

FISCAL YEAR 2022 ANNUAL REPORT

USDA VETERINARY MEDICINE LOAN REPAYMENT PROGRAM

The United States Department of Agriculture’s (USDA) National Institute of Food and Agriculture (NIFA) Veterinary Medicine Loan Repayment Program (VMLRP) helps qualified veterinarians offset a significant portion of their educational debt incurred while obtaining their veterinary medical degrees (Doctor of Veterinary Medicine [DVM, VMD]) in return for their service in certain high-priority food animal veterinary shortage areas. The VMLRP is administered by NIFA and is authorized by the National Veterinary Medical Service Act (NVMSA).

The VMLRP supports NIFA’s Animal Systems Division portfolio by facilitating professional workforce development in critical agricultural sectors related to animal health and well-being. The program contains two general categories of participation:

- Mitigation of private veterinary practice shortage situations
- Mitigation of public veterinary practice and specialty veterinary discipline shortage situations

VMLRP awardees commit to providing at least three years of food animal veterinary services in a designated veterinary shortage area in return for payments of up to \$25,000 of student loan debt per year with a maximum of \$75,000 for a three-year contract. VMLRP awardees are eligible to reapply for continued service in their originally awarded shortage situation area in the last year of their contract or in the year after the contract has expired. A renewal contract repayment amount varies based on the applicant’s eligible veterinary school educational debt remaining after their first contract period.

In 2022, NIFA performed a financial audit of unexpended funds for each budget period of fiscal years (FY) 2010 through 2021. As a result of the audit, NIFA identified \$1,548,705 for additional VMLRP awards in FY2022. Therefore, in addition to VMLRP’s annual appropriation of \$8,550,000, the amount available for awards in FY2022 was \$10,098,705. Of this, VMLRP awarded \$8,926,394 (Table 1).

Loan repayment benefits are limited to payments of the principal and interest on government and commercial loans received for attendance at an American Veterinary Medical Association Council on Education (AVMA COE) accredited College of Veterinary Medicine, resulting in a degree of a DVM or the equivalent. Since the inception of the VMLRP in FY2010, NIFA has made 795 awards as new and renewal service agreements. In that time, NIFA received 2061 applications from 1451 unique applicants.

NIFA opened the annual application period with the release of the VMLRP Request for Applications (RFA) on March 15, 2022. The application period was closed on April 15, 2022. VMLRP received 130 applications, of which 128 passed NIFA’s administrative review and were forwarded to an external peer-review panel (Table 1). Renewal applications were evaluated competitively with new applications using the same selection process and criteria, with an additional requirement to describe how their service has improved food animal care in the shortage area.

Table 1: Application and awards summary

Total Applications Received	130
• New	112
• Renewal	16
• Ineligible	2
Total Awards Executed	89
• New	73
• Renewal	16
• Declined Offer	3
Award Rate	68.5%
• New	64%
• Renewal	100%
Total Funding Awarded	\$8,926,394
• Federal Tax Liability Covered (of Total Funding Awarded)	\$2,592,278

Years Post-graduation of Applicants and Awardees

Applicants to VMLRP applied an average of 3.8 years after their year of graduation, with all applicants graduating between 2003 and 2022. New applicants applied an average of 3.5 years after their graduation year, and renewal applicants, 5.8 years.

