outreach, and workforce development. As a Beef Cattle Extension Specialist, she also supports livestock producers and future veterinarians across Oklahoma.

## Our Focus

- ✓ **Instruction** — Real-world training for rural practice
- ✓ **Research** — Supporting sustainable veterinary care
- ✓ **Extension** — Outreach and education for rural communities

## Contact Us

✉ rosslyn.biggs@okstate.edu

📞 405-744-8587



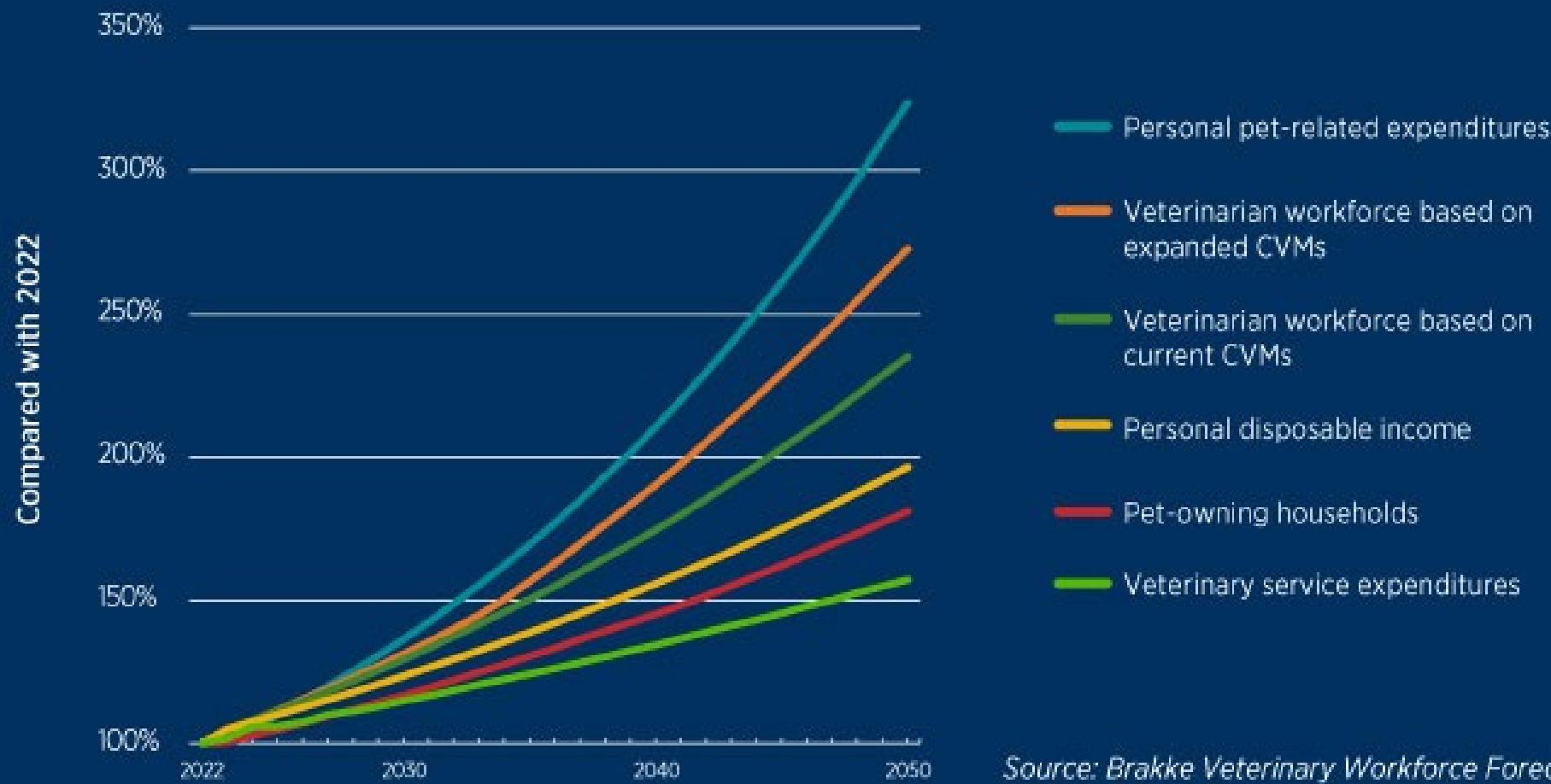
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# Increasing the Rural Veterinary Workforce

