

FISCAL YEAR 2021 ANNUAL REPORT

USDA VETERINARY MEDICINE LOAN REPAYMENT PROGRAM

The U.S. Department of Agriculture's National Institute of Food and Agriculture (NIFA) Veterinary Medicine Loan Repayment Program (VMLRP) helps qualified veterinarians offset a significant portion of the debt incurred in pursuit of their veterinary medical degrees in return for their service in certain high-priority veterinary shortage areas. The amount available for loan repayments in Fiscal Year (FY) 2021 was approximately \$7.6 million. Of the \$7.6 million awarded, \$2,120,656 was designated to offset federal tax liability for awardees. The VMLRP is administered by NIFA and is authorized by the National Veterinary Medical Service Act.



Image of a veterinarian examining a herd of dairy cows. Photo courtesy of Adobe Stock.

The VMLRP supports NIFA's Animal Systems 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 to continue to serve their originally awarded shortage situation area in the last year of their contract or one year after. A renewal contract repayment amount varies based on the applicant's eligible Doctor of Veterinary Medicine (DVM) educational debt.

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 (AVMA) Council on Education-accredited college of veterinary medicine resulting in a degree of DVM or the equivalent. Since the inception of the VMLRP in FY2010, NIFA has received over 1,900 applications from more than 1,300 applicants and awarded support to over 700 veterinarians across the country with new and renewal contracts.

APPLICATIONS AND AWARDS

NIFA opened the FY2021 application period with the release of the VMLRP Request for Applications on Feb. 10, 2021. The application period closed on April 16, 2021. VMLRP received 144 applications all of which passed NIFA’s administrative review and were forwarded to an external, peer-review panel. Renewal applications were evaluated competitively, among all applications, using the same selection process and criteria.

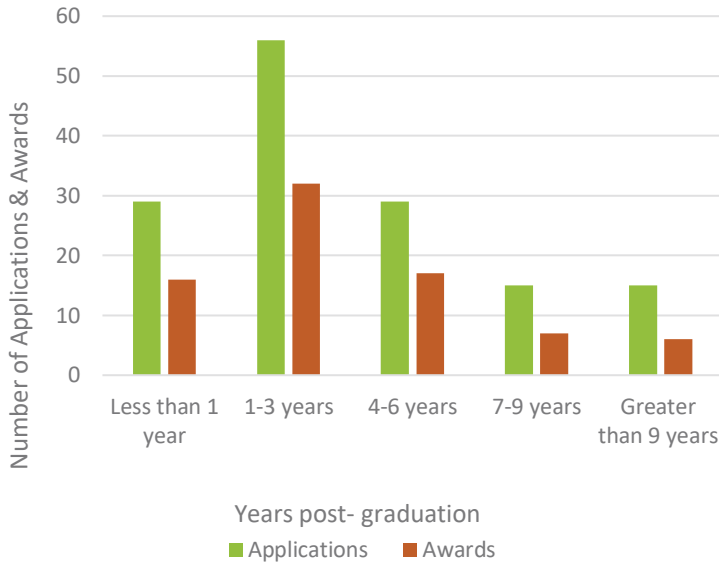
Table 1. Applications and awards summary.

Applications Received	144
• New	129
• Renewal	15
Total Awards	78
• New	67
• Renewal	11
Award Rate	54%
• New	52%
• Renewal	73%
Total Funding Awarded	\$7,558,227

Years Post-graduation of Applicants and Awardees

The average number of years post-graduation for FY2021 applicants was 4.2 with all applicants graduating between 2000 and 2021. The average number of years post-graduation for those receiving an award for FY2021 was 4 years with the same range of graduation dates. The average number of years post-graduation for new awardees was 3.6 years and for renewals, 6.6 years. The range of graduation dates for new awardees was 2000-2021 and for renewal awardees, 2010-2018.

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



Award Rates of Applications by Years Post-graduation

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

- 55% in the first year post-graduation,
- 57% in years 1-3 post-graduation,
- 59% in years 4-6 post-graduation,
- 47% in years 7 to 9 post-graduation, and
- 40% for those more than 9 years post-graduation.

