Report to House and Senate Committees on Agriculture and Education Related to Large Animal Veterinary Loan Repayment/Incentive Options

Submitted December 7, 2009
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Executive Summary

Report to House and Senate Committees on Agriculture and Education Related to Large Animal Veterinary Loan Repayment/Incentive Options

The available workforce data for the veterinary profession in Vermont supports the need for the development of a program that helps to recruit and retain an adequate supply of food animal veterinarians in Vermont, now and in the future. It is important to remember that the term “food animal veterinarian” includes professionals working in sectors of veterinary medicine other than private clinical practice, including those employed in the academic, research, regulatory, and food safety sectors. Maintaining adequate workforce levels in each of these focus areas is a priority since all food animal veterinarians serve as one of Vermont’s first lines of defense against foreign and domestic human and livestock disease and against outbreaks of food-borne illness. For these reasons, the committee supports the use of a broad definition for the term “food animal veterinarian” when considering the implementation of a program intended to support this sector of the profession.

Veterinary students graduating today carry a significant educational debt load, and the starting salaries associated with most food animal veterinary positions are not high enough to allow for timely repayment of that debt. This resultant disparity supports the need for a veterinary educational debt relief program in order to ensure that Vermont maintains adequate numbers of veterinarians willing to practice in the food animal sector of the profession. Loan repayment programs are used by other states to offset the significant educational debt load of new veterinary graduates and to help with the recruitment and retention of food animal veterinarians in defined shortage areas; implementation of this type of program in Vermont could provide an immediate remedy for our current shortage. Other programs that are incentive-based are appealing because they can potentially support existing Vermont veterinary practices while also helping to recruit and retain new food animal veterinary professionals. Identification of adequate funding for either of these program types is a challenge in this economy, and creative solutions will have to be developed in order to be successful in the development of any debt relief program.

There is a need to support the educational pipeline that exists for aspiring food animal veterinarians since many applicants to veterinary schools across the country no longer come from agricultural backgrounds. As a result, the number of veterinary graduates entering the food animal or food supply sectors has dropped dramatically over the last 10 years. Vermont is fortunate to have high schools and undergraduate institutions that already assist students interested in pursuing food animal veterinary careers by exposing them to the profession and to the agricultural sector early in their educational campaigns, but there is more that can be done to ensure that Vermonters are able to obtain the needed training in this field. Specifically,
partnering with one or several of the northeast veterinary colleges could help to ensure that Vermont students have the necessary tools to obtain the veterinary education that they need to pursue a career in food animal medicine.

Food animal veterinarians practicing in Vermont were surveyed as part of this project in order to obtain their feedback on trends related to increasing demand by clientele for food animal services and on ways in which Vermont’s veterinary workforce shortage can be addressed. Survey results can be found in Appendix I of this report. The legislative summary in Appendix L is an outline drafted by legislative counsel and may serve as a template in the development of draft language related to the implementation of a debt relief program for food animal veterinarians in Vermont. The committee established by section 22 of Act 44 encourages the legislature to review the material contained in this report and to develop a debt relief program in Vermont that helps to ensure maintenance of an adequate number of the veterinary professionals responsible for the protection of public health and welfare of Vermonters and their livestock.
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Background Information

Section 22 of Act 44, enacted into law during the 2009 legislative session states the following:

*There is created a committee to explore the development of a loan repayment program to recruit and retain licensed veterinarians to meet the existing need for large animal veterinarians throughout the state. The committee shall also consider other incentives and outreach efforts to ensure that Vermonters are able to obtain the necessary education or training to work in this field. The committee shall review available Vermont veterinarian workforce data and consider priorities and criteria on which to base awards. It shall develop recommendations for a loan repayment program, including details concerning the proposed application process. The committee shall identify potential funding sources.*

In compliance with the aforementioned mandate, a committee was formed consisting of the following members:

Roger Allbee, Secretary, Agency of Agriculture, Food and Markets
Kristin Haas, D.V.M., State Veterinarian, Agency of Agriculture, Food and Markets
Greg Dowd, D.V.M., Vermont Veterinary Medical Association, President’s designee
Ken Horseman, Commerce and Community Development, Secretary’s designee
Jim Pratt, Vermont Workforce Development Council
John Barlow, D.V.M., Ph.D. & Ruth Blauwikel, D.V.M., Ph.D., representatives of the higher education community, University of Vermont
Amy Whitehorne, Vermont Student Assistance Corporation, President’s designee
The committee as a whole met once in August 2009 in order to discuss the topics outlined above. Following that meeting, the state veterinarian engaged in discussions with individual committee members as the need arose during research of each of the aforementioned charges. Prior to its submission, this report was reviewed by committee members in order to ensure its representation of a consensus viewpoint. Committee members recognize the financial constraints that currently exist with regard to the state budget and realize that any debt relief program implemented which further taxes the state general fund will be difficult. However, the committee recognizes the importance of maintaining an adequate food animal veterinary workforce in order to ensure the continued safety of the local food supply, protect the health of Vermont’s livestock, and support the state’s agricultural industry. As a result, committee members gave consideration to nontraditional program ideas that might help attract and retain Vermont food animal practitioners without creating an undue burden on the general fund.

The findings and recommendations related to Vermont’s food animal veterinary shortage are outlined in the pages that follow. If you require any further detail regarding the information listed in this report, please feel free to contact Dr. Kristin Haas at kristin.haas@state.vt.us or (802)828-2421.

**Vermont Veterinary Workforce Data and Debt Load Statistics**

Multiple sources were consulted in order to compile the following information pertaining to Vermont’s veterinary workforce statistics, including the Vermont Veterinary Medical Association (VVMA), the American Veterinary Medical Association (AVMA), the Tufts University Cummings School of Veterinary Medicine, the American Association of Bovine Practitioners (AABP), the American Association of Veterinary Medical Colleges (AAVMC) and the U.S. Bureau of Labor Statistics. Additionally, food animal veterinarians currently practicing in Vermont were surveyed for their input on this topic. The following statistics support the need for a program that encourages and retains food animal practitioners in Vermont:

- Of the 347 veterinarians currently employed in Vermont, and according to VVMA member data (which represents 79% of the Vermont veterinary workforce), only 40 identify themselves as professionals who work in the food animal veterinary sector, and only 30 of those professionals focus *solely* on food animal medicine. Workforce statistics cited by the American Association of Bovine Practitioners support the VVMA member data statistics (Appendix A).

- The Tufts study on the economic impact of veterinary medicine, developed with the University of Massachusetts Donahue Institute and released in 2008, contains pertinent workforce data (Appendix B) and salary data¹ for Vermont food animal veterinarians. The Tufts study in its entirety may be accessed through the
following link: [www.tufts.edu/vet/about/economic_impact_08.pdf](www.tufts.edu/vet/about/economic_impact_08.pdf). In order to maintain current capabilities with regard to livestock disease prevention and food security, Vermont will need 13 new *food animal* veterinarians by 2014.

- The majority of veterinary students graduating in 2009 did so with a significant debt load (Appendix C), and the average debt burden has risen 8.5% since 2008.  

- These statistics and debt load trends represent one of the reasons that fewer recent graduates may seek employment in the sectors of the profession such as food animal medicine that offer some of the lowest starting salaries, and they highlight the critical importance of establishing a state-wide debt relief program for these veterinarians.

- Analysis of AVMA member data shows that food animal veterinarians in New England are older than veterinarians in other fields, and thus more likely to retire sooner (Appendix D). This trend is supported in AVMA national surveys that indicate that the percentage of practitioners in exclusively large animal practice declined from 4.5% in 1990 to 1.8% in 2007.  