**R. Douglas Meckes, DVM**  
NC State Veterinarian Retired  
July 20, 2025

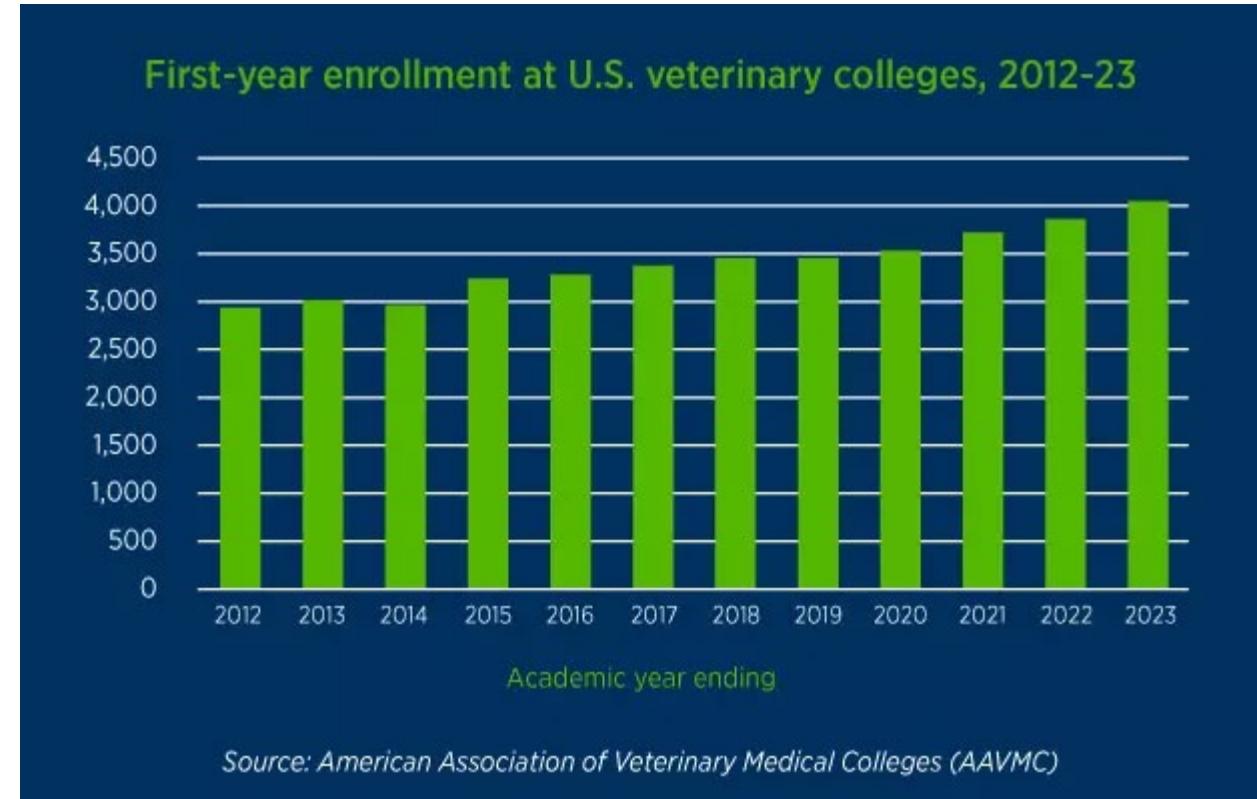
## Veterinary workforce: Projected growth for supply/demand factors



