

2023 AAVSB
ANNUAL MEETING
& CONFERENCE

KANSAS CITY
09.28 - 09.30

September 29, 2023

Rural Veterinarian Shortage:

Causes, Impacts, and Solutions

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What's Rural.....and What's a Rural Veterinarian?

Rural: in, relating to, or characteristic of the countryside rather than the town

46 million (14% of Americans) live in **rural** communities

Suburban: of, or characteristic of a suburb (an outlying district of a city, especially a residential one)

59 million (18 % of Americans) live in **suburban** communities

Urban: of, relating to, or constituting a city or town. living in a city or town

223 million (68% of Americans) live in **urban** communities

Can we make some assumptions?

As of 2022, 44.5% of U.S. households own dogs, and 29% of households own cats. (Pew Research Center)

Is there any correlation between the number and types of companion animals per American, regardless of life in rural, suburban, or urban communities?

If so, can we assume that approximately 14% of companion animals live in rural communities?

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What kind of animals does a Rural Veterinarian need to be proficient in?

Beef Cattle	29 million
Dairy Cattle	9.4 million
Swine	72.5 million
Small Ruminants	7.8 million
Poultry	
Layers, Broilers, multiple species	
Farm Raised Aquaculture	
Finfish, Shellfish, Turtles, Frogs, other	
Horses	7.25 million
Companion Animals	

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Do we need as many Food Animal Veterinarians as we used to? (2006 Data)

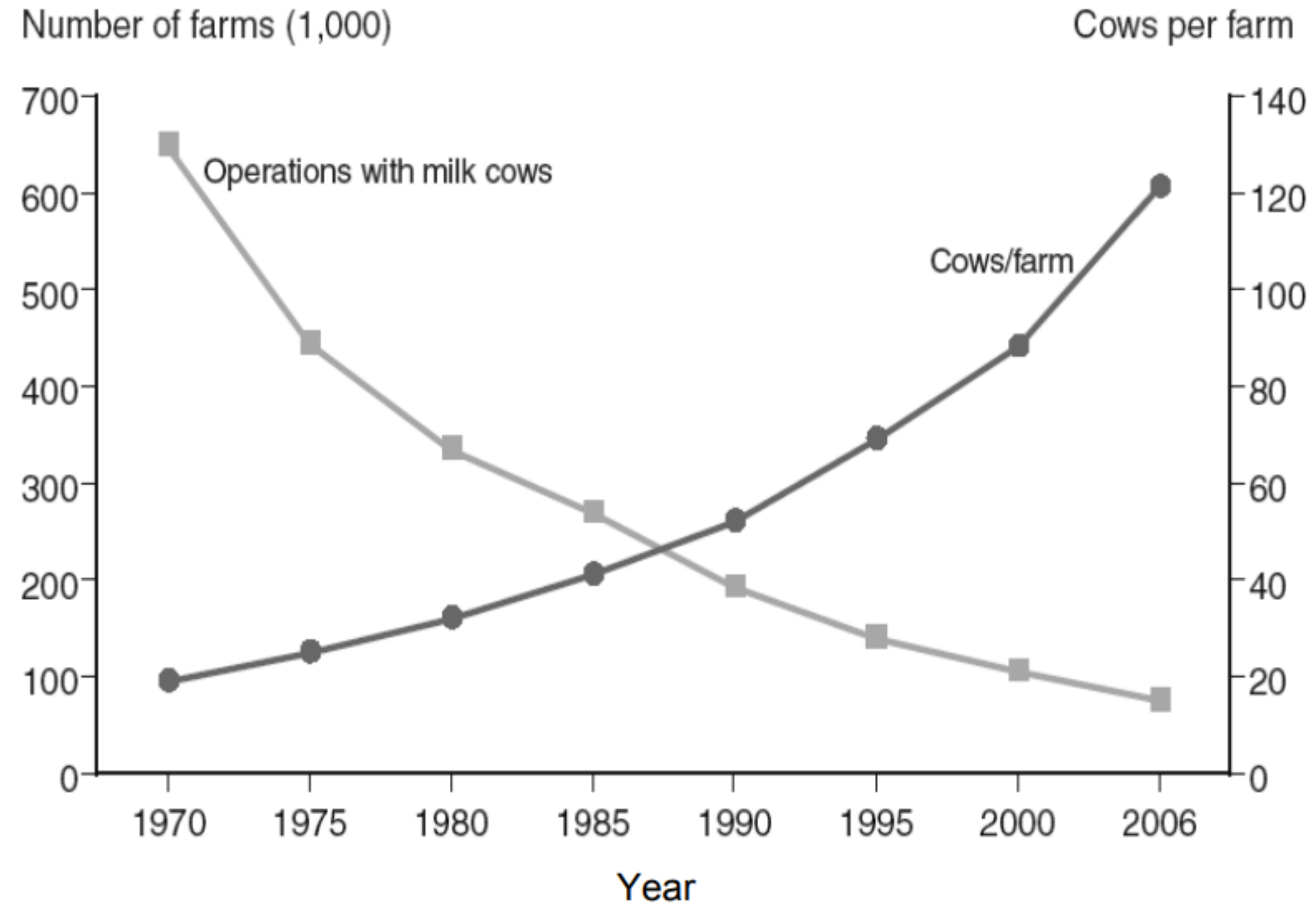


FIGURE 4-4 Number and average size of dairy farms in the United States, in thousands, 1970-2006. SOURCE: MacDonald et al., 2007.

