

AGENDA

Veterinary Contract Spaces Working Group
Tuesday, August 14, 2018
2:30 PM
CPE Offices, Conf Rm A

1. Welcome and Introductions
2. Overview of Working Group Charge and Review of Program Data/Information 2
3. Discussion
4. Next Steps

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VETERINARY CONTRACT SPACE WORKING GROUP



AUGUST 14, 2018

COUNCIL ON POSTSECONDARY EDUCATION

FRANKFORT, KENTUCKY

The following have provided data for this report:

Dr. Phil Prater, KVMA Representative to the Veterinary Spaces Working Group

Dr. Roberta Dwyer, Pre-vet advisor, University of Kentucky

Dr. Dan Givens, Associate Dean of Admissions, Auburn University – College of Veterinary Medicine

Dr. Calvin Johnson, Dean, Auburn University – College of Veterinary Medicine

Ms. Louise Cook, Executive Director – Kentucky Veterinary Medical Association

History of the Veterinary Spaces Contract for Legal Kentucky Residents

Sixty-seven years ago, under the Southern Regional Education Board (SREB) program, Kentucky entered into contracts establishing a quota for Kentucky residents who could enter the College of Veterinary Medicine at Auburn University each year. Later a quota was established at Tuskegee University College of Veterinary Medicine. The program is administered by the Kentucky Council on Postsecondary Education (CPE) and any legal Kentucky resident is eligible to participate. An interested student must first finish high school, then complete a prescribed pre-veterinary curriculum. The pre-veterinary requirements are established by the respective schools (Auburn and Tuskegee). The courses, which take at least three years to complete, may be taken at any accredited educational institutions. Selection of individuals is the sole responsibility of the individual veterinary school's admission committee. Once a person is accepted to attend Auburn or Tuskegee under this program, the Commonwealth of Kentucky pays a contract fee and the student pays the same tuition as a resident of Alabama (AU-CVM) or an adjusted tuition rate (TU-CVM). It takes four years to complete professional school.

Since 1951, Auburn has enrolled KY students through a program by the SREB. Tuskegee contracted for KY veterinary students in the early 1970's. More than 1900 contract spaces have been made available and filled with KY students. **Currently, there are 38 seats in each veterinary class at AU-CVM and 2 seats at TU-CVM** for KY students who pay resident tuition and fees.

Facilities Value of AU-CVM

The **current value** of the facilities associated with Auburn University College of Veterinary Medicine, (clinical sciences, pathobiology, anatomy/physiology/pharmacology, research) is **approximately \$500,000,000**, per phone conversation with Dr. Calvin Johnson, Dean of the college. This includes:

The Wilford and Kate Bailey Small Animal Teaching Hospital is one of the nation's leading medical facilities for animal health care while also providing the companion animal clinical education for future veterinarians. The 208,000-square-foot facility is one of the largest and most technologically advanced teaching and referral hospitals in the country.



The John Thomas Vaughan Large Animal Teaching Hospital houses one of the oldest professional programs in the nation. Advancements in internal medicine and surgical techniques, an internationally recognized faculty, and a comprehensive consultation program keep Auburn on the cutting edge of modern large animal surgery and medicine.





The **Scott-Ritchey Research Center** is an integral part of AU-CVM for more than 40 years. The Scott-Ritchey Research Center's mission is to conduct cutting-edge basic and translational research to improve the health of dogs and cats, and to communicate these findings to the clinical and scientific communities to facilitate their application. The Scott-Ritchey Research Center is a state-of-the-art, interdepartmental and interdisciplinary research program at the College of Veterinary Medicine. The center relies on private and grant funds for a majority of its ground-breaking research.

The **Auburn University Veterinary Teaching Hospital** has been ranked **No. 1 in the nation** among academic veterinary teaching hospitals, according to results from a national survey company. Cal-Pro Research of Rocklin, California, which conducts independent surveys for 26 academic teaching hospitals across the U.S., provided results and rankings for the teaching hospital, a division of the College of Veterinary Medicine. The Auburn University Veterinary Teaching Hospital provides state-of-the-art veterinary care and serves as a referral hospital and community practice facility to residents throughout Alabama and neighboring states. With board-certified specialists and a nationally renowned faculty, clients of the teaching hospital benefit from the combined expertise of faculty specialists, residents, interns, DVM students and veterinary technicians utilizing a team-based approach to patient health care.

Tax Payer Support

The contract between SREB and AU-CVM and TU-CVM **affords Kentucky students the access to in-state tuition rates** to achieve their professional goals. The following table shows the state tax appropriations for the AU-CVM from Alabama (to support Alabama residents attending AU-CVM) and from Kentucky (to support Kentucky residents attending AU-CVM and TU-CVM):

STATE	NUMBER OF RESIDENT SPACES	APPROXIMATE STATE APPROPRIATIONS / YEAR
ALABAMA	41 /YR ; 164 / 4 YR. CLASS	\$25,000,000
KENTUCKY***	38/YR ; 152 / 4 YR. CLASS (AU) & 2/YR; 8 / 4YR. CLASS (TU)	\$5,084,000

***** Kentucky also has 2 funded seats at the Tuskegee University – College of Veterinary Medicine. This would be 8 seats total over 4 years at TU-CVM, which would bring the grand total of Kentucky supported contract spaces to 160 over a 4 year class period. These seats are funded through the SREB contract. The SREB contract fee is \$210,000 from the Commonwealth of Kentucky to belong to SREB.**

Access to In-State Tuition (2017-2018) *

<u>Institution</u>	<u>In-state Tuition</u>	<u>Out-of-state Tuition</u>	<u>Difference</u>	<u>In-state Enrollment X 3 or 4 years</u>	<u>Cost difference X 3 or 4 years/class to KY to provide In-state Tuition</u>
UK Med School	\$38,500	\$68,000	\$29,500	600	\$17,700,000
UK Dental School	\$33,300	\$69,600	\$36,300	160	\$5,808,000
UK Law School	\$24,046	\$48,474	\$24,428	270**	\$6,595,560
AU/TU/SREB	\$20,060***	\$46,748	\$26,688	160	\$5,084,000

*Above data provided by searching web-sites or phone contact with the admissions offices of the above mentioned colleges.

**Law school is completed in a 3 year cycle.

***AU-CVM's tuition is the 2nd lowest rate in the U.S. When there are discussions about letting students "go to whatever veterinary school they want", we must consider the outstanding quality of education provided at the best value to the taxpayer and the student.

In-state vs. Out-of-State Enrollment*

<u>Institution</u>	<u>Total/yr</u>	<u>In-state/yr Total & %</u>	<u>Total in-state enrollment X 3 or 4 yr. class cycle**</u>
UK Med School	166	150 (90%)	600
UK Dental School	65	40 (60%)	160
UK Law School	113	90 (80%)	270***
AU/TU/SREB**	40	40	160

*Above data provided by searching web-sites or phone contact with the admissions offices of the above mentioned colleges.

**These are the number of students that KY is responsible for providing access to in-state tuition.

***Law school is completed in a 3 year cycle.

Veterinary schools loan costs at a glance

This data was provided by a Kentucky resident who attended AU-CVM and graduated in 2017. He is currently in a mixed animal practice which does provide food animal, equine and small animal services in the central KY area. The following are the costs incurred for veterinary school tuition, living expenses, fees, and books:

TOTAL VETERINARY SCHOOL DEBT = \$188,000

MONTHLY PAYMENT: 10 YR LOAN= \$2100/MONTH; 30 YR LOAN = \$1100/MONTH

CURRENT TAKE-HOME PAY PER MONTH = \$4200/MONTH

Based on the above, real-life, real-time data, a new veterinary graduate will pay between 25% - 50% of their net income, take-home pay in student loans – **AND THIS IS WITH THE CONTRACT SPACES PROGRAM!**

If the student above chose to pay the loan over a 30 year period, he would over 55 years old when the debt was completely paid and will have paid off the principal plus \$217,775 in interest (total payoff of \$405,775).

Application pool for KY residents vs. At-Large pool of applicants

The following table provides the data to show the numbers of applicants from Alabama, Kentucky, and the at-large student pools which make up each 120 seat class at AU. Besides providing access to in-state tuition at AU and TU, **these agreements provide a pre-determined number of seats, just for KY residents-** 38 at AU-CVM and 2 at TU-CVM. Without these selective pools, **KY students would be thrown into the general at-large pool**, and would probably not be as competitive as they are right now. This would **most likely reduce the number of veterinary graduates** returning to KY.