# Future Veterinary Workforce Needs

## Growth in graduate numbers

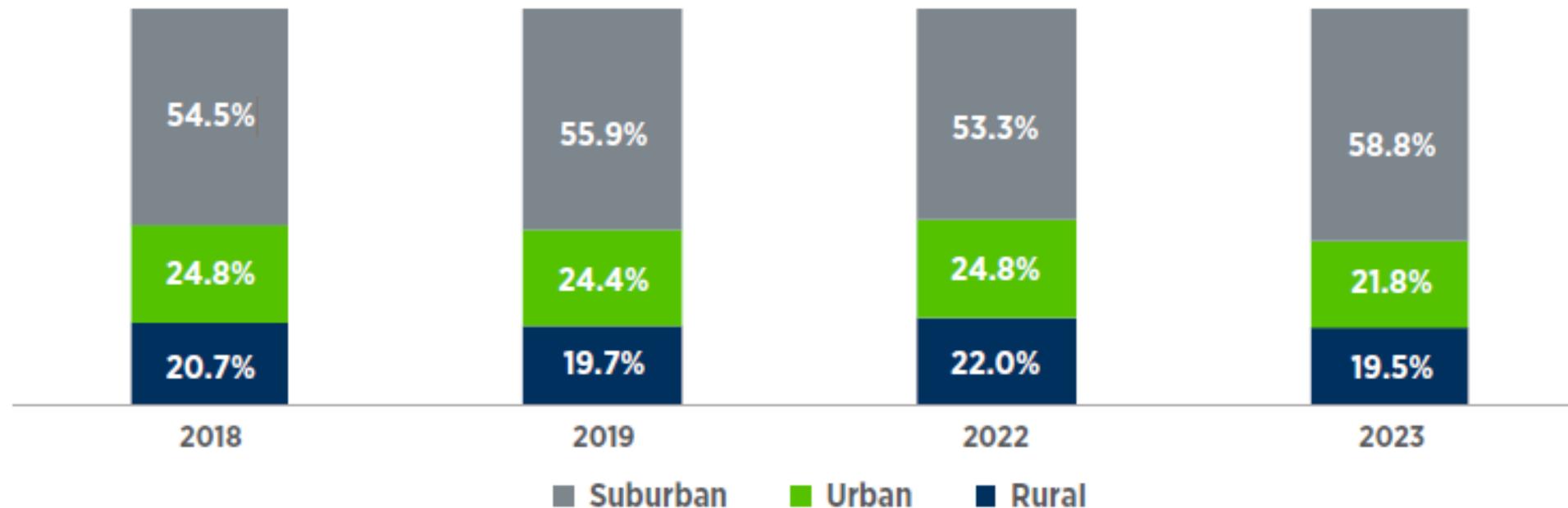
- Three new colleges graduating veterinarians in 2023, 2024, and 2025
- 12 plus new veterinary colleges at various stages of development
- Projected class sizes at existing colleges are increasing



# Rural Veterinary Medicine

- In 2023, 19.5% of veterinarians worked in a rural community.