DVM PROGRAMS REPRESENTED

One VMLRP eligibility requirement is a conferred DVM degree from a college of veterinary medicine accredited by the AVMA Council on Education. For FY2021, VMLRP applicants represented 27 AVMA-accredited veterinary medical colleges. A list of all AVMA accredited colleges of veterinary medicine is available at [AVMA Center for Veterinary Education Accreditation](#).

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	7	0	4	0
Colorado State University	7	2	3	1
Cornell University	1	0	0	0
Iowa State University	17	1	8	1
Kansas State University	9	3	3	3
Lincoln Memorial University	6	1	2	1
Michigan State University	2	0	2	0
Midwestern University	3	0	1	0
Mississippi State University	2	0	1	0
North Carolina State University	2	0	1	0
The Ohio State University	5	2	3	2
Oklahoma State University	4	0	3	0
Oregon State University	6	0	4	0
Purdue University	4	0	4	0
Ross University	4	1	2	1
St. George's University	1	0	1	0
Texas A&M University	2	1	1	0
University of California Davis	2	0	0	0
University of Florida	4	0	1	0
University of Georgia	3	0	1	0
University of Illinois	4	1	2	1
University of Minnesota	4	1	4	0
University of Missouri-Columbia	6	1	3	1
University of Pennsylvania	3	0	1	0
University of Wisconsin-Madison	3	0	2	
Virginia Polytechnic Institute and State University	3	0	1	0
Washington State University	15	1	9	0
Total	129	15	67	11

AWARDEE DEBT

All VMLRP applicants are required to submit veterinary educational loan information with their application package. The distribution of student debt for the 78 awardees in FY2021 (table 3) shows the majority of awardees were those with 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 the annual State of the Profession Report¹. According to the AVMA, in 2020 17% of new graduates had no debt; for those who had student debt, the mean debt was \$188,853.

For the VMLRP in FY2021,

- the average veterinary student debt for new awardees was \$141,342 and
- renewal awardees had an average student debt of \$139,660.

Table 3. Distribution of new and renewal FY2021 awardee debt.

Awardee Debt	Percent of New Awardees	Percent of Renewal Awardees
Under \$50,000	10%	9%
\$50,001 to \$100,000	31%	9%
\$100,001 to \$150,000	16%	36%
Over \$150,000	42%	45%

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 U.S. Insular Areas are 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. All submitted nominations are reviewed for designation through a non-competitive merit review process.

The deadline for nominations was Nov. 9, 2020. NIFA received 221 veterinary shortage situation area nominations and all were recommended for designation by the panel.

¹ Bain B, Ouedraogo F, Hansen C, Radich R, Salois M. 2021 AVMA Report on Economic State of the Veterinary Profession. AVMA; 2021:5.

Veterinary Shortage Situation Types and FY2021 Program Coverage

There are three VMLRP shortage categories, 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 221 designated shortage areas, NIFA filled 67, or 30.3%, in FY2021. In addition, 11 renewal awards were made for FY2021.

Table 4. Distribution of each shortage type filled with new and renewal awardees.

Shortage Type	FY2021 Shortage Coverage		Pre-FY2021 Shortages
	Designations	Filled by New Awardee	FY2021 Renewal Awardee
Type I	30	13	2
Type II	149	47	8
Type III	42	7	1

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. Details for Type I shortage situations designated and filled in FY2021 include:

- 30 were designated in 12 individual states, and two were joint-states²
- 13 shortages were filled in nine states
- 43% (13/30) were filled by FY2021 awardees
- In addition, two Type I renewal awards were made in FY2021.

Type II shortage situations are considered rural areas and require a commitment of at least 30% FTE (minimum of 12 hours a week) dedicated to the practice of food supply veterinary medicine. Details for Type II shortage situations designated and filled in FY2021 include:

- 149 were designated in 44 states
- 47 shortages were filled in 28 states
- 31.5% (47/149) were filled by FY2021 awardees
- In addition, eight Type II renewal awards were made in FY2021.

