

6-1-2005

## Agenda and attachments, 2005 June 1

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University of  
Connecticut

*Board of*



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TRUSTEES







**SPECIAL MEETING OF THE BOARD OF TRUSTEES  
UNIVERSITY OF CONNECTICUT**

**AGENDA**

University of Connecticut  
Merlin D. Bishop Center  
Storrs, Connecticut

June 1, 2005

**OPEN SESSION**

Call to order at 1:00 p.m.

**EXECUTIVE SESSION**

1. Discussion of matters pertaining to personnel, litigation, and contractual issues.

**OPEN SESSION**

Reconvene in Open Session.

1. Public Comment (limited to agenda item)
2. Chairman's Report
  - (a) Discussion of matters pertaining to construction issues.
3. Adjournment

The next meeting of the Board of Trustees is scheduled for Tuesday, June 21, 2005 at 1:00 p.m. at the Rome Commons Ballroom (South Campus Complex), Storrs, Connecticut.

**PLEASE NOTE:** *If you are physically challenged and require special accommodations, please call the Board of Trustees Office at 486-2333 prior to the meeting.*















# **AGENDA**

## **Board of Trustees ACADEMIC AFFAIRS COMMITTEE**

June 1, 2005

University of Connecticut

Bishop Center

Storrs Campus

### **Attachment**

- 1) Approval of the Minutes of the Academic Affairs Committee Meeting  
of April 12, 2005, as circulated

A

### **DISCUSSION ITEM:**

- 2) Report on the Feasibility of Establishing a College of Veterinary Medicine  
at the University of Connecticut

B















**MINUTES**  
**MEETING OF THE ACADEMIC AFFAIRS COMMITTEE**  
**April 12, 2005**

TRUSTEES PRESENT: Messrs. Abromatis, Barry, Berkley, Drotch, Jacobs, Martinez; Nayden, Nichols, Ritter, Rowe, Mesdames Bailey, Dennis-LaVigne, Gatling, Lobo, Sisco

STAFF PRESENT: Messrs. Austin, Brohinsky, Callahan, Deckers, Dreyfuss, Evanovich, Hudd, McCarthy, Schurin, Singha; Taylor, Upton, Walker, Mesdames Aronson, Dunnack, Flaherty-Goldsmith, Grava, Greger, Makowsky, Rodin.

Committee Chairman Jacobs convened the meeting at 9:45 a.m. in the Gen Re Auditorium at the University of Connecticut Stamford Campus. On a motion by Chairman Jacobs seconded by Trustee Dennis-LaVigne, the minutes of the February 3, 2005 meeting were approved as circulated.

Committee Chairman Jacobs welcomed Provost Peter Nicholls to his first meeting of the Academic Affairs Committee and stated that the Board was delighted to see him at UConn.

Provost Nicholls introduced *Item #2, Recommendation for Designation as Board of Trustees Distinguished Professor, Academic Year 2004-2005*. Pursuant to the Laws and By-Laws of the University of Connecticut, the Board of Trustees Distinguished Professor award is reserved exclusively to recognize faculty who have achieved exceptional distinction in scholarship, teaching, and service while at the University of Connecticut. The Distinguished Professor Selection Committee recommended the following faculty members as University of Connecticut Board of Trustees Distinguished Professors: Brenda Murphy (Department of English), Peter Setlow (Department of Molecular Microbial and Structural Biology – Health Center), C.F. Sirmans (Department of Finance), and Bette Talvacchia (Department of Art History). On a motion by Chairman Jacobs, seconded by Trustee Gatling, the Committee recommended the appointment of these individuals to the full Board for approval.

Provost Nicholls introduced *Item #3, Notification to amend the University of Connecticut Laws and By-Laws article XV.J.5a: Special Titles, Board of Trustees Distinguished Professor*. The recommendation to revise the language of Article XV will allow the Board of Trustees Distinguished Professor selection process to be streamlined and ensure that each nomination is fully evaluated. The Selection Committee deliberated the current process and concluded that obtaining a complete dossier on each nominee, including input from external sources will ensure that each individual is thoroughly and carefully evaluated for this important designation. Vice Provost Suman Singha chaired the Board of







Trustees Distinguished Professor Review Committee for academic year 2004-2005 and was present to answer questions from the Board. Chairman Jacobs asked Dr. Singha if the proposed amendment to the University of Connecticut Laws and By-Laws would help to avoid the lengthy process of re-nominating individuals a second time. Dr. Singha replied that the Selection Committee determined it would be helpful to have complete dossiers available to them for review. This change in process will make it easier for nominators to have all material submitted at one time. Dr. Rowe asked if faculty designated to be Board of Trustees Distinguished Professors have monetary compensation awarded to them, or if they reported directly to President Austin upon receiving this designation. Dr. Singha replied that there is no monetary compensation associated with these awards and the reporting structures remain unchanged. The award is in recognition of excellence in teaching, research and service. In response to a question from Dr. Rowe, Dr. Singha replied the Committee received 20 applications, and given the quality of the nominees the Committee had a difficult task selecting the four awardees. On a motion by Chairman Jacobs, seconded by Trustee Dennis-LaVigne, the Committee recommended the appointment of these individuals to the full Board for approval.

Dr. Nicholls introduced *Item #4, Notification to amend Article X, The University Senate A. Membership of the University of Connecticut Laws and By-Laws*. The Board was asked to revise the language of Article X to accommodate recent reorganizations in the University administration and the concurrent development of new titles for a variety of administrative positions. The Vice President and Chief Information Officer and the Associate Vice President for Human Resources were added as ex-officio Senate members, the other changes reflect alterations in title only. On a motion by Dr. Jacobs, seconded by Trustee Gatling, the Committee recommended the appointment of these individuals to the full Board for approval.

Dr. Nicholls introduced *Item #5, Master of Professional Studies in Homeland Security Leadership*. The Master of Professional Studies (MPS) is a terminal online degree that includes a core curriculum comprised of select social science methodologies combined with fields of study for specific professional fields. The mission of the Master of Professional Studies with a field of study in Homeland Security Leadership (MPS/HSL) is to foster higher-level critical thinking skills for individuals in government and business struggling with complex homeland security challenges. The Department of Homeland Security (DHS), through its Office of Domestic Preparedness (ODP), gave the Naval Postgraduate School (NPS) programmatic responsibility to develop and deliver an accredited Master's Degree curriculum focused on Homeland Security issues. The MPS/HSL will include NPS's courses, exercise simulation and several tracks for electives. The College for Continuing Studies (CCS) will work with colleges and schools across the campus to create electives to support specialization within the Homeland Security field of study such as Bioterrorism, Emergency Management, Public Policy, Disaster Recovery, Private Sector Preparedness, and Human Resource Development.

Dean Rodin of the CCS was present to answer questions regarding this proposal. Chairman Jacobs endorsed the importance of homeland security and stated that he is personally involved in this endeavor, as Hartford Hospital is the Center of Excellence for the







northern tier of the State of Connecticut. Dean Rodin thanked Chairman Jacobs for his involvement in TOPOFF. The CCS has been working with the State Department on a grant to conduct training for first responders. This grant was received in 2003, and CCS has been working with fire and police departments, as well as schools to develop training programs in this area. The Naval Post Graduate School which has the only federally approved curriculum, has agreed to partner with UConn to develop courses geared for the public/private sector. Dr. Jacobs asked Dean Rodin to describe when classes would occur and length of time for course. Dean Rodin explained that the online course is cohort based, with students coming to the class for approximately 1-2 weeks. The course will conclude after 18-20 months. Trustee Gatling asked about staffing numbers, to which the Dean replied that four faculty are in place for the first year. The CCS plans to hire one additional faculty member. Trustee Gatling asked if the CCS is self-supporting, and the Dean replied in the affirmative. Trustee Nayden acknowledged the need for this program and recognized homeland security is a real and current issue. He advised the Dean to make use of this program for practical issues, to put a real priority into this and make it work. Dr. Rowe asked about the role of biology in the program. For example, will students be trained to work cohesively with public health when disasters strike; will students understand needs from a public health role? Will students be asked to think about their degree of familiarity to infections, antibiotics? Dean Rodin explained that one biology course is a part of the curriculum. On a motion by Chairman Jacobs, seconded by Trustee Dennis-LaVigne, the Committee recommended this program to the full Board for approval.

Provost Nicholls introduced ***Discussion Item #6, An update on the new general education requirements.*** Dr. Hedley Freake, Professor of Nutritional Sciences and Chair of the General Education Oversight Committee provided a brief presentation on the new general education requirements (GER). Dr. Freake explained that the process began 7-8 years ago with a review of the existing GER. It involved a large number of faculty, students, administrators and staff who evaluated programs at our peer institutions and made recommendations. These efforts culminated in a new GER to be launched this fall. The general education curriculum is the core of the undergraduate courses that students are required to take. These courses are designed to ensure students emerge from the University with a baseline set of skills. UConn expects its graduates to be articulate in both written and oral communication and in quantitative terms, we expect them to think critically and problem solve as well as have diversity in the ways that they think across a range of different academic venues. Students should also have cultural competency as they graduate. Students are expected to develop skills in their freshman and sophomore years which will be crucial to their success.

The General Education Committee worked hard to develop more choices for students; to date over 250 courses has been approved. These are true University-wide general education requirements and are the same for every school and college. Students who change colleges will not have to change their general education requirements. A real focus is on course quality. When faculty have requested courses be included as a part of these requirements, there is a rigorous review to make sure the course is appropriate. The University has a new diversity and multicultural content area. This isn't found at all institutions, but students need these skills if they are to be successful. Dr. Rowe asked





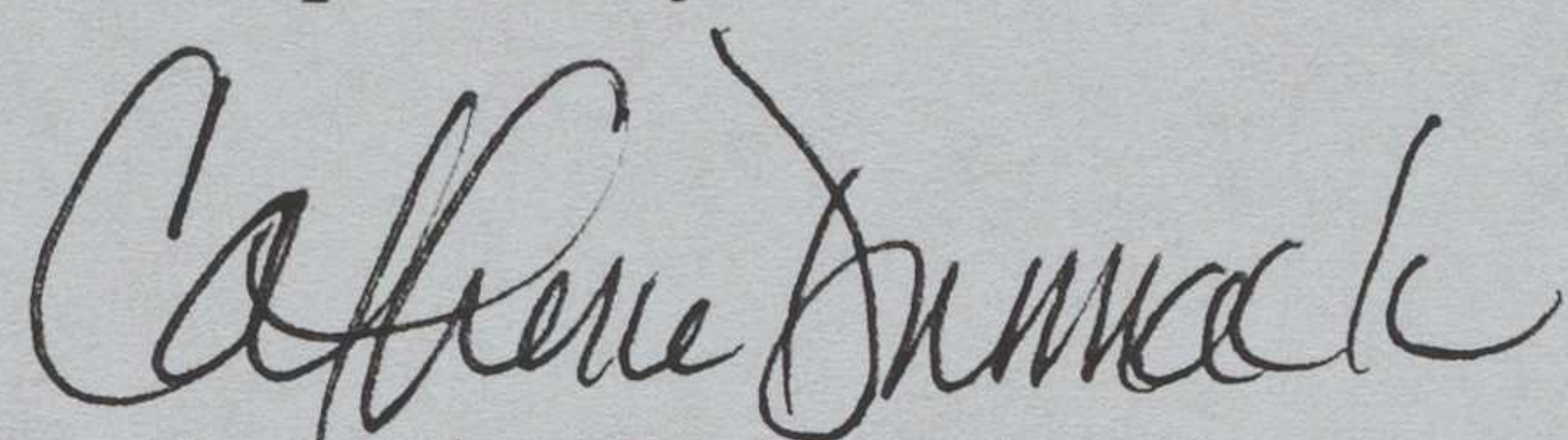


about language requirements, given that there appears to be a trend regarding requirements that seem to come and go at different universities. Dr. Freake stated that this was a subject of much debate and that there is a system in place for high school students. Chairman Jacobs asked if the finish in 4 years will add a level of complexity to the new requirements; Dr. Freake replied that in the long term the new guidelines will be helpful. Trustee Gatling asked how the number of sections per course were determined; parents have expressed concern about their children not getting the right courses and having to wait an entire semester. Will students be offered the same courses each semester? Dr. Freake replied that not every course will be offered each semester, but expects that enough courses will be offered for students. Trustee Nichols asked how course renumbering will be affected by the new general education requirements. Dr. Freake replied that the new numbering system is straightforward and will assist students.

Chairman Jacobs thanked the Committee and Dr. Freake for his informative presentation. He announced that the Trustee Administration Faculty and Students (TAFS) meeting conducted on April 5, 2005 was well attended and commented that Dr. Nicholls gave a good insight on where he is going with the Academic Plan. Chairman Jacobs stated that the veterinary medicine school report has been sent to Board members, and asked the Board to inform the administration if additional copies are needed. This subject will be addressed at the next Academic Affairs Committee meeting.

Chairman Jacobs thanked Dr. Nicholls for a successful Academic Affairs Committee meeting. He stated that this is exactly what an Academic Affairs meeting should be like. There being no other items on the agenda the meeting was adjourned at 10:20 a.m.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Catherine Dunnack". The signature is fluid and cursive, with a large initial "C" and a long, sweeping underline.

Catherine Dunnack  
Secretary to the Committee















## **Executive Summary: Report on the Feasibility of Establishing a College of Veterinary Medicine at the University of Connecticut**

Oscar J. Fletcher  
12/11/2004

Veterinary medicine is based on a foundation of comparative medicine and dedicated to serving society by improving the health of animals, including humans. Veterinarians have available to them a variety of career pathways that include public health, food safety, laboratory animal medicine, pathology, biomedical research, teaching, and ecosystem health in addition to private practice serving companion animals and horses.

Veterinarians provide through expertise in food safety, food security, zoonotic diseases, and public health a critically important link between agriculture and human medicine.

There is a documented demand for veterinarians at the national level, especially in public practice careers. Retirements in the US Department of Agriculture (USDA) create a need for 500 veterinarians. A USDA skills gap analysis projected a shortage of 584 Veterinary Medical Officers by 2007. The US Army Veterinary Corps needs 45 new veterinarians each year. About half (~50 veterinarians) are eligible for retirement from the Commissioned Corps of the US Public Health Service. The US Bureau of Labor Statistics estimates the national demand at 29,000 by 2010 and current graduate levels will generate no more than 15,000. The unmet demand for laboratory animal veterinarians is 104 and for veterinary pathologists 150 immediately with 65 additional positions needed in the next five years.

Demands at regional and state levels are more difficult to establish but there are indicators of demand for veterinarians in Connecticut. At least 22 veterinarians are needed in clinical practices in Connecticut based on the average number of positions advertised in the fall 2004 issues of the Journal of the American Veterinary Medical Association. The New England region, including Connecticut, needs at least 58 veterinarians to fill positions in private practices based on this survey of advertisements. Connecticut has more veterinarians per million human population based on membership records of the American Veterinary Medical Association (239/M) than the national average (217/M). California, a state in which multiple initiatives to increase the number of veterinarians including legislative action and the establishment of a second school of veterinary medicine, has 155 veterinarians per million human population.

Another indicator of demand in Connecticut is the number of applicants for admission. Relatively few (average 5 admitted of 30 applicants over past six years) Connecticut residents are accepted at Tufts school of veterinary medicine. At least 19 Connecticut residents are currently enrolled as first year students in accredited colleges of veterinary medicine. There are 8.8 first year veterinary students per million population in the US. Connecticut has 5.7 first year veterinary students per million population. Students in states without veterinary colleges are at a significant disadvantage in the admissions process as 68% of first year seats are reserved for residents, an additional 6% of seats are under contract, leaving 27% for national at-large competition.







The national demand for laboratory animal veterinarians and pathologists can be used as indicators of demand for veterinarians to serve in careers that support the pharmaceutical industry.

The value of animal agriculture to the economy of Connecticut is significant at \$163.3M per year, but less than that of most major agricultural states that have veterinary colleges. Three of the top five agricultural commodities in Connecticut are animal based; dairy products, chicken eggs, and aquaculture. There are no indicators that there is specific demand in Connecticut for additional veterinarians to serve its animal agriculture industry.