STUDENT POOL	# ACCEPTED	AVE. # OF APPLICANTS FOR EACH POOL OF STUDENTS (2010-2017)	RATIO OF APPLICANTS TO VETERINARY SCHOOL SEAT
ALABAMA	41	103	2.5 : 1
KENTUCKY	38	87	2.3 : 1
AT-LARGE	41	774	19 : 1

- Statistical information is not available from Tuskegee University College of Veterinary Medicine.

Total cost of veterinary school education comparing different schools*

<u>College of Veterinary Medicine</u>	<u>Total cost (tuition, living expenses, fees, books)</u>
AUBURN UNIVERSITY	\$164,612 contract; \$279,951 OOS**
TUSKEGEE UNIVERSITY	\$210,000 contract; \$298,246 OOS
THE OHIO STATE	\$278,369 OOS
UNIVERSITY of TENNESSEE	\$317,496 OOS
LINCOLN MEMORIAL UNIVERSITY	\$319,536 OOS

*The above table demonstrates the incredible advantages that KY veterinary students have at AU and TU. This advantage is both financial, in respect to student loan debt, and logistical, in respect to being selected from a more advantageous pool of applicants. Above data from the Veterinary Information Network.

**Out-of-state (OOS)

Return Rate for In-state students graduating from Colleges of Veterinary Medicine

<u>STATE OF RESIDENCE</u>	<u>% RETURNING TO STATE OF RESIDENCE UPON GRADUATION*</u>
ALABAMA: AU-CVM	44%
KENTUCKY: U of KY- MEDICAL SCHOOL	50%
KENTUCKY: U of KY- DENTISTRY SCHOOL	60%
OHIO: THE OHIO STATE UNIVERSITY - CVM	35%
INDIANA: PURDUE - CVM	25%
KENTUCKY: AU-CVM	53%

*These numbers are for return rates immediately upon graduation. The data was provided via phone conversations with the admissions department of each of the above colleges. Dr. Givens at AU-CVM indicated that his department will be providing information on rates of graduate return 5 years out, post-graduation by September, 2018.

Possible reasons for KY students to not return immediately to KY upon graduation

As indicated by the previous table, KY veterinary graduates return to the state at a higher rate than most of our regional state-supported veterinary schools; and at a higher rate than UK medical students returning to the state. There are times when it may be necessary for a veterinary graduate to not immediately return to the state. Those times may include, but are not limited to:

1. Students may choose to continue to an internship/residency program in a specialized area. These entities usually last for 3-5 years and are typically not found in KY. These veterinarians will

become leaders in their clinical fields and many of them may return to the state or may become instructors at veterinary schools that are teaching and developing KY students – which is still a major benefit to the state. The shining example of this scenario is **Dr. Dan Givens**. He hails from Western Kentucky and attended WKU. He attended and graduated from AU-CVM with the aid of a state supported contract space at AU-CVM. He has been an outstanding food animal researcher and clinician, and is currently the **Associate Dean of Admissions at AU-CVM. He is undoubtedly instrumental in impacting the veterinary students and professionals within the Commonwealth of Kentucky.**

2. Some KY veterinary graduates may actually practice in a border area of KY, but they may not live in KY. They live across the line in OH, WV, VA, TN, MO, IL, IN. They may not be considered in a classification of “returning” to the state, but they are actually serving the animal owners of KY.
3. Many students with **significant debt** (going to a non-contract space veterinary school or having significant undergraduate debt) may opt to work in a larger metropolitan area where they can make more money for the first 3-5 years of their career and then return to KY when they have controlled the burden of a huge student debt. **Veterinary graduates must at least be given an opportunity to pay their bills, even if it means not immediately returning to KY.**
4. There may not be jobs in the clinical discipline area where the student chooses to focus. A recent review of the Kentucky Veterinary Medical Association (KVMA) website, the American Veterinary Medical Association Career Center, and the American Association of Bovine Practitioners website by R. Dwyer, DVM yielded the following food animal job opportunities in KY:
 - a. Search with term *Large Animal* = No large animal exclusive jobs posted in KY
 - b. *Kentucky vet + bovine* = No jobs posted
 - c. *Kentucky vet + bovine + mixed* = yielded 1 job post for an internship in Franklin, KY in a mixed practice
 - d. AABP website *Kentucky vet + bovine + mixed* = yielded 1 job in Russellville, KY (beef, equine, dairy)

There may be a waiting period for students to return to the state for their clinically skilled area of focus. During that period of time they must become employed to pay bills and earn a reasonable living.

The Large Animal Veterinary Question

There has been much debate in our state and the U.S. about a perceived lack of veterinarians, particularly in the area of production animal medicine (beef, dairy, swine, poultry, small ruminants).

The veterinary leadership in KY (KVMA) believes, based on the data presented, that there are adequate numbers of veterinarians being trained by our contract spaces with AU and TU, and that there are enough veterinary jobs in our state to sustain stable employment for veterinarians in general, given that some veterinary graduates may choose not to return immediately to the state. The perception still remains that there is a veterinary shortage, particularly in the area of food animal medicine. The leadership in the veterinary profession in KY has concluded for some time that **there is not a shortage of large animal veterinarians, but more correctly stated, there is a mal-distribution of veterinarians in**

areas of KY that lack sufficient numbers of cattle, sheep, goats, hogs, and horses for a veterinarian to practice exclusively large animal medicine and pay back student loans and have a reasonable standard of living after 8+ years of college.

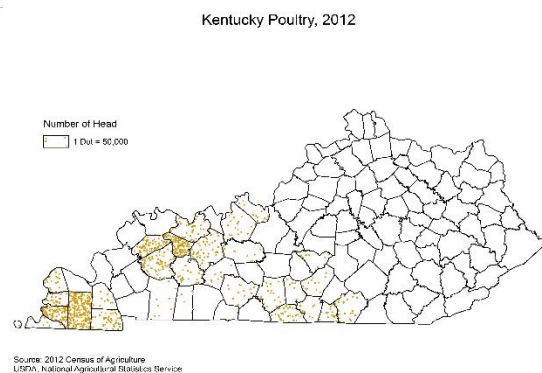
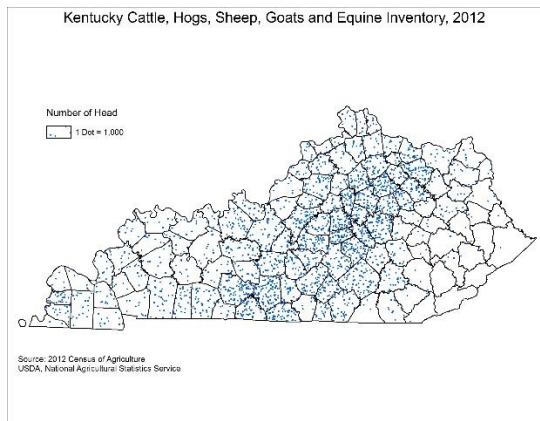
The following table lists the counties in KY with members of the KVMA, by practice type, either equine (EQ), mixed practice (MP), large animal (LA means food animal and equine), or food animal exclusive (FA). The table includes 99 of the 120 counties in KY. Mixed practice is small animal and food animal/equine. Veterinarians self-report these classifications, so a MP could be 10% bovine and 90% small animal, or any combination. The difference in counties may be that the county does not have a large animal veterinarian or in some cases, may not have a veterinarian at all. Some counties may have veterinarians who are not KVMA members were not included in the data set:

COUNTY	LARGE ANIMAL/ EQUINE / FOOD ANIMAL / MIXED ANIMAL PRACTICES
ADAIR	3 MP
ALLEN	1 FA, 1 MP
ANDERSON	4 MP
BALLARD	2 MP
BARREN	5 MP
BATH	3 MP
BELL	1 MP
BOONE	4 EQ, 1 MP
BOURBON	15 EQ, 1 FA, 4 MP
BOYD	1 MP
BOYLE	5 MP, 1 LA, 1 EQ
BRACKEN	1 LA
BRECKINRIDGE	1 FA, 4 MP
BULLITT	0
BUTLER	2 MP
CALDWELL	2 MP
CALLOWAY	4 MP
CAMPBELL	1 MP
CARROLL	1 MP
CARTER	2 MP
CASEY	1 MP
CHRISTIAN	5 MP
CLARK	5 MP, 1 EQ
CLINTON	1 MP
CRITTENDEN	1 MP
CUMBERLAND	1 MP
DAVISS	8 MP
ESTILL	1 LA, 1 MP
FAYETTE	>100 EQ, 5 MP
FLEMING	4 MP
FLOYD	1 MP