- Some agriculturally prolific areas of Vermont have adequate veterinary coverage for herds and flocks located there, but other regions of the state have inadequate food animal veterinary coverage. Currently, anecdotal reports indicate that Orleans County, with 143 bovine dairy farms containing an estimated 19000 head of animals, is the most significantly underserved area of the state relative to the dairy infrastructure located there (Appendix E). It has been estimated that it takes approximately 5,000 mature cows to support a full time veterinarian in regions such as Vermont where herd size averages approximately 150 herd. Vermont’s estimated 150,000 mature dairy cattle represent a dairy industry able to support a population of 30 dairy veterinarians. These estimates do not account for the needs of veterinarians to serve other food animal agricultural enterprises.

- Results obtained by surveying Vermont’s practicing food animal veterinarians support the concept that the shortage of food animal veterinarians in Vermont is in part due to the geographic distribution of professionals (Appendix F).

- As consolidation of the dairy industry continues to progress the role of veterinarians and the types of services offered by dairy veterinarians will change. There will likely be some continued shift away from traditional roles of veterinarians providing technical services and drug sales and distribution to dairy...
farms, and a shift toward “food systems veterinarians” to address issues of national and state biosecurity, food safety and product certification, protection of the food supply, environmental protection, and animal care and welfare.

Summary – Vermont Veterinary Workforce Data

Although statistically there is a food animal clinical veterinary shortage in some portions of the state, the current economic climate may be limiting the frequency with which producers in those areas are calling upon veterinarians for routine and emergency services. This is one possible explanation for why practicing veterinarians in the northern half of the state seem able at this time to keep up with the demand placed on them by current and prospective clients. It is reasonable to assume that, as the dairy economic crisis resolves itself, the demand for veterinary professionals will increase and the statistical professional shortage will have to be addressed in order to adequately support recovering dairy businesses and to continue to ensure the security of the state’s food supply, thereby protecting public health and safety.

As cited in the Executive Summary, “food animal veterinarian” should be defined as a veterinarian who provides services for food animals, and should not be limited only to those veterinarians engaged in clinical practice. This allows for the flexibility that will be necessary in order to amend the program over time to adjust to Vermont’s changing needs.

Priorities/Criteria on Which to Base Awards

Vermont’s needs relative to the veterinary profession can be expected to change over time. Even though there may be a current need to provide additional private practitioners, once that need is met, a future shortage in another sector may have to be met. Since the committee feels that any statutory language pertaining to a veterinary support program must be flexible enough to adjust to these changing needs, it is important to establish clear criteria on which awards of any type should be based in order to prevent confusion. The recommended criteria are listed below:

- The recipient must be licensed and working in, or starting work in, an underserved area of Vermont, or in an employment sector of the profession that has been defined as a shortage sector.
- The recipient must be a food animal veterinarian as outlined above, and other restrictions may apply depending on the final program terms.

- The recipient must agree to work in Vermont as a food animal veterinarian for a specified period of time, according to the terms of the program.

- The recipient has to have graduated from an accredited school of veterinary medicine in order to receive an award under a Vermont-based program.

- The recipient must have an educational debt load that is related to the cost of attending veterinary school and that is no less than the monetary value of the award.

Depending on the structure of the final program, the committee recommends that a standing Board be formed in order to review program applicants and make decisions related to offering awards. Financial need of the new veterinarian should only be used as a deciding factor in the decision to offer an award if there is more than one applicant for the same position type. This Board would be responsible for overseeing the program through the establishment of procedures by which applicants request debt relief awards under the program, creation of necessary supporting documentation, publishing of information regarding the program and application process, review and approval of applications, and the determination of criteria that will be used to select applicants if the total requested loan repayment amount exceeds funds available. Over time, the Board may also establish differing benefit levels or other incentives to encourage food animal veterinarians to practice in underserved areas of Vermont.

The members of this Board could include the Secretary of Agriculture, the state veterinarian, the president of the Vermont Veterinary Medical Association, a member from each of the legislative committees on agriculture, a member from the higher education community, and any other individuals deemed appropriate by statute.

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<th>Summary – Priorities/Criteria on which to Base Awards</th>
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<td>It will be necessary to establish a Board for this program, consisting of individuals who can manage the day to day decisions that must be made in association with the development and maintenance of the program. Although recipients do not have to have come from Vermont, it is imperative that they agree to work in an underserved area of the state for an agreed-upon amount of time as outlined in statute or rule.</td>
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Consideration of Incentives and Outreach to Ensure that Vermonters Can Obtain Necessary Education/Training to Work in the Food Animal Veterinary Sector

This committee feels strongly that in order to maintain a sustainable number of food animal veterinarians in Vermont, students must be engaged by teachers, professors, career counselors, veterinarians, and other mentors early in their educational careers. In contrast to the 1980s and earlier, most students currently enrolled in veterinary colleges across the country do not come from a rural or farming background. As a result, the default veterinary sector in which these students seek employment upon graduation is no longer the food animal sector, but instead, most of them are drawn to the companion animal sector or those that may involve continued post-graduate education before entrance into the veterinary workforce. In 2009, only 0.6% of women and 4.1% of men graduating from the 28 U.S. schools and colleges of veterinary medicine obtained employment in food animal exclusive practices. These percentages represent only 22 students out of 1,520 graduates.

It is incumbent on the veterinary educational system and on the profession as a whole to ensure that potential future veterinarians, perhaps as early as high school, are exposed to the benefits of working in food animal veterinary careers. An understanding that the entire education pipeline must be engaged in this process is important and is an essential prerequisite to ensuring that there is a sustainable food animal veterinary workforce for the future. This realization is not lost on the national veterinary medical stage, and in 2009, the North American Veterinary Medical Educational Consortium (NAVMEC) was developed (Appendix G).

In states that have an in-state veterinary college, several excellent programs have been developed to mentor students through their educational careers and to encourage them to return to their resident state to practice food animal veterinary medicine. For example, the Veterinary Early Commitment Program for Students Interested in Food Supply Medicine is a partnership between The Ohio State University College of Veterinary Medicine and the Department of Animal Sciences in the College of Food, Agricultural and Environmental Sciences. This collaboration between educational institutions has multiple goals, including the recruitment of qualified students early in their undergraduate careers, better preparation of students for careers in food supply medicine prior to their entry into the veterinary program, and a cultivation of students’ interest in food supply medicine. Collaborators are hopeful that this program will result in an increased number of veterinarians entering into the food supply veterinary medicine workforce sector and an increased number of graduate veterinarians who have the knowledge base and skills required to serve modern food producing animal agribusiness. It would be beneficial for Vermont to pursue a similar type of collaboration with one of the northeast veterinary colleges.

Vermont is fortunate to have high schools in the state that allow students to gain experience in a career field in which they may be interested. The Graduation Challenge program at Champlain Valley Union High School in Hinesburg is popular with the students and allows them to work with a professional of their choice and then present a paper for credit as part of their senior year.
curriculum. Allowing senior students to work with veterinarians is an excellent way to expose them to that career option early on in their education, and it augments the presence that the VVMA has at many career days held by high schools around the state.

The University of Vermont, Department of Animal Sciences has a well regarded pre-veterinary curriculum, which includes a number of opportunities for students to develop an understanding of food animal production systems. The majority of UVM students enrolled in the animal science major are out-of-state residents from urban or suburban backgrounds with little to no prior experience in agriculture. The CREAM program is an important component of the UVM animal science pre-vet curriculum providing an experiential learning opportunity in food animal and dairy production systems for students with no prior dairy husbandry experience. Many veterinary colleges have come to recognize the value of this program as a potential pipeline experience for future food animal practitioners.

