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# College of Agriculture / K-State Research and Extension

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**K-STATE**  
**2025**

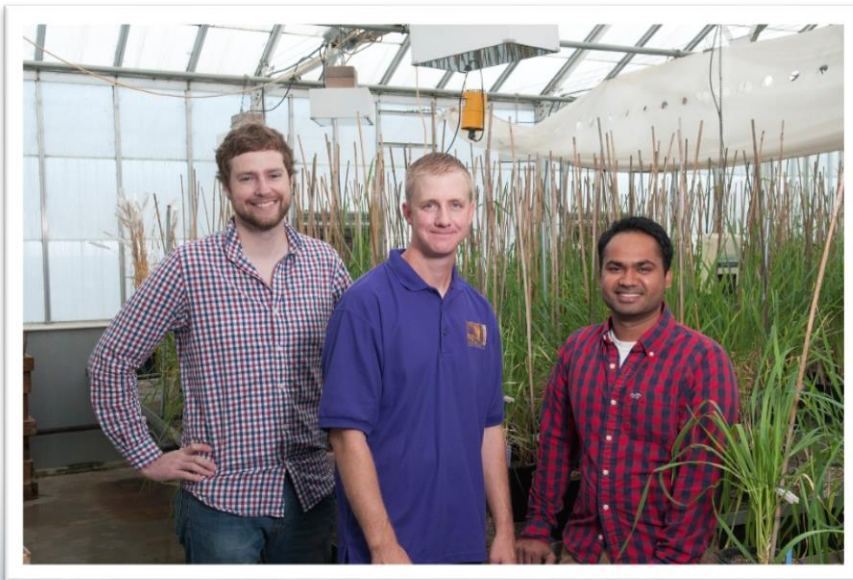
**KANSAS STATE**  
**UNIVERSITY**

# College of Agriculture & K-State Research and Extension 2025 Report October 24, 2016 John D. Floros



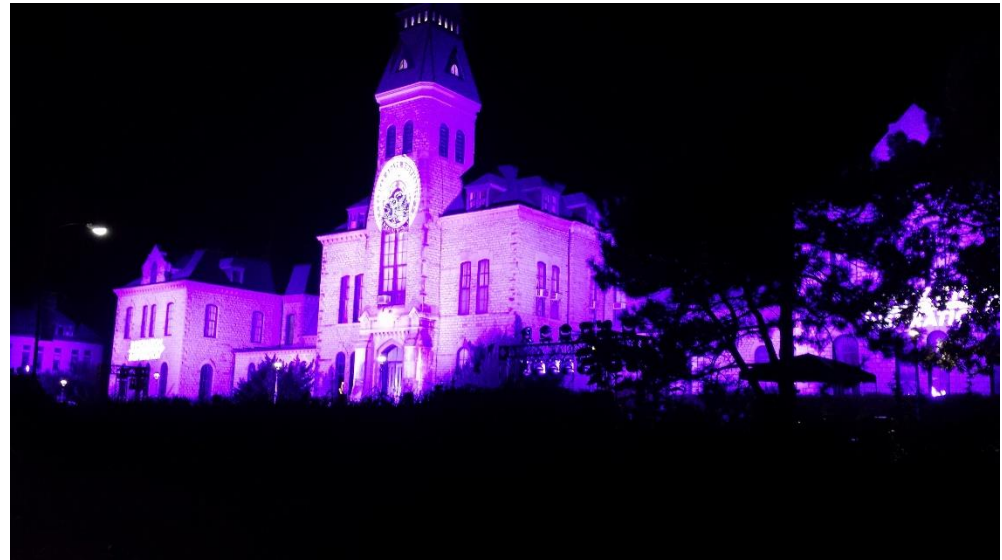
# OUR VISION:

Become a **top five** college of agriculture and a **global destination** for education, research, and extension