Food Animal Industry Practices Vary with Geographical Location (2013 data)

TABLE 4-4 California and Wisconsin: Comparison of Operations, Operations' Size, and Members in the American Association of Bovine Practitioners

State	Number of AABP Members	Number of Dairy Cows	Number of Operations	Number of Cows per Operation	Number of Cows per Veterinarian
Wisconsin	234	1,247,000	14,440	87	5,329
California	112	1,796,000	2,115	849	16,036

NOTE: AABP = American Association of Bovine Practitioners.

DATA SOURCE: American Association of Bovine Practitioners membership and USDA National Agricultural Statistics Service.

Accredited Veterinarian Numbers Nationwide

Practice_Type*

Companion Animal Exclusive	31,235
Companion Animal Predominant	20,688
Mixed Animal	14,278
Equine Predominant	3,775
Food Animal Predominant	3,761
Equine Exclusive	2,481
Food Animal Exclusive	1,281

*Veterinarians may choose 2 Practice Types, most don't

Food Animal Veterinarian Numbers

Practice_Type	<u>Graduation Dates</u>				
	<u>1971-1980</u>	<u>1981-1990</u>	<u>1991-2000</u>	<u>2001-2010</u>	<u>2011-2020</u>
Food Animal Exclusive	161	248	224	286	433
Food Animal Predominant	466	602	576	553	1,089
Mixed Animal	1,207	2,037	2,125	2,566	4,495
Total	1,834	2,887	2,925	3,405	6,017

Food Animal Veterinarian Numbers

Practice_Type	<u>Graduation Dates</u>			
	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023*</u>
Food Animal Exclusive	40	36	39	32*
Food Animal Predominant	106	127	133	77*
Mixed Animal	537	570	585	370*

* May-Aug newly accredited veterinarians only

Food Animal Veterinarian Numbers

Species Code	Graduation Dates				
	1971-1980	1981-1990	1991-2000	2001-2010	2011-2020
Bovine	1,736	2,711	2,622	2,977	4,789
Poultry	141	334	374	372	530
Ovine/Caprine	597	1,198	1,257	1,531	2,458
Porcine	431	749	737	790	1,363

Where are our 1,281 Food Animal Exclusive Veterinarians?

TX?

OK?

CA?

FL?

NE?

WI?

MT?

MI?



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Where are our 1,281 Food Animal Exclusive Veterinarians?

WI	165
CA	104
MN	100
IA	84
IN	56
NY	51
PA	51
KS	48
MI	48
IL	44
MO	42
NC	41
ID	39
OH	38
NE	35
VA	35
CO	34
FL	30
TX	30

55% (707) of Food Animal Exclusive Veterinarians are in 10 States

WA	29
GA	28
AL	26
OK	22
TN	21
MD	18
AR	17
OR	16
MT	15
NM	14
SC	14
SD	14
MS	13
VT	13
AZ	12
KY	11
WV	7
ND	6
NJ	6
ME	5

WY	5
LA	4
PR	4
NH	3
NV	3
RI	2
CT	1
DC	1
DE	1
MA	1
UT	1



Photo Credit AVMA

Factors causing rural veterinarians to **leave** for larger communities

Finances: Income and Student Loan Debt

- Per the Economic Research Service, the average per capita income for all Americans in 2020 was \$59,510, with the rural per capita income at \$45,917.
- Per the AVMA, In 2022, the average student debt for all graduates was \$147,258, down more than 6% from 2020. 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, down 5% from 2020.
- Non-Compete Agreements
- Cost to finance purchase of existing practices

Veterinary Practice Loan Rates

Loan Type	Rate	Term
Conventional Practice Loan	4.25% - 4.95%*	10 - 20 Yr. Fixed
Conventional Real Estate	4.50% - 4.95%*	20 Yr. Fixed
SBA Real Estate	6.50% - 7.00%*	10 - 25 Yr. Fixed

Factors causing rural veterinarians to **leave** for larger communities

Fatigue, Frustration, Professional Growth

- 24/7 emergency coverage for **solo practitioners** absent emergency care options
- Responding to after-hours emergencies without technicians(s)
- In solo practices, limited access to mentoring, coaching
- Employer using the “figure it out” method of mentoring
- OTJ learning can have huge consequences



Factors causing rural veterinarians to **leave** for larger communities

Practice Management

- Managing accounts receivable/profitability in economically stressed communities
- Seeking fair compensation for windshield time in ambulatory practices
- Absence of colleagues for collaboration in solo practices
- Wearing “too many hats” to concentrate on medicine

Factors causing rural veterinarians to **leave** rural communities

Compensation

- Salary, perks
- Seasonality of income
- Retirement planning
- Difficult “exit strategy”
- Lure of the 40-50 hour work week and steady paycheck elsewhere

Factors causing rural veterinarians to **leave** rural communities

- **Lifestyle**

- Time for family and family events
- Challenges getting coverage to “get away”
 - Need proficiency in multiple species
- Hours dedicated to non-veterinary business responsibilities
- Lure of the 40-50 hour work week and steady paycheck elsewhere

Factors causing rural veterinarians to **stay in** rural communities

Lifestyle

- Access to activities “in the country”
- Personal Perceptions
 - Schools, safety, crowdedness, air and sunshine
 - Ag activities for kids
 - Sense of belonging and being needed in a smaller community
 - Fulfilling duty to hometown

Factors causing rural veterinarians to **stay in** rural communities

Practice Style, Privacy, and Self-Fulfillment

- Autonomy of medical decisions
 - “do this here” instead of referring 100 miles away
- Appreciation from the community
- Value to agricultural businesses
- Love for food animal medicine
- Love of working outdoors

What other Opportunities are Luring Rural Veterinarians Away?

Human Health
Pharmaceutical and
Biotechnology Companies
Animal Health Companies
Animal Feed Companies
Animal Supply Companies
Diagnostic Laboratories

Contract Research/Testing
Laboratories
Agrochemical Companies
Academia
Government
Non-Rural Practice
.....and More

What are some potential solutions?