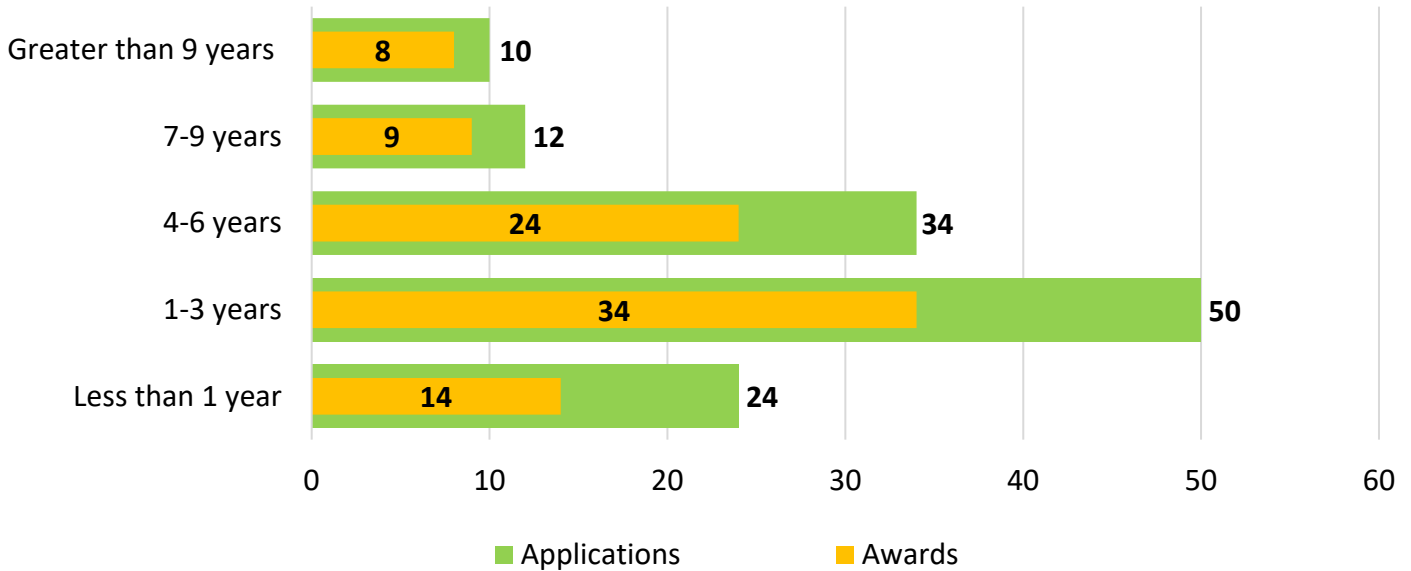
Those receiving awards averaged 4.0 years post-graduation, with graduation dates ranging from 2004 to 2022. The average number of years post-graduation for new awardees was 3.6 years, and for renewals, 5.6 years. New awardees had graduation dates between 2004 and 2022; renewal awardees graduated between 2008 and 2019.

Award Rate by Years Post-graduation

The award rates by the number of years post-graduation varied from a low of 58% for applicants in their first year post-graduation to a high of 80% for applicants with greater than 9 years post-graduation (Figure 1). The largest number of applications was received from those who had graduated

within 1-3 years, and the smallest number was from applicants who had been out of school for more than 9 years.

Figure 1. Number of applications and awards by years post-graduation



The award rates by years post-graduation for all (both new and renewal) applicants were:

- 58.3% for those within their first year post-graduation,
- 68% in years 1 to 3 post-graduation,
- 70.6% in years 4 to 6 post-graduation,
- 75% in years 7 to 9 post-graduation, and
- 80% for those more than 9 years post-graduation.