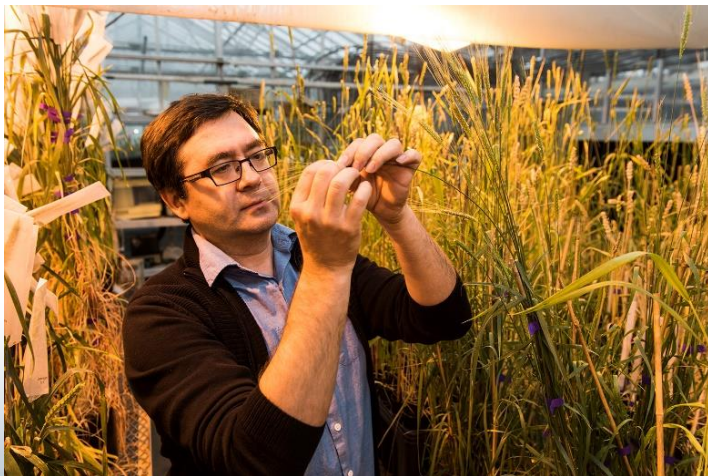


# OUR 2025 GOALS

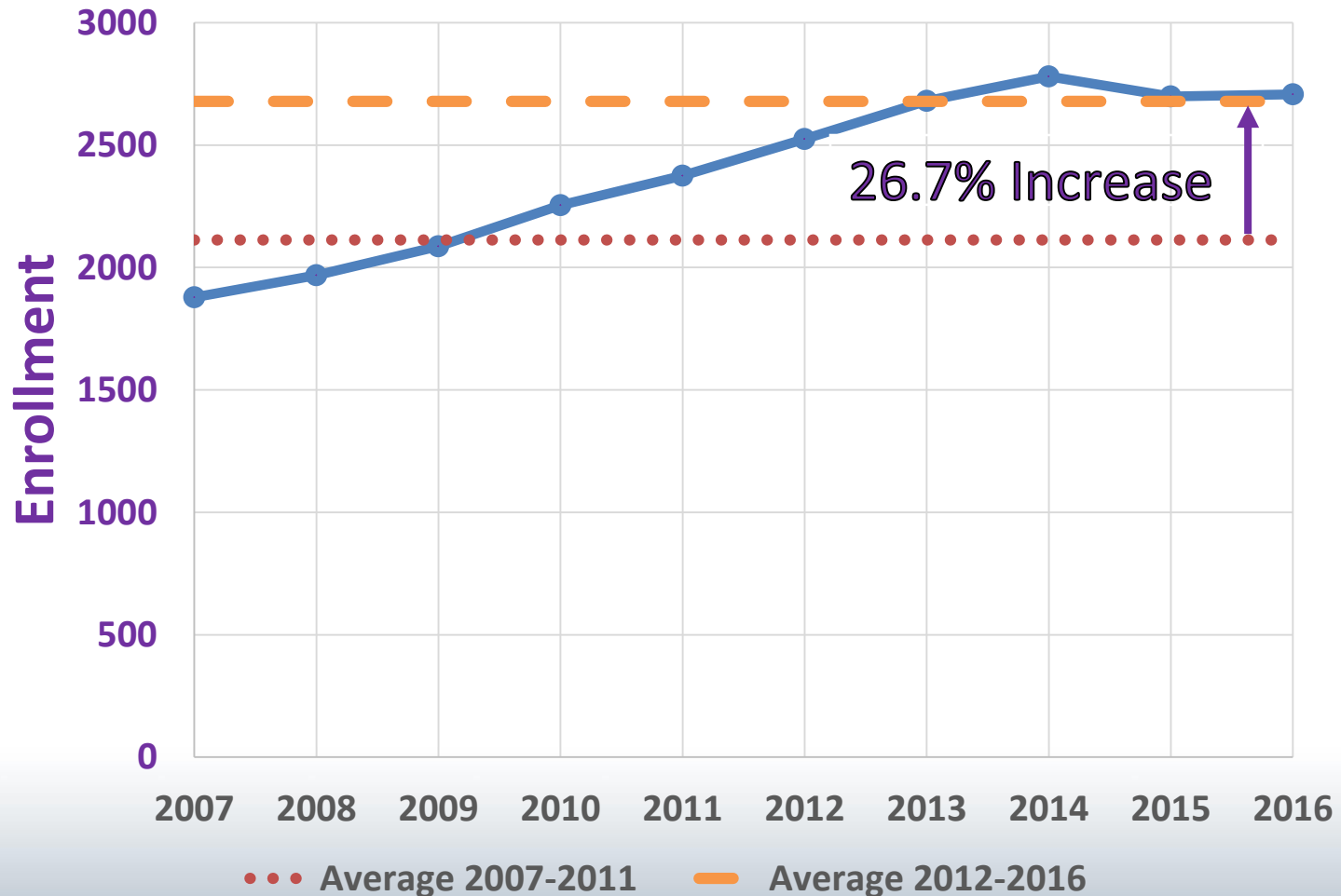
1. Provide students and citizens with knowledge and education
2. Contribute integrated solutions for the grand challenges
3. Enhance the quality of life of people and their communities.
4. Build our human capacity and infrastructure