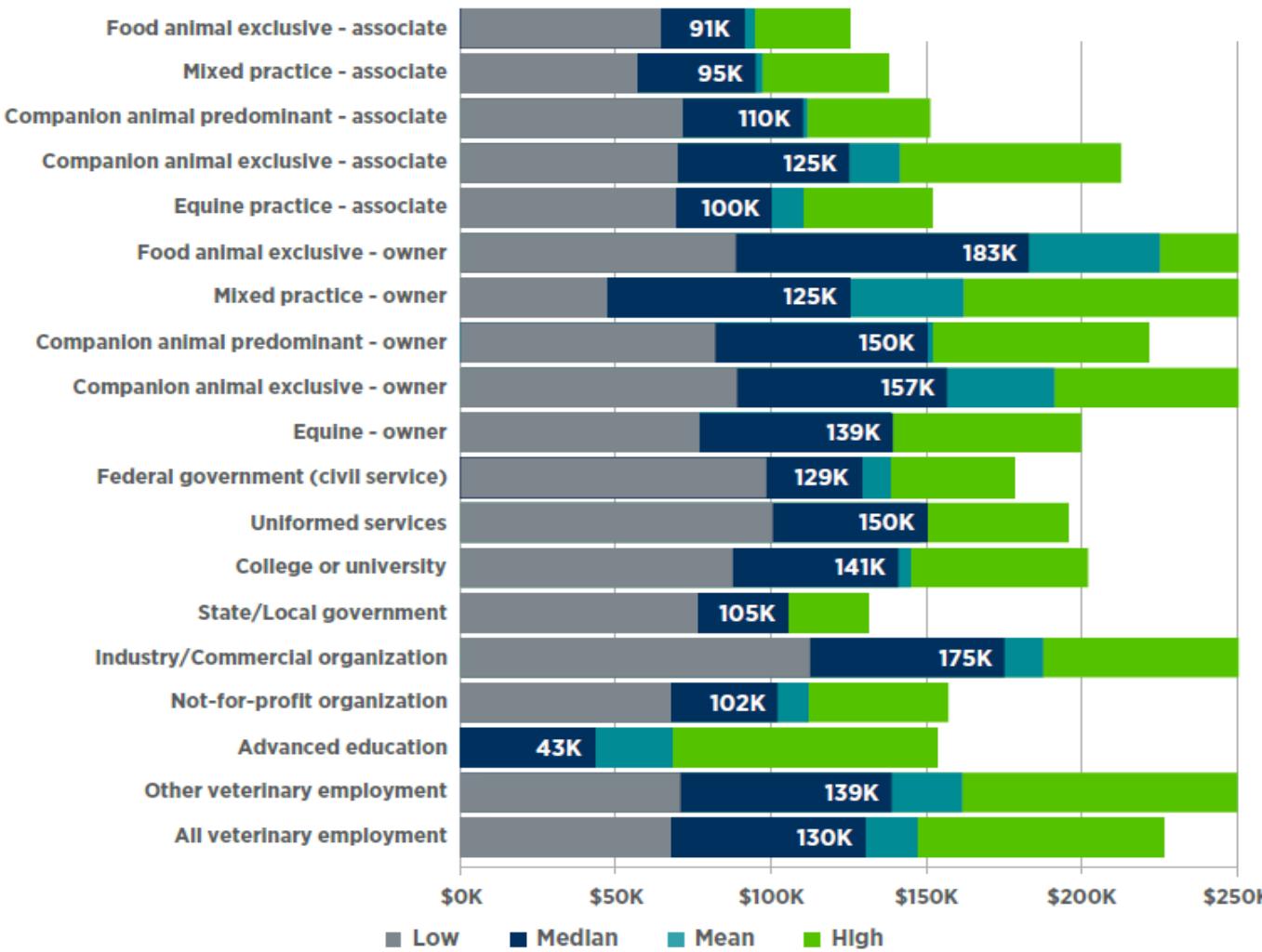
DISTRIBUTION OF VETERINARIANS BY WORKPLACE COMMUNITY TYPE



*Data on workplace community type were not collected in 2020 or 2021. Those years are therefore excluded from the graph.*

# Rural Veterinary Medicine Income

PROFESSIONAL INCOME REPORTED IN 2023 FOR 2022, BY EMPLOYMENT TYPE



**The average food animal associate reported an income of an average of \$91k**

**The average companion animal associate reported income of an average of \$125K**



[HOME](#) > [ABOUT GRANTS](#) > [PROGRAMS](#)

## The Veterinary Medicine Loan Repayment Program

# Veterinary Medicine Loan Repayment Program

- The Veterinary Medicine Loan Repayment Program (VMLRP) provides educational loan assistance in exchange for food animal or public health veterinary service in USDA-designated shortage areas.
- VMLRP is administered through USDA's National Institute of Food and Agriculture (NIFA). Veterinary shortage designations are nominated annually by state animal health officials and certified by USDA NIFA.
- Participants in VMLRP receive up to **\$75,000 toward student loan debt in exchange for three years of service** in any USDA-designated shortage area.
- In 2024, USDA designated 240 shortage areas across 47 states (the most ever).