State-Funded Cost of Education: Agreements to Rural Practice

- State determines where underserved areas are, and pays for the education of students who sign agreements to work in those communities
- Failure to uphold contract results in graduate owing the state for the cost of their education

What are some potential solutions?

State-Funded Practice “Mentorships” with Established Practices

- Defined procedures graduates must be “work-alone competent” in
- Business acumen in fee structure, debt management, hiring and firing, ancillary costs, procurement, negotiating, work-life balance
- Assistance to purchase existing rural practice or establish a rural practice
- Compensation for Mentoring Veterinarians
 - Dissolution and Payment for Non-Compete Agreements
 - Assurances that Mentees to not compete with Mentors geographically

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What are some potential solutions?

Places set-aside in the admissions process for future Rural Veterinarians



Photo Credit Oklahoma State University

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What are some potential solutions?

Recruitment of Foreign Graduates

Participants in PAVE or ECFVG, streamlined into rural veterinary employment

What are some potential solutions?

Creation of Veterinary Schools specifically for Rural Veterinarians with Defined Day-One Competencies as described with State-Funded Practice “Mentorships”

- Annexed to existing schools
- Stand-alone accredited schools
- Stand-alone non-accredited schools, followed by
 - PAVE or ECFVG

What are some potential solutions?

More about non-accredited curriculums:

- No on-site clinic or hospital
- All hands-on experience in participating practice settings
- No research or extension components to school
- No salaried professors-all instruction “piped in”
- Focus on Food Animal, Equine, Companion Animal in that order
- Focus on Practice Management and Personal Finance
- Focus on independent decision-making and interpersonal comm.
- Focus on passing the NAVLE and State Board
- Eligible for State assistance and resultant “debt” to State

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What are some potential solutions?

Non-Veterinarians performing veterinary procedures traditionally done only by veterinarians

- Varies by Jurisdictions' laws and regulations
- Expansion of allowable Veterinary Technician procedures
 - Currently about 120,000 Veterinarians in the U.S.
 - Currently about 120,000 Licensed, Registered, and or Certified Veterinary Technicians in the U.S.
- Creation of degree programs similar to human medicine's Physician's Assistant or Nurse Practitioner

What are some potential solutions?

Creation of Food Animal(+) Licensure Tracks

- Ease burden of seasoned food animal veterinarians acquiring additional veterinary licenses
 - Forgotten unused competencies in companion animal medicine/surgery
 - Superior and needed competencies in Food Animal medicine/Surgery

What are some potential solutions?



DEA REGISTRATION NUMBER	THIS REGISTRATION EXPIRES	FEE PAID
[REDACTED]	04-30-2019	FEE EXEMPT
SCHEDULES	BUSINESS ACTIVITY	ISSUE DATE
2N, 3N,	MLP-ANIMAL SHELTER	05-11-2016
[REDACTED] ANIMAL CONTROL ATTN: DEPUTY CHIEF [REDACTED] ANIMAL CONTROL SUPERVISOR [REDACTED]		

What are some potential solutions?

Veterinary Medicine Loan Repayment Program



National Institute of Food and Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE

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VMLRP Overview



Assists in repayment of up to **\$25,000** of DVM educational loan debt per year



Requires a commitment of **three years**



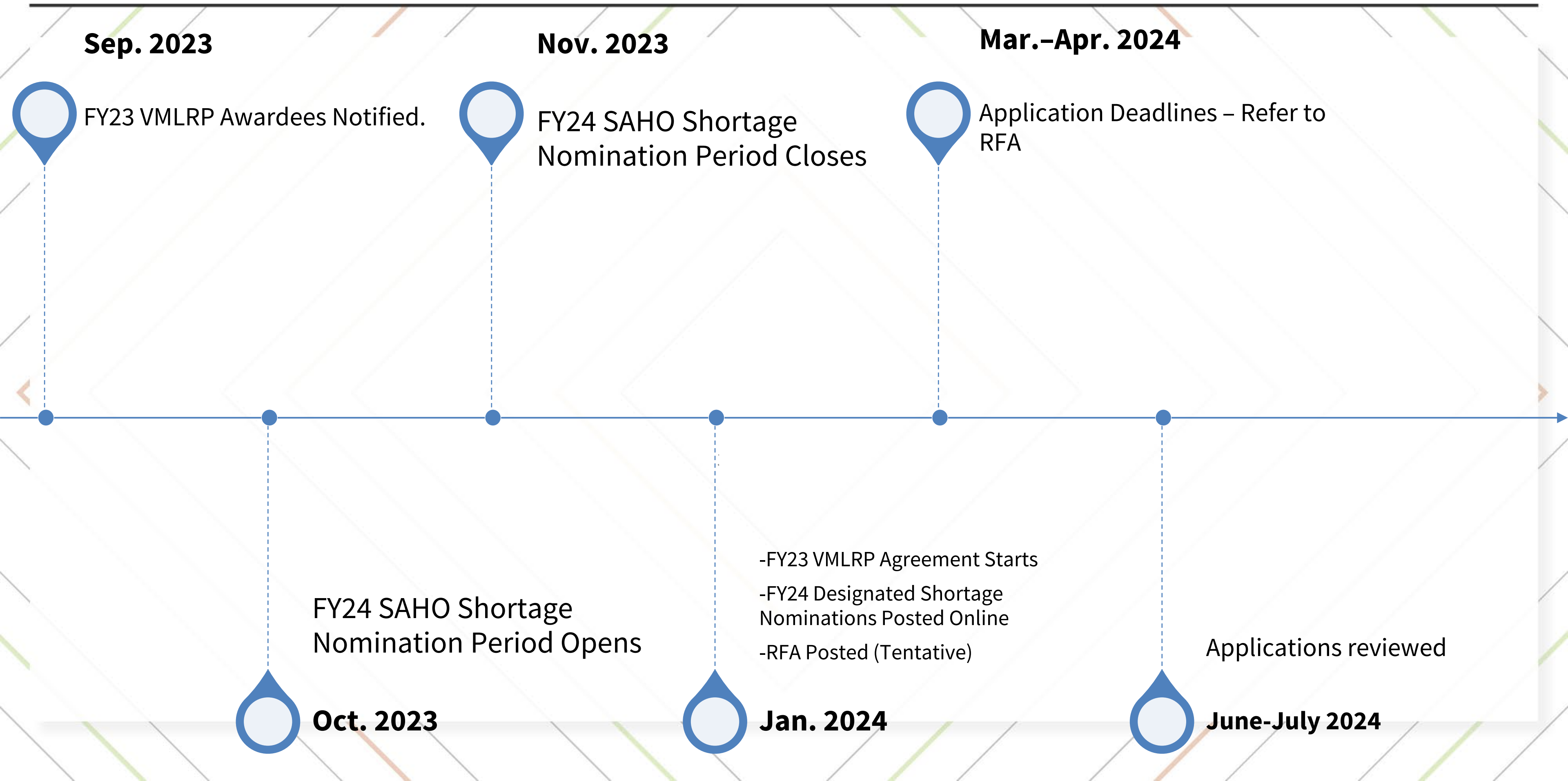
Minimum \$15,000 of eligible DVM debt



750+ veterinarians awarded since 2010

For more information: <https://www.nifa.usda.gov/program/veterinary-medicine-loan-repayment-program>

Program Timeline





Veterinary Shortage Situation Types

- **Type I**
 - At least 80% FTE private practice
 - 32 hours a week
 - Rural or urban
- **Type II**
 - At least 30% FTE private practice
 - 12 hours a week
 - Only rural areas
- **Type III**
 - At least 49% FTE public practice
 - 19.6 hours a week
 - City, county, State, Federal, or institutions of higher education



Veterinary Shortage Situation Area Allocation

Maximum Nomination
Allocation Table for FY
2023 – 2025

<https://www.nifa.usda.gov/vmlrp-shortage-situation-nomination-allocation>

Entity	Maximum Nominations
Alabama	5
Alaska	5
American Samoa*	1
Arizona	6
Arkansas	6
California	8
Colorado	8
Connecticut	2
Delaware	3
District of Columbia*	1
Federal Lands	4
Florida	4
Georgia	7
Gaum*	1
Hawaii	2
Idaho	7
Illinois	6
Indiana	5
Iowa	7
Kansas	7

Entity	Maximum Nominations
Kentucky	5
Louisiana	4
Maine	2
Maryland	3
Massachusetts	2
Michigan	6
Micronesia*	1
Minnesota	7
Mississippi	5
Missouri	7
Montana	6
Nebraska	7
Nevada	5
New Hampshire	2
New Jersey	2
New Mexico	6
New York	5
North Carolina	6
North Dakota	5
Northern Mariana*	1

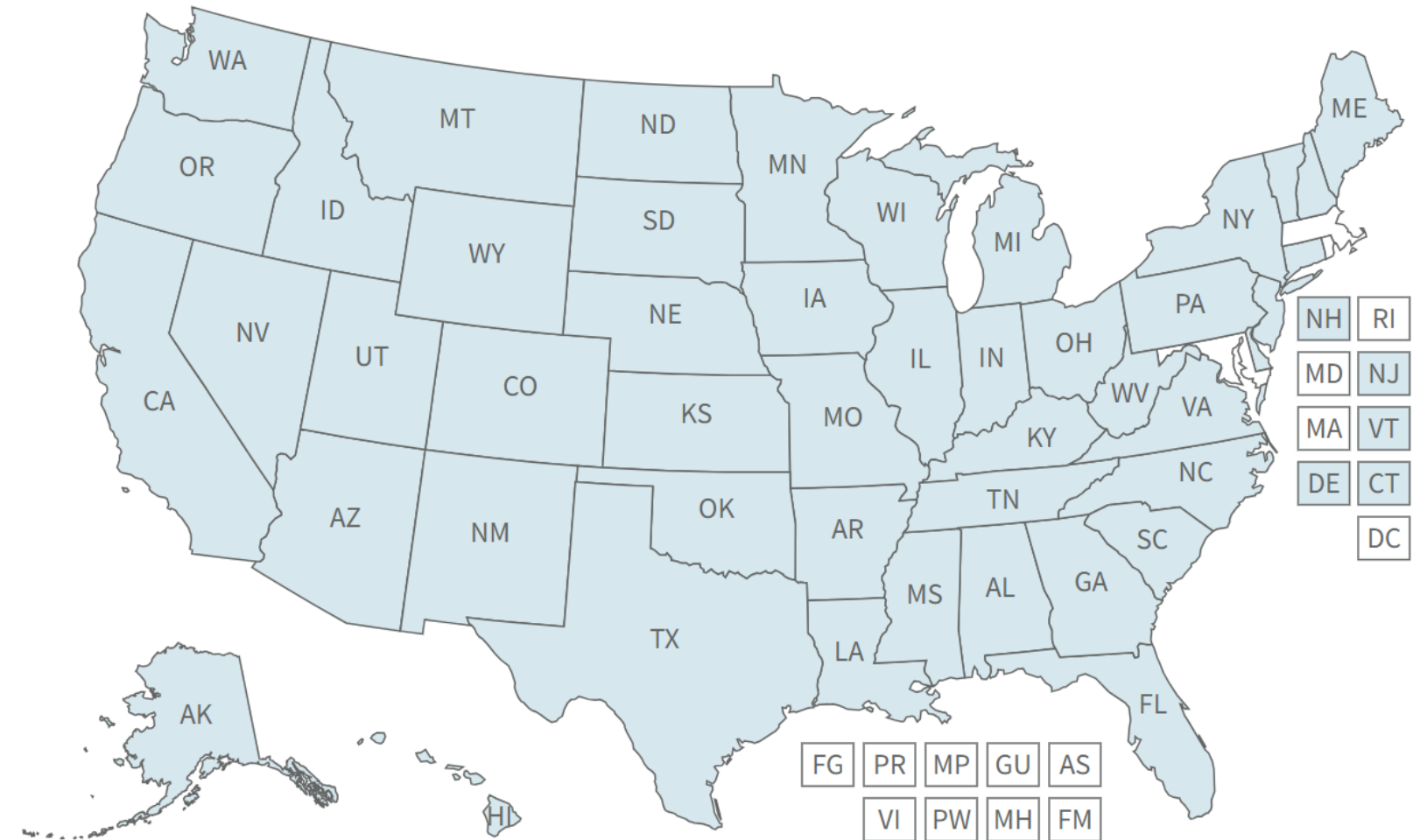
Entity	Maximum Nominations
Ohio	5
Oklahoma	7
Oregon	6
Pennsylvania	5
Puerto Rico	2
Republic of Marshall Islands*	1
Republic of Palau*	1
Rhode Island	2
South Carolina	3
South Dakota	6
Tennessee	4
Texas	8
U.S. Virgin Islands*	1
Utah	6
Vermont	2
Virginia	5
Washington	6
West Virginia	2
Wisconsin	7
Wyoming	6