² There are instances where bordering counties along two states are interested in combining a shortage situation area based on the needs. The joint nomination would count as one allocation used for each state. It will require both states to review the nomination areas and both SAHO's must affirm the information presented in the location, species, and responses to page 2 on the form 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 situation areas. Details for Type III shortage situations include:

- 42 were designated in 28 states and one Insular Area
- Seven shortages were filled in seven states
- 16.7% (7/42) were filled by FY2021 awardees
- In addition, one Type III renewal award was made in FY2021.

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 based on their ability to serve the specific needs of that area.

For Type I shortages, the species and production type with the highest need requiring coverage was beef cattle. 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 need ranged broadly, with SAHOs describing requirements for public health, epidemiology and food safety, and a range of other disciplines (Table 7).

Table 5. Distribution of type I veterinary shortage situation area must serve species by designations and areas filled.

Veterinary Shortage Situation Area	Beef	Dairy	Swine	Poultry	Small Ruminant	Other ¹
Designated	24	11	8	2	9	7
Filled	11	5	5	0	3	5
Award Rate	46%	45%	63%	0%	33%	71%

¹Equine (3 designated, 1 filled), Cervids (1/1), and Auction Market Regulatory (3/3)

Table 6. Distribution of type II veterinary shortage situation area must serve species by designations and areas filled.

Veterinary Shortage Situation Area	Beef	Dairy	Swine	Poultry	Small Ruminant	Other ¹
Designated	143	75	48	20	91	14
Filled	46	25	19	8	29	5
Award Rate	32%	33%	40%	80%	32%	36%

¹Camelids (4 designated, 1 filled), Equine (9/4), and Cervids (2/0)

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

Veterinary Shortage Situation Area	Food Safety	Public Health	Epidemiology	Other
Designated	24	34	26	30 ¹
Filled	3	5	6	7 ²
Award Rate	13%	15%	23%	23%

¹Includes animal disease prevention/biosecurity/traceability (2), diagnostician (8), disease control programs & education (1), Foreign Animal Disease Diagnostician (3), fish & wildlife health management & education (1), wildlife epidemiology (1), parasitology/microbiology (2), international trade (1), large animal internal medicine (2), pathology/bacteriology/virology/serology (7), and regulatory veterinary medicine (2).

²Includes virology/bacteriology (1), diagnostics (3), disease control programs & education (1), international trade (1), fish & wildlife health management & education (1).

Veterinary Shortage Situations by State

Each state is allocated by the Program a maximum number of shortage situation areas that may be designated (Table 8). A designation is a shortage situation area nomination submitted by a SAHO that is made available for VMLRP applications. VMLRP defines a state as any one of the 50 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. Nebraska and South Dakota each had the highest number of

awardees for an individual state, with five awardees. Several states, including California, Maryland and New Hampshire, had awardees for the first time in many years.

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

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

³ States that did not submit nominations: District of Columbia, Hawaii, Massachusetts, Rhode Island, Guam, Micronesia, Northern Mariana, Puerto Rico, Republic of Marshall Islands, Republic of Palau, and U.S. Virgin Islands.

North Carolina	6	4	1	1	0
North Dakota	5	1	1	0	1
Ohio	5	5	3	1	0
Oklahoma	7	7	6	3	1
Oregon	6	3	7	3	0
Pennsylvania	5	5	4	1	0
South Carolina	3	3	1	1	0
South Dakota	6	6	6	4	1
Tennessee	4	1	0	0	0
Texas	8	8	11	3	1
Utah	6	5	4	3	0
Vermont	2	1	2	1	0
Virginia	5	5	5	2	1
Washington	6	2	2	1	0
West Virginia	2	2	0	0	0
Wisconsin	7	6	3	2	0
Wyoming	6	4	0	0	0
Federal Land	4	4	0	0	0
Total	252	221	144	67	11

VMLRP DIRECTORY

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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: 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 AREA: 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 50 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, 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.