Three models for veterinary medical education in Connecticut are proposed. The traditional model includes a clinical hospital facility. Estimated costs of this traditional model are \$25.7M per year after a startup period that is spread over six years with the first class admitted in year 3. The \$25.7M continuing costs would be off set in part by tuition revenue and the model proposed results in a need of at least \$14M in continuing support from the university. Class size for this model is forty Connecticut residents, thirty New England contract students and thirty at-large students for a total class size of one hundred.

The second model – a nontraditional model - proposes a partnership with an existing veterinary college, Cornell is interested, to provide the clinical education. In this model continuing costs are estimated at about \$14.1M by year six. Tuition revenue as projected brings the ongoing annual continuing support to approximately \$7.8M. Class size is projected at thirty Connecticut residents, twenty New England contract students, and ten at-large for a total class size of sixty.

Estimates of facilities costs are projected for two new facilities at \$35M in year 1 and \$60M in year 2 in the traditional model. Estimated cost of facilities to support a nontraditional model is \$35M in year 1.

The needs of Connecticut residents to obtain veterinary medical education could be met by a contract arrangement, perhaps managed through the New England Board of Higher Education. All three veterinary colleges in the region, Cornell, University of Pennsylvania, and Tufts, are interested. Estimated continuing costs of \$3.2M would support contracts for thirty Connecticut residents enrolled for each professional year (total of 120 at steady-state) in accredited colleges.

A college of veterinary medicine has the potential of bringing increased national recognition to the university. It has the potential of providing a platform to increase minorities in a health profession. It has also the potential of increasing the private donor base for the university because of donor's interests in their animals and not because they are alumni. A college of veterinary medicine has the potential for serving as a university-based partner to stimulate economic development with the private sector.







## **Feasibility for A College of Veterinary Medicine at the University of Connecticut**

Oscar J. Fletcher

December 11, 2004

This study is commissioned by the University of Connecticut to provide information on demand, costs, and other aspects of establishing and operating a College of Veterinary Medicine in Connecticut.

Veterinary medicine is the health profession based on a foundation of comparative medicine and dedicated to the health of animals, including humans. The profession developed in the US along with the land-grant movement. Its roots in agriculture provide an excellent bridge connecting animal and human health with food production and security, public health, and biomedical research. Veterinarians can use their broad-based comparative medical education serving as members of teams working to maintain and improve ecosystem health, a relatively new career path.

There are about 80,000 veterinarians in the US. The majority, about 74%, are private practitioners caring for companion animals and horses (Wise and Shepherd 2004). About 15% are engaged in food animal practice and public practice activities including public health, food safety, government service, biomedical research and teaching (Hoblet, Maccabe et al. 2003). The American Pet Products Manufacturers Association (2004) (<http://www.appma.org>) reports 377.8M pets for the 290M people in the US with at least one pet in 62% of US households. Estimates are that there are 77.7M cats, 65M dogs, 17.3M birds, and 9M reptiles providing the base for pet products and companion animal health care in the US. The American Pet Products Manufacturers Association estimates that \$34.3B will be spent on these animals in 2004 compared to \$32.4B spent in 2003. The amount spent on veterinary care for companion animals in 2003 was \$7.9B and it is estimated that \$8.3B will be spent in 2004.

Most people think of veterinarians as providers of health care for their pets. Animal agriculture is a major economic engine for the country and provides an abundance of safe and relatively low cost food. Veterinarians are essential contributors to the health of our agricultural animals and to the safety of our nation's food supply. These activities of veterinarians are critical to the success of our nation's food export markets. Total cash receipts for US agricultural commodities in 2003 were \$211.6B. Livestock and products accounted for \$105.6B of this total. Three of the top five agricultural commodities based on cash receipts in the US are animal based. Cattle and calves are #1 (\$45B) followed at #2 by dairy products (\$21B) and broilers at #5 (\$15.2B). Live animals and meat generated \$6.5B for the US export market in 2003 (Economic Research Service, USDA – <http://www.ers.usda.gov>) (2004) .

The value of livestock production in Connecticut was \$163.3M in 2003 (2004). Three of the top five agricultural commodities in Connecticut in 2003 were animal based – dairy







products at #2 (\$55,760,000), chicken eggs at #3 (\$44,123,000) and aquaculture at #4 (\$15,200,000) (2004). Farm and farm-related jobs accounted for 10.6% of Connecticut employment in 2003.

### **I. Demand:**

There is a documented demand for more veterinarians in the United States especially for veterinarians working in the public practice areas that include public health and epidemiology, laboratory animal medicine, pathology/clinical pathology, biomedical research, and teaching. Veterinarians are needed also to serve the global food animal food production systems. The increased incidence (Daszak, Cunningham et al. 2000; 2003; 2004) of new or reemerging infectious diseases that include Severe Acute Respiratory Syndrome (SARS), the transmissible spongiform encephalopathies (TSE's) including bovine spongiform encephalopathy (BSE or Mad Cow disease), West Nile, Monkey Pox, and Avian Influenza (AI) creates opportunities as well as societal need for the broad biomedical expertise of veterinarians. Threats of bioterrorism in our post September 11, 2001 world provide increased demand for veterinary expertise (Thurmond and Brown 2002; Walsh, Murphy et al. 2003). A Congressional Research Service report (Monke 2004) to Congress in August, 2004 confirms these threats. See the Reports of the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction (<http://www.rand.org/nsrd/>) for comprehensive overviews of the threats and recommendations to the President and Congress (Gilmore 2001). Further documentation of the issues concerning emerging infectious diseases and the importance of multidisciplinary capacity is found in the Institute of Medicine report (Smolinski, Hamburg et al. 2003) "Microbial Threats to Health: Emergence, Detection, and Response" at <http://www.nap.edu/books/030908864X/html>.

Studies by the Association of American Veterinary Medical Colleges (AAVMC) (<http://www.aavmc.org>) provide evidence of the need for additional veterinarians. Hoblet, Maccabe, and Heider (Hoblet, Maccabe et al. 2003) provide data showing that current demands for veterinarians in population health and public practice are >500 of the current 2,500 US veterinary medical graduates. Far less numbers of veterinarians are entering these fields. This report promotes the veterinary medical profession as being a critical link between agriculture and human medicine through expertise in food safety, food security, zoonotic diseases, and public health.

The AAVMC website(<http://www.aavmc.org>) is a source of additional information (*Emergency Needs in Veterinary Human Resources – Final Report of AAVMC Task Force, April, 15, 2003*) on national needs for veterinarians (2003). These include projections for 500 veterinarians to replace those lost to retirement in the US Department of Agriculture. A USDA skills gap analysis projected a shortage of 584 Veterinary Medical Officers by 2007. The US Army Veterinary Corps needs to add 45 new veterinarians each year. About 50% (approximately 50 of 99 current veterinary officers) of the veterinarians in the Commissioned Corps of the US Public Health Service are eligible for retirement now and replacements are not in the pipeline.







The US Bureau of Labor Statistics (<http://www.bls.gov>) estimates 29,000 job openings for veterinarians by 2010 (Hecker 2001). Current production of about 2500 per year will not meet this demand.

Demand for veterinarians in laboratory animal medicine is estimated at 104 (see report of the NAS panel chaired by Dr. Jim Fox - National Need and Priorities for Veterinarians in Biomedical Research (Fox 2004) at <http://books.nap.edu/books/0309090830/html/27.html#pagetop>). An additional 942 laboratory animal veterinarians are needed if all USDA licensed facilities using animals in research were staffed with board certified laboratory animal veterinarians.

The American College of Veterinary Pathologists reports (Kelly-Wilson 2002) 150 vacant positions across the country for pathologists/clinical pathologists and estimates an additional 65 positions will be needed in the next five years (<http://www.acvp.org/career/employsurv.pdf>).

There is no “gold standard” against which one can measure demand and thus establish both need and feasibility. Veterinary workforce studies done in the 1980’s predicted a surplus of veterinarians by 2000 (1982) or a “modest surplus” by 1990 (1983). A series of letters to the editor of JAVMA illustrates the workforce debate (1986) (1988). The most recent detailed workforce study (Brown and Silverman 1999) concluded that there was no consensus on too few or too many veterinarians. New demands in public health, global food system, and biomedical research were recognized.

Currently underway is the study by the Board on Agriculture and Natural Resources in the National Academy of Sciences entitled National Needs for Research in Veterinary Science. The study committee will summarize current and past research activities and project future needs in public health, food safety, and comparative medicine. Recommendations to meet the national capacity needed are expected in Spring 2005 (2004; O'Rourke 2004).

Demand can be examined by comparing the number of seats available to students entering the first year of veterinary medical programs to population of the state and region in which the veterinary college is located. Number of veterinarians per million population in various regions of the country and in specific states can be used although, as stated above there are no standards against which to evaluate this data. Seats available to applicants, veterinarians relative to population, and locations of the US veterinary colleges are used in the illustrations that follow.

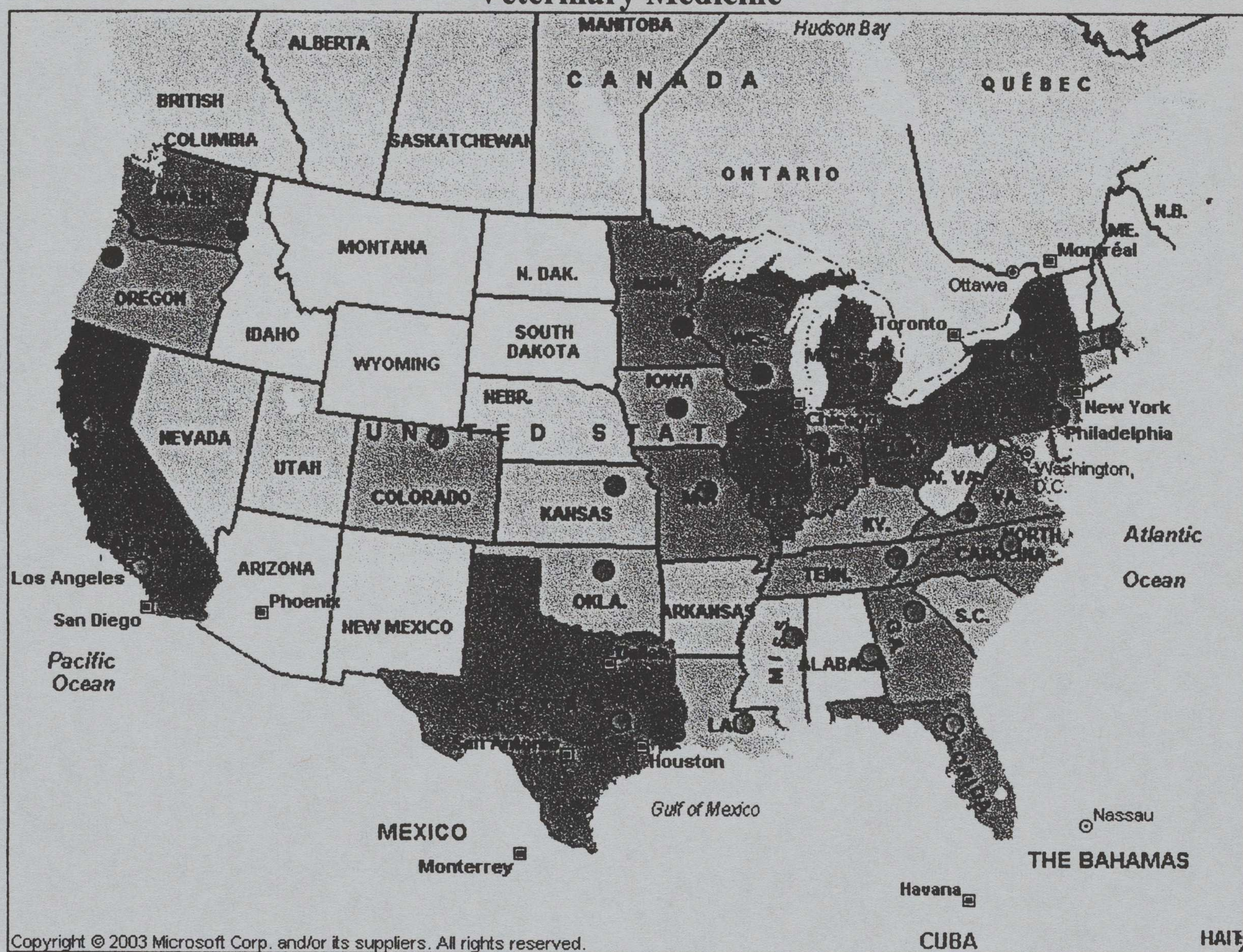
The map below shows the 2003 estimated US census population by state (2004) and the locations of the US colleges of veterinary medicine. This map illustrates the fact that the veterinary colleges are not located based on the US population distribution.







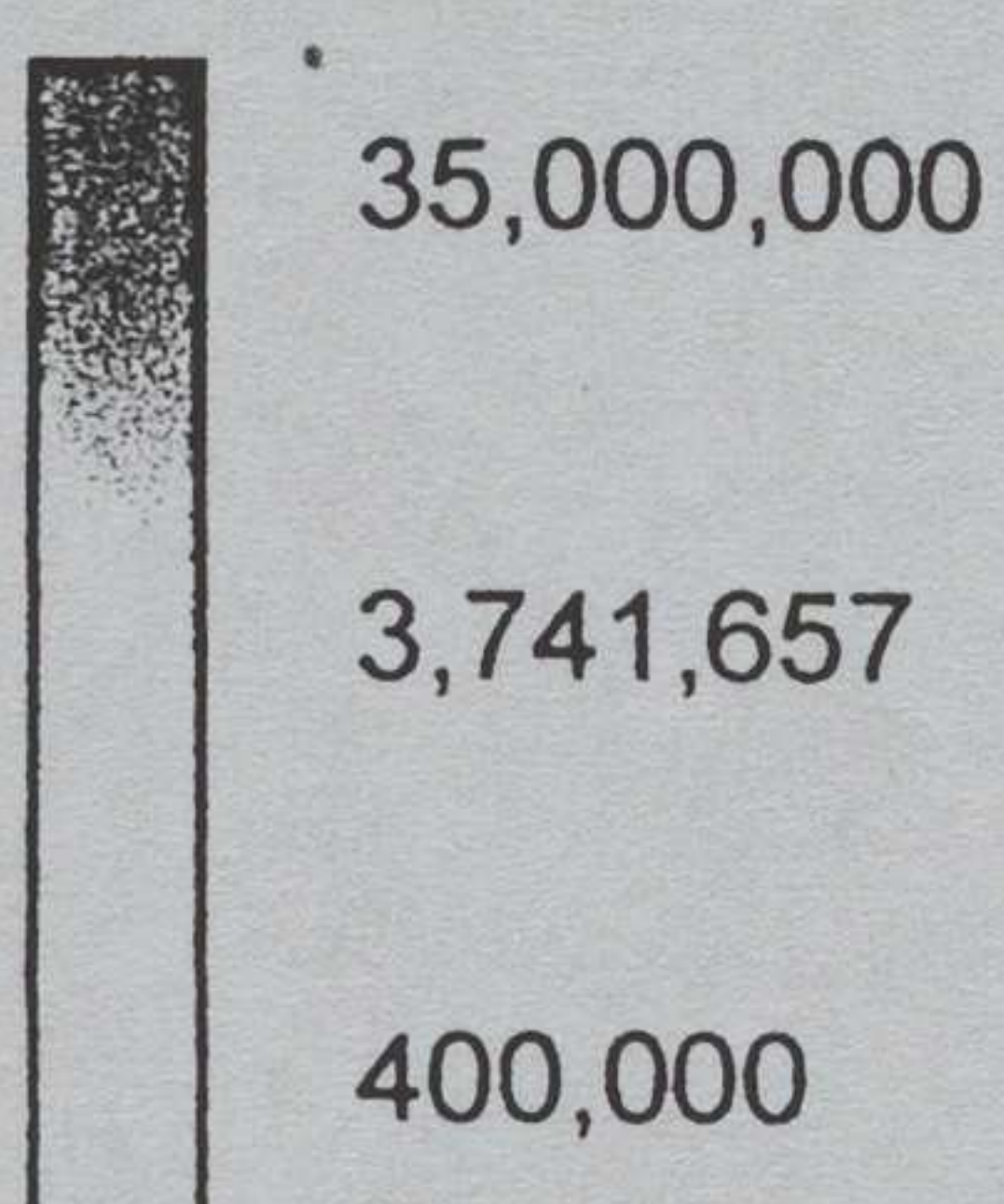
## 2003 US Census Estimates of US Population by State and Location of US Colleges of Veterinary Medicine