*Special Consideration entities



Veterinary Shortage Situation Areas

- State Animal Health Officials
- Review Panel
- 237 for FY2023
- VMLRP & VSGP



STATE/TERRITORY	TYPE OF SHORTAGE	VMLRP STATUS	VSGP STATUS	BY YEAR	
- Any -	- Any -	- Any -	- Any -	- Any -	Apply



2010-2022 VMLRP Applications & Awards

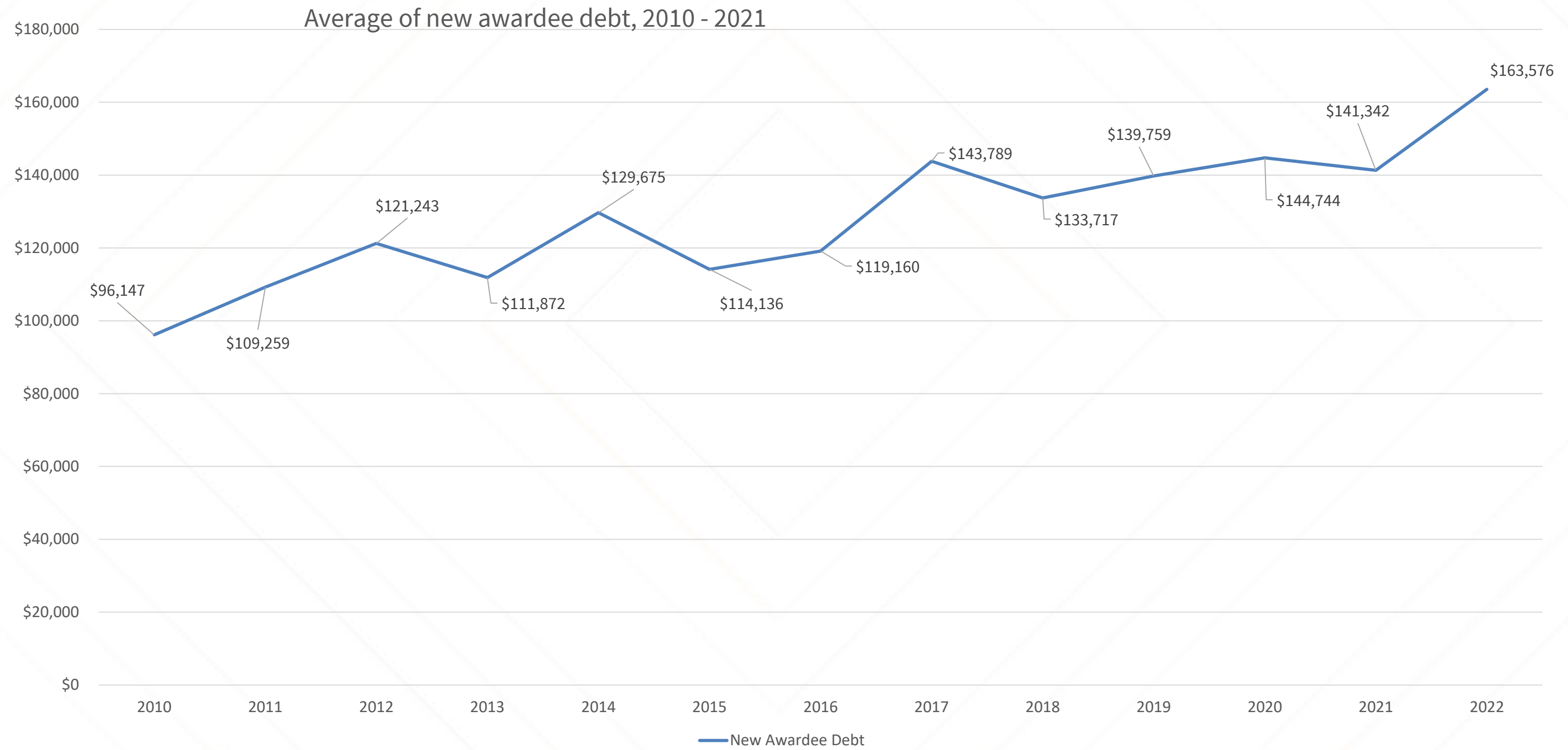
Fiscal Year	Number of Applications ¹ (Renewals)	Number of Awards	Success rate	Total Funding Awarded ²
FY 2010	257	52	20%	\$5,185,978
FY 2011	159	75	47%	\$7,250,970
FY 2012	140	45	32%	\$4,448,652
FY 2013	140 (22)	43	30%	\$3,838,128
FY 2014	160 (27)	49	30%	\$4,360,121
FY 2015	137 (7)	48	35%	\$4,504,340
FY 2016	187 (25)	46	25%	\$4,264,574
FY 2017	166 (20)	56	34%	\$5,427,905
FY 2018	147 (13)	74	50%	\$6,792,005
FY 2019	139 (8)	64	46%	\$6,132,735
FY 2020	150 (18)	76	51%	\$7,152,453
FY 2021	144(11)	78	54%	\$7,558,227
FY 2022	130 (16)	89	69%	\$8,296,394
TOTAL	2056 (167)	795	39%	\$75,212,482