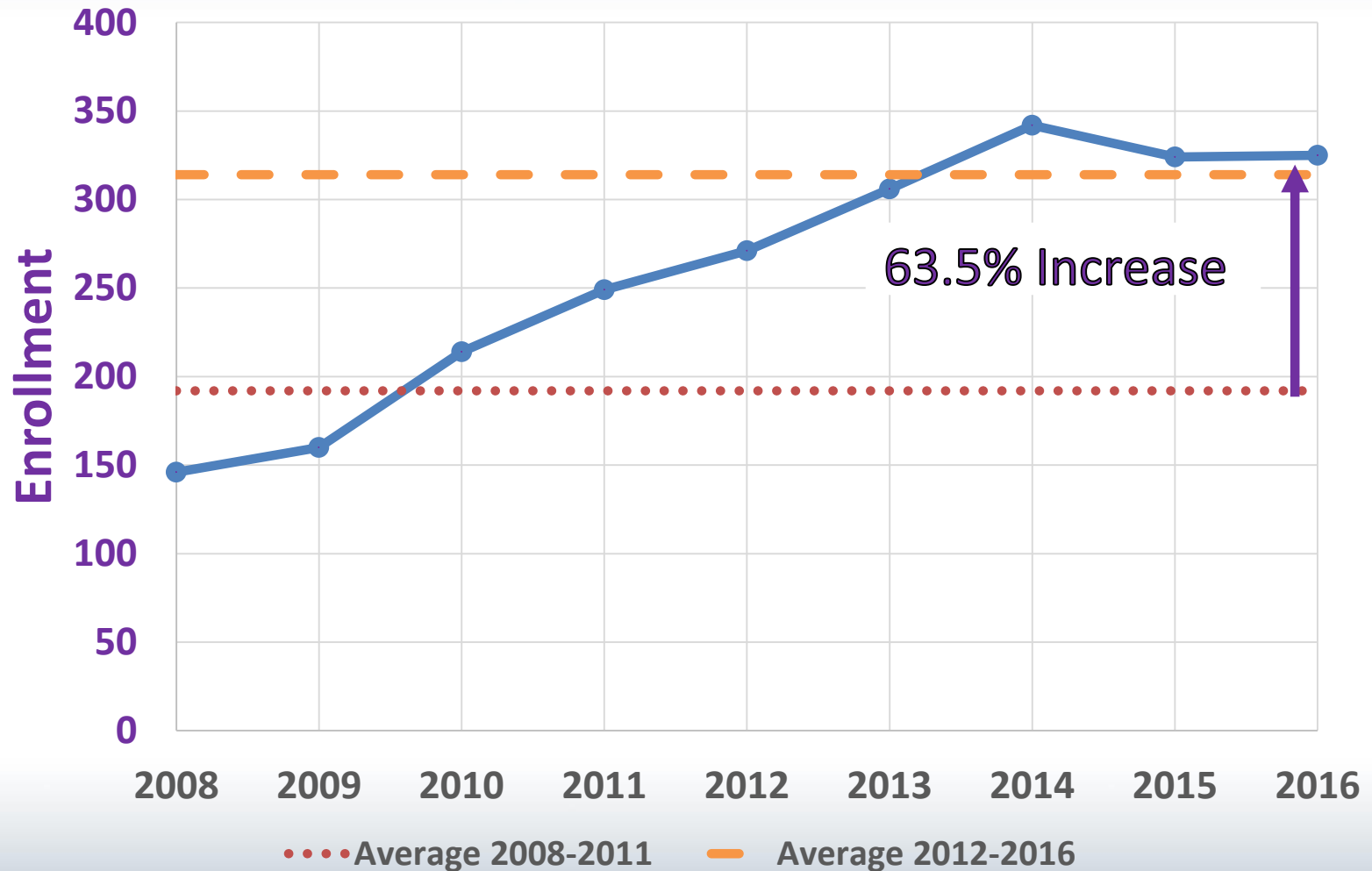
# We continue to do well in teaching and education