FRANKLIN	2 MP
FULTON	1 MP
GARRARD	1 MP
GRANT	1 MP
GRAVES	6 MP, 1 FA
GRAYSON	1 MP
GREEN	1 MP
GREENUP	2 MP
HARDIN	1 MP
HARLAN	1 MP
HARRISON	6 MP
HART	4 MP
HENDERSON	4 MP, 1 EQ
HENRY	4 MP
HOPKINS	2 MP
JACKSON	0
JEFFERSON	15 EQ, 3 MP
JESSAMINE	4 EQ, 5 MP
JOHNSON	3 MP
KENTON	3 MP, 1 LA
KNOX	1 MP
LARUE	1 MP
LAUREL	6 MP
LAWRENCE	2 MP
LEE	1 MP, 1 LA
LETCHER	0
LEWIS	0
LINCOLN	2 MP
LOGAN	3 MP
LYON	1 MP
MADISON	1 MP
MARION	3 MP
MARSHALL	1 MP
MASON	3 MP
McCRACKEN	1 MP
McLEAN	0
MEADE	2 MP
MERCER	1 MP, 1 EQ
METCALFE	1 FA, 1 MP
MONROE	1 MP, 1 FA
MONTGOMERY	1 MP, 1 LA
MORGAN	8 MP
MUHLENBERG	3 MP
NELSON	3 MP
OHIO	1 MP
OLDHAM	4 MP, 5 EQ

OWSLEY	1 MP
PENDLETON	0
PERRY	2 MP
PIKE	2 MP
PULASKI	1 MP
ROCKCASTLE	1 MP
ROWAN	1 MP
RUSSELL	0
SCOTT	6 MP, 6 EQ
SHELBY	4 MP, 12 EQ
SIMPSON	4 MP
SPENCER	3 MP, 1 EQ
TAYLOR	6 MP, 1 EQ
TODD	3 MP
TRIGG	4 MP
UNION	3 MP
WARREN	13 MP, 3 LA, 1 FA, 1 EQ
WASHINGTON	2 MP
WAYNE	0
WEBSTER	2 MP
WHITLEY	3 MP
WOODFORD	1 MP, 3 LA, 13 EQ

The following maps were supplied by W. Beeler, GOAP, which demonstrate the areas of the state with the **most livestock, poultry and horse concentrations**.



Careful analysis of the table and maps, provide the following conclusions:

1. If you live and/or farm in a county in KY with a significant large animal population, you will, in most cases, have large animal veterinarians to serve those counties.
2. If you live in an area with a moderate to low large animal population, and no large animal veterinarian, you will most often have a large animal veterinarian within 1 county radius that can serve that county.
3. This table does not indicate whether the clinics have haul-in facilities, which may benefit counties with low animal populations.

The Small Animal Veterinary Question

Currently in KY, there appears to be an overriding concept that all small animals are mere luxury items and would not be classified in the “under-served” areas for veterinarians. In fact, this concept has birthed a new tax law which requires veterinarians to charge a 6% sales tax on all small animal services in the state. The veterinary leadership in KY vehemently opposes the notion that small animals are merely luxury items for the following reasons:

1. There is good research through the AVMA that indicates **not all underserved areas are rural communities**. There are actually areas of urban Louisville that have no veterinary care, even though there may be significant numbers of animals.
2. Small animal veterinarians are highly attuned to finding and diagnosing zoonotic diseases in animals and, in some cases, humans who have contracted a zoonotic disease. Because veterinarians see these diseases commonly in animals, they tend to be more adept at diagnosis for zoonotic diseases than medical doctors.
3. Not all small animals are just pets. Many dogs (and some cats) are utilized as service animals for military, law enforcement, search and rescue, and people with physical and emotional issues. These small animals have saved countless lives. The following is a list of small animals, from just the last 5 years, who have shown tremendous service to humans and have been inducted into the KVMA Hall of Fame for bravery and intelligence in a time of need:

Yeager – Service dog

Jazz – Therapy dog

Isabella – Therapy dog

Gabby – Service dog

Ireland – Military Service dog and the first dog to be buried at Camp Nelson

Gage – Service dog

Logos – Military Service dog

Edison – Therapy dog

Docker – Military Service dog

Ajax & Leika – bomb sniffing dogs and participated in the 9-11 disaster

The Loan Re-Payment Concept

A concept that has been proposed for educating veterinary students is a loan re-payment program which would require KY veterinary students return to the state upon graduation and practice some degree of large animal medicine. The following are concerns from the state's veterinarians concerning the adoption of such a program:

1. Who would administer the loan program? Since the CPE currently administers the contract spaces, it would probably make sense to have them keep track of the loan re-payment program.
2. How will students be tracked through veterinary school into employment? Some KY residents do not attend AU or TU. Will the CPE track them at all the different CVM's to ensure that they return to KY to receive the loan re-payment money?
3. How will the re-payment monies be distributed to the students who would return to KY? Will the money be distributed as a lump sum, yearly payments, how many years is the pay out to last? Is the money taxable as income?
4. If large animal service is to be a part of the requirement, who and how will that service be tracked and validated? If the CPE administers this program, will they also validate the service component?
5. If a graduate is involved in a mixed practice and is seeing large animal clients, what % of the practice is to be large animal? What if a significant part of the large animal business is lost? Recently, many dairies in the state have ended their operations. Is the graduate still expected to find large animal work to fulfill their loan re-payment obligations? What is a reasonable radius for these graduates to travel to meet the obligations of the loan re-payment?
6. What if a graduate practices some level of large animal medicine in a border area of KY, but does not actually live in Kentucky? Will CPE keep track of those students? Will those graduates not be eligible for the loan re-payment?
7. What if a graduate becomes injured (large animal medicine is high risk) and can no longer practice large animal medicine? Are they no longer eligible for the loan re-payment?
8. There are no other state veterinary programs that mandate that veterinary graduates must practice certain disciplines (large animal) or that graduates must return to the state to practice. The Commonwealth of Kentucky does not mandate that medical doctors, dentists, or lawyers must practice in certain clinical areas or that they are required to practice in the state, even though they receive abundant access to in-state tuition.
9. The National Veterinary Medical Services Act has established the Veterinary Medicine Loan Repayment Program (VMLRP) which is a federal program that pays \$25,000 in loan repayment for each year of service in a state with a designated shortage situation (maximum of three years).

Auburn University – College of Veterinary Medicine’s Commitment to Kentucky

Auburn University receives grant to strengthen veterinary medicine in rural Kentucky

Published: November 30, 2017

[Janet McCoy](#) | College of Veterinary Medicine

The Auburn University College of Veterinary Medicine is directing a program to strengthen veterinary services to designated underserved rural populations in Kentucky through a grant provided by the USDA’s Veterinary Services Grant Program and in partnership with Kentucky veterinarians.

The \$237,233 grant allows the college to create a program to "develop, implement and sustain private veterinary services through education, training, recruitment, placement and retention of veterinarians and students of veterinary medicine," said Dr. Dan Givens, associate dean for Academic Affairs at the College of Veterinary Medicine. It is one of 13 grants by the U.S. Department of Agriculture’s National Institute of Food and Agriculture, or USDA-NIFA.

Objectives of the grant are:

- Connect veterinarians serving in rural geographic areas where additional veterinarians are needed with veterinary students interested in working in those areas;
- Provide quality educational opportunities for veterinary students in business management and sustainability in rural veterinary practice;
- Provide quality continuing education at a reduced cost to veterinarians serving in designated rural areas of unmet needs;
- Provide business management education and practice sustainability consultation to rural veterinary practitioners in underserved areas; and
- Facilitate and create networking opportunities that assist graduating veterinarians in transitioning into sustainable careers in rural underserved areas.

Leading the project are Dr. Misty Edmondson, an associate professor of farm animal medicine in the Department of Clinical Sciences, and Glen Sellers, a clinical lecturer teaching business practice management to veterinary students. “Their expertise will enhance student and practitioner recruitment and provide mentoring and career enhancement,” Givens said.

The grant allows programs already in existence at the College of Veterinary Medicine—the college’s practice management rotation and preceptorship program—the opportunity for greater impact. The grant will match senior veterinary students interested in large animal veterinary medicine with rural Kentucky veterinarians where additional veterinarian help is needed. Veterinarians will mentor senior veterinary students and can have their practice participate in the business practice management program.