### Veterinary Colleges

- US Colleges of Veterinary Medicine

### US Census 2003 Estimates



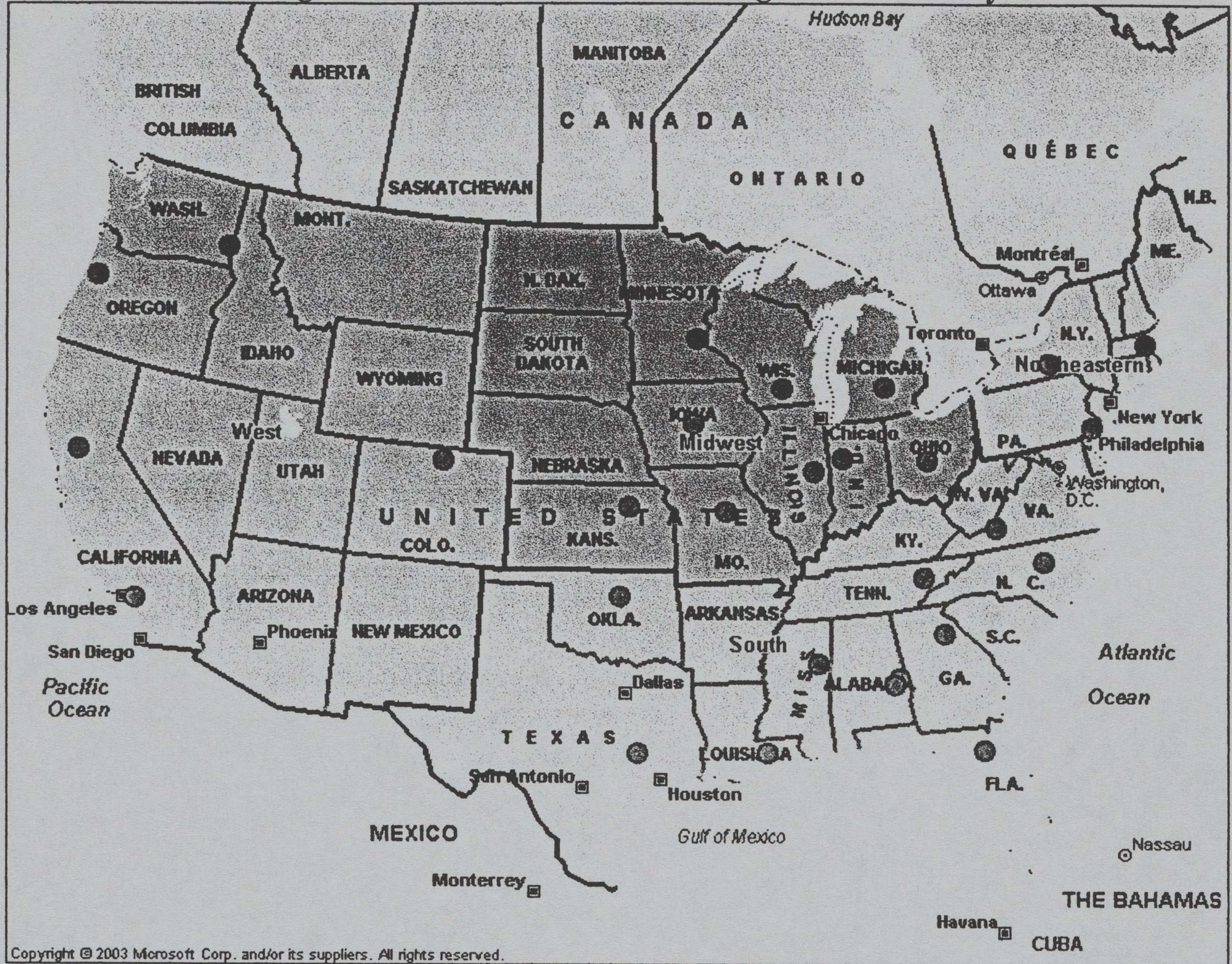
It is clear that residents of the Northeastern region have less access for admission and to the other services provided by veterinary colleges just based on relatively few (3) veterinary colleges serving the citizens of the region.








## US Census Regions with Location of US Colleges of Veterinary Medicine



### US Census Regions

- ☐ Midwest
- ☐ Northeastern
- ☐ South
- ☐ West

 US Veterinary Colleges

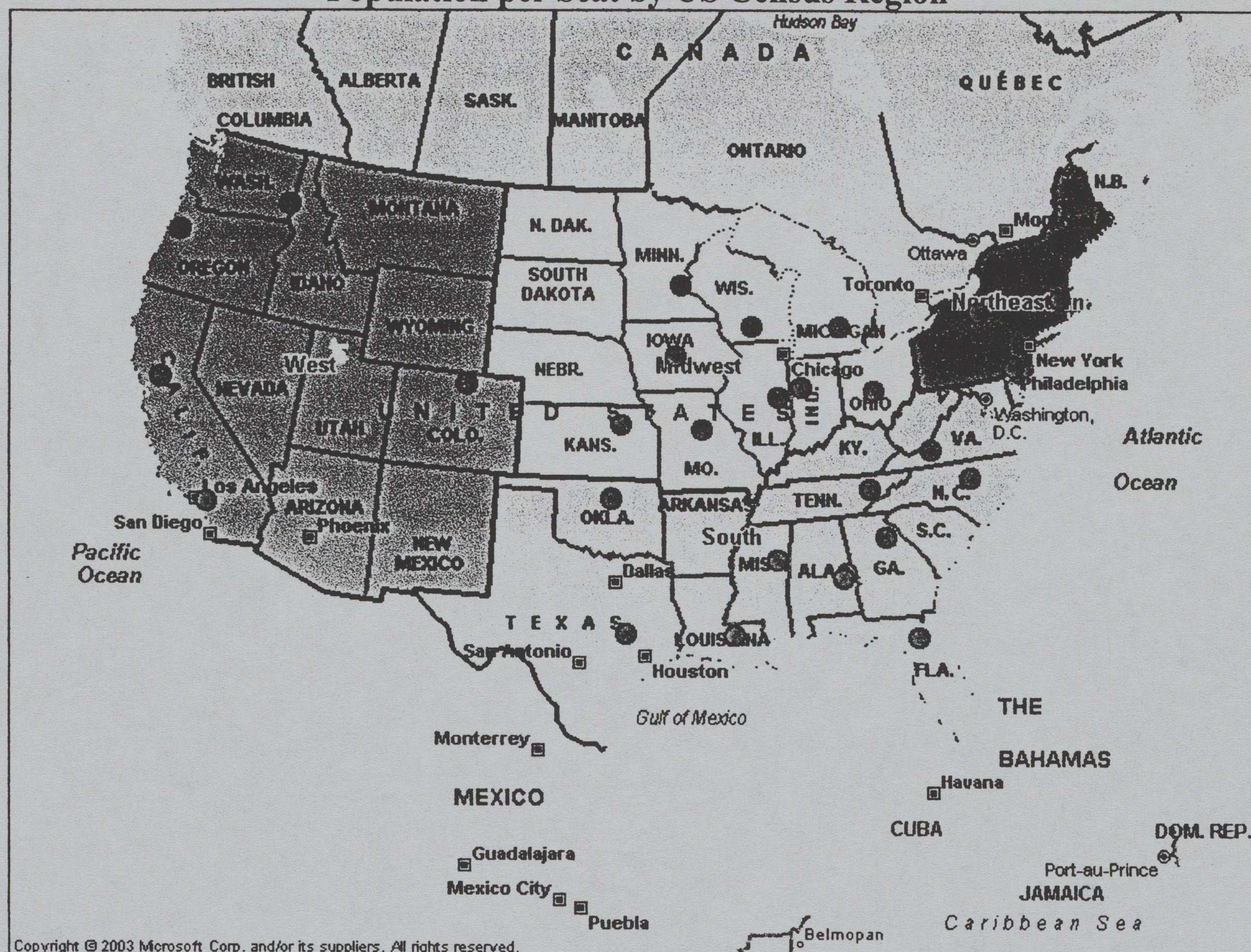
Population per first year seat is another way of examining demand. The following map shows population per seat by US Census region. Residents in the Midwest and South have greater opportunities to gain entry into the veterinary profession than those in the West and Northeast.





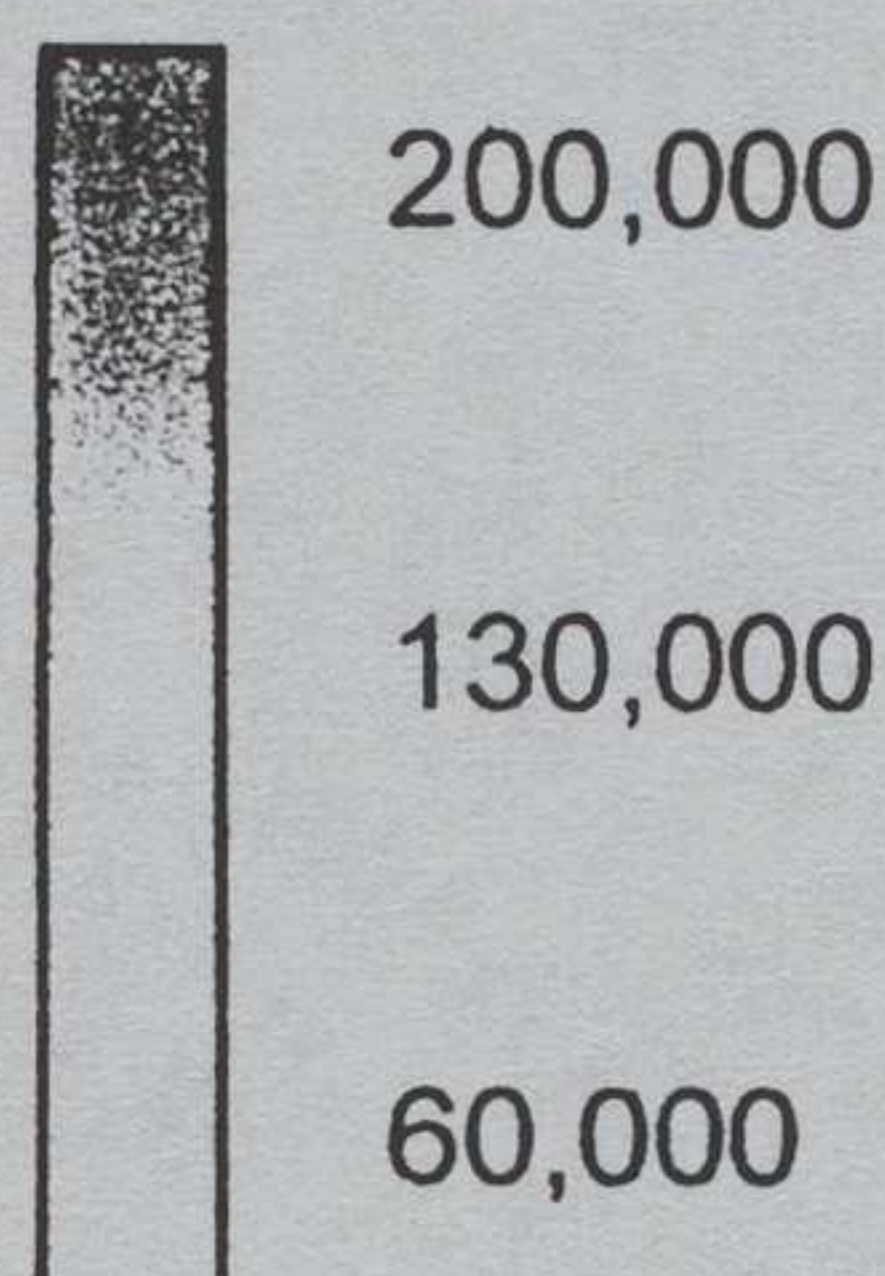


### Population per Seat by US Census Region



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### Pop per Seat by Region



● US Veterinary Colleges

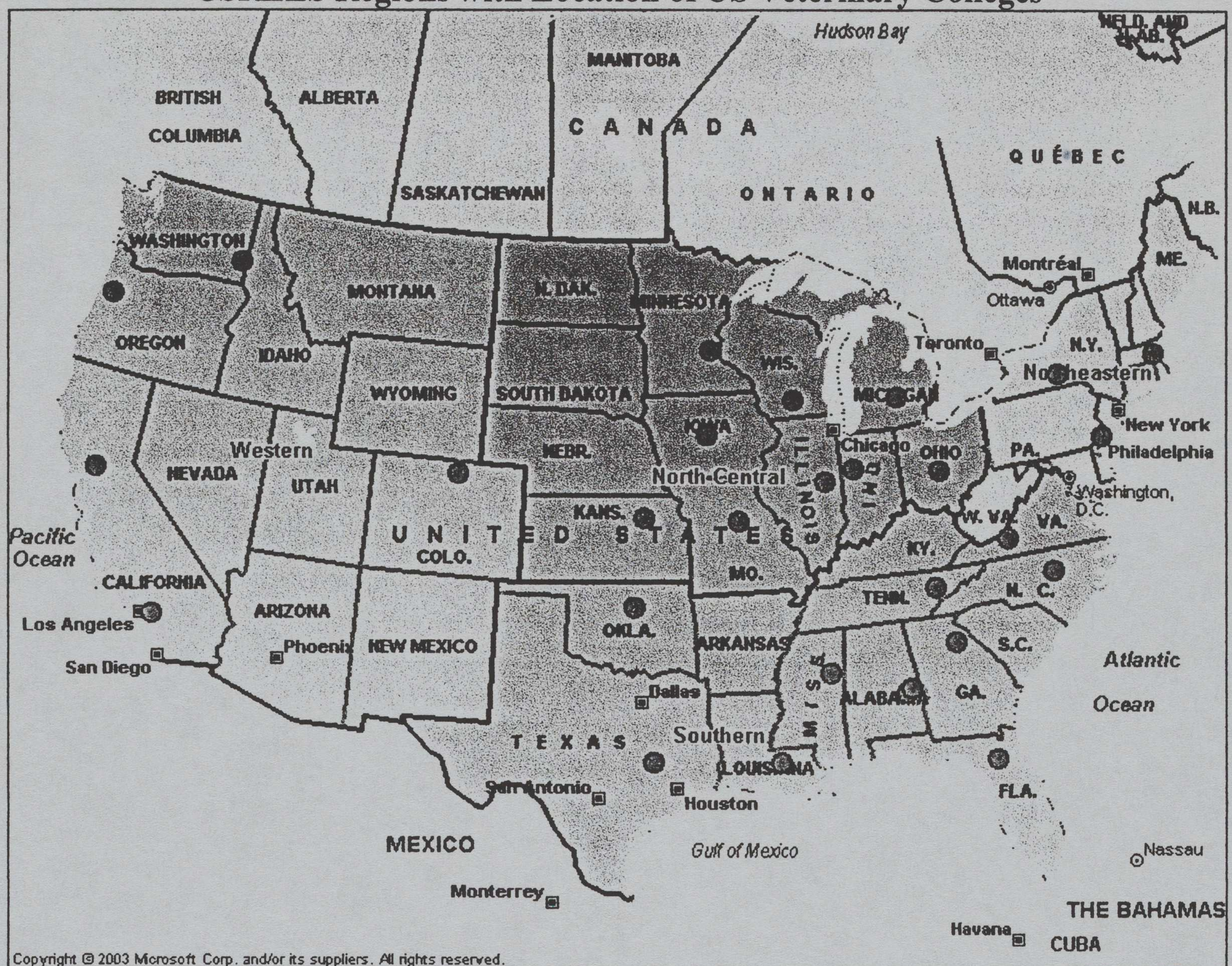
The Cooperative States Research Extension and Education Service (CSREES) of the USDA organizes the US into regions for planning and operations. Those regions differ from the US Census regions. The CSREES regions are important for implementing land grant university extension and research activities. The following map shows the CSREES regions and the locations of the US veterinary colleges.