VETERINARY COLLEGES REPRESENTED

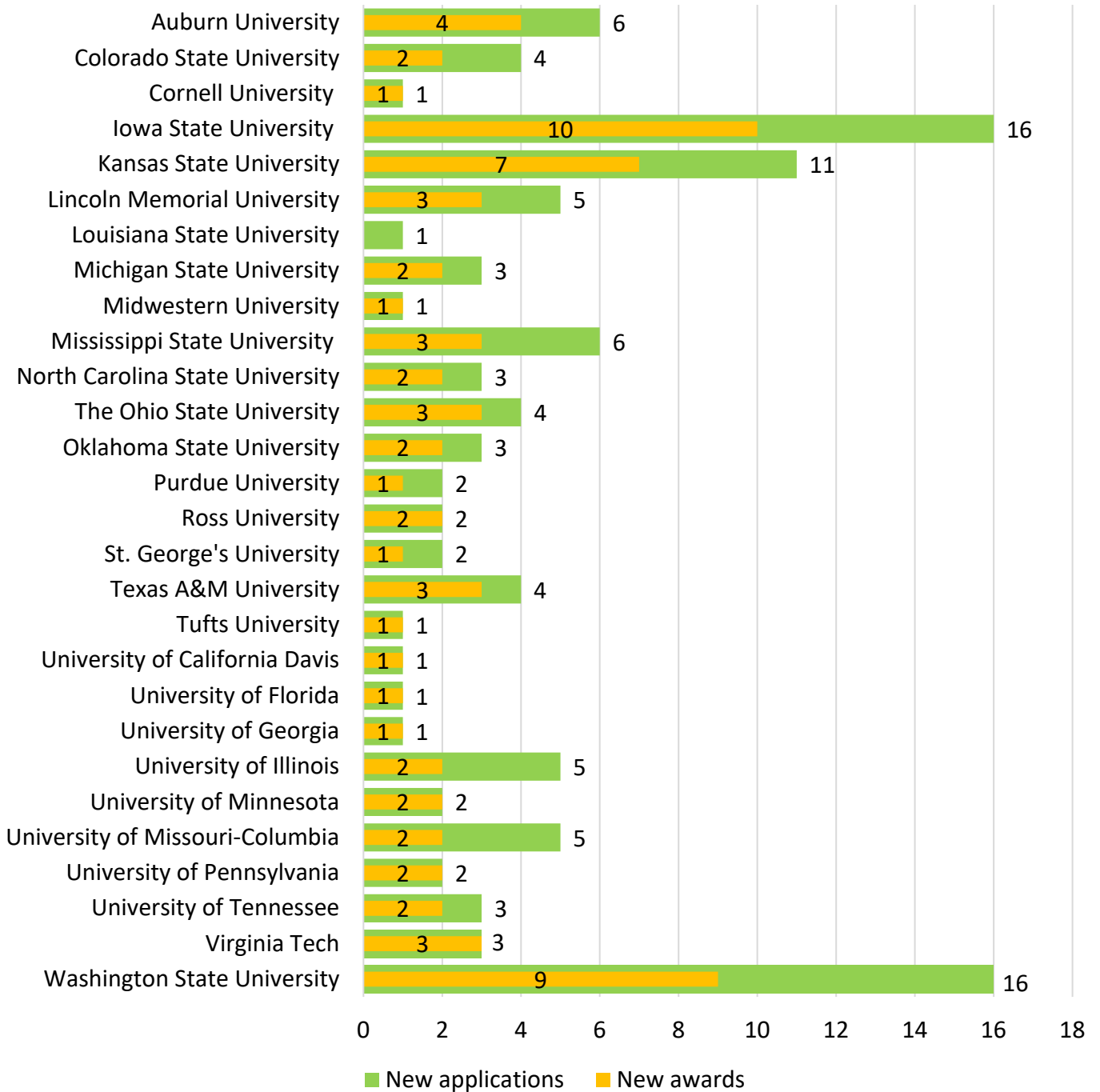
One VMLRP eligibility requirement is a veterinary medical doctorate degree conferred by a College of Veterinary Medicine accredited by the AVMA COE. A list of all AVMA accredited Colleges of Veterinary Medicine is available at [AVMA Center for Veterinary Education Accreditation](#).

VMLRP applicants represented 29 AVMA-accredited veterinary medical colleges. New and renewal applications by veterinary college are shown in Table 2 and Figure 2. The largest number of applicants had graduated from Iowa State University and Washington State University. Seven veterinary schools had one veterinarian apply to the program, and of these, six were awarded agreements.

Table 2. Number of applications and awards by veterinary medical school conferring degree. Schools not listed did not have any graduates apply.