The University of Vermont Animal Science pre-veterinary training program currently has an established early admissions agreement program with the Tufts veterinary school. UVM Animal Sciences has similar relationships with other veterinary schools including Massey University and University of Guelph. Approximately 15 students graduating from UVM Animal Science apply to veterinary school each year. Of those students, 12–15 of them ultimately are accepted to vet school with many indicating an interest in food animal or mixed animal practice when they start veterinary school. While no formal surveys of UVM Animal Science alumni have been conducted, recent experiences indicate that each year approximately 2 to 3 UVM animal science graduates ultimately go into food animal practice in various locations around the country. In this past year, the committee is aware of 4 UVM animal science and CREAM alumni from the class of 2005, who were 2009 graduates from veterinary school with an interest in food or mixed animal practice, including dairy practice. None of these students were originally Vermont residents. Of these 3 had searched for employment opportunities in Vermont, with no success, and are currently employed as mixed animal practitioners in other states, and one has entered dairy practice. None of these students were originally Vermont residents. Of these 3 had searched for employment opportunities in Vermont, with no success, and are currently employed as mixed animal practitioners in other states, and one has entered dairy practice. This problem is supported by anecdotal information provided by the Tufts Student Affairs office during a phone interview on November 17th, confirming that more graduating students seem to be interested in food animal practice but are having increased difficulty finding work in the field in New England. This would suggest that the UVM undergraduate pre-veterinary training pipeline can be successful in encouraging students to consider food animal medicine, but additional efforts are needed to assist these students in ultimately obtaining employment as food animal practitioners in Vermont.

Although Vermont does not have an in-state veterinary school, the Dean of Tufts University Cummings School of Veterinary Medicine, Dr. Deborah Kochevar, considers the veterinary school to be a service to all of New England. She stated in a phone interview on August 18, 2009, that, despite this, Massachusetts is the only New England state that provides general funding to the school. The Student Affairs Office confirmed that New Jersey, New Hampshire, and Maine have agreements with Tufts that involve annual payments by each of those states to specifically reserve space for interested resident students. In the case of Maine, the $12,000 award is treated as a loan and is forgiven if the student returns to, and works in, an underserved area of that state. The fact that there have been years in the past when no student has wanted to
take advantage of this opportunity highlights the importance of exposing pre-veterinary students to this employment sector option as early in their educational careers as possible. Expanding the relationships between Vermont’s colleges and universities and the regional veterinary colleges by establishing a program that targets the food animal practice pipeline would serve both the students and Vermont.

Dean Kochevar did offer additional insight during the August 18th interview. She stated that she agrees that there is a need for the aforementioned educational pipeline to remain intact and to be fostered by those in the higher education community. She also stated that the practitioners employed by the veterinary school might be willing to come to Vermont and speak with pre-veterinary students enrolled in undergraduate universities and colleges. Finally, Dean Kochevar stated that sustainable agriculture and humane farming are important issues for Tufts. If Vermont could provide funding for these programs, similarly to the way that Maine contributes funding for a student annually, then perhaps it would encourage students’ return to Vermont to potentially practice in underserved areas following graduation from the veterinary college.

Summary – Consideration of Incentives and Outreach to Ensure that Vermonters Can Obtain Necessary Education/Training to Work in the Food Animal Veterinary Sector

The committee feels strongly that options should be explored that engage the University of Vermont and/or the northeast colleges of veterinary medicine in order to achieve the following goals:

- Exposure of pre-veterinary students to the food animal veterinary practice sector early in their educational careers.
- Exposure of Vermont resident high school aged students to career opportunities in veterinary medicine including food animal practice
- Fostering of the veterinary educational pipeline so that interested students have the mentorships that they need in order to feel supported in their decision to pursue a career in food animal veterinary medicine.

The initiatives that are being pursued at the national level, such as the NAVMEC, while useful, may not result in direct or immediate benefit for Vermont in a narrow enough time frame to address the workforce shortage predictions outlined in the Tufts economic impact study. Models that have been established in other states, such as Maine and Ohio, should serve as templates for the development of Vermont programs intended to provide incentives and outreach to ensure that Vermonters can obtain necessary education/training to work in the food animal veterinary sector.

Exploration of the Development of a Debt Relief Program

As previously mentioned, this committee does understand that the burdens currently being placed on the state budget may make it difficult to establish and sustain a traditional veterinary workforce loan repayment or forgiveness program, so liberty was taken to explore other more unique program ideas that might be less taxing on the state general fund. Summaries of each of
the program options explored by the committee are bulleted below followed by the conclusions of the committee related to which of these options might be the most desirable to pursue.

- **Veterinary Loan Repayment Program**

  The loan repayment model is the program model that was explored by the House and Senate Committees on Agriculture during the 2009 legislative session, and it is the model that is most commonly used by other states that currently support debt relief programs for veterinarians. Most states that fund a program and that have an in-state veterinary school, run the program through that school. One logistical advantage to a loan repayment model program is that, when compared to other program models, it is relatively easy to track. The applicant would theoretically not apply for a grant from the state program until at least his or her last year of veterinary school, which would eliminate the need to follow the student during the entire curriculum. This model would also potentially allow for immediate relief of any shortage situation given that an applicant would either be already practicing and able to relocate almost immediately to the designated shortage area, or would be within several months of graduation and have the ability to do the same.

  There are several stumbling blocks that may impede implementation of this type of program and several disadvantages to this model as compared with others for the program award recipients. Currently, according to VSAC, there are loan repayment programs in statute such as the Loan Cancellation for Teachers (16 V.S.A. section 2869) that are not funded. It may be difficult to justify funding a newly developed veterinary program before designating funds for these other professionals. Also, in most states where this type of debt relief program is currently used, funding comes from those states’ general funds. Supporting a Vermont program in this manner may be difficult in the current economic climate. From an award recipient’s perspective, the disadvantages of the loan repayment model may lie in the fact that the award money is taxable and that it is given directly to the lender rather than to the recipient veterinarian. This makes the award less tangible and it may be more difficult to convince the recipient that it has real value. Despite these disadvantages, a strong case can be made for the importance of maintaining adequate numbers of food animal veterinarians in order to protect Vermont’s public health and safety and ensure the continued safety of its food products, and the committee recommends keeping the option open to pursue the development of this type of debt relief program.

- **Incentive-based Debt Relief Program**

  This debt relief program category was of great interest to committee members during the discussions that were held. The guiding principle here is to leverage the economic impact of the veterinary profession in Vermont. This data is nicely summarized in the Tufts economic impact study (Appendix B). Economist Jeff Carr was contacted on the recommendation of committee member Ken Horseman to see if it would be possible for him to determine the economic impact of a food animal veterinarian moving into, and
starting work in a particular area over a five year period. Mr. Carr had several prerequisite suggestions for moving forward with this initiative (Appendix H).