### CSREES Regions with Location of US Veterinary Colleges



● US Veterinary Colleges

#### CSREES Regions

- ☐ North Central
- ☐ Northeastern
- ☐ Southern
- ☐ Western

First year seats per million people in the CSREES regions are shown on the following map. Note the disadvantage to residents of the Northeastern region with only 4.9 seats per million compared to the three other regions. The North Central region at 13.5 seats per million has nearly three times more seats for first year students.





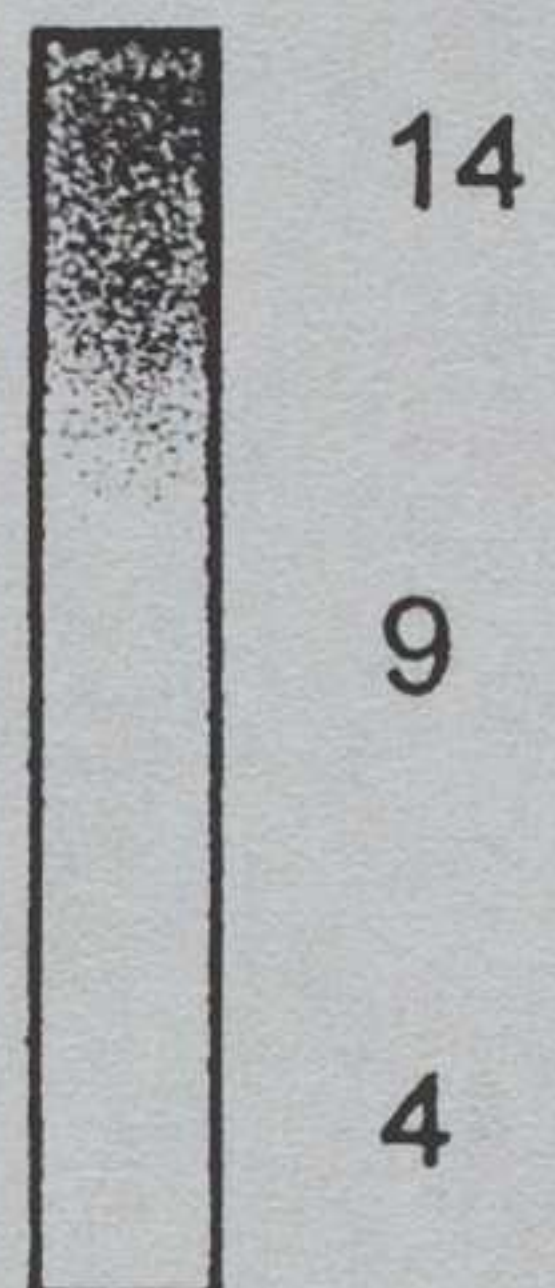


# CSREES Regions: First Year Seats per Million Population



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## Seats per Million



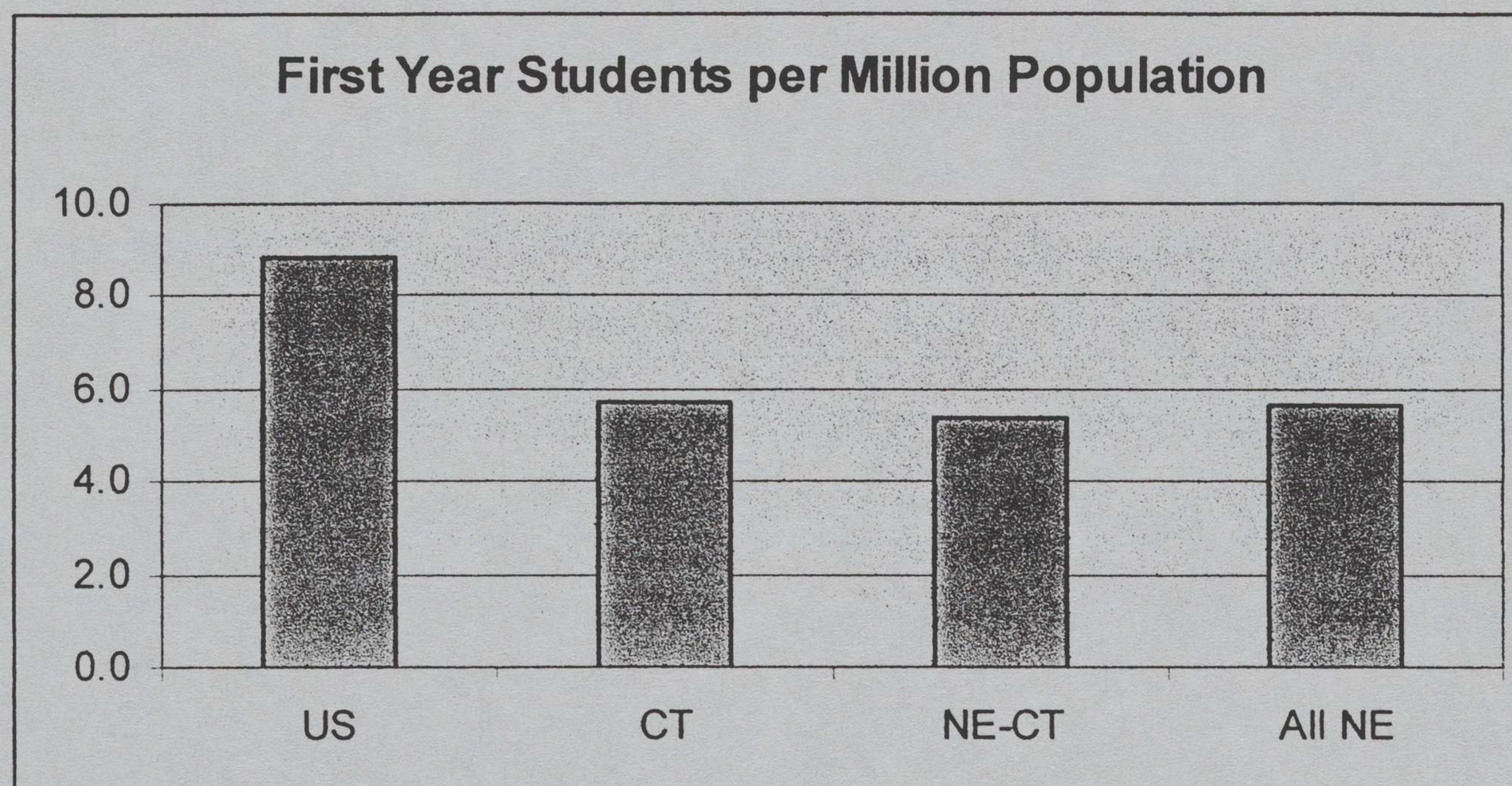
● US Veterinary Colleges







The number of first year veterinary students per million US population further illustrates the disadvantage of being a resident of CT or the NE as shown in the graph below.



In 2003 8.8 first year veterinary college students were admitted for each one million US people. AAVMC projections are that US veterinary colleges will provide by 2010 first year seats for nine students per million people. AAVMC estimates that 900 new students will need to be added by 2050 to maintain this ratio of nine per million people ([http://www.aavmc.org/headlines/aavmc\\_augustnewsletter.htm](http://www.aavmc.org/headlines/aavmc_augustnewsletter.htm)).

Data from the Veterinary Medical College Application Service (VMCAS) operated by the AAMC indicates an applicant pool of 4,337 (79% female) for fall 2004 admission. A total of 2,573 students are enrolled in the first year in the 28 US colleges of veterinary medicine. Several veterinary colleges (Texas A&M, Tufts, Tuskegee) do not participate in VMCAS and a few do not use VMCAS for in-state applications thus the 1.7 ratio of applicants to number accepted is an estimate. VMCAS data shows 89 New England residents applied for fall 2004 admission with 44 accepted – a 2:1 ratio and similar to the 1.7:1 national ratio. The applicant pool for the US colleges of veterinary medicine has been flat for the past several years.

Tufts College of Veterinary Medicine provided (Dean Philip Kosch, personal communication) information on the number of Connecticut residents that applied and their success rate at Tufts. This data is provided in the table on page 10. The 6:1 ratio is far above the 1.7:1 national average.



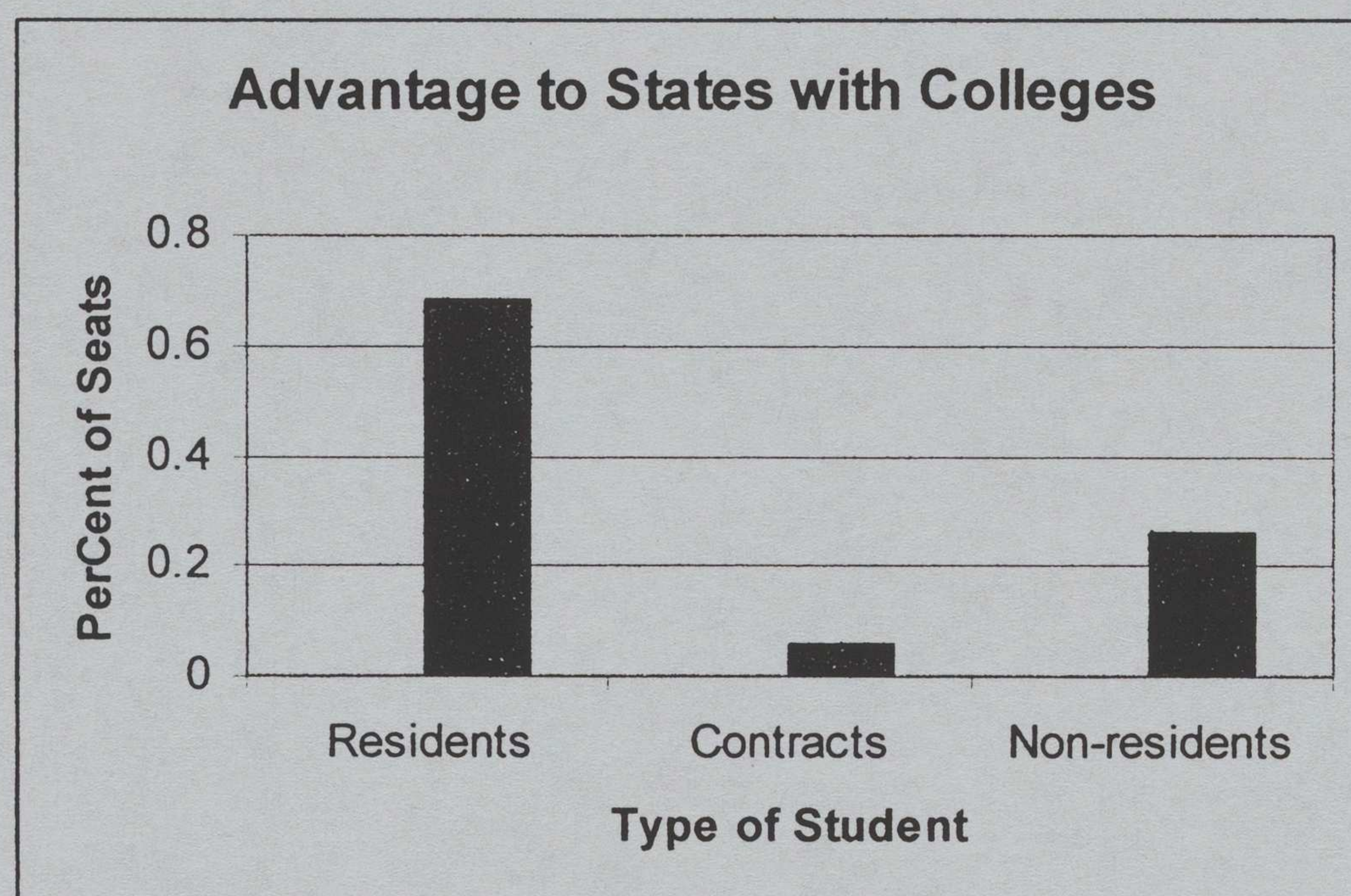




### Connecticut Resident Applications and Success at Tufts School of Veterinary Medicine

Year	CT Applicants to Tufts	Number Admitted	Number Enrolled
1999	30	3	2
2000	31	3	1
2001	29	3	2
2002	34	8	2
2003	26	5	2
2004	28	7	5
<b>AVG</b>	<b>30</b>	<b>5</b>	<b>2</b>

Residents of states without veterinary colleges are at a significant disadvantage in seeking admission to veterinary medicine as a career. The chart below illustrates that nearly 70% (68%) of available first year seats in US veterinary colleges go to residents of those states. An additional 6% of the seats are allocated by contracts leaving 26% available to non-residents. AAVMC Comparative Data is the source of this information.



There are relatively few contracts for residents of the Northeastern states that do not have veterinary colleges. This is in contrast to New Jersey with seventy-two students attending US colleges under contract or about 18 in each of the four years of professional programs. South Carolina, another example of an active state contract program, has agreements for 17 students at the University of Georgia, 4 at Tuskegee University, and 5 at Mississippi State University for a total of 26 students per year (Dr. Jones Bryan, Clemson University, personal communication). New Hampshire was the only state in the Northeastern region with any contracts reported in the AAVMC comparative data in 2003 with a total of 12 residents enrolled or an average of three per year.







AAVMC comparative data shows 18 CT residents were enrolled in US veterinary medical colleges in Fall 2003. One CT resident was enrolled in an accredited veterinary college in Canada giving a total of 19 CT residents in North American accredited programs. We do not know the total number of CT applicants nor is there available data on the number of CT residents now attending veterinary colleges at Ross or St. Georges.

The number of CT and NE Residents Admitted to Accredited North American Programs in the past four years (2000-2003) is shown in the table below (AAVMC Comparative Data Reports).

**Residents Admitted to Us Colleges of Veterinary Medicine: 2000 - 2003**

Class	CT	NE Region	All NE
2007	19	30	49
2006	26	20	46
2005	16	23	39
2004	20	20	40
AVG	20	23	44

Members of the CT Veterinary Medical Association (CVMA) Executive Board stated that they are not hearing a “hue and cry” from CT residents on the difficulties of getting admitted. These veterinary leaders were aware of the difficulties that practitioners in CT are having in finding associates for their practices. These veterinary practices are small businesses and contribute to the economy of the state. Economic studies on the impact of these practices on the economy of the state have not been done.

One measure of need in Connecticut and the region is the number of available positions in private practice advertised in the Journal of the American Veterinary Medical Association (JAVMA) – a bimonthly publication of the national professional organization. The table below gives the number of advertised positions in CT and the NE region in six consecutive fall issues of JAVMA. The leadership of the CVMA confirmed the difficulty that veterinarians are having in filling vacant positions.

**Classified Advertisements for Veterinarians**

JAVMA Issue	Date	CT	Other NE	Total
225(3)	August 1, 2004	27	37	64
225(4)	August 15, 2004	23	39	62
225(5)	September 1, 2004	21	41	62
225(6)	September 15, 2004	18	36	54
225(7)	October 1, 2004	22	32	54
225(8)	October 15, 2004	21	32	53
	<b>Average</b>	<b>22</b>	<b>36</b>	<b>58</b>







The pharmaceutical industry is an important component of the Connecticut state economy. National estimates for the needs in laboratory animal medicine (at least 104 laboratory animal veterinarians) give reason to assume that this business community would support the establishment of a veterinary college at UConn. Veterinary pathologists are important support professionals for this industry. The national needs estimates for veterinary pathologists and clinical pathologists are 150 now and 215 by 2008. These companies have national and international presence with multiple locations and opportunities for veterinarians so the graduates of a UConn based veterinary program would not have to reside in CT in order to meet these needs.