“The long-term goals of the program are to assist veterinarians currently serving in rural underserved areas as well as to work with current students to transition into sustainable careers in rural areas,” said Givens. “Adequately supporting current veterinarians and recruiting future veterinarians into sustainable careers will meet the needs to maintain the health and well-being of cattle, sheep and goat populations and ensure the provision of a safe and wholesome food supply.”

This program further solidifies an agreement between the Commonwealth of Kentucky and Auburn's College of Veterinary Medicine, which began more than 65 years ago, essentially Auburn being Kentucky's veterinary medical program.

Since 1951, Auburn has enrolled Kentucky students through a program managed by the Southern Regional Education Board, or SREB, by which a set number of seats in each incoming class at the college is reserved for Kentucky students, and guarantees that Auburn charges Kentucky students in-state rates, with the commonwealth providing Auburn the tuition difference. More than 1,900 contract spaces have been made available and filled with Kentucky students; currently 38 seats in each 120-member veterinary class are Kentucky students who pay resident tuition and fees.

Veterinarian shortages in Kentucky have been identified within the last two years to include:

- a 50-mile radius around Sandy Hook in Elliott County;
- a 50-mile radius around Georgetown in Scott County;
- a 50-mile radius around Morgantown in Butler County;
- a 50-mile radius around Manchester in Clay County; and
- a 50-mile radius around Columbia in Adair County.

The areas identified are based on high cattle-to-veterinarian ratios, demographics indicating that many of the current food animal veterinarians are older and have limited their practice, or are retired, and the number of practices which have a significant food animal focus but only one veterinarian, despite recruitment attempts.

For more than 40 years, Auburn's preceptorship program has been a capstone educational experience for veterinary students. The eight-week training experience at the end of fourth-year students' academic career provides clinical practice experience under the supervision of a practicing veterinarian.

"Sustainability of the practice hinges on getting students in a practical setting, understanding life in a rural area, and that is where preceptorships and externships are important," said Edmondson.

"Through programs like this, students who want to practice large animal veterinary medicine or work in a mixed animal practice will have all the training they will need to be successful."

Another key component, and highly sought-after by students and veterinarians, is the Veterinary Practice Management rotation, which exposes students to business practices, disciplines and strategies including accounting, economics, finance, hospital design, marketing, management, negotiations, human resources or labor relations, law and taxation.

The business practice management rotation, taught as an elective course to veterinary students, has evolved to provide students practical business management knowledge as well as assist the practicing veterinarian through students taking an in-depth look at the business side of veterinary medicine.

"Students, under the supervision of faculty, complete an in-depth analysis of the veterinary practice, write an extensive report, meet with the practice owner to discuss their evaluation findings and present their ideas," Sellers said. "The recommendations in the comprehensive report are specific to each practice and, we believe, provide the practice owner ideas that help increase work efficiency and overall profits."

“This is truly a win-win for practice owners and students alike,” he added. “This opportunity provides veterinary students a view into a different side of the veterinary medicine world, the business side, allowing them to see and learn about practice management in a way they have not been able to see or learn before.”

Conclusions

1. The contract space agreement between KY and AU-CVM and TU-CVM is very effective at educating Kentucky veterinary students. It provides excellent access to in-state tuition for these students. The AU-CVM contract has been in place for 67 years. It is a government program that is time-tested for effectiveness.
2. Building a college of veterinary medicine to the current standards of AU-CVM would cost \$500,000,000 and would burden KY taxpayers \$25,000,000 / yr. which is 5X more than they pay for the contract spaces. AU-CVM is ranked #1 for their veterinary teaching hospital.
3. The Commonwealth of KY provides outstanding access to in-state tuition for its medical, dental, law, and other professional students. There are brick and mortar campuses in the state for these professional students. The principle behind the CPE/SREB/AU/TU contract spaces is to merely provide the same in-state tuition access that is already afforded to other professional students.
4. On average, 2.3 KY students apply for each contract seat at AU & TU. The average grade point average of KY students accepted to AU-CVM for 2018 was a 3.73, demonstrating the extremely high quality of KY students attending professional school.
5. No other professional medical or legal students who are KY residents and receive in-state tuition are required to practice in KY. They also are not required to practice any certain discipline.
6. No other state supported veterinary programs in the U.S. require their resident students to return to their state or practice a certain type of medicine. Alabama residents who graduate from AU-CVM are not required to practice in Alabama, nor are they required to practice any certain discipline of medicine – even though the tax burden to Alabama taxpayers is 5X what KY taxpayers contribute.
7. Although large animal services do not reside in every county in KY, there are large animal services within a reasonable radius of those practices. There are always going to be the occasional situations where a veterinarian cannot get to an emergency, but that does not just occur in KY. That could be anywhere in the U.S. No other states force their residents to practice large animal medicine to obtain in-state tuition.
8. Veterinary student debt has become astronomical. Students currently pay between 25%-50% of their net income just in student loans. The veterinary space contracts with AU/TU afford a reasonable opportunity for students to receive the highest quality of education at a debt load they can pay back – and still be able to have a reasonable standard of living.
9. Small animal veterinary medicine cannot be ignored in this conversation. There are too many small animals that provide service to humans through military and law enforcement, and as service dogs to the physically and emotionally challenged. Many of these practices provide a large employment base, especially in small rural communities.

10. The loan re-payment program seems to have a number of logistical problems. Who will administrate the tracking of graduates to re-pay their loans? CPE? KDA? GOAP? Are there extenuating circumstances where the loans could be forgiven due to injury or illness? What level of large animal medicine is mandated for the graduate to practice? Who will track that to insure compliance to the loan re-payment?
11. The vast majority of veterinary professionals in our state are supportive of the current program and do not wish to see it changed.
12. KY contract space students return to KY upon graduation at a much higher rate than any veterinary school in our southeast and south central region (53%).



STRONGER

by degrees



Veterinary Medicine Contract Spaces Work Group

Meeting #1
August 14, 2018

Work Group Charge

1. Study the effects of the establishment of a forgivable loan program for the students of the veterinary contract spaces program
2. Study the projected return of large animal veterinary graduates to practice in Kentucky
3. Report due to the Interim Joint Committee on Appropriations and Revenue no later than December 1, 2018

Program Purpose and Structure

- Kentucky participates in the SREB Contract Spaces Program
 - 1951 - Veterinary Medicine Program
 - 1974 - Optometry School Program
- Kentucky pays the schools the difference between in-state and out-of-state tuition for a pre-determined number of Kentucky students.
- Kentucky residents compete for the reserved spaces. Those who are awarded spaces (by the attending institution after CPE certification of residency) pay the in-state tuition rate.