The committee was interested in the concept of an incentive-based debt relief program because it is a model that relies on the resources that are already “put into the system” by the veterinary profession in order to provide a benefit back to the profession, and it is a model that could potentially encourage current practice owners to become more engaged in the hiring and retention of an associate. It is also a model that is consistent with the national statistic that indicates that over 90% of job growth in rural areas comes from existing businesses. The model that was used as a template for these discussions was the Vermont Employment Growth Incentive (VEGI) model. This program is currently administered by the Department of Economic Development within the Vermont Agency of Commerce and Community Development. If a food animal veterinary practice was authorized to earn an incentive through a program similar to VEGI and could meet the program performance targets, then a cash payment could theoretically be made to that practice (small business) owner based on the revenue return generated to the state by a new associate food animal veterinarian. The total amount of incentive available to the practice owner would be determined by a cost-benefit model analysis that determines the revenue benefits and costs to the state based on the jobs, payroll and capital investment projected by the applicant, for a set period of time following approval.

Utilization of an incentive-based model for food animal veterinarian debt relief would provide a direct incentive to the practice owner to hire and retain a new associate. This would enable a new veterinarian to provide needed veterinary services through an already established practice rather than starting a business from scratch. This existing framework is an important factor in the retention of new food animal practitioners in underserved areas as many practicing veterinarians say that one of the largest distracters to working as solo food animal practitioners is the inability to obtain the mentoring that comes with joining an already established practice. Vermont veterinarians who were surveyed for this project expressed this concern as well (Appendix I).

Providing an incentive to the owner of an already-established practice not only gives that individual a tool with which to recruit new associates, but it also allows for an exit strategy for that owner (when it comes time for him or her to retire) that can be carried out with greater assurance that the practice will be sustainable into the future and will continue to provide essential veterinary services to loyal clients. If this debt relief model is pursued for food animal veterinary practices, it will be important to ensure that practice owners who receive incentives do in fact pass that savings on to new associates in a tangible form. Possibilities might include cash bonuses, an increased starting salary, or the offering of a monetary award in a form that results in the new veterinarian being more committed to a particular area, such as making a contribution to closing costs in a home purchase or the payment of a portion of child care costs. If administered properly, the
committee feels that an incentive-based program could be a win-win situation for the veterinary practice owner and the associate veterinarian willing to work in an underserved area.

Fred Kenney, Executive Director of the Vermont Economic Progress Council, was contacted for feedback on the idea of establishing a veterinary debt relief program analogous to the VEGI model (Appendix J). Despite his concerns, the committee feels strongly that an incentive-based debt relief program for Vermont veterinarians is worth pursuing, although more research may be needed to determine the way in which this type of program can be most efficiently administered.

**Veterinary Loan Forgiveness Program**

The loan forgiveness program model is an option worthy of consideration, and it is the program type that is currently administered by VSAC. The money awarded through this type of program model may be tax exempt if an applicable IRS exemption is available, but this program model does have disadvantages. The loan forgiveness model does not provide an immediate remedy for a current shortage problem because the relationship between the program administrator and potential recipient must be forged at the beginning of his or her veterinary medical education. As a result, it may be up to 4 years (or longer if the student pursues post-doctoral education) before the benefit of a recipient returning to practice in an underserved area can be realized. This debt relief model can also be fairly labor intensive in that an administrator of the program has to maintain contact with the student throughout the veterinary medical education and continually entice that student to practice in an underserved area of Vermont. At the outset of the relationship, the student could be informed that one year’s worth of money offered through the program to offset educational debt equates to one year’s worth of veterinary service that must be provided by the student in a pre-determined area of the state upon graduation from veterinary school. Although this model is fairly labor intensive, it does perhaps dovetail better with the ability to mentor a student during his or her veterinary medical education. The committee feels that this type of debt relief program is worthwhile and should be considered but realizes that it may be taxing on personnel and administrative resources that currently exist within the state.

**Tax Credit Incentive Program**

Some states utilize this type of incentive program to encourage human healthcare professionals to work in underserved areas. The state veterinarian’s research into this option revealed that this type of program can be developed in a fairly straightforward manner and can be justified by the same logic that supports a VEGI model program. The dollar value or credit that would be offered would have to be based on easily defined and provable conditions and would not be able to exceed the amount that the recipient veterinarian contributes to state and local tax revenues. If this type of program is not enough of an incentive to a new veterinarian, presumably because of that individual’s
relatively low state tax liability, then the alternative could be for the tax credit to be offered to the practice/small business owner with assurance through the program that the practice owner would pass on the savings to the new veterinarian in a tangible form. Again, this could be a win-win situation for both parties. New Mexico is a state that currently utilizes this type of program for human health care professionals.

- **Employer Assisted Housing (EAH)**

  EAH is a type of program that was not specifically discussed by the committee but is one that is popular across the country in a number of different work sectors and serves as a tool for employers that allows them to be competitive in attracting and retaining employees. Dartmouth-Hitchcock Medical Center currently provides this incentive to employees. This program type affords an employer some flexibility in his or her determination of how an employee’s home purchase can be financed since options for employer assistance include payment of closing costs, payment of additional points to the lender in order to reduce the mortgage interest rate, or payment of other associated fees. A state-financed program that reduces the cost of a home purchase by providing funds to the employer to pass on to a new associate/home buyer could be a significant enticement to an associate food animal veterinarian while also providing a useful tool to the veterinary practice owner to facilitate retention of that employee.

  One additional benefit of this type of program is that facilitation of a home purchase for an employee binds that person to a particular area and could increase the retention rate of participating new employees in a particular business. In the case of food animal veterinary practices, it is reasonable to give consideration to the possibility of a practice owner assisting a new veterinarian in this manner, especially given that the new graduate is likely to be cash poor immediately after graduation. Median home price data available for Vermont takes into account more populated portions of the state and may not be applicable for rural areas in need of additional veterinary coverage (Appendix K). It is possible that, instead of a home purchase, financial assistance could be offered by an employer to a new veterinarian to obtain a veterinary vehicle for ambulatory practice or a piece of equipment necessary for practice. Any state program that offers financial assistance to practice owners for purposes of passing that benefit on to a new associate veterinarian is worthy of consideration.

- **Vermont Incentive Grants**

  This financial incentive already exists in Vermont so is not a program in need of development, but it is worth mentioning in the context of this report. Vermont residents who are enrolled in a Doctor of Veterinary Medicine program are eligible to apply for Vermont Incentive Grants. These grants are based on financial need and the award limits vary. The downside to these grants is that they do not require that students return to Vermont upon graduation or that they practice food animal medicine.
• **Status of Federal Debt Relief Program for Veterinarians**

At the time of this writing, the National Veterinary Medical Services Act (NVMSA) is in the process of being implemented as the Veterinary Medicine Loan Repayment Program (VMLRP). The Vermont State Veterinarian’s office is awaiting release (was originally projected for mid-November) of a Federal Register (FR) notice which will constitute the official beginning of a 60 day period of solicitation of nominations for veterinary shortage situations in each state. Nominations will be accepted to fill shortages in both private and public veterinary practice sectors, though it is important to note that Congress has stipulated that the emphasis, at least in the first years of this program, should be to fill clinical food animal veterinary practice shortage situations. Currently it is envisioned that approximately 90% of loan repayment awards will be made to private practice sector shortage situations and 10% of awards will be made to the public practice sector. While this program sounds promising, it is important to note that only 40 to 45 recipients nationwide are expected to benefit from this program during its inaugural year and that implementation of this program has been anticipated for several years with no “drop dead” date offered yet. For more information about this program please visit the website [http://www.csrees.usda.gov/nea/education/in_focus/education_if_vmlrp.html](http://www.csrees.usda.gov/nea/education/in_focus/education_if_vmlrp.html).