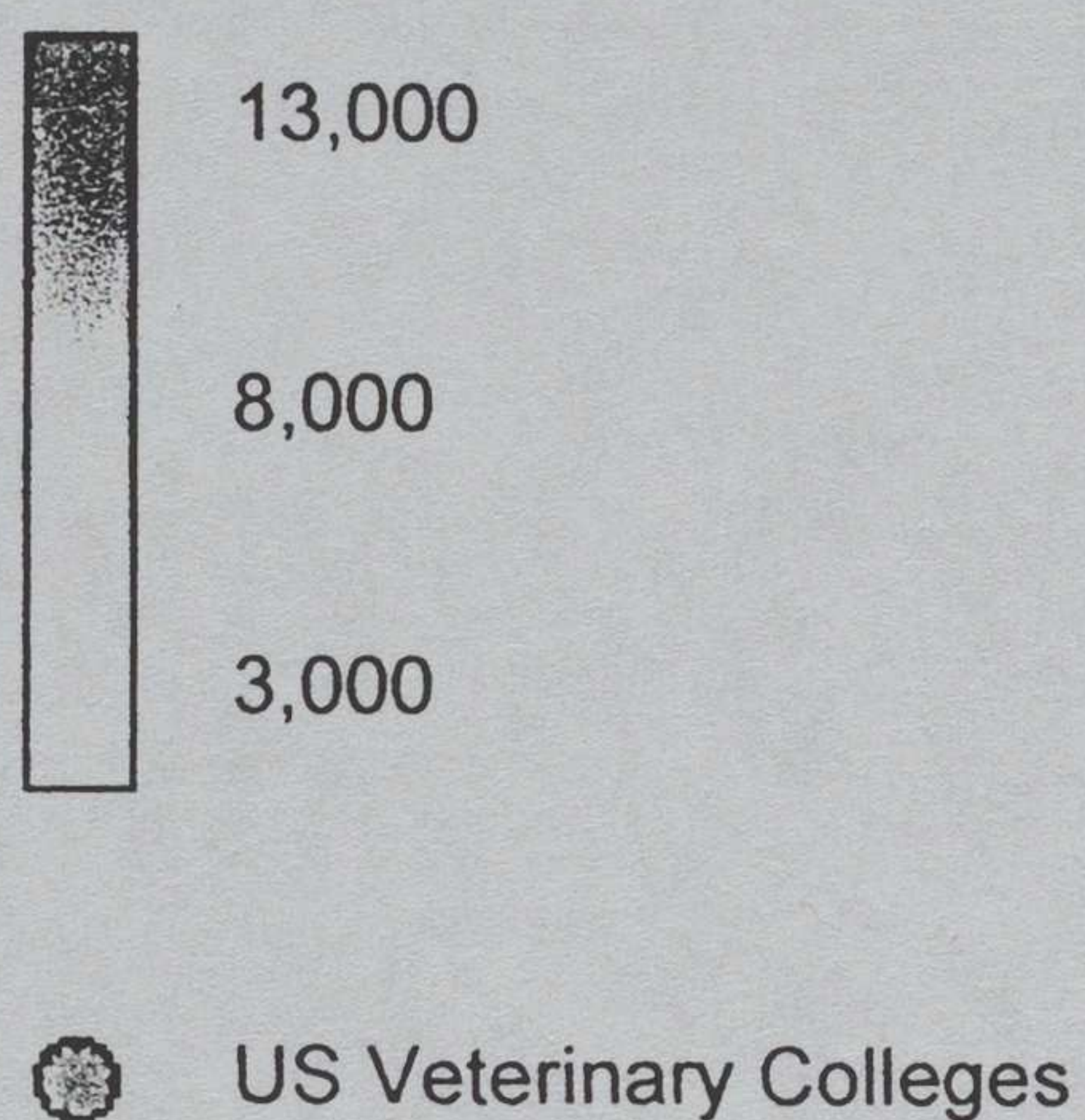
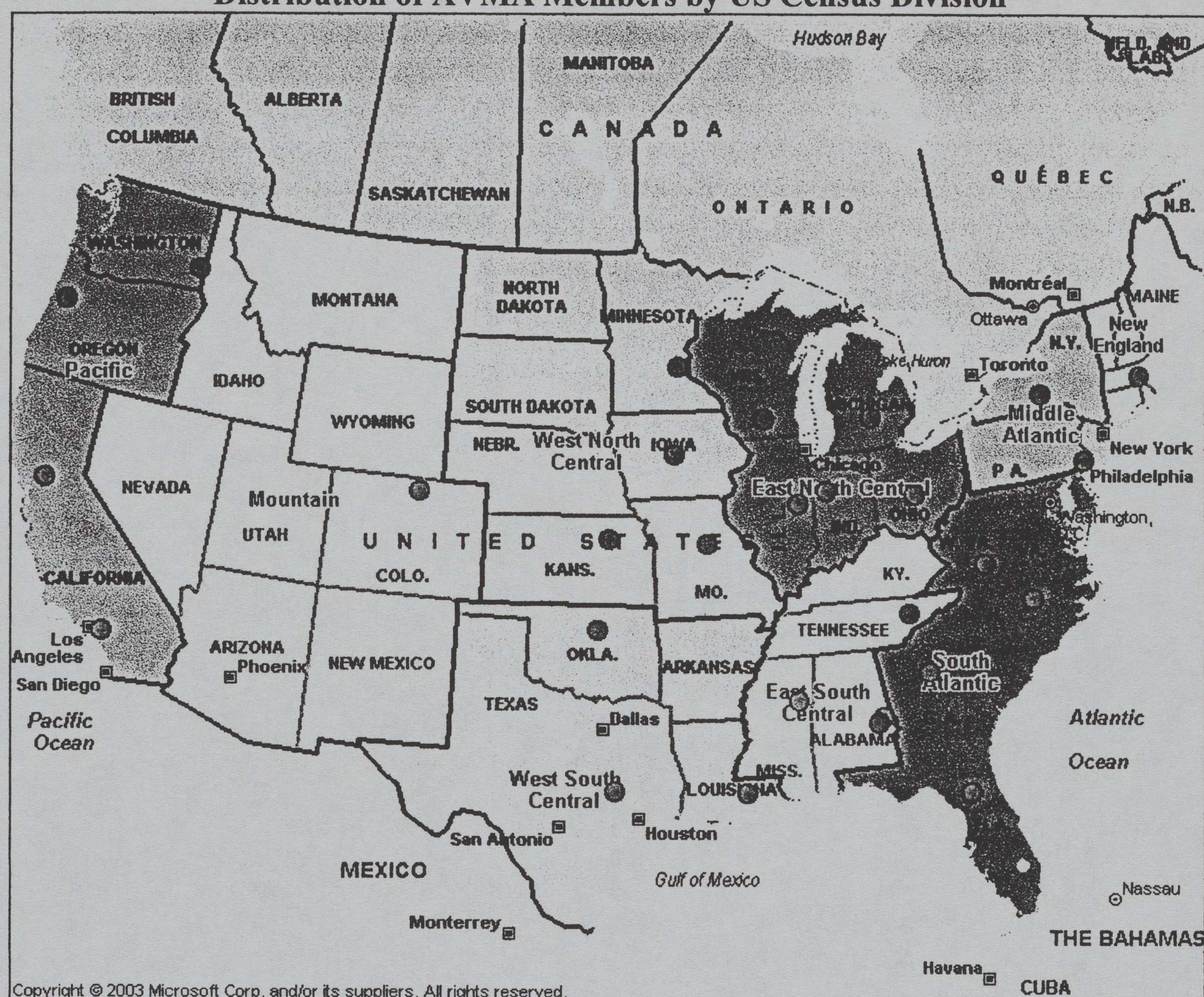
The AVMA recently published (Wise and Shepherd 2004) data on the number and distribution of AVMA members. There were 63,259 actively employed members of the AVMA in the US and its possessions on December 31, 2003. AVMA estimates that 80% of US veterinarians are members. This information does not address the question of demand for veterinarians directly. It is reasonable to assume that market forces are a major factor in the current distribution of veterinarians. The map on page 13 shows the distribution of AVMA members by US census division.







# Distribution of AVMA Members by US Census Division

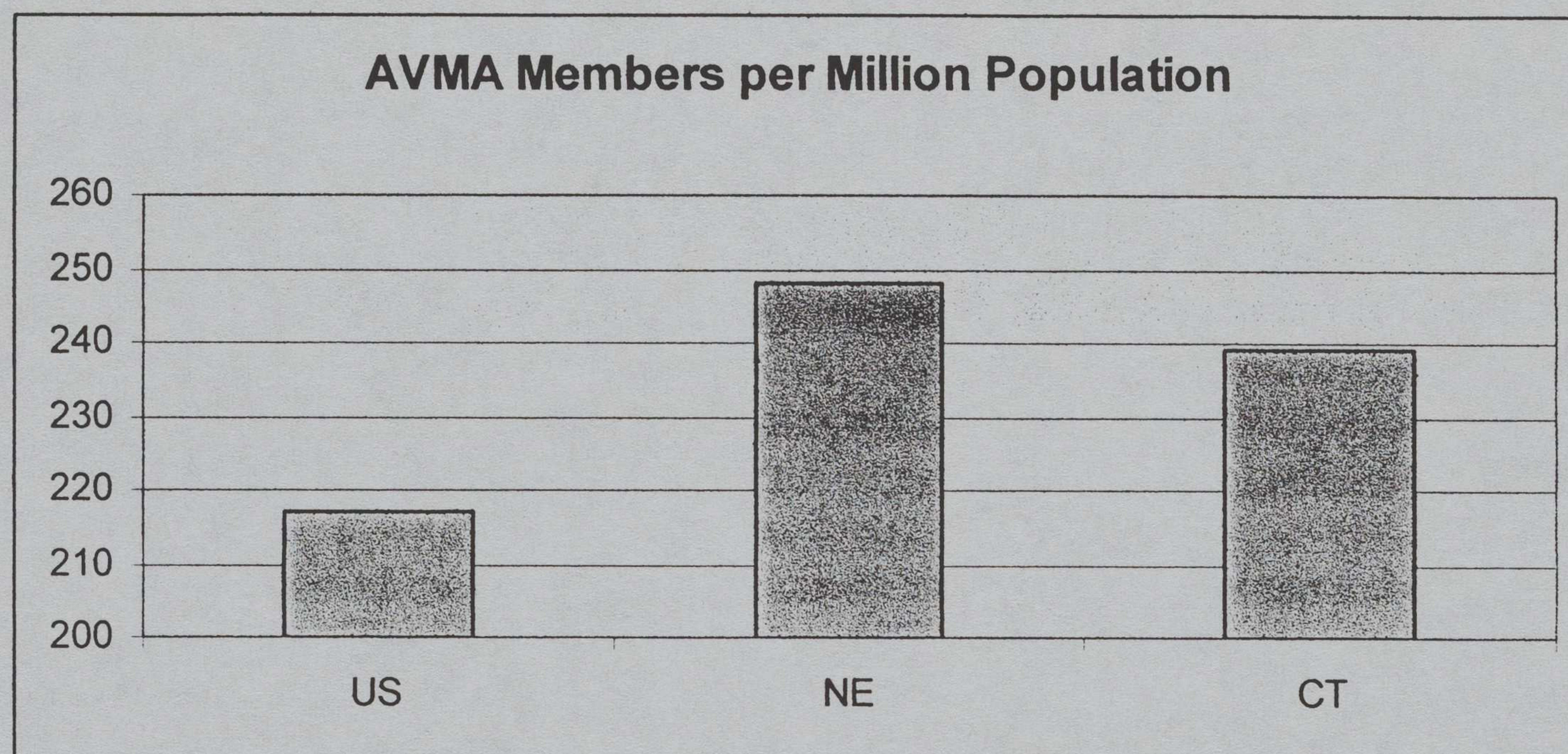








The chart below shows that the New England Census Division and CT have more AVMA members per million population than the nation as a whole. It is important to remember the caveat that there is no standard as to the number of veterinarians needed per unit of human (or animal) population. The 832 AVMA members reported for Connecticut (Wise and Shepherd 2004) compares to the 801 licensed veterinarians having in-state addresses (Dr. Herbert Van Kruiningen, personal communication).



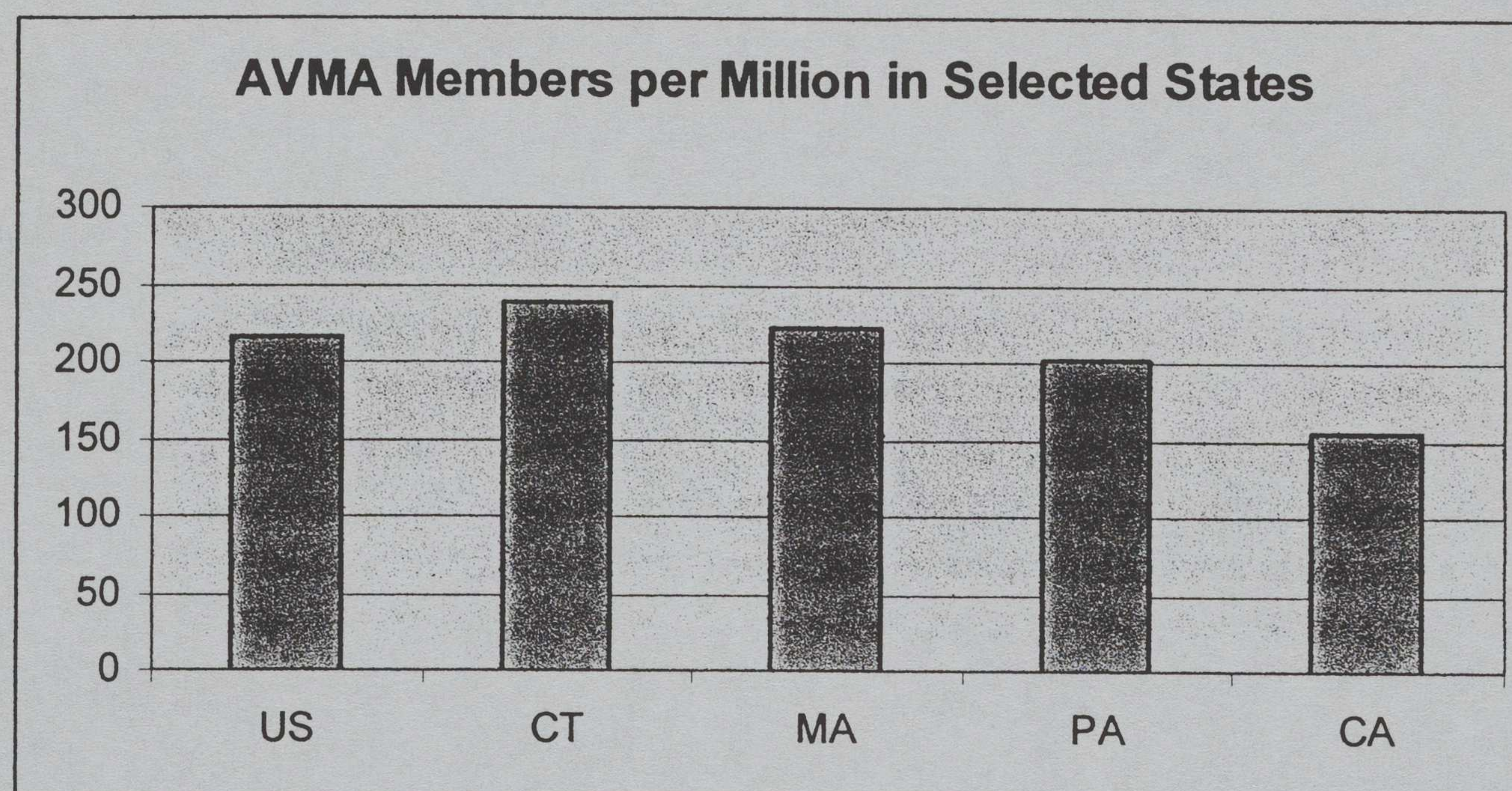
Pressures for more veterinarians in California led to the establishment of the 28<sup>th</sup> US college of veterinary medicine at the University of the Health Sciences in Pomona, CA with their first class being admitted in Fall 2003. The University of California – Davis is actively working to establish a satellite program with 100 additional students at the University of California – San Diego (Dean Bennie Osburn, UC-Davis, personal communication). The California State Legislature addressed veterinary workforce issues by passing Senate Bill 2003 in 1998. This legislation provided improved access to California licensure for veterinarians holding a license to practice in another state. The chart on page 15 compares the number of AVMA members per million population in CA with numbers in selected states.