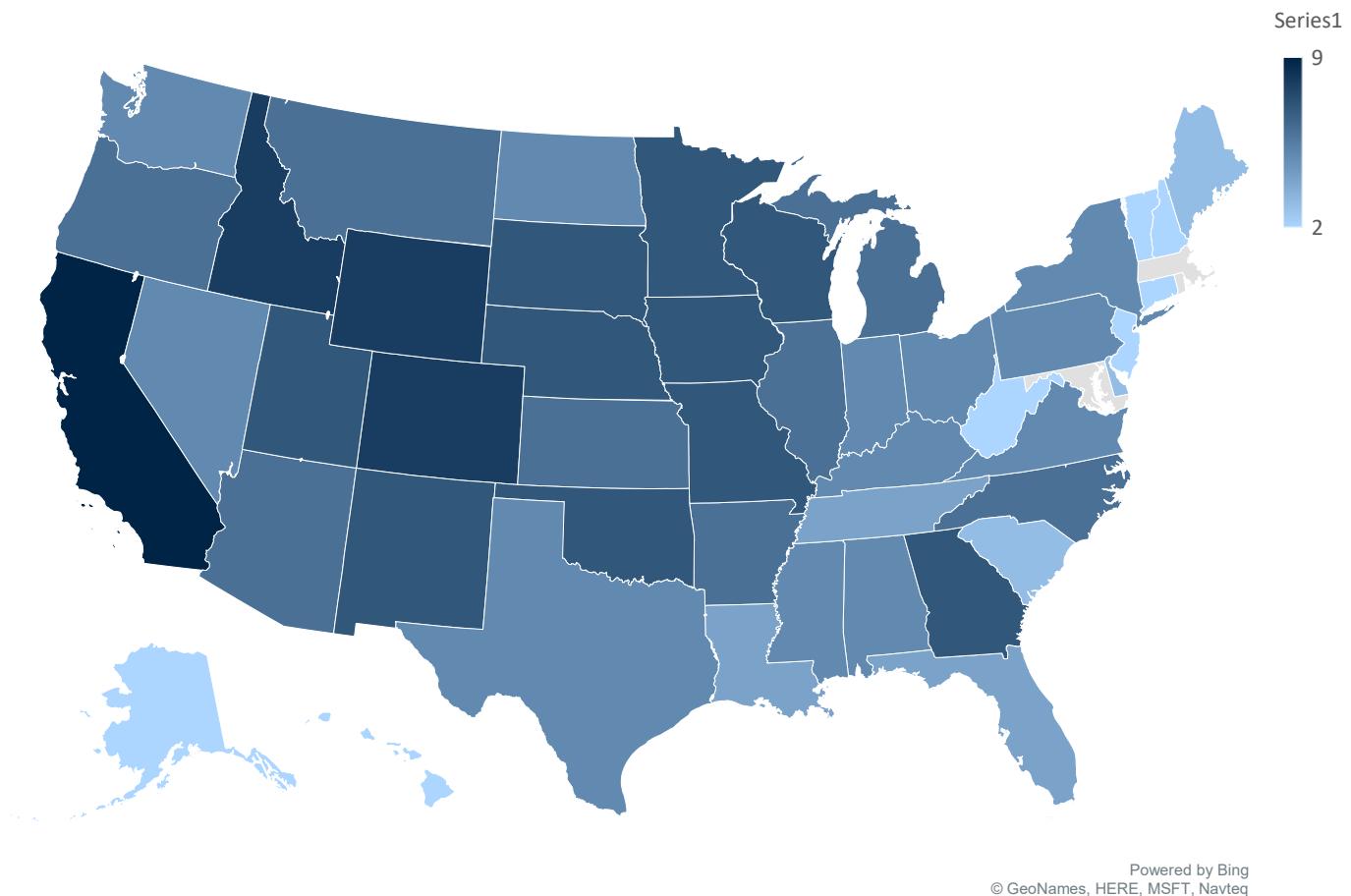
# Why is VMLRP important to the profession

- In 2024, new graduates saw debt figures climb to an average of **\$202,647** for those with debt. 38.5% of new graduates graduated with balances over \$200k.
- This has a major impact on attracting veterinarians to rural communities, and food animal or public health careers, which typically pay less than companion animal practices.
- VMLRP is one of the important tools we have to recruit and retain veterinarians in high-need areas by assisting them with the student loan burden.