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**Summary – Exploration of the Development of a Debt Relief Program**

The committee supports the implementation of a loan repayment program for food animal veterinarians but realizes that the sustainability of this type of model may be difficult given the current economic climate. Implementation of an incentive based program is worthy of consideration because it supports the veterinary small businesses that already exist in the state, it does not necessarily depend directly on the general fund for monetary support, and it promotes and sustains the aspects of veterinary practice that are most appealing to new graduate veterinarians willing to practice in underserved areas of Vermont. The committee urges the legislature to enact a state level debt relief program for food animal veterinarians, either in the form of a loan repayment model or an incentive based model, and to not depend on the National Veterinary Medical Services Act or the Veterinarian Services Investment Act to remedy Vermont’s current and anticipated food animal veterinary shortage.

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**Identification of Potential Funding Sources**

The following potential funding sources for a Vermont debt relief program are worthy of consideration:
• Veterinary pharmaceutical companies
• Feed and other commodity companies
• Private and other non-profit donations
• Secretary of State, Office of Professional Regulation through contribution of a percentage of veterinary license renewal fees
• Vermont Veterinary Medical Association, New England Veterinary Medical Association, American Veterinary Medical Association, American Association of Bovine Practitioners
• Vermont-based agricultural colleges and universities
• Vermont Economic Development Authority (VEDA)
• Vermont Bankers Association – through bank refinancing of an interest rate on a loan down from 6.8%.
• Farm credit unions
Endnotes


6. Ibid.


8. Ibid.

9. Telephone conversation between Dr. Kristin Haas and the Tufts Student Affairs office; November 30, 2009.

10. Dr. David Birch of the Massachusetts Institute of Technology, founder of the company, Cognetics, Inc. (2006)


12. Telephone conversation between Dr. Kristin Haas and Amy Whitehorne; November 30, 2009. For the 2009-2010 academic year award limits are $500.00 to $3800.00.
Appendix A

- There are 48 members of the American Association of Bovine Practitioners from Vermont.

- Thirty-six AABP members indicated their employment type was private practice, including 19 self-employed or practice owner/shareholder, and 17 private practice employees.

- Of those Vermont AABP members listing private practice as employment type, 27 indicated their practice type was dairy exclusive or primarily, 4 indicated mixed animal practice, and 5 did not specify practice type.

- Of Vermont AABP veterinarians in private practice 7 graduated from veterinary school more than 30 years ago, 10 graduated between 21 and 30 years ago, 5 graduated between 11 and 20 years ago, and 13 graduated within the last 10 years.

- The 12 additional AABP members from Vermont were employed in State or Local Government (n=1), Industry (n=3), Academia (College or University, n=5), or were retired or not active in practice (n=3).
The Economic Impact of Veterinary Medicine on Vermont in 2006

The following excerpts are taken from “Veterinary Medicine in New England: State-by-State Industry Characteristics and Economic Impacts”. Veterinary medicine is defined as all employees in veterinary clinical practice and veterinarians and veterinary support staff employed in commercial scientific research and development (R&D), academia and other settings.

**Veterinary Medicine in Vermont: At a Glance**

- Veterinary medicine employs an estimated 1,192 people, including 293 veterinarians.
- Veterinary medicine invests an estimated $78 million on payroll, operating expenses and capital projects, including over $60 million in veterinary clinical practice, $11 million in scientific R&D and $5 million in academia.

**Veterinary Medicine in Vermont: Economic Impact**

- Total economic impacts of veterinary medicine are estimated at over $125 million, of which $93 million is generated by veterinary clinical practice.
- Veterinary medicine spending of $78 million supports an additional estimated $46 million in spending and 468 jobs throughout Vermont.
- Veterinary medicine contributes an estimated $5 million to state and local tax revenues.

<table>
<thead>
<tr>
<th>Veterinary Medicine Employment</th>
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<tbody>
<tr>
<td>Veterinary Clinical Practice</td>
</tr>
<tr>
<td>Scientific R&amp;D</td>
</tr>
<tr>
<td>Academia</td>
</tr>
<tr>
<td>Government and Other</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
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</table>

**Companion and Food Animal Veterinarians: The Foundation of the Veterinary Industry in Vermont**

- 67% Companion Animal
- 17% Food Animal
- 6% Mixed Animal
- 6% Equine
- 10% Other
Dairy Farms and High Pet Ownership:

**Major Drivers for Veterinary Medicine in VT**

- The nation’s highest rate of household pet ownership – 74% of Vermont households own one or more pets – drives the state’s strong veterinary clinical practice sector.
- One in six veterinarians – or 49 veterinarians – in Vermont specializes in food animal medicine, primarily in clinical practice, but also in academia, commercial scientific R&D, and the federal government.
- In 2002, Vermont had 3,264 farms, including over 1,300 dairy cattle farms, with a total market value of over $400 million – more than any other state in New England.
- Veterinary medicine provides opportunities for entrepreneurship: over half of clinical practice

The Cummings School: A Critical Resource for Veterinary Medicine

- Founded in 1978, the Cummings School in Grafton, MA is the only veterinary school in the six-state New England region.
- Since its founding, the Cummings School has trained over 1,500 veterinarians who work in clinical practice, biomedical research, international medicine, conservation medicine and public health across New England.
- The Cummings School is currently training 335 veterinarians to work in clinical and laboratory settings across the Commonwealth, New England and the world.

The Need for New Veterinarians in Vermont

- Vermont will need a projected 76 new veterinarians between 2008 and 2014 due to growth and retirements, compared to the current workforce of 293.
Appendix C

Figures associated with cost of attending veterinary school for the 2009-2010 academic year at the Cornell University College of Veterinary Medicine and the Tufts University Cummings School of Veterinary Medicine are as follows:

- Tufts
  - Tuition and fees for nonresident students: $39,426.00 annually\(^1\)
  - Estimated cost of attendance: $59,177 - $61,002 annually\(^2\)

- Cornell
  - Tuition and fees for nonresident students: $39,500.00 annually\(^3\)
  - Estimated cost of attendance: $56,000.00 annually\(^4\)

The average undergraduate debt level for a Vermont student graduating in 2008 was $25,047.00.\(^5\)

These statistics represent a significant educational cost, and it can be assumed that the debt burden for new veterinarians who have graduated from these programs is also significant. These figures should be kept in perspective by comparing the total estimated cost of a veterinary school education at Tufts and Cornell ($240,783.00 and $224,000.00 respectively) with the median starting salary for food animal veterinarians in Vermont of $65,740.00.

Footnotes & Website Links – Appendix C

1. [http://www.tufts.edu/vet/admissions/tuition.html](http://www.tufts.edu/vet/admissions/tuition.html)
3. [https://www.vet.cornell.edu/financialaid/Expenses.cfm](https://www.vet.cornell.edu/financialaid/Expenses.cfm)
4. [https://www.vet.cornell.edu/financialaid/Expenses.cfm](https://www.vet.cornell.edu/financialaid/Expenses.cfm)
Appendix D

- While 43 percent of all veterinarians are over 50 years old, 56 percent of food animal veterinarians are over 50 years old.¹

- From 2008 until 2014, food animal veterinarians can be expected to retire at nearly twice the rates of companion animal veterinarians (11 percent for food animal veterinarians compared to six percent for companion animal veterinarians, and seven percent for all veterinarians).²

- The fact that there are fewer new professionals following in the footsteps of these retirees results in a growing shortage of food animal veterinarians over time.