The number of AVMA members per million population in Connecticut is slightly higher than the national average. These numbers may be indicators of less demand or less “hue and cry” in Connecticut than in other parts of the country, especially California with its larger human population and a much larger animal agriculture sector.









## II. Curriculum and Accreditation:

The Council on Education (the Council) of the AVMA is recognized by the US Department of Education and the Council for Higher Education Accreditation as the accrediting body in the US for veterinary medicine. The Council's policies and procedures are available on the AVMA website ([http://www.avma.org/education/coe\\_policies2k.pdf](http://www.avma.org/education/coe_policies2k.pdf)). Eleven standards are listed as the basis for veterinary college accreditation. Additional background on accreditation of veterinary colleges (Simmons 2004) and on the specifics of the Council process (Simmons 2004) were recently described. The models presented in this report were developed to ensure that the standards of the Council would be met.

The eleven standards are:

- Organization
- Finances
- Physical Facilities and Equipment
- Clinical Resources
- Library and Information Resources
- Students
- Admission
- Faculty
- Curriculum
- Research Programs
- Outcomes Assessment

The organization standard requires that a college of veterinary medicine be an integral part of an accredited higher education institution, have the same status in organizational structure as other professional programs in that institution, and that the dean be a veterinarian.







The faculty standard requires that numbers and qualifications be “sufficient to deliver the educational program and fulfill the mission of the college”. The mix of tenured/tenure-track and other faculty and staff are important elements of consideration in the accreditation process.

The curriculum standard, while not detail and method of delivery prescriptive, provides a framework. Requirements include education extending over a period “equivalent to a minimum of four academic years including a minimum of one academic year of hands-on clinical education”. This standard also requires that instruction be provided in “the principles of epidemiology, zoonoses, food safety, the interrelationships of animals and the environment, and the contributions of the veterinarian to the overall public and professional health care teams.”

The curriculum should emphasize comparative medicine as the foundation of the professional education. Flexibility should be provided so that students will be informed about the many career opportunities in the profession and be given opportunities to develop specific competencies required for their respective career choices. Faculty must develop the specific details of the curriculum. Recommendations for flexibility in the curriculum to meet needs of society came from a national initiative in veterinary education and leadership development completed in 1988 (Pritchard 1988). Current debates by veterinary educators include opinions and philosophies expressed by several respected educators (Nielsen 1997; Nielsen 1999; Blackwell 2001; Eyre 2001; Nielsen 2001; Coffman 2002; Eyre 2002; Nielsen 2003; Radostitis 2003; Eyre, Nielsen et al. 2004; Salman 2004; Smallwood 2004; Thomson 2004). The model proposed by Eyre, Nielsen and Bellamy (Eyre, Nielsen et al. 2004) provides for a 50% core comparative medical education and 50% focused on program areas. These educators advocate program quotas and early admission programs with the goal of providing education to produce graduates that meet society’s needs in public health, ecosystem health, biomedical science, and food animal practice. Debate about this approach can be appreciated by reading the letters to the editor of JAVMA (Eyre, Nielsen et al. 2004; Marshak 2004).

### **III. Estimates of Start Up and Continuing Costs:**

#### **A. Traditional Program:**

A traditional program assumes physical plant infrastructure including a veterinary teaching hospital, faculty in both basic biomedical sciences and clinical sciences, and four years of professional education leading to the DVM degree. Combinations of undergraduate education and DVM programs could be used in order to reduce the total years of education and to focus education on specific professional careers (examples include food animal production or laboratory animal medicine or research). Combinations of DVM and graduate degree programs could be created such as combined DVM/PhD and DVM/MPH.

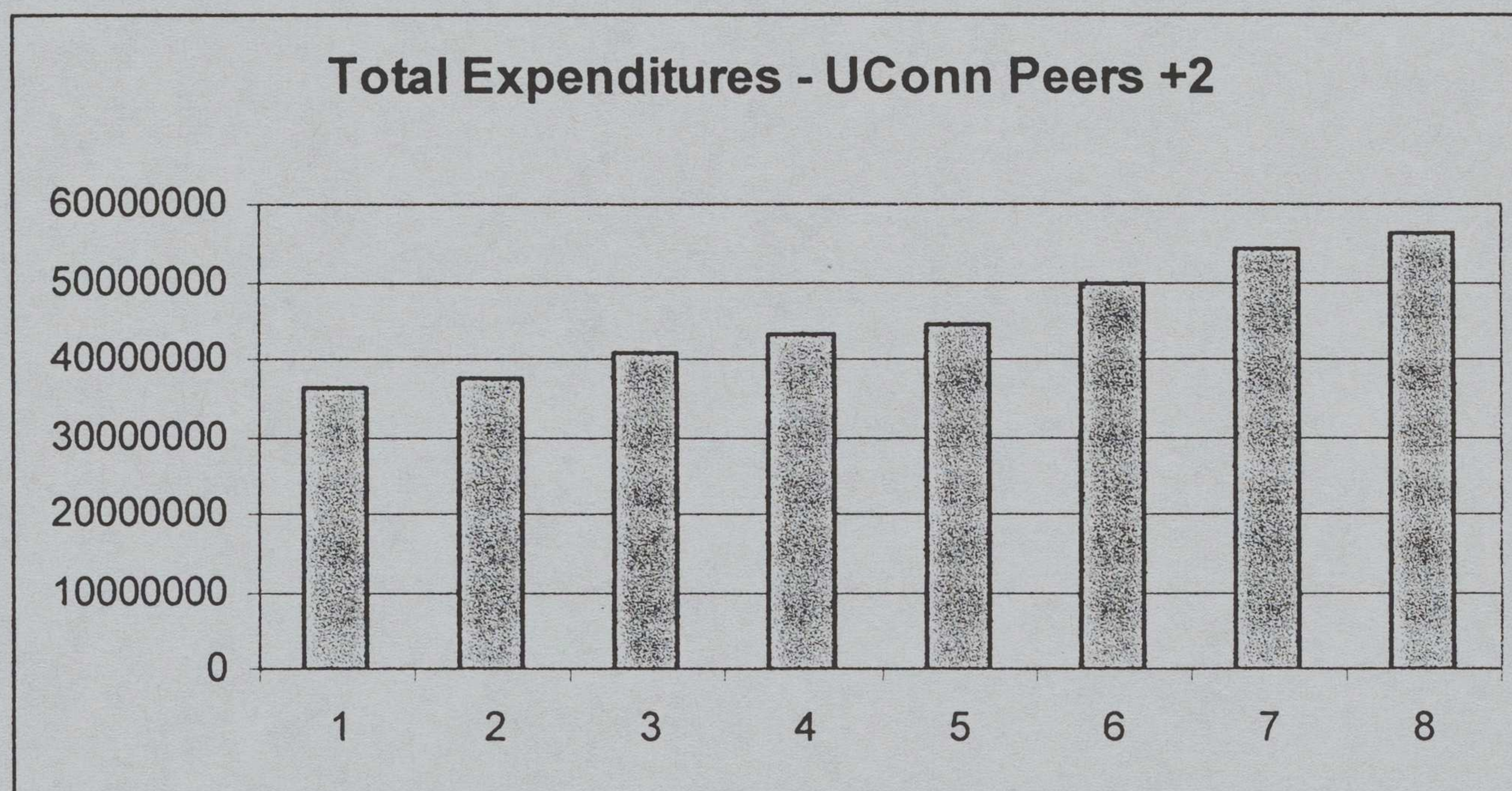






Dean Kirklyn Kerr provided the UConn administration a preliminary estimate of both start up and continuing costs. Dean Kerr's estimates are reasonable and represent another view on a traditional model.

Both Dean Kerr's estimates and those in this report are supported by AAVMC Comparative Data for the UConn peer institutions having veterinary colleges plus NC State and Wisconsin. Wisconsin and NC State are useful models of a traditional program because of their relatively recent establishment – both graduated their first class of DVM students in the mid to late 1980's, and both have achieved national recognition in a comparatively short period of time. Wisconsin is one of the top five veterinary colleges in NIH funding and NC State is ranked fourth in the latest ranking by US News and World Report. The mean total expenditures in 2003 for the UConn peer group plus NC State and Wisconsin was \$45.5M. The range of total expenditures is shown in the table below.



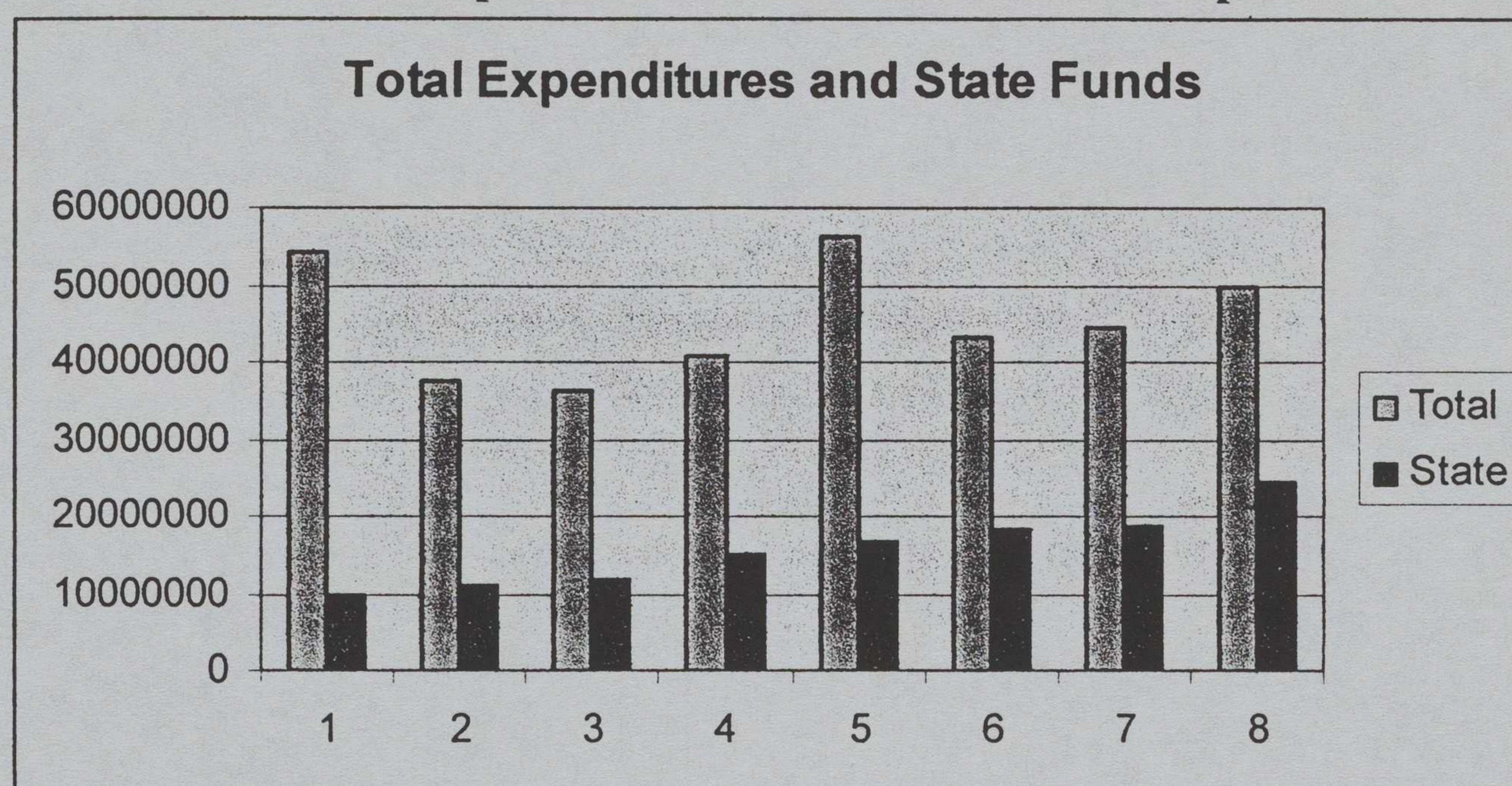
State appropriations accounted for an average of 35% of total expenditures (range 18 to 49%) and are illustrated in the graph on page 18.







### Comparison of State Funds to Total Expenditures



The availability of faculty expertise in the College of Agriculture and in other colleges at UConn is a significant factor in estimating faculty and staff needs. Only the faculty in Pathobiology/Veterinary Science are used in this projection and salary and benefits for them are not included so the cost picture could be reduced to the extent that other UConn faculty are assigned to the veterinary program. The estimates provided below are new funds and include projected one time start up costs. The summary table gives the total estimated need with facility construction costs identified as a single one time expense and placed in years 1 and 2 of the projected time line. The details supporting the projections that follow are provided in an appendix to this report.

An overview of faculty and staff for each of the six phase-in years is presented in the table below. The first class would be admitted in year 3.

### Faculty and Staff Projections

#### Year 1:

- Dean
- Associate Dean
- Two Department Heads
- 12 Administrative staff
- Use faculty in UConn Pathobiology for planning - cost not included in these projections
- 5 Staff - Teaching support

#### Year 2:

- 10 Basic Sciences Faculty
- 3 Basic Sciences Support Staff
- 10 Clinical Faculty
- 5 Veterinary Technicians







Year 3:

10 Basic Sciences Faculty  
2 Basic Sciences Support Staff  
20 Clinical Faculty

18 Clinical Faculty Specialists

10 Veterinary Technicians

10 Hospital Staff

Not hired for the nontraditional  
model  
except for 5 Veterinary Technicians

Year 4:

15 Clinical Faculty Specialists

10 Veterinary Technicians

10 Hospital Staff

Not hired for the nontraditional  
model

Year 5:

12 Clinical Faculty Specialists

10 Veterinary Technicians

10 Hospital Staff

Not hired for the nontraditional  
model

Year 6:

Have Following Complement

Dean

Associate Dean

Two Department Heads

12 Existing Pathobiology faculty

20 Basic Sciences Faculty

30 Clinical Faculty

12 Administrative Staff

10 Basic Sciences Support Staff

10 Core Teaching Veterinary Technicians

45 Clinical Faculty Specialists

25 Veterinary Technicians

30 Hospital Staff

Not hired for the nontraditional model

### Estimates of Traditional Veterinary Program Costs – Six Years to “Steady State”

Year 1	\$2,100,000 plus \$35,000,000 for Facilities
Year 2	\$9,700,000 (\$4,000,000 one-time) plus \$60,000,000 for Facilities
Year 3	\$27,800,000 (\$12,400,000 one-time)
Year 4	\$24,700,000 (\$4,500,000 one-time)
Year 5	\$28,300,000 (\$3,600,000 one-time)
Year 6	\$25,700,000

These estimates are based on using the existing Pathobiology departmental faculty for the initial planning processes and for teaching most of the basic instruction to first year students entering in year 3 of the program startup. A dean, one associate dean (academic affairs), and two department heads (basic sciences and clinical sciences) are included in the year 1 estimate. In year 2, 10 additional faculty are added for planning and to ensure







that there will be an adequate number of faculty to guide the education of students as the second class is admitted in year 4 of the program start up.

Addition of clinical faculty begins in year 2 so that a veterinary teaching hospital can be established and operational by year 4 with growth in veterinary and technical staff projected for years 4 and 5. A total of 45 veterinary clinical specialists are projected as being added in years 3-5 (18 in year 3; 15 in year 4; and 12 in year 5). Veterinary technicians and other hospital staff are projected at 10 in each category in each of years 3-5. The total by year in the table above (page 19) includes one time start up costs of \$4,000,000 in year 2; \$12,400,000 in year 3; \$4,500,000 in year 4; and \$3,600,000 in year 5. Supply and expense funds were estimated assuming a ratio of 80% salaries and benefits to 20% supply and expenses.