# 2024 USDA-designated Shortage Areas

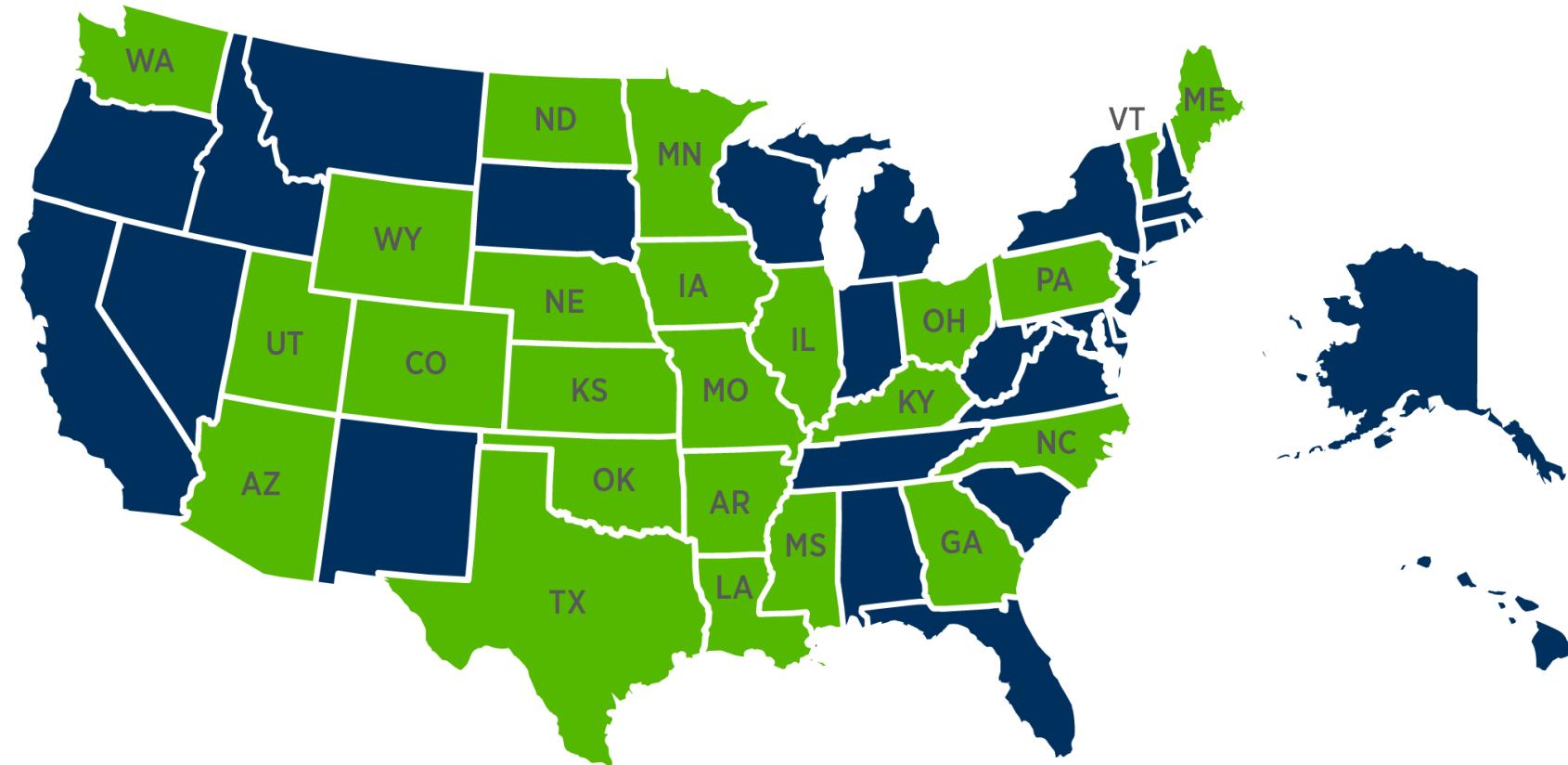
- USDA designated 240 shortage areas across 47 states
- 3 states with no shortage areas: MD, MA, and RI
- Interactive shortages map:  
[nifa.usda.gov/vmlrp-map](https://nifa.usda.gov/vmlrp-map)

2024 USDA Veterinary Shortage Areas



# State Veterinary Medicine Loan Repayment Scholarship Programs

Require practice in rural, shortage and/or large animal practice:



Awards vary from as low as \$10,000 to as high as \$100,000

# State Veterinary Medicine Loan Repayment Scholarship Programs

## North Carolina

- A large animal veterinarian in a designated county – up to \$25,000 annually.
- “Designated county” means a county in this State with a population of less than 100,000, according to the latest decennial census.
- Uses of Grant Funds - The grant recipient may use the funds to support the recipient's large animal veterinary practice, including any of the following:
  1. The repayment of educational loans related to the recipient's veterinary degree.
  2. The purchase of equipment or technology for use in the recipient's large animal veterinary practice.
  3. Any additional uses the Advisory Committee determines are appropriate to promote and develop large animal veterinarians to practice in designated counties.