¹Total applications inclusive of renewal applications.

²Funds provided to any individual is based on the amount of eligible educational debt. Maximum award size is \$104,250 (\$75,000 in loan repayment and \$29,250 to offset taxes).



VMLRP New Awardee Loan Debt



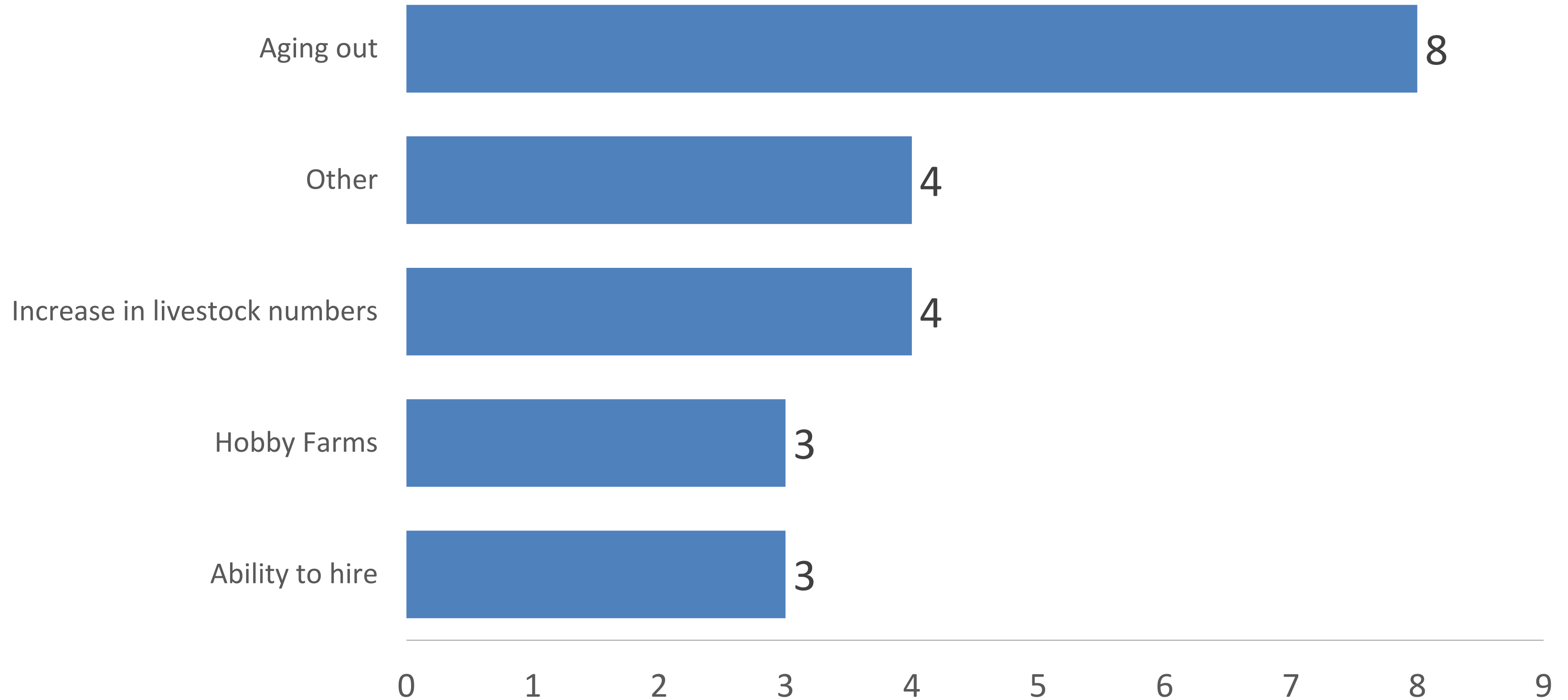
Feedback Survey Results – Cohort 2021

Table 1: Reasons reported for why needs in shortage areas are unmet for food animal veterinarians.

Reason	# of Responses
Distance	8
Age of current veterinarian	4
Clinics not servicing large animals	4
Increase caseload	3
Fatigue/injury	2
Unable to attract/retain veterinarian(s)	2
Other	4

Feedback Survey Results – Cohort 2021

Figure 1: Reasons for an anticipated increase in demand of food animal veterinarians in the next 3-5 years.



Closeout Report Results – Cohort 2019

Figure 2. Impacts the veterinarians recorded having on their shortage situation.