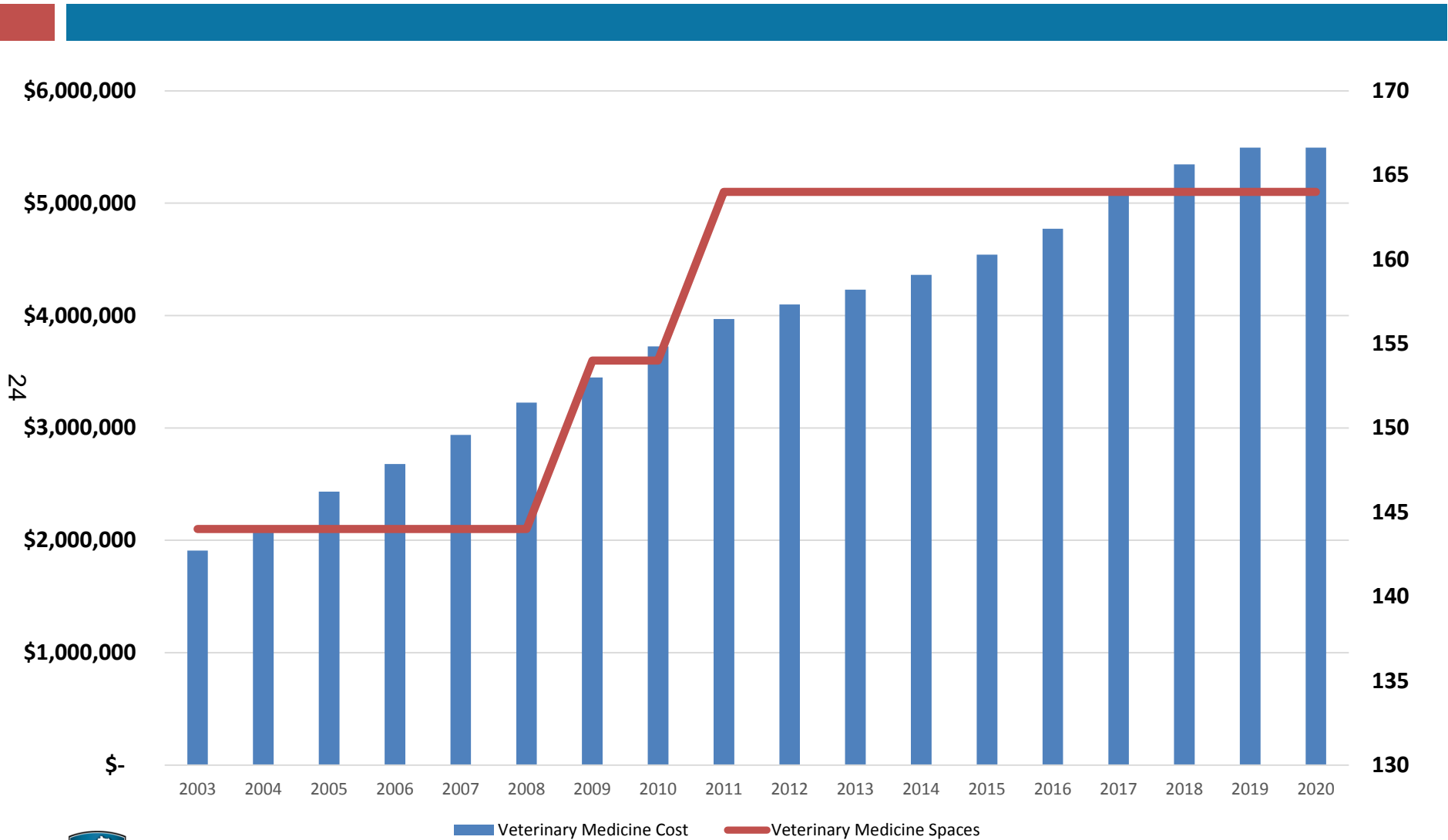
Factors Driving the Work Group Review

- Growth in program costs
- State budget constraints
- No substantive review of the program for several decades
- General view that there is an unmet need in Kentucky for large and food animal veterinarians
- Growth in new models for financing professional programs
- Limited choice of veterinary programs through SREB program
- New models of veterinary education may open doors for a KY program.

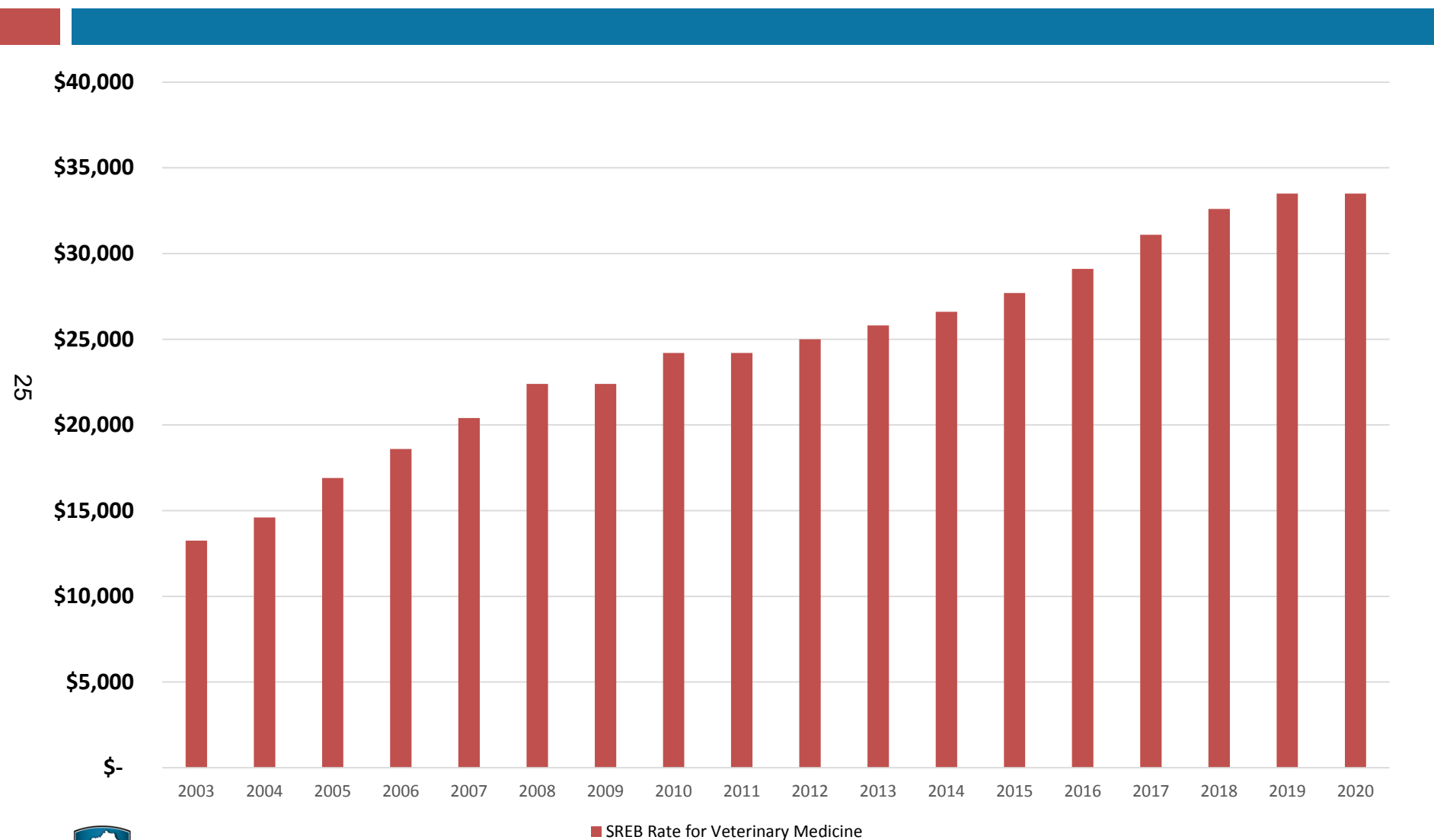
1975 Report: “Veterinary Needs in KY”

- 1975 legislative working group reviewed establishing a veterinary school at Murray State;
- Driven by similar concerns voiced today (deficit of large animal vets; not enough students returning, etc);
- Determined that at that time it would be cost prohibitive to establish a veterinary school;
- Recommendations:
 - Expand SREB contract program, and contract with additional institutions for admission of Kentucky students;
 - Solve the problem of uneven geographical distribution through programs that would encourage veterinarians to practice in underserved areas;
 - Allow for the regulated use of Veterinary technicians and paraprofessionals.