### **B. Nontraditional Program:**

Serious consideration could be given to developing a nontraditional model of veterinary medical education. The aim would be to have a quality and innovative program, capture national attention, and produce exceptionally qualified graduate veterinarians at less cost than a traditional program.

Possibilities include:

Provide pre-clinical and research education on the UConn campus.

Other specialty education could also be provided – example laboratory animal medicine.

Contract with an accredited program – Cornell is interested (Dean Donald Smith, Cornell, personal communication) – to provide the clinical education.

Partner with a national practice – Banfield is a possibility based on the Western Veterinary College model – to provide primary care and wellness clinics. Banfield, The Pet Practice, is one of several national corporate veterinary practices and has a commitment to education (Lewis and Novak 2003).

Provide Public Health focus with the UConn Medical Center.

### **Estimates for a Nontraditional Veterinary Education Program – No Teaching Hospital**

Year 1	\$2,100,000 plus \$35,000,000 for facilities
Year 2	\$9,700,000 includes \$4,000,000 one-time start up costs
Year 3	\$18,200,000 includes \$7,000,000 one time costs
Year 4	\$11,700,000
Year 5	\$12,200,000
Year 6	\$14,100,000 includes \$1,400,000 estimated cost for clinical instruction

Major savings compared to the traditional model result from reductions in numbers of faculty clinical specialists and veterinary technicians and other veterinary teaching hospital staff. The model does provide adequate clinical faculty to quality control the educational experiences of the students.







In both the traditional and nontraditional models, assumptions are made on the number of Connecticut students with projections for number of students from the NE region. The possibility of a contract through the New England Board of Higher Education could be pursued. The SREB or WICHE contracts could serve as a model. Nonresidents, not supported by contracts, would pay full nonresident tuition – estimated at \$36,000.

### **C. Contract Model:**

A cost effective model that could ensure access to a veterinary medical education for Connecticut residents is for the state (or university) to contract for a guaranteed number of spaces in an accredited veterinary college or colleges. The contract could be put out to bid to the US veterinary colleges as Nebraska recently did in their effort to secure the best value for their residents. Working with the New England Board of Higher Education or with the veterinary colleges in the region would be logical for development of contracts. Personal communications with the deans of the veterinary colleges at Pennsylvania, Tufts, and Cornell indicate willingness by all three colleges to participate in a contract arrangement. The land-grant tradition of keeping tuition cost low to the student was and still is followed in the SREB and WICHE models in that the contract student pays in-state tuition and the contracting state pays the college the negotiated fee, currently \$14,600 for SREB and \$23,500 for WICHE. The state could require return to the state for some specified years of service or work in a recognized public practice sector as a condition of receiving state support. UConn could use the contract arrangement as a basis for an educational partnership with the contracting veterinary college. Some of the veterinary curriculum requirements might be met by experiences on the UConn campus and under the direction of UConn faculty. Research education is an example and diagnostic laboratory experience is another example. The possibility of developing early acceptance programs and combined DVM/PhD programs exists.

## **Summary of Costs by Model**

### **A. Traditional**

Year	Continuing	One-Time	Facilities	Total
1	\$2,098,688	0	\$35,000,000	\$37,098,688
2	\$5,769,315	\$4,000,000	\$60,000,000	\$69,769,315
3	\$15,454,636	12,400,000	0	\$27,854,636
4	\$20,202,547	\$4,500,000	0	\$24,702,547
5	\$24,709,874	\$3,600,000	0	\$28,309,874
6	\$25,698.269	0	0	\$25,698.269







**B. Nontraditional - No Teaching Hospital**

Year	Continuing	One-Time	Facilities	Total
1	\$2,098,688	0	\$35,000,000	\$37,098,688
2	\$5,769,315	\$4,000,000	0	\$9,769,315
3	\$11,262,836	\$7,000,000	0	\$18,262,836
4	\$11,713,349	0	0	\$11,713,349
5	\$12,181,883	0	0	\$12,181,883
6	\$14,079,158	0	0	\$14,079,158

**C. Contract Program**

Year	Continuing	One-Time	Facilities	Total
1 (30 students)	\$705,000	0	0	\$705,000
2 (60 students)	\$1,440,000	0	0	\$1,440,000
3 (90 students)	\$2,250,000	0	0	\$2,250,000
4 (120 students)	\$3,060,000	0	0	\$3,060,000
5 (120 students)	\$3,120,000	0	0	\$3,120,000
6 (120 students)	\$3,180,000	0	0	\$3,180,000

Note: The values in this table are the calculated values for each respective model. In the text of this report and the estimates tables above these values were rounded up. Year 6 of the nontraditional model includes \$1,410,000 as an estimated cost of clinical instruction for 60 fourth year students. The contract fee was increased ~3% per year.

**III. Revenue Projections:**

Veterinary colleges get resources from state appropriations, tuition and fees, although in some states these funds go to the state and not the college, sales/services (veterinary teaching hospital and diagnostic laboratory being major sources), contracts and grants including overhead return that varies based on institutional policies, and private gifts. State appropriations as a percentage of total expenditures have declined over the past 10 years from about 50% to 33% of total expenditures (Dean Warwick Arden from calculations of AAVMC Comparative Data). Sales and services revenue increased in this 10 year period from about 16% to 25% and tuition and fees increased to about 25% of total expenditures.

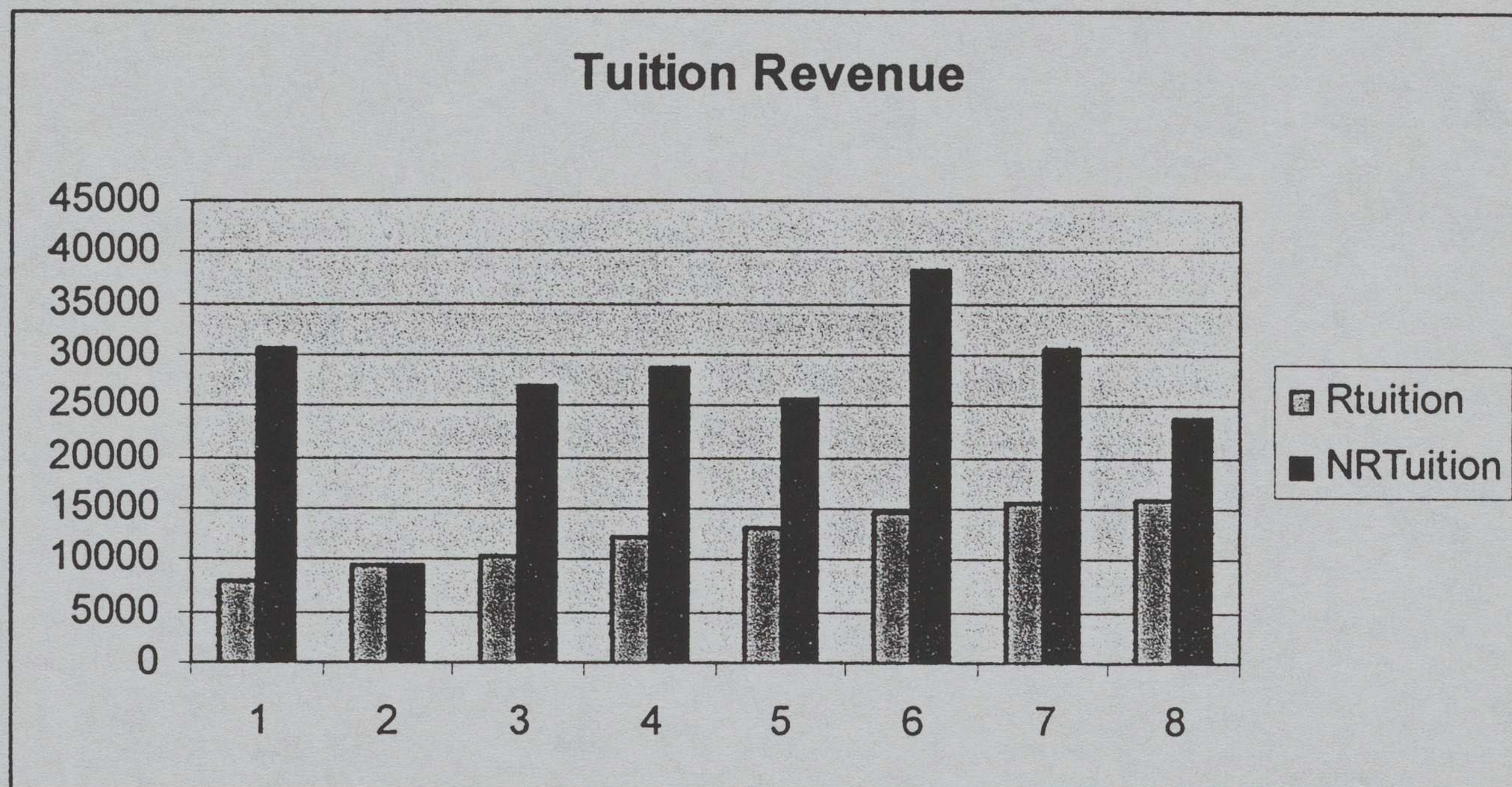
Tuition costs can be estimated using at least two models. A land-grant model assumes tuition will be held as low as possible in keeping with the tradition of making education affordable. A variation on this theme is a model of state or federal financial support in exchange for an agreement to serve after graduation in a designated underserved or public practice area of societal need. The student could pay tuition at a relatively low amount with the state or federal subsidy provided to the college in the form of scholarship support to the student. The non-land grant, private school model followed by Tufts and the off shore schools of Ross and St. Georges has tuition as a high cost paid by the student who benefits from the education. Contracts at Tufts do offset the cost to the student.







### Comparison of Resident and Non-Resident Tuition in Eight Peer Universities



Several models of tuition revenue are provided below.

#### 1. Traditional Program:

A class size of 100 is proposed in this model. This number is consistent with the class size of the peer group veterinary colleges (mean of 92 per class) and the proposed faculty numbers are consistent with this number of students. The model below has 40 CT residents and 60 non-residents. The number from other NE states should be set after negotiations with the New England Board of Higher Education or other appropriate means of establishing a contract program. A mix of residents, NE contract students, and non-residents is proposed and presented in the table below. This revenue model assumes \$15,000 tuition for residents and contract students, \$23,500 contract fee (based on the WICHE contract amount), and \$36,000 for nonresidents.

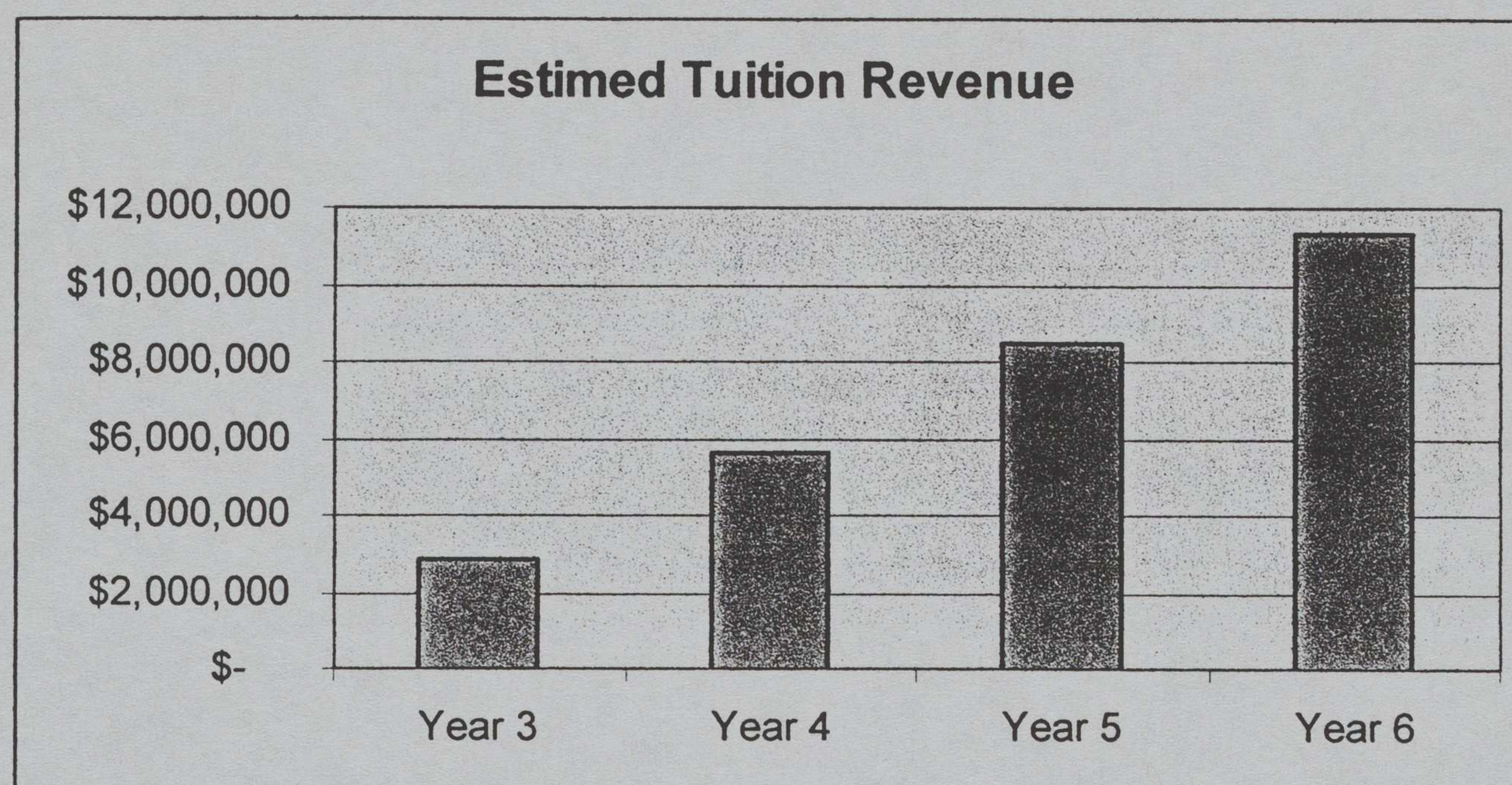
Per Class Tuition Revenue				
	Number	Tuition	Contract	Total
CT	40	\$15,000	0	\$600,000
NE	30	\$15,000	\$23,500	\$1,155,000
Non-Resident	30	\$36,000		\$1,080,000
	100			\$ 2,835,000

Projected tuition revenue for years 3 -6 is shown in the following chart.









**Estimated Costs and Tuition Revenue for a Traditional Program**

	Tuition Revenue	Est. Cost	Balance	Facilities	Total Est. State
Year 1	0	\$2,100,000	\$2,100,000	\$35,000,000	\$ 37,100,000
Year 2	0	\$9,700,000	\$9,500,000	\$60,000,000	\$ 69,500,000
Year 3	\$ 2,835,000	\$27,800,000	\$24,665,000		\$ 24,665,000
Year 4	\$ 5,670,000	\$24,700,000	\$18,690,000		\$ 18,690,000
Year 5	\$ 8,505,000	\$28,300,000	\$19,595,000		\$ 19,595,000
Year 6	\$ 11,340,000	\$25,700,000	\$14,135,000		\$ 14,135,000

In this model, \$14,135,000 would be required from state (university) sources in year 6. Hospital revenue is expected to reduce this amount of state contribution, but the amount of revenue and time to generate positive cash flow are difficult to predict thus the conservative estimate of \$14.1M from the state. State support for residents and interns is not included assuming that they would be supported from hospital income. This assumption reduces hospital revenue that could be used for general college support.