Footnotes – Appendix D


2. Ibid.
Appendix E — map generated using March 2009 National Ag. Statistics Survey data (herds/(head of cattle))
Appendix F – Map showing Vermont food animal veterinary coverage based on responses to survey

Legend
- 50 Mile Radius
- 25 Mile Radius
- Large_Animal_Vets

Large Vet Coverage
prepared by Laura DiPietro
11/10/09
Appendix G

NAVMEC is the product that resulted from the decision made by the Association of American Veterinary Medical Colleges to “look to the future of veterinary medical education and ensure that the profession is positioned to meet societal needs”, including food safety and security. Over a 12 to 18 month period, this Consortium will bring together over 200 stakeholder organizations and individuals to discuss and find answers to questions related to the best way that an educational model can prepare graduate veterinarians to meet societal needs, in preparation for the release of a national paper on this topic.
Appendix H

Notes taken from telephone conversation with Mr. Jeff Carr – November, 2009

- Mr. Carr had several prerequisite suggestions for moving forward with the development of any type of economic incentive program for food animal veterinarians.

- He recommended that the food animal veterinarian’s duties first be reduced to “essential functions”, which can then be plugged into an input/output model in order to determine the domino effect of the initiation of that particular business in a particular area.

- He also recommended that it would be important to demonstrate that producers would not be able to continue to operate without an additional veterinarian in an underserved area and that, in the absence of a Vermont debt relief program, veterinary professionals would be more inclined to go elsewhere.

- It would also be helpful, according to Mr. Carr, to determine the number of farms that would likely be lost by the lack of an additional food animal veterinarian in a perceived shortage area such as Orleans County. To the committee’s knowledge, the information relative to this subject matter that does exist is largely anecdotal and has historically been provided through feedback from practicing veterinarians and producers.
Appendix I – Veterinary Workforce Survey Results (25 food animal veterinarians responded)

Mid-section counties = Chittenden, Orange, Addison, Washington  
Results found on pages 26-28, 31, 32

Northern counties = Franklin, Orleans, Essex, Lamoille, Caledonia  
Results found on pages 26, 27, 29, 33

There were no respondents from Rutland, Windsor, Bennington, Windham
# Food Animal Veterinary Workforce Shortage

What do you think are the top 3 reasons that new veterinary graduates are entering the field of food animal medicine less frequently?

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<th>Response Count</th>
<th>Answered Question</th>
<th>Skipped Question</th>
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<thead>
<tr>
<th>Response Text</th>
<th>Date</th>
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<tbody>
<tr>
<td>1. Poor pay, poor work conditions, not interested in food animal practice</td>
<td>Oct 16, 2009 6:00 PM</td>
</tr>
<tr>
<td>2. More graduates are women, the work is hard on the body, and the schedule makes it hard to raise a family.</td>
<td>Nov 29, 2009 11:23 PM</td>
</tr>
<tr>
<td>3. Money - most practitioners don't pay enough</td>
<td></td>
</tr>
<tr>
<td>4. Hours are long, and it is not unusual to work 12 - 15 hour days during the busy season.</td>
<td></td>
</tr>
<tr>
<td>3. Fewer rural students applying to veterinary school</td>
<td>Nov 29, 2009 11:24 PM</td>
</tr>
<tr>
<td>2. Lack of exposure to food animal practice</td>
<td></td>
</tr>
<tr>
<td>3. PERCEIVED difference in compensation</td>
<td></td>
</tr>
<tr>
<td>4. ECONOMICS</td>
<td>Nov 29, 2009 11:26 PM</td>
</tr>
<tr>
<td>2. TIME MANAGEMENT</td>
<td></td>
</tr>
<tr>
<td>3. INTEREST</td>
<td></td>
</tr>
<tr>
<td>5. Lack of jobs available</td>
<td>Nov 29, 2009 11:29 PM</td>
</tr>
<tr>
<td>2. On call schedule</td>
<td></td>
</tr>
<tr>
<td>3. Lack of interest in food animal medicine</td>
<td></td>
</tr>
<tr>
<td>2. Perceived working conditions, including hours worked.</td>
<td></td>
</tr>
<tr>
<td>7. Longer hours (more on call), more difficult working conditions (not a heated office with staff), jobs are in more remote areas (lack of social life)</td>
<td>Nov 29, 2009 11:37 PM</td>
</tr>
<tr>
<td>8. The salaries are higher in companion animal medicine, and hours in food animal practice are brutal, especially for individuals with families.</td>
<td>Nov 29, 2009 11:36 PM</td>
</tr>
<tr>
<td>2. Not interested in rural lifestyle</td>
<td></td>
</tr>
<tr>
<td>3. Length and type of work day</td>
<td></td>
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</table>
### Food Animal Veterinary Workforce Shortage

What do you think are the top 3 reasons that new veterinary graduates are entering the field of food animal medicine less frequently?

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<th>Response</th>
<th>Count</th>
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<table>
<thead>
<tr>
<th>Response Text</th>
<th>Oct 27, 2009 1:31 PM</th>
</tr>
</thead>
</table>
| 1. | 1) On-call schedule/long hours/emergencies  
2) Social isolation of rural practice  
3) Hard work for low pay | Nov 29, 2009 11:09 PM |
| 2. | I do not practice. I work with existing veterinarians in rural northern Vermont, and other places in VT and NY. Here it appears to me that the old business model for providing livestock vet services of long days, long emergency and weekend hours, lots of individual sick animal work since the call and drugs pay the bills, lack of services that clients believe have value to them (employee training for example), lack of vet training in marketing or delivering herd level or employee training services, remoteness of rural areas, debt to salary ratio. Maybe they still end up being limited to sick animal and emergency work as a steady diet, which is necessary but should be tempered with some mentoring...it is a more modern world, where rural and the ‘old practice/business model’ is less and less appealing to many I suspect. | Nov 29, 2009 11:13 PM |
| 3. | 1. There are no jobs for them—the dairy industry is suffering right now and practices can’t afford to hire veterinarians—farms and farm-related businesses are losing money every day  
2. Emergency work  
3. Salary | Nov 29, 2009 11:14 PM |
| 4. | Amount of time required to be on-call/working long hours. Starting salary is less than small animal salary. The work is very physically demanding, and with the majority of graduating vets being women, naturally a smaller percentage of graduates are opting for this physical work. | Nov 29, 2009 11:15 PM |
| 5. | 1. Rural living and unglamorous job  
2. On-call  
3. Payment | Nov 29, 2009 11:16 PM |
| 6. | 1) Inadequate compensation relative to educational debt load.  
2) Lack of adequate membership  
3) Long work days that do not lend themselves to an easy balance between work and home life | Nov 29, 2009 11:17 PM |
| 7. | There is less demand for food animal vets | Nov 30, 2009 12:25 AM |
| 8. | I am not certain that it is accurate to say that new veterinary graduates are entering food animal medicine less frequently. I have contact with several pre-veterinary students who will happily go into food animal medicine if dairy financials improve and current Vermont veterinary practices have enough work for them to do. | Nov 29, 2009 11:17 PM |
# Food Animal Veterinary Workforce Shortage

What do you think are the top 3 reasons that new veterinary graduates are entering the field of food animal medicine less frequently?