# Undergraduate Total Student Numbers

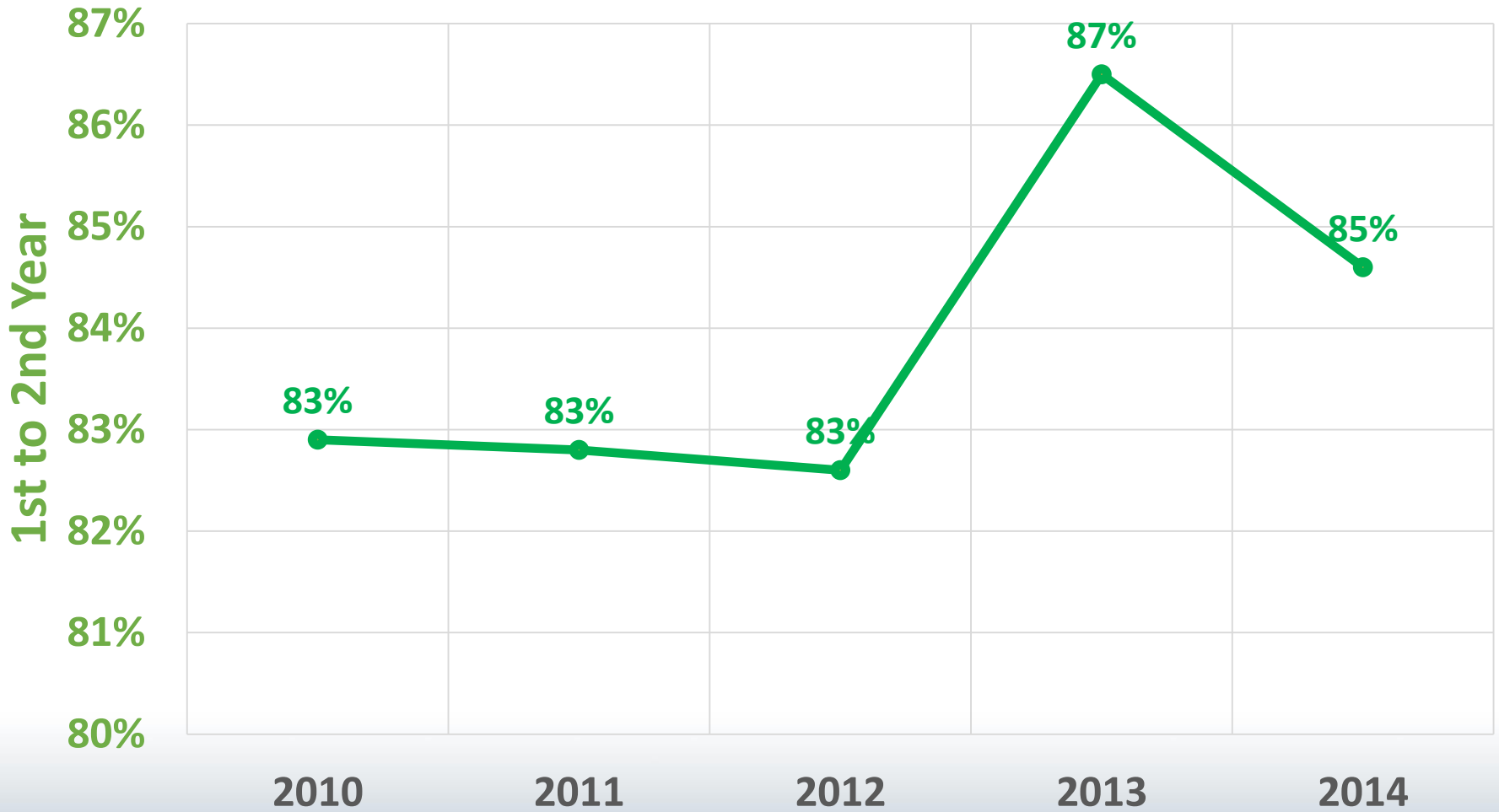


# Multicultural Undergraduate Students