School	New Applications	Renewal Applications	New Awards	Renewal Awards
Auburn University	6	0	4	0
Colorado State University	4	4	2	4
Cornell University	1	0	1	0
Iowa State University	16	3	10	3
Kansas State University	11	1	7	1
Lincoln Memorial University	5	0	3	0
Louisiana State University	1	1	0	1
Michigan State University	3	0	2	0
Midwestern University	1	0	1	0
Mississippi State University	6	1	3	1
North Carolina State University	3	0	2	0
The Ohio State University	4	0	3	0
Oklahoma State University	3	1	2	1
Purdue University	2	0	1	0
Ross University	2	0	2	0
St. George's University	2	0	1	0
Texas A&M University	4	1	3	1
Tufts University	1	0	1	0
Tuskegee University	0	1	0	1
University of California, Davis	1	0	1	0
University of Florida	1	1	1	1
University of Georgia	1	0	1	0
University of Illinois	5	0	2	0
University of Minnesota	2	1	2	1
University of Missouri-Columbia	5	0	2	0
University of Pennsylvania	2	0	2	0
University of Tennessee	3	0	2	0
Virginia Tech	3	1	3	1
Washington State University	16	0	9	0
Total	114	16	73	16

Figure 2. Number of new applications and new awards by veterinary medical school conferring degree. Schools not listed did not have any graduates apply.



AWARDEE DEBT

All VMLRP applicants are required to submit veterinary educational loan information with their application package. The distribution of student debt for the 89 awardees (Table 3) shows that a large majority of new awardees (78%) and half of renewal awardees had over \$100,000 in student loan debt. The AVMA provides a comprehensive review of average veterinary student debt in the United States every year in their annual State of the Profession Report¹. According to the AVMA, in 2021 16% of new graduates had no debt; for those who had student debt, the average amount was \$186,430.

For the VMLRP in FY22,

- the average veterinary student debt for new awardees was \$163,576 and
- renewal awardees had an average student debt of \$108,813.

Table 3. Distribution of new and renewal awardee debt

Awardee Debt	Percent of New Awardees	Percent of Renewal Awardees
Under \$50,000	2.7%	12.5%
\$50,001 to \$100,000	19.2%	37.5%
\$100,001 to \$150,000	31.5%	18.8%
Over \$150,000	46.6%	31.3%

VETERINARY SHORTAGE SITUATION AREA NOMINATIONS

VMLRP begins each fiscal year with the nominations of veterinary shortage situation areas by State Animal Health Officials (SAHO). Each State, the Federal government, the District of Columbia, and each U.S. Insular Area is allocated a maximum number of shortage nominations for submission to NIFA. Veterinary shortage situation area nominations are reviewed by a panel of food animal veterinary professionals through a non-competitive merit review process.

The deadline for nominations was November 8, 2021. NIFA received 226 veterinary shortage situation area nominations, and all were recommended for designation by the panel.

¹ Bain B, Ouedraogo F, Hansen C, Radich R. *2022 AVMA Report on Economic State of the Veterinary Profession*. AVMA.

Veterinary Shortage Situation Types and Program Coverage

Three VMLRP shortage categories are classified by type of practice and percent of full-time equivalent (FTE) employment dedicated to serving the specific needs of each shortage situation area (Table 4). Percent FTE is based on a 40-hour work week. Of the 226 designated FY2022 shortage areas, NIFA made awards in 73, or 32.3%. In addition, 16 renewal applicants received awards in previously designated shortage areas.

Table 4. Distribution of shortage type by awardee type

FY22 Shortage Coverage Shortage Type	FY22 Shortage Coverage Designations	FY22 Shortage Coverage Filled by New Awardee	Pre-FY22 Shortages Filled by Renewal Awardee
Type I	37	12	1
Type II	152	54	15
Type III	37	7	0

Type I shortage situations are considered rural, urban or other type, and require a commitment of at least 80% FTE (minimum of 32 hours a week) to private practice food supply veterinary medicine. Of the 37 Type I shortage situations for FY22,

- nominations were received and designated from 19 individual states and 1 joint-state², and
- 12 (32.4%) were filled in 11 states.

In addition, one Type I renewal award was made from a pre-FY22 designation.

Type II shortage situations are in rural areas and require a commitment of at least 30% FTE (minimum of 12 hours a week) dedicated to the private practice of food supply veterinary medicine. Of the 152 Type II shortage situations for FY22,

- nominations were received from 43 individual states, and
- 54 (35.5%) were filled in 30 states.

In addition, 15 Type II renewal awards were made.