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<tr>
<th>Response Count</th>
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**answered question** 4

**skipped question** 1

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<th>Response Text</th>
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<tr>
<td>1</td>
<td>1. Lack of interest, due to lack of background. 2. Perceived working conditions, including hours worked. 3. Money.</td>
</tr>
<tr>
<td>2</td>
<td>1. Long hours 2. Rural lifestyle 3. Lack of exposure to farms before vet school</td>
</tr>
<tr>
<td>3</td>
<td>Income/Debt ratio and location of spouse/family</td>
</tr>
<tr>
<td>4</td>
<td>1. The cross section of students currently entering veterinary school (ie. most people live in cities and suburbs these days). 2. The miserable working conditions for large animal veterinarians. 3. The fact that as a large animal veterinarian you are on your own, on a farm, making decisions in suboptimal conditions whereas as a small animal practitioner you probably have other veterinarians to consult with about your decisions and usually have adequate light/diagnostic facilities etc</td>
</tr>
</tbody>
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| Nov 29, 2009 11:46 PM |
| Nov 30, 2009 12:17 AM |
| Nov 30, 2009 12:24 AM |
# Food Animal Veterinary Workforce Shortage

What do you think should be done to address the food animal veterinary shortage in Vermont?

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<th>Answered Question</th>
<th>Skipped Question</th>
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<td>2</td>
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</tbody>
</table>
| 3  | 1. In food animal intensive areas, there is no shortage.  
   2. Some help with the crippling debt load would be beneficial.  
   3. Encourage established food animal practices to host veterinary students and expose them to food animal practice and to Vermont.  
   4. Establish a fund to help practices mentor prospective students. |
<p>| 4  | I do not think there is a real shortage, but instead, maybe there is a shortage of food animal veterinarians that will work for low unreasonable wages. There is definitely not a shortage in the Champlain or Connecticut River valleys. |
| 5  | I don't believe there is a shortage. I agree that there are areas which do not have services, however, there are areas which cannot support a veterinarian. An area which has ten farms without adequate service is unfortunate, but that number of farms does not represent enough business to support a veterinarian. Solo practice is increasingly unattractive to new graduates as well as to current practitioners, and there are many areas which can't support one vet, let alone a multi-vet food animal practice. |
| 6  | Determine if a shortage exists, where that shortage exists, and determine future trends in food animal industries. Encourage new graduates to enter underserved areas, either as food animal exclusives or as mixed veterinarians. Loan reduction or forgiveness programs seem most effective. |
| 7  | The shortage appears to be in areas where food animals are not concentrated. Being a food animal solo practitioner in an area without anybody else to share on call with or discuss cases with is not appealing. Part of the problem is that fewer and fewer people are interested in doing mixed animal practice. It is hard to justify the expenses of a truck and equipment that gets used one or two days a week. It is also difficult to train a new graduate veterinarian in food animal medicine when food animals are seen infrequently in a mixed practice. Another part of the problem may be existing food animal practitioners in these areas. If mentorship is lacking, a new graduate is not likely to stay. The shortage can be partially addressed by utilizing existing clinics bordering these under-served areas. I don't know enough about the demographics across Vermont to know if any of these areas can support one or more full time food animal vets, but perhaps a financial incentive could convince existing small animal clinics or equine practitioners to see food animals as well- at least for emergencies. Workshops to review the basics or having a backup (neighboring practice) that can be reached by cell phone might make veterinarians more comfortable. I know loan forgiveness alone would not be enough to convince me to move to an under-served area. |</p>
<table>
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<th></th>
<th>Response Text</th>
<th>Date and Time</th>
</tr>
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<tbody>
<tr>
<td>8</td>
<td>Develop more mixed practices and encourage the legislature to forgive loans based on salary rather than &quot;what type&quot; of vet you are.</td>
<td>Nov 29, 2009 11:38 PM</td>
</tr>
<tr>
<td>9</td>
<td>The profession itself needs to generate more money. With the amount of debt and overhead that most veterinarians carry, it is inconceivable that most repairmen charge more for a farm call than does the veterinarian. Until this incongruity is righted there won't be enough food animal veterinarians.</td>
<td>Nov 30, 2009 12:21 AM</td>
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</table>
### Food Animal Veterinary Workforce Shortage

**What do you think should be done to address the food animal veterinary shortage in Vermont?**

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<th>Response Text</th>
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<tbody>
<tr>
<td>1. Support the development of satellite practices so that underserved areas can be served on rotation. Veterinarians can still be associated with a central home base practice. The practice can have more expertise and offer a wider variety of services. Some veterinarians, particularly young ones, join practices, they get trained, and they leave and the cycle then starts all over again. The practices that are not quite so rural seem more successful in offering a more well rounded professional life, thus the idea of satellite practices. I would support helping existing practices establish satellites/additional associate with rotation--win win and allows practices to continue to improve services and the environment for vet professionals.</td>
<td>Nov 29, 2009 11:09 PM</td>
</tr>
<tr>
<td>2. This is a national dairy related problem—the milk pricing system needs to be fixed so that the dairy farmers and their related businesses (including large animal veterinarians) can actually pay their bills. I don’t think there’s any shortage of large animal vets—there is a shortage of money available to pay them.</td>
<td>Nov 29, 2009 11:13 PM</td>
</tr>
<tr>
<td>3. If a bill is implemented to assist in repayment of student loans, I feel many more people would be willing to accept the starting salaries of large animal veterinarians in rural areas. The more vets brought to the rural areas, the more spread out the on-call hours would be!</td>
<td>Nov 29, 2009 11:14 PM</td>
</tr>
<tr>
<td>4. Secure the agricultural economy above all—I also am a partner in a dairy and understand all too well the financial impact through both practice and our dairy business.</td>
<td>Nov 29, 2009 11:15 PM</td>
</tr>
<tr>
<td>5. Very few new graduates enter food animal medicine, and far fewer wish to work in rural areas since the associated debt load following graduation is often prohibitive as practice owners can simply not offer packages attractive enough to attract and retain new associates. Loan forgiveness or some other means of debt load subsidy would be one means of addressing this need. Additionally, the need for veterinarians occurs in areas of the state that have very low veterinarian numbers. As such, veterinarians either need to extend their practice areas or open novel clinics in these locations. Some means of small business promotion that would allow practice owners to hire additional veterinarians or open new practices in these underserved areas may also provide some alleviation of this situation.</td>
<td>Nov 29, 2009 11:16 PM</td>
</tr>
<tr>
<td>6. I don’t believe there is a food animal veterinary shortage; I would rather see money and times spent to support the dairy farms themselves.</td>
<td>Nov 29, 2009 11:17 PM</td>
</tr>
<tr>
<td>7. If dairy finances improve this winter, Vermont will retain dairy farms and current veterinary practices. To get us by this crisis, it would be helpful to assist new graduates in paying down some of their student loans.</td>
<td>Nov 30, 2009 12:25 AM</td>
</tr>
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</table>
Food Animal Veterinary Workforce Shortage

What do you think should be done to address the food animal veterinary shortage in Vermont?

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<tr>
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<tr>
<td>1</td>
<td>Determine if a shortage exists, where that shortage exists, and determine future trends in food animal industries. Encourage new graduates to enter underserved areas, either as food animal exclusive or as mixed veterinarians. Loan reduction or forgiveness programs seem most effective.</td>
</tr>
<tr>
<td>2</td>
<td>Monetary incentives</td>
</tr>
<tr>
<td>3</td>
<td>Keep current veterinarians healthy and satisfied in practice. Encourage new graduates with loan repayment programs</td>
</tr>
</tbody>
</table>
Email correspondence received from Fred Kenney on November 2, 2009:

Kristin:

I actually do not think the VEGI program is a good model for what you are trying to do. VEGI is a cash incentive paid to employers if and when they make investments and add employees in Vermont. To be approved, the company has to show that they would not make the investments and create the new jobs in Vermont without the incentive. Therefore, the incentive that is paid to them, if they perform, comes from the new, incremental revenues that company is generating to the state, revenues the state would not have realized unless the company was approved.