Number of Veterinary Medicine Spaces and Cost to Kentucky



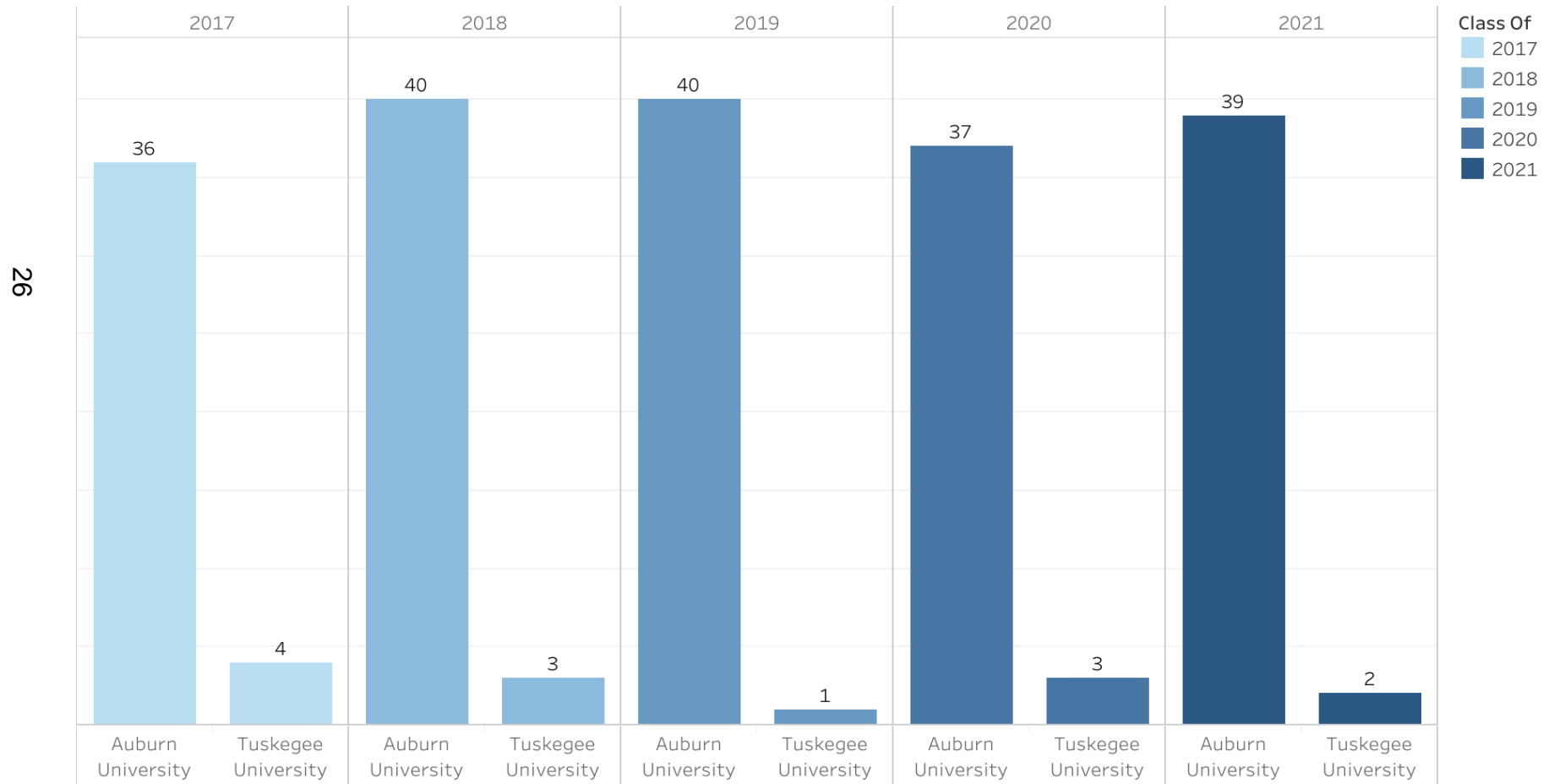
SREB Rate Per Veterinary Space



■ SREB Rate for Veterinary Medicine



Spaces by Graduating Class and Institution



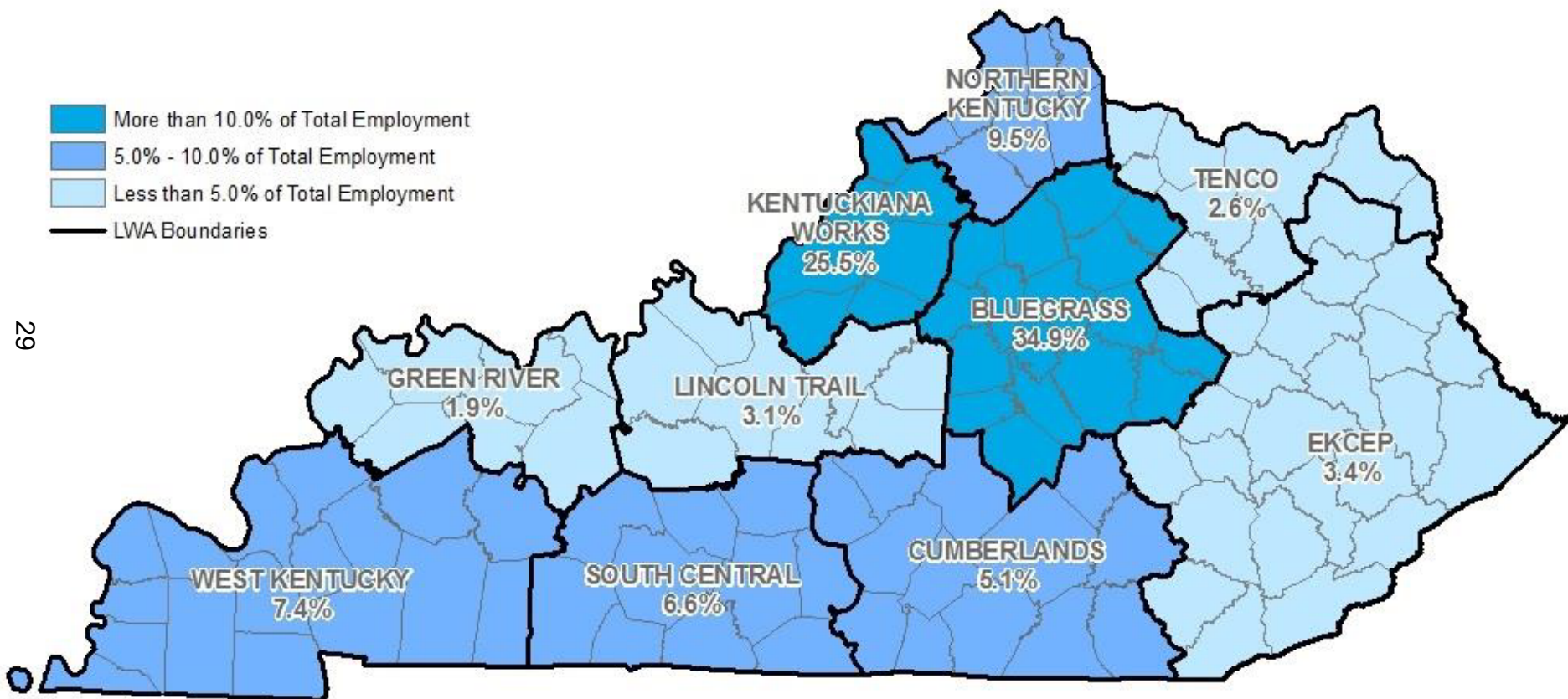
Are Graduates Returning to Kentucky?

- KVMA Analysis from 2010 showed that approximately one half of 2001-2005 Auburn graduates (82 out of 166 students) were practicing in Kentucky five years after graduation;
 - About half of those graduates (42) were practicing on small animals only;
 - Twenty-five (25) were in a mixed practice, working with large and small animals;
 - Two (2) worked solely with large (food) animals;
 - Eight (8) worked in equine practices;
 - The practice status of five (5) graduates in Kentucky was unknown.
- The most recent report from Auburn (2017) indicated that these percentages have remained fairly constant.

Veterinarians in KY – Occupational Snapshot

- As of 2016, there were an estimated 3,134 veterinarians employed in Kentucky;
- Up to 30% of veterinarians employed in Kentucky are self-employed;
- Another 3% are employed in state government, specifically in colleges and universities;
- Nearly two-thirds (62.1%) of veterinarians that reside in the state are female.
- Approximately five percent of Kentucky veterinarians were born outside the United States.
- Kentucky is projected to rank fifth in the nation (behind CA, TX, FL, NY) in total veterinarian employment in 2024, with employment exceeding 3,500.