² There are instances where bordering counties along two states are interested in combining a shortage situation area based on their needs. The joint nomination counts as one allocation used for each state. It requires both states to develop and review the nomination areas. Both SAHO's must affirm that the information presented regarding location, species, objectives and activities align with the purpose of the program.

Type III shortage situations require a commitment of at least 49% FTE (minimum of 19.6 hours a week) to veterinary medical public practice. NIFA reserves 10% of VMLRP awards for Type III shortage situations. For Type III shortage situations,

- 37 were designated in 28 states, and
- 7 (19%) shortages were filled in 6 states.

VETERINARY SHORTAGE SITUATION TYPE, SPECIES COVERAGE AND PUBLIC PRACTICE NEEDS

Each veterinary shortage nomination provides details of the geographic area where veterinary services are needed, agricultural species that must and may be served, and specific activities related to the must- and may-serve species. Applicants to VMLRP propose to serve one veterinary shortage situation area and are rated and ranked based on their ability to serve the specific needs of that area. SAHO’s may select as many must serve and may serve species as needed in the shortage area for Types I and II.

For Type I shortages, beef cattle were the species and production type with the highest need requiring coverage. This was followed by dairy cattle, small ruminants, and swine (Table 5). For Type II shortages, beef cattle were the dominant species/production type, followed by small ruminants, dairy and swine (Table 6).

For Type III shortages the needs ranged broadly, with SAHOs specifying requirements for public health, epidemiology and food safety, and a range of other disciplines (Table 7). SAHO’s may select as many disciplines as needed to fulfill the requirements of the agency or institution for a Type III shortage.

Table 5. Distribution of Type I veterinary shortage situation area must serve species by number of areas designated and filled

Veterinary Shortage Situation Area	Beef Cattle	Dairy Cattle	Swine	Poultry	Small Ruminant	Equine
Designated	27	11	8	5	10	3
Filled	8	3	3	3	3	0
Award Rate	30%	27%	38%	60%	30%	0%

Table 6. Distribution of Type II veterinary shortage situation area must serve species by number of areas designated and filled

Veterinary Shortage Situation Area	Beef Cattle	Dairy Cattle	Swine	Poultry	Small Ruminant	Other ¹
Designated	147	43	31	6	79	10
Filled	53	17	12	3	30	2
Award Rate	36%	40%	39%	50%	38%	20%

¹Camelids (1 designated, 1 filled) and Equine (9 designated, 1 filled)

Table 7. Distribution of Type III veterinary shortage situation area specialty and discipline by areas designated and filled

Veterinary Shortage Situation Area	Food Safety	Public Health	Epidemiology	Other
Designated	15	19	16	27 ¹
Filled	4	6	6	4 ²
Award Rate	27%	32%	38%	15%

¹ Includes animal disease prevention/biosecurity (1), clinical practice (1), diagnostics (3) diagnostician/epidemiologist/immunologist/pathologist/bacteriologist/virologist/serologist/ microbiologist (8), food animal medicine (1), general veterinary practice (1), microbiology (1), pathology (3), regulatory activities (7), and wildlife epidemiology (1).

²Includes animal disease prevention/biosecurity (1), pathology (1), regulatory activities (1), and wildlife epidemiology (1).

Veterinary Shortage Situations by State

Each State is allocated by the Program a maximum number of designated shortage situation areas. (Table 8). VMLRP defines a State as any one of the fifty States, the District of Columbia, and the Insular Areas of the United States. Also included are total “Federal Lands”, defined for convenience as a single entity. Iowa had the highest number of awardees for an individual state with 7 new and renewal awardees.

Table 8. Number of shortage allocations, shortage designations, applications (combined new and renewal), and new and renewal awards, by state.