In this scenario the state is providing an incentive to get something to occur (a company to move to VT or grow faster in Vt) after the activity occurs, and the activity that will occur provides the revenue to pay the incentive.

You would need a model that provides the revenue up front, which represents a cost to the state budget.

When discussing incentive programs with folks, I always ask them to think about what it is you are trying to get someone to do, what is it that is keeping them from doing it anyway, and what can be done to overcome that barrier? Then, what is the best way to accomplish that? In some cases it might be some kind of incentive, but perhaps not. Another question is, can that barrier be addressed by some kind of governmental action or is it better addressed another way? Perhaps there are several ways to address the issue, with a government solution only as part. Is the best government solution tax related or is a policy change more effective.

It sounds like the legislative mandate started with the premise that a loan repayment or incentive program is the best solution. Did they have a basis for assuming that is the best solution? Was there some discussion or study documenting what it is that is keeping vets from serving these areas?

In this case, you are trying to get Vets to provide veterinarian services in areas that are currently not served or are underserved. I don’t know what the barrier is to getting existing vets to serve those areas or new vets to go to and serve those areas. But I don’t see a VEGI-like program helping any.

There are models for other types of incentive programs along these lines. You are probably aware of the national programs to get doctors to serve in underserved areas. This program uses all kinds of different methods to address the issue, including loan repayment or forgiveness, higher medicare rates paid, establishment of national health service corps for those areas, and even a waiver for qualified aliens to work in underserved areas.

Similarly, some states have established their own “incentive” in the form of a tax credit. This is probably the most easily replicable incentive from an administrative perspective. The political perspective is another story and depends on how well the need is documented and the case for a tax break can be made.
One state that has such a program is New Mexico. Below are some links to their information and attached is the rule, which is basically the statute language, which can be used as a model to draft a Vermont tax credit. In regards to tax credits generally, keep it simple. Design a straight tax credits in tax law that gives a dollar value or percentage credit if certain easily defined and provable conditions are met.

http://www.health.state.nm.us/phd/dist3/Taxcreditforphysiciansservingruralhealth.html

http://www.health.state.nm.us/pdf/RHCPTC%20Program%20Overview%20December%202015%202008.pdf

Again, this assumes a tax credit gets at the root of the problem and can be utilized by the target individuals. I would assume that newly licensed vets do not have a very high state tax liability. So I’m not sure a tax credit would mean much to them.

If the problem is that we have enough vets, but they cannot (because of distance) or will not (because of the return is too low) service the very rural areas, maybe some kind of incentive related to their travel costs is a better solution.

You probably have heard that Congress is also looking at this issue. Senators Leahy and Sanders are sponsoring the Vet Service Investment Act (HR 3519 in House, not sure of Senate bill number).

I am here all week except late Tuesday afternoon, so feel free to call me anytime if you would like to discuss incentives further.

Sincerely,

Fred.

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According to the Vermont Realtors’ Association, the median home price in Vermont in 2008 was $200,000 and was $270,000 for newly constructed homes.¹

A household would have to have an income of $63,000 and $14,000 in cash to cover a 5% down payment and closing costs in order to afford a home priced at the median rate and would have to have an $85,000 annual income and $18,000 in cash in order to afford a newly constructed home.²

Given that 88.6% of new graduates carry an average debt load of just under $130,000, a state-financed program that reduces the cost of a home purchase by providing funds to the employer to pass on to a new associate/home buyer could be a significant enticement to an associate food animal veterinarian while also providing a useful tool to the veterinary practice owner to facilitate retention of that employee.

Footnotes – Appendix K

2. Ibid.
Appendix L – Legislative Summary

12/04/09
Draft 1

Large Animal Veterinarian Educational Loan Repayment Program

I. Loan Repayment Program

a. "Large Animal Veterinarian" defined:

1. Doctor of Veterinary Medicine
2. School accredited by the United States Department of Agriculture
3. Spends at least 60 percent of working veterinary hours in Vermont treating or otherwise servicing food animals, including beef or dairy cows, sheep, pigs, poultry, etc.

b. Program created (details to be developed by Board - see “II. Board”):

1. Competitive application / selection process
2. Award made only to recipient:
   A. Licensed in Vermont;
   B. Meets large animal veterinarian definition
   C. Has outstanding undergraduate and / or graduate school debt that exceeds loan repayment award
   D. Financial need is a factor only if there are competing applicants
3. Award:
   A. Payments made directly to creditor(s) when due
   B. Awarded for multiple years provided recipient continues to adhere to criteria
   C. Not to exceed specified dollar amount / percent of student debt
   D. Not to exceed specified number of years
4. Criteria to include:
   A. Continues to meet award original criteria (b.2 above)
   B. Specified number of years / for any year in which award is being paid by program to creditor
5. Recipient provides annual information verifying continued adherence to criteria
6. Details of how payment made – agency / state treasurer / etc. involvement
7. Recipient repays any amounts paid to creditor if ceases to meet criteria

c. Funding:

1. Initial contributions to loan fund from:
   A. Veterinary pharmaceutical companies
   B. Feed and other veterinary commodity companies
   C. Veterinary medical associations (state and federal – itemize)
   D. Others
2. Additional contributions:
   A. Interest on fund principal
   B. Increased licensing fee for veterinarians
   C. Subsequent grants from companies / associations
   D. General fund appropriations when available

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3. Prerequisites for disbursement of funds (e.g. cannot make award if fund principal will go below a specified dollar amount; cannot make award to a new recipient until have completed all years of payments for a previous recipient, etc. (see II.b. 1 below))

NOTE: it will be necessary to have financial projections to know how much money must be in fund before an award can be made – (assuming that the program would not permit the fund to be completely used each time a recipient is identified)

d. Rules: agency of agriculture may adopt rules necessary to implement program

II. Loan Repayment Board

a. Members / Representation:
   1. State Veterinarian
   2. Vt Veterinary Medical Association
   3. Agency of Commerce and Community Development and/or Workforce Development Council
   4. UVM and/or Vermont State Colleges
   5. Legislature
   6. Others?

b. Duties:
   1. Create process to determine whether there is need for veterinarians and whether existing funds are sufficient to invite applications (i.e. after an award has been made and payments are either being made or have concluded, how does the board decide that it’s time to invite applications for a new round of awards?)
   2. Create program / protocols to invite applications and select recipient
   3. Invite and review applications
   4. Select recipient pursuant to criteria in “I. Program”
   5. Create protocols to disburse money
   6. See protocols to verify recipient’s continued adherence to criteria
   7. Seek funding (see “I. Program”)
   8. Report regularly to legislature (specify details to be addressed)
   9. Do anything else necessary for success and solvency of program

III. Loan Repayment Fund

Amend 6 V.S.A. § 20 as necessary to conform to program as enacted
Other Potential Programs - Short Term and Long Term

I. Vermont Economic Development Authority

   Expand existing agricultural loan program to include purchase of large animal veterinary equipment – especially veterinary box insert for trucks.

II. Payments to Vet Schools

   * Reserve a place for a Vermont student at a veterinarian school by making a payment to the school
   * Payment would be deducted from tuition / fees charged so that the student would need smaller loans
   * Require the student to practice in Vermont for a certain number of years
   * Student would repay the state if s/he did not complete school / practice in the state / etc.

III. Incentive Program

   * Provide money to large animal veterinarians currently licensed in Vermont to expand an existing practice into underserved areas of the state
   * Payments to be used for:
     * Salary
     * Purchase of vehicle
     * Housing costs
     * Additional equipment
     * etc.