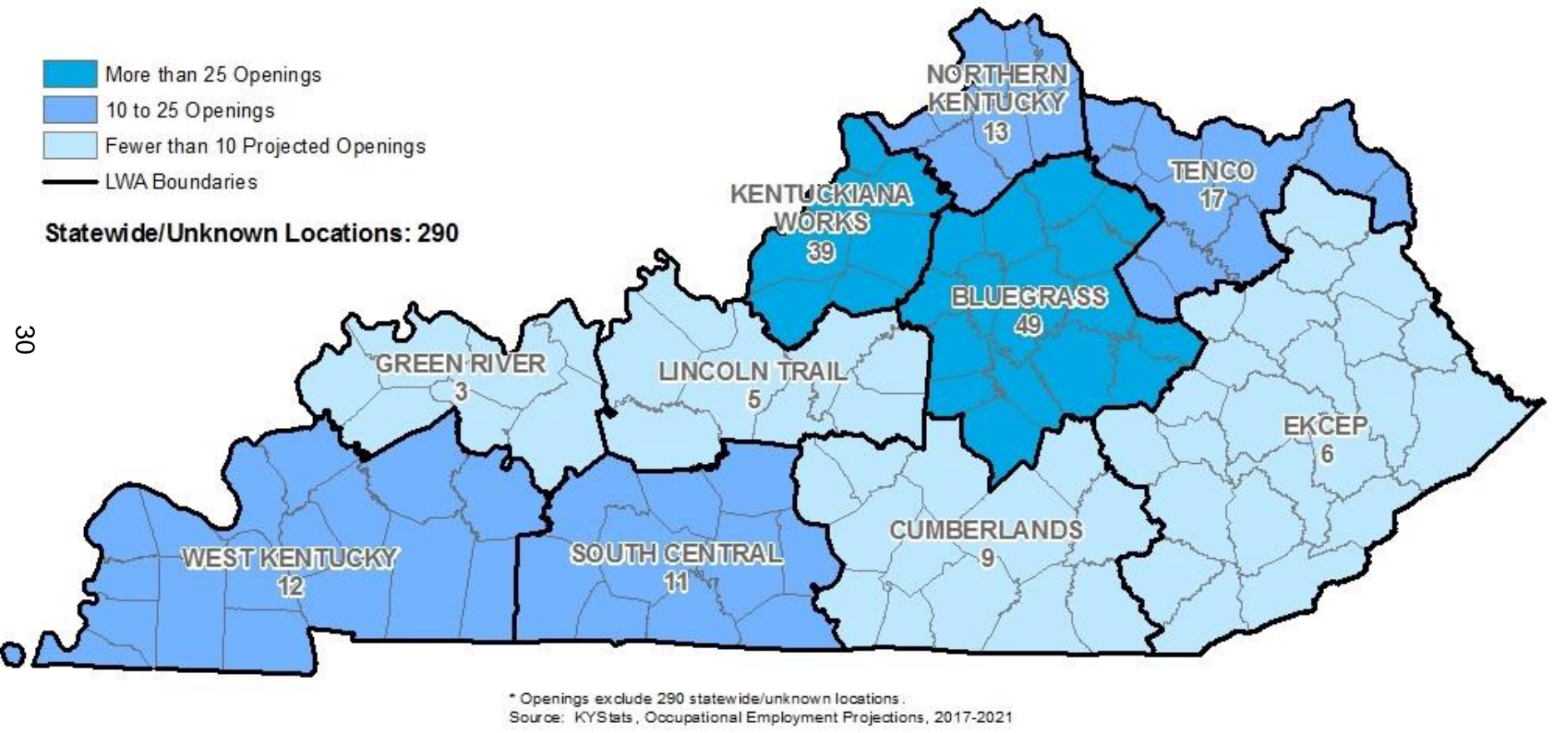
Percentage of Total Veterinarian Employment in Kentucky by Local Workforce Area - 2016



* Totals exclude statewide/unknown locations.

Source: KYStats, Occupational Employment Projections, 2017-2021

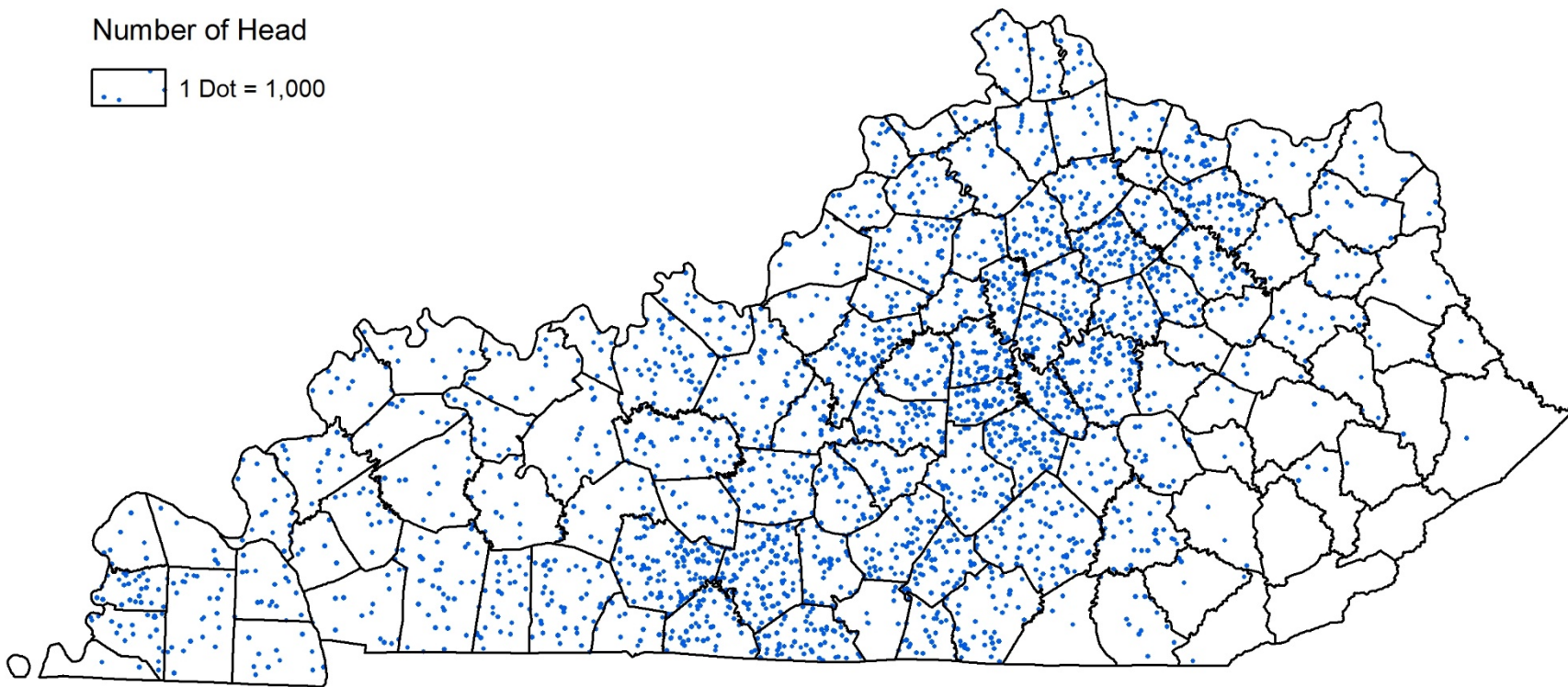
Projected Openings* for Veterinarians in Kentucky by Local Workforce Area, 2017-2021