State ¹	Allocations	Designations	Applications	New Awards	Renewal Awards
Alabama	5	5	1	1	0
Alaska	5	2	0	0	0
Arizona	6	6	3	1	1
Arkansas	6	6	3	3	0
California	8	8	0	0	0
Colorado	8	8	3	0	3
Connecticut	2	1	0	0	0
Delaware	3	2	0	0	0
Florida	4	4	2	1	1
Georgia	7	7	1	1	0
Hawaii	2	2	0	0	0
Idaho	7	7	9	4	0
Illinois	6	6	5	3	0
Indiana	5	5	3	2	0
Iowa	7	7	12	4	3
Joint State – Arizona & California ²	-	-	1	1	0
Kansas	7	7	7	3	1
Kentucky	5	5	5	3	0
Louisiana	4	4	1	0	1
Maine	2	2	1	1	0
Michigan	6	6	3	2	0
Minnesota	7	7	5	2	1
Mississippi	5	5	3	2	0
Missouri	7	7	3	2	0
Montana	6	6	7	4	1
Nebraska	7	7	4	3	0
Nevada	5	4	1	1	0
New Hampshire	2	1	1	1	0
New Jersey	2	2	0	0	0
New Mexico	6	6	0	0	0
New York	5	3	0	0	0
North Carolina	6	6	4	3	0

¹ States or Insular Areas that did not submit nominations: Maryland, Massachusetts, Rhode Island, Vermont, District of Columbia, Guam, Micronesia, Northern Mariana, Puerto Rico, Republic of Marshall Islands, Republic of Palau, and U.S. Virgin Islands.

² Arizona and California submitted a joint state nomination. Each state used a designation of a shortage nomination in each State's individual line. This individually reports applications and awards to the Joint State nomination.

North Dakota	5	2	1	1	0
Ohio	5	5	3	2	0
Oklahoma	7	7	4	3	0
Oregon	6	4	0	0	0
Pennsylvania	5	5	5	3	0
South Carolina	3	3	2	0	1
South Dakota	6	6	1	1	0
Tennessee	4	3	3	1	0
Texas	8	8	6	3	1
Utah	6	6	4	3	0
Virginia	5	5	4	3	1
Washington	6	4	2	1	0
West Virginia	2	2	4	2	1
Wisconsin	7	6	2	1	0
Wyoming	6	2	1	1	0
Federal Lands	4	4	0	0	0
Totals	257	226	130	73	16

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ACRONYMS AND DEFINITIONS

AVMA COE: American Veterinary Medical Association Council on Education, a specialized accrediting agency recognized and authorized by the U.S. Department of Education.

DVM/VMD: Doctor of Veterinary Medicine degree, or equivalent

FOOD ANIMAL: Bovine, porcine, ovine/camelid, cervid, poultry, caprine, and any other species as determined by the Secretary of Agriculture.

FOOD SUPPLY VETERINARY MEDICINE: All aspects of veterinary medicine's involvement in food supply systems, from traditional agricultural production to consumption.

FULL-TIME EQUIVALENT (FTE): The number of working hours that represents one full-time employee during a fixed time period. For VMLRP this equates to a 40-hour work week.

INSULAR AREAS: The Commonwealth of Puerto Rico, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau, and the Virgin Islands of the United States.

NVMSA: National Veterinary Medicine Service Act

PRACTICE OF FOOD SUPPLY VETERINARY MEDICINE: Includes corporate/private practices devoted to food animal medicine, mixed animal medicine located in a rural area, food safety, epidemiology, public health, animal health, and other public and private practices that contribute to the production of a safe and wholesome food supply.

STATE: means any one of the fifty states, the District of Columbia, and the Insular Areas of the United States. Also included are total "Federal Lands", defined for convenience as a single entity.

STATE ANIMAL HEALTH OFFICIAL (SAHO): The state veterinarian, or equivalent, who will be responsible for nominating and certifying veterinarian shortage situations within the state.

VETERINARY MEDICINE LOAN REPAYMENT PROGRAM (VMLRP): Veterinary Medicine Loan Repayment Program authorized by the NVMSA.

VETERINARY SHORTAGE SITUATION: means any of the following situations in which the Secretary of Agriculture, in accordance with the process in subpart A of the [final rule](#), determines has a shortage of veterinarians:

1. Geographical areas that the Secretary determines have a shortage of food supply veterinarians; and
2. Areas of veterinary practice that the Secretary determines have a shortage of food supply veterinarians, such as food animal medicine, public health, animal health, epidemiology, and food safety.