## **2025 Regular Session**

[Act 18](#) authorizes veterinary telemedicine and allows a veterinarian to provide veterinary telemedicine in an emergency or urgent situation without a previously established veterinarian-client-patient relationship if the veterinarian establishes the veterinarian-client-patient relationship within a set time period.

[Act 19](#) authorizes a supervising veterinarian to use indirect supervision to allow veterinary technicians, veterinary technologists, and veterinary technician specialists to go to a location other than the location of the supervising veterinarian to provide services based on an emergency call.

[Act 585](#) exempts certificates of veterinary inspection and personal information obtained from or associated with an animal electronic identification tag received by or in the custody of the Department of Agriculture from disclosure under the Freedom of Information Act of 1967.

[Act 703](#) changes the name of the Arkansas Livestock and Poultry Commission to the Arkansas Board of Animal Health throughout the Arkansas Code and amends fund names to reflect the name change.

[Act 741](#) authorizes the Arkansas Livestock and Poultry Commission to impose a civil penalty for certain actions against an equine and allows a body condition score conducted by a licensed veterinarian to be used to determine if adequate food and water have been supplied for an equine under the offense of cruelty to animals.

### **Acts prior to the 2025 session, dating back ten years:**

#### **The first Act pertains to large animals:**

[Act 1011 of 2017](#) repeals provisions concerning the Agriculture Department and the Arkansas Livestock and Poultry Commission, amends the powers and duties of the Arkansas Livestock and Poultry Commission, and amends the law concerning the control of contagious diseases.

[Act 1074 of 2017](#) provides a certification for individuals who engage in livestock embryo transfer and transplant and livestock pregnancy determination.

[Act 169 of 2019](#) amends the laws concerning veterinary medicine and establishes a veterinary technologist certification and a veterinary technician specialist certification.

[Act 315 of 2019](#) eliminates unnecessary references to the terms "regulation" and "regulations" and provides for consistent references to the terms "rule" or "rules" throughout the Arkansas Code. The act changes the name of an Arkansas Legislative Council Subcommittee to the Administrative Rules Subcommittee.

[Act 910 of 2019](#) provides for a realignment of executive branch state entities; creates fifteen (15) cabinet-level departments and secretaries; transfers various state entities into the cabinet-level departments; and changes the name of multiple state entities. The act declares an emergency and the provisions concerning the transition team and the funding and classification of department-level secretaries are effective on and after April 11, 2019, and the remainder of the act is effective on and after July 1, 2019.

[Act 161 of 2023](#) authorizes a collaborative practice agreement between a veterinarian and a veterinary technician specialist and sets up procedures for the collaborative practice agreement. The act also allows a veterinary technician, veterinary technologist, or veterinary technician specialist to administer rabies vaccinations.

[Act 452 of 2023](#) removes a reference to prescriptive authority of a veterinary technician specialist under Act 161 of 2023 because prescriptive authority was not granted to a veterinary technician specialist under Act 161 of 2023. The act also prohibits a veterinary technician specialist from receiving compensation for performing the practice of specialized veterinary technology outside of his or her employment.

[Act 691 of 2023](#) abolishes the Arkansas Milk Stabilization Board; Arkansas Seed Arbitration Committee; Arkansas State Board of Registration for Foresters; Arkansas State Board of Registration for Professional Soil Classifiers; Commission on Water Well Construction; Private Wetland and Riparian Zone Creation, Restoration, and Conservation Committee; Veterinary Medical Examining Board; Abandoned Pesticide Advisory Board; Arkansas Agriculture Board; and Red River Commission. The act moves the duties of each of the abolished entities to other agricultural boards. The act also changes the membership of the Arkansas Natural Resources Commission, Arkansas Forestry Commission, and Arkansas Livestock and Poultry Commission. The act declares an emergency and is effective on and after July 1, 2023.