Kentucky Cattle, Hogs, Sheep, Goats and Equine Inventory, 2012

Number of Head

1 Dot = 1,000

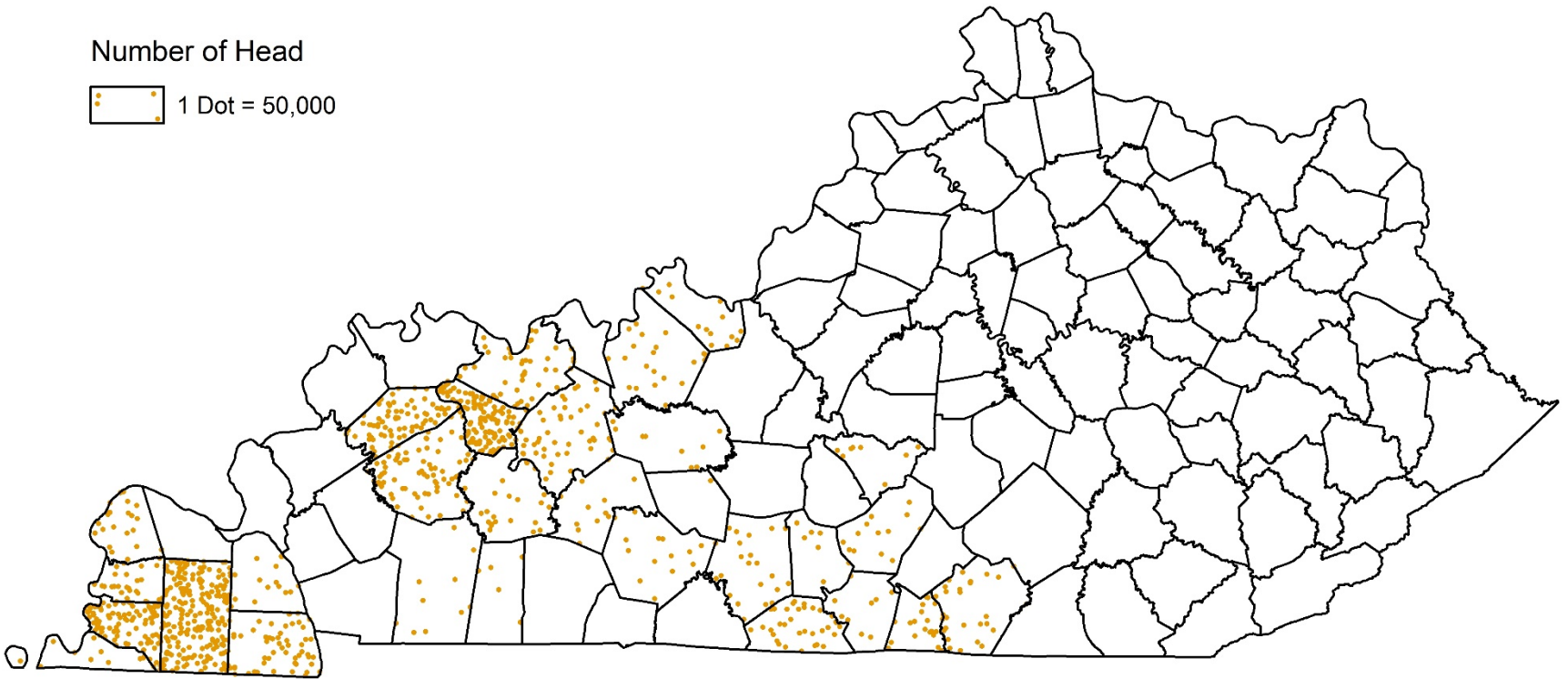


Source: 2012 Census of Agriculture
USDA, National Agricultural Statistics Service

Kentucky Poultry, 2012

Number of Head

1 Dot = 50,000



Source: 2012 Census of Agriculture
USDA, National Agricultural Statistics Service

Salary Data for KY Veterinarians

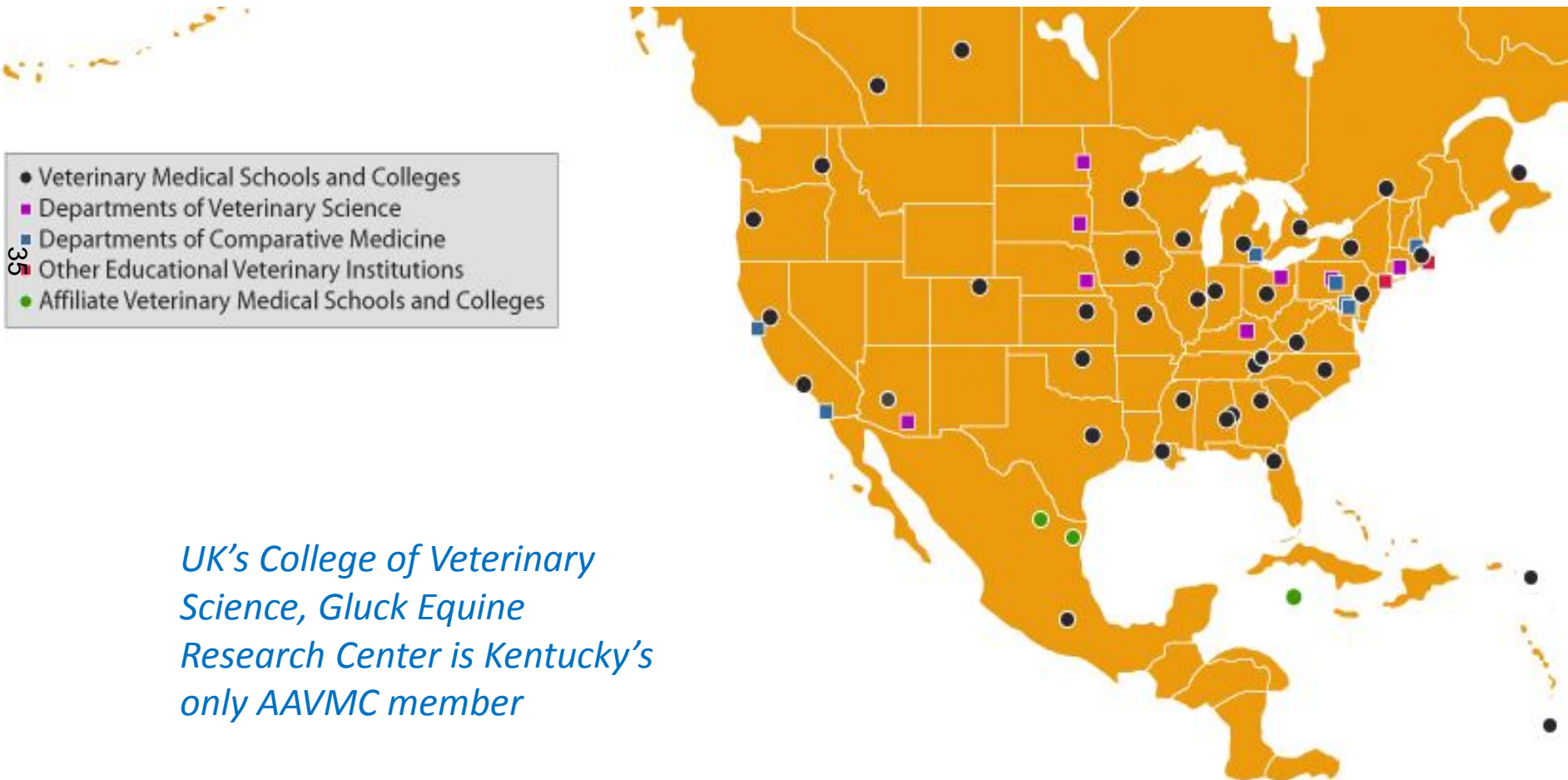
- The average annual wage for veterinarians in Kentucky was \$90,317 in 2017, or \$43.42 per hour.
- Entry-level wages were \$36,171 while experienced workers earned an average wage of \$148,139.
- Wages varied dramatically by region, with West Kentucky having the highest mean wage at \$115,088 and South Central having the lowest at \$52,297.
- Kentucky lags behind national wages: on average, over \$10,000 less than national, while entry-level wages were nearly \$18,000 lower

Paying for Veterinary School

- Average annual tuition of veterinary programs (national): \$50K for out-of-state students versus \$23.5 for resident students. At Auburn \$64.7 out-of-state vs. \$29.4 in-state.
- Average debt (national) for veterinary school graduates in 2016: \$144K (all students) and \$168K (those with debt).
- Veterinary Medical Loan Repayment Program (federal) - up to \$25,000 each year for eligible veterinarians who agree to serve in designated shortage areas (small number).
- Federal Public Service Forgivable Loan Program (payments can be forgiven after 10 years)
- Federal Income-Based Repayment - payments are calibrated to income.



Association of American Veterinary Medical College Member Campuses



Scan of State Programs

- The U.S. has 30 veterinary schools in 28 states;
- Seventeen states have no veterinary school but have contract seats at U.S. veterinary schools;
- 5 states (NJ, RI, VT, NH, ME) with no veterinary school currently have no contract veterinary school seats;
- In the SREB region, four states (KY, AR, SC, DE) contract with 6 veterinary schools in other SREB states for a total of 312 seats.
- Kentucky has approximately half of the SREB veterinary contract seats with 164. South Carolina has the second highest number of veterinary seats with 104. AR has 36, and DE has 10.
- None of the four SREB states currently have post graduation service/work requirement for veterinary medicine.

Veterinary Para-Professional Programs

- Programs offered at Owensboro Community and Technical College (associate), Murray State (baccalaureate and post-bacc certificate), and Morehead State (associate and baccalaureate);

Enrollment Trend



Fall Enrollment for each Level broken down by Academic Year. The view is filtered on Level and Academic Year. The Level filter keeps Associate and Baccalaureate. The Academic Year filter excludes 2012-13.



Discussion

- Does Kentucky offer the right mix of veterinary school providers? Is there enough choice?
- How can Kentucky ensure geographic distribution of veterinarians to meet state needs?
- How can KY ensure an adequate supply of large animal veterinarians?
- Is there a more predictable financial mechanism to support the program such as a fixed dollar scholarship?
- Should there be a service requirement to Kentucky in order to receive the contract space benefit?
- Would a forgivable loan model (as with osteopathic medicine) better serve Kentucky?
- Can veterinary para-professionals partially fill workforce demand?
- Should Kentucky consider developing its own veterinary medical school?



Next Steps

- Meeting #2 – September
 - Tentative Agenda: Review of forgivable loan model; Presentations by stakeholder groups; Discussion of preliminary recommendations
- Meeting #3 – October
 - Tentative Agenda: Presentations by stakeholder groups (if necessary); Discuss report structure; finalize recommendations
- Meeting #4 – November
 - Review Draft Report



QUESTIONS?