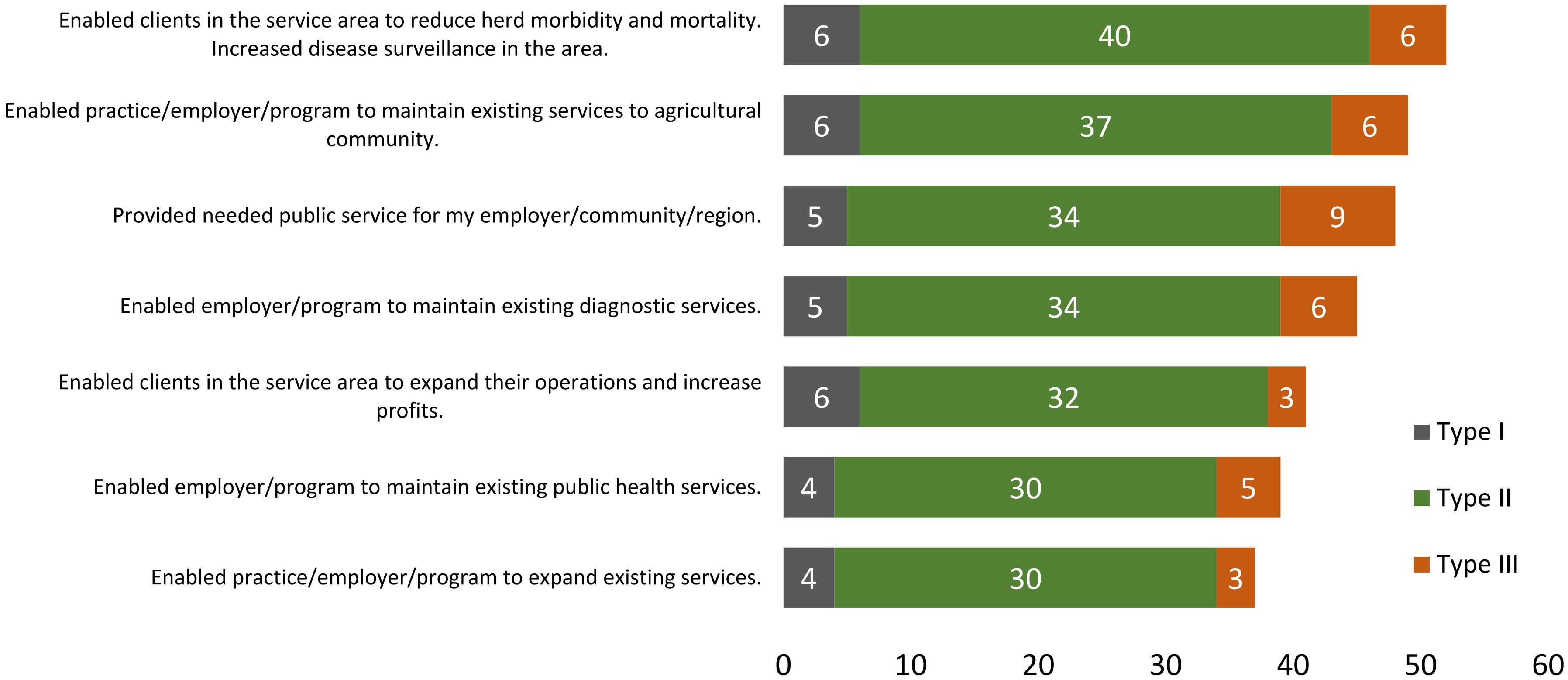


Figure 3: Veterinarians in Type 1, Type II, and Type III shortage situation plans to continue serving the shortage area upon completion of the VMLRP service award period.