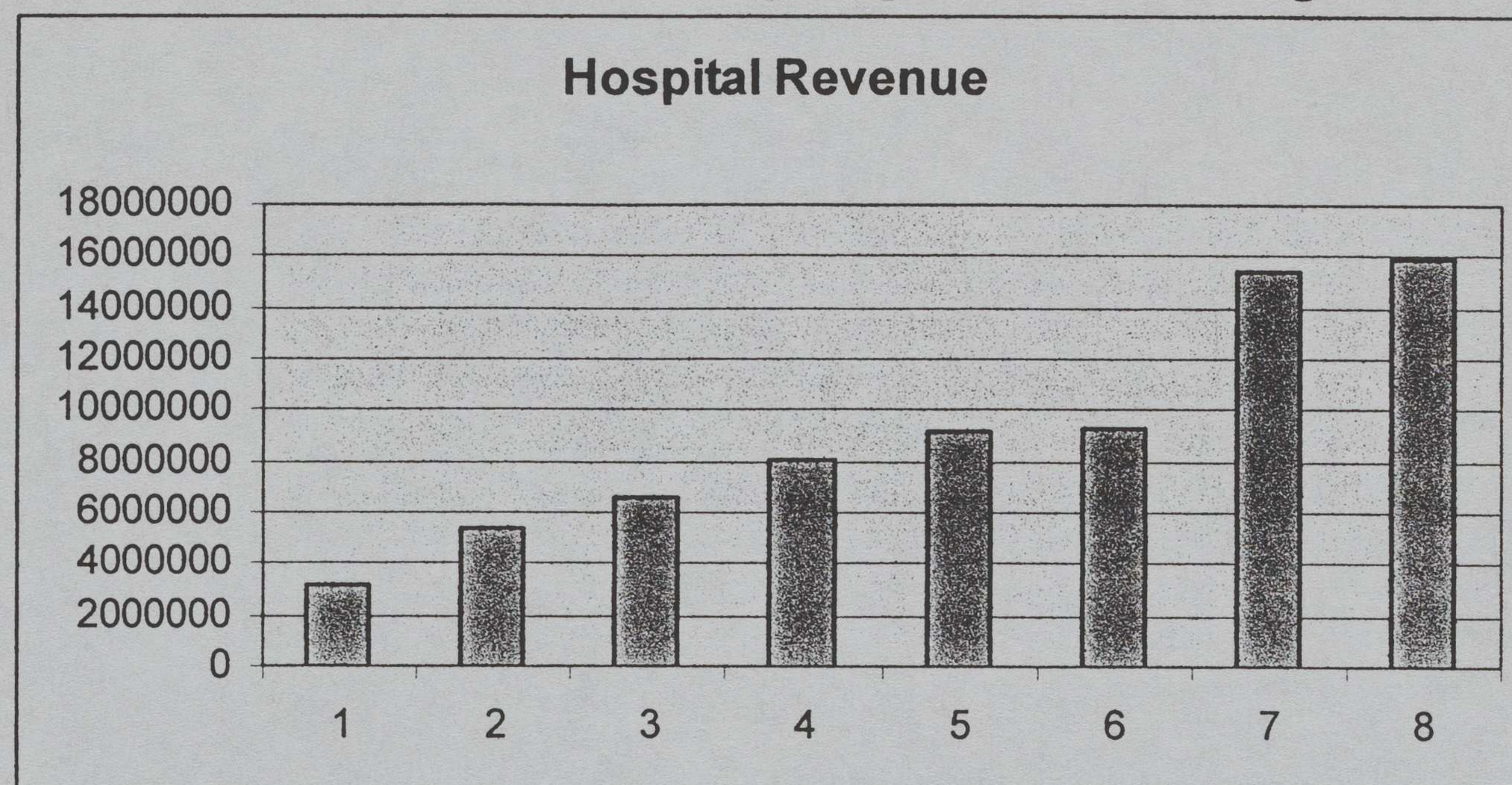
Hospital revenue of the eight peer colleges is shown in the following graph. This revenue ranged from \$3.2M to \$15.4M with a mean of \$9.1M. A conservative approach is to assume sustained state (university) support for a considerable time and assume no more than \$3M in hospital revenue by year 6 and no more than \$5M by year 8. The model can be adjusted to whatever number university planners find most reasonable or comfortable.







### Comparison of Veterinary Teaching Hospital Revenue in Eight Peer Universities



Private support is an important source of revenue and difficult to project for a new school. A donor or donors willing to endow a school of veterinary medicine would make substantial impacts in making a task of this magnitude feasible. The School of Veterinary Medicine at Tufts recently received a \$50M gift, the largest in the school's history, and will rename the school the Cummings School of Veterinary Medicine at Tufts University (2004).

### 2. Nontraditional Program:

It is assumed that the class size would be smaller, no more than 60 in a nontraditional program. This is due to the requirement to contract with existing veterinary colleges for spaces in teaching hospitals to provide the required clinical instruction.

Nontraditional Tuition Revenue Projections				
	Number	Tuition	Contract	Total
CT	30	\$15,000	0	\$450,000
NE	20	\$15,000	\$23,500	\$770,000
Non-Resident	10	\$36,000		\$360,000
				\$1,580,000







### Cost Estimates Including Contracts for Clinical Education

	Tuition Revenue	Est. Cost	Balance	Facilities	Total
Year 1	0	\$2,100,000	\$ 2,100,000	\$ 35,000,000	\$ 37,100,000
Year 2	0	\$9,700,000	\$ 9,700,000		\$ 9,700,000
Year 3	\$ 1,580,000	\$18,260,000	\$ 16,680,000		\$ 16,680,000
Year 4	\$ 3,160,000	\$11,713,349	\$ 8,553,349		\$ 8,553,349
Year 5	\$ 4,740,000	\$12,181,883	\$ 7,441,883		\$ 7,441,883
Year 6	\$ 6,320,000	\$14,079,158	\$ 7,759,158		\$ 7,759,158

This model estimates a continuing cost in state (university) support at year 6 and beyond of \$7.8. There would be no hospital revenue in this model. Some clinical operations (example an equine hospital) could be added. This would generate revenue, but added costs of faculty and staff plus facilities would be offsetting. The continuing costs for year 6 include \$1,410,000 as the estimated cost of contracting with another college for clinical education of fourth year students. Personal communication with Dean Donald Smith of Cornell indicates a willingness to negotiate clinical education arrangements between Cornell and the University of Connecticut.

### Research Activity:

Research revenue is not included in the models above because research funds would be expended on the specific projects approved for funding. Research activities do provide opportunities for education and contribute significantly to the environment for veterinary medical education. Research is one of the eleven standards for accreditation with the requirement for “substantial research activities of high quality”. Contracts and grants generate a negotiated facilities and administration (overhead) return, but use of these funds for direct support of DVM education would not be appropriate.

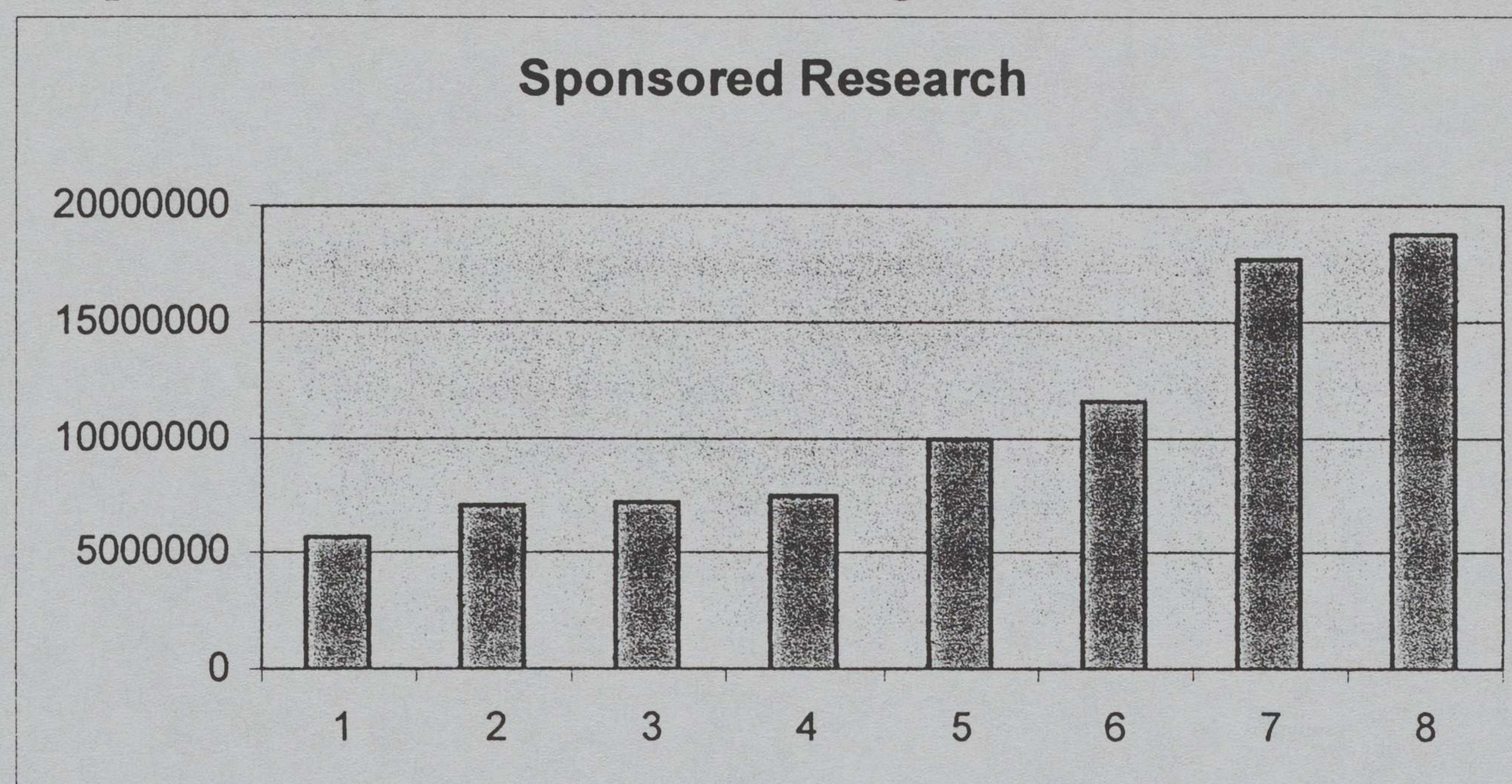
Sponsored research in the eight peer institutions (UConn peers plus NC State and WI) averaged \$10,715,636 in FY2003. The distribution among the eight institutions is shown in the chart on page 27.







### Comparison of Sponsored Research in Eight Peer Universities



### Concluding Comments:

This report focused on the demand for veterinarians and on models for veterinary medical education by the University of Connecticut. Advocates for a college of veterinary medicine will make a number of other valid points about the positive impacts that could result from having a college of veterinary medicine at the University of Connecticut. Topics that were considered to be outside the scope of this report include impacts on economic development, increasing the prestige and national reputation of the university, and increasing private support for the university. A college of veterinary medicine has the potential to do these things. University leaders will be well aware of the need to develop a comprehensive vision for this endeavor if the decision is made to proceed.

Veterinary medicine needs more diversity if veterinarians are going to continue to serve an increasingly diverse society (Coffman 2002). Less than four per cent of veterinary students represent ethnic diversity (Stock and Rushin 2004). This could be an opportunity for the University of Connecticut to make an impact on improving the diversity of the veterinary profession and to use veterinary medicine as a vehicle for increasing diversity of its student body and alumni.

The AAVMC has underway an effort to increase federal funding in support veterinary medical education in the US. AAVMC is seeking congressional approval and funding for the Veterinary Medical Education and Workforce Development Act (Osburn 2004). University leaders should follow the progress of this initiative because, if successful, federal funds could be available for the establishment of a new college of veterinary medicine.







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Appendix 1. Model for Estimation of Expenditures for a Traditional Model of Veterinary Medical Education.

Year 1:     \$ 37,098,688

Hire	
Dean	\$424,350 Includes staff plus benefits at 23%
Associate Dean	\$344,400 Includes staff plus benefits at 23%
Two Department Heads	\$332,100 Includes staff plus benefits at 23%
Administrative staff	\$332,100 Includes staff plus benefits at 23%
Use faculty in UConn Pathobiology for planning - cost not included in these projections	
Staff	<u>\$246,000</u>
	\$1,678,950
Supply & Expense	
Using 80:20 ration salaries/benefits to S&E	<u>\$419,738</u>
	<u>\$2,098,688</u>
Facilities	
Estimate 116,000 gross sq ft building	<u>\$35,000,000</u>
	<u>\$37,098,688</u>







Year 2:	\$69,769,315	
Continuing		\$1,746,108
Hire		
10 Basic sciences faculty		\$1,230,000
3 support staff - basic sciences		\$153,504
10 clinical faculty		\$1,230,000
5 Veterinary Technicians		\$255,840
		\$2,869,344
Continuing plus year 2 hires	4615452	
Supply & Expense		
Using 80:20 ration salaries/benefits to S&E		\$1,153,863
One Time Start Up Costs		
		\$4,000,000
		\$9,769,315
Facilities		
Teaching Hospital est. 200,000 sq ft.		\$60,000,000
		\$69,769,315







Year 3: Continuing	Admit First Class			\$4,800,070
		Hire		
		10 Basic sciences faculty		\$1,279,200
		2 Basic sciences support staff		\$106,457
		20 Clinical faculty		\$2,558,400
		18 Clinical specialists		\$2,656,800
		10 Veterinary technicians		\$532,283
		10 VTH staff		\$430,500
				<hr/>
				\$7,563,639
		Continuing plus year 3 hires	12363709	
		Supply & Expense		
		Using 80:20 ration salaries/benefits to S&E		\$3,090,927
		One Time Start Up		\$12,400,000
				\$27,854,636







Year 4: \$ 24,702,547		\$12,858,257
Continuing		
Hire		
15 clinical specialists		
10 Veterinary technicians		\$2,302,560
10 VTH staff		\$553,500
		\$447,720
		\$3,303,780
Continuing plus year 4 hires		16162037
Supply & Expense		
Using 80:20 ration salaries/benefits to S&E		\$4,040,509
One Time Start Up		
		\$4,500,000
		\$24,702,547







Year 5: Continuing	\$ 28,309,874	\$16,808,519
Hire		
12 Clinical specialists		\$1,918,800
10 Veterinary technicians		\$575,640
10 VTH staff		\$464,940
		<u>\$2,959,380</u>
Continuing plus year 5 hires	19767899	
Supply & Expense		
Using 80:20 ration salaries/benefits to S&E		<u>\$4,941,975</u>
One Time Start Up		<u>\$3,600,000</u>
		\$28,309,874







Year 6:	\$ 25,698,269	
Continuing		\$20,558,615
<hr/>		
	Supply & Expense	
	Using 80:20 ration salaries/benefits to S&E	<u>\$5,139,654</u>
		\$25,698,269







Appendix 2. Model for Estimation of Expenditures for a Nontraditional Model of Veterinary Medical Education.

Year 1	Continuing	1X	S&E	Instruction	Facilities	Total	
	\$424,350				\$35,000,000		
	\$344,400						
	\$332,100						
	\$246,000						
	\$332,100						
	\$1,678,950		\$419,738	\$2,098,688	\$35,000,000	\$37,098,688	identical to traditional model
S&E calculated at 20% of total budget or 80:20 ratio							
Year 2	\$1,746,108						
	\$1,230,000	\$2,000,000					
	\$153,504						
	\$255,840						
	\$1,230,000	\$2,000,000					
	\$4,615,452	\$4,000,000	\$1,153,863	\$9,769,315		\$9,769,315	identical to traditional model
No S&E on 1X start up funds							
				\$5,769,315	operating	personnel + S&E	
Year 3	\$4,800,070						
	\$1,279,200	\$3,000,000					
	\$106,457						
	\$2,558,400	\$4,000,000					
	\$266,142						
	\$9,010,269	\$7,000,000	\$2,252,567	\$18,262,836		\$18,262,836	
				\$11,262,836			operating
Year 4	\$9,370,679						
	\$0						
	\$0						
	\$0						
	\$9,370,679	\$0	\$2,342,670	\$11,713,349		\$11,713,349	
				\$11,713,349			operating







Year 5	\$9,745,506				4% increase
	\$0				
	\$0				
	\$0				
	\$9,745,506	\$0	\$2,436,377	\$12,181,883	
				\$12,181,883	operating
Year 6	\$10,135,327		\$2,533,832	\$12,669,158	4% increase
				\$12,669,158	operating