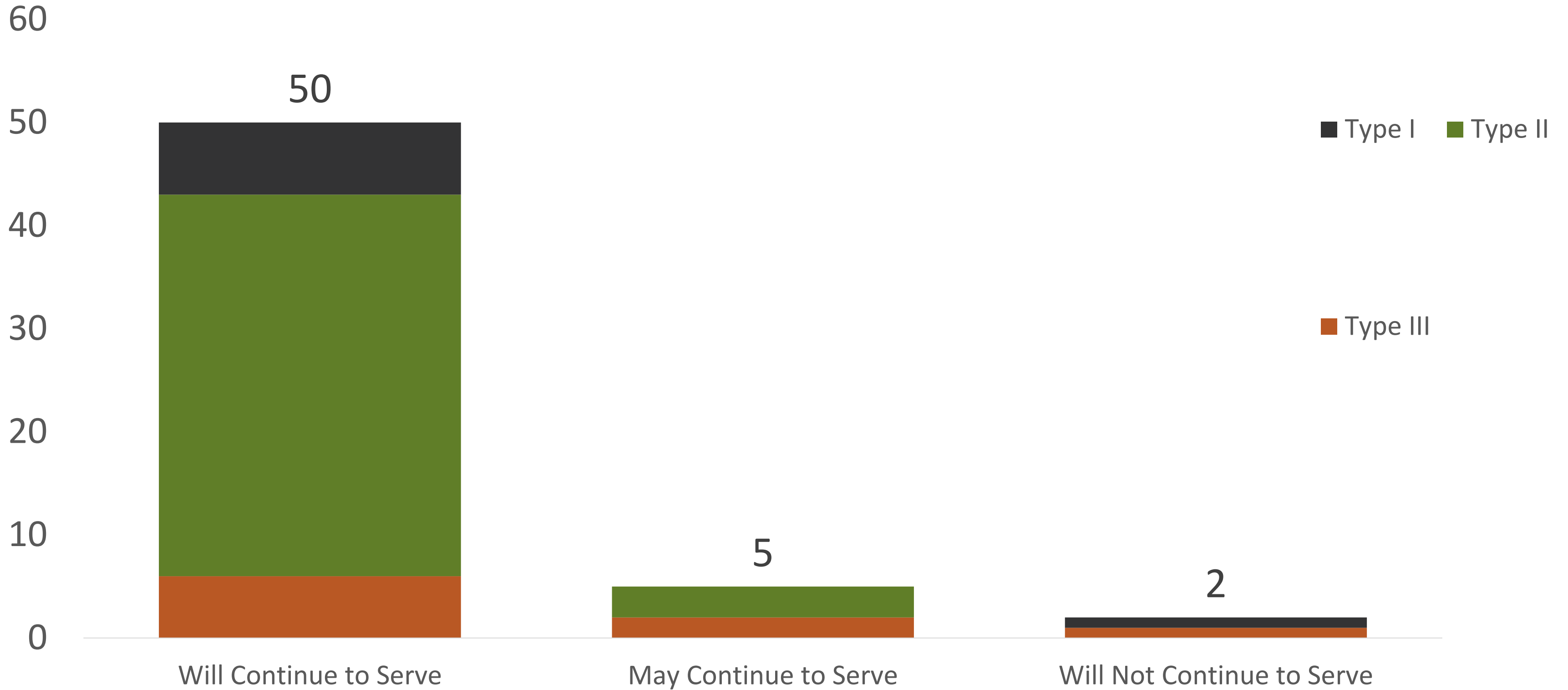


Table 2: Duration that veterinarians plan to continue serving after completion of service award period.

Expected Duration that Veterinarians Plan to Continue Serving the Shortage Area Upon Completion of the Service Award Period.	# of Responses
3-5 years	4
Unknown	4
Indefinitely	16
Retirement	25

Post Award Results – Cohort’s 2014, 2016, 2018

Figure 4: Veterinarians no longer providing services at the same percentage of time, location, or species at 1-year, 3-years, and 5-years post award.

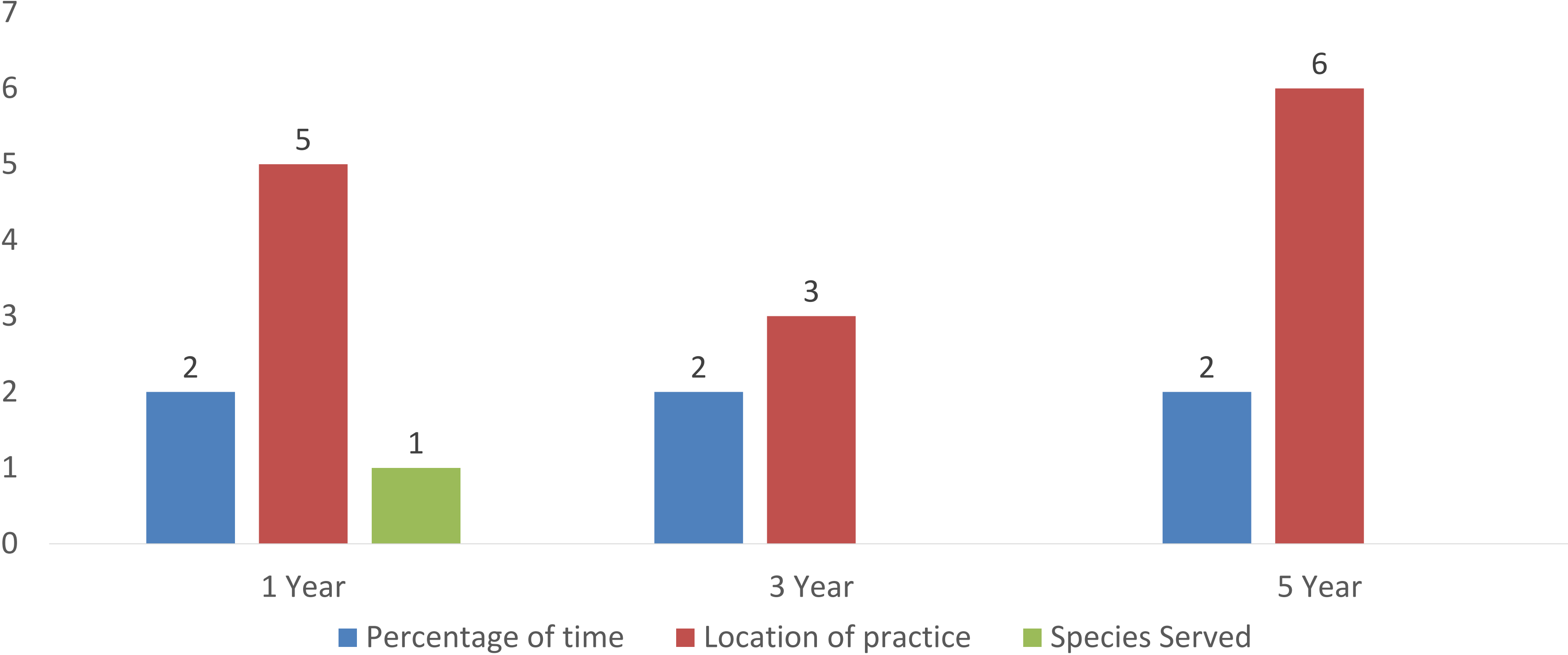


Table 3: Reasons VMLRP awardees are no longer providing services.

Reasons Veterinarians are no Longer Providing Services at the Same Percentage of Time, Location, or Species Served	1-year	3-years	5-years
Took a new job	2	2	2
Change in interest and/or focus	1	1	3
Family reasons	1	0	1
Bought/started own practice	0	2	0
Change in demand	2	0	0
Shifted to neighboring counties outside shortage area	1	0	0
Injury	0	0	1

Questions and Discussion



Managers do things right;
Leaders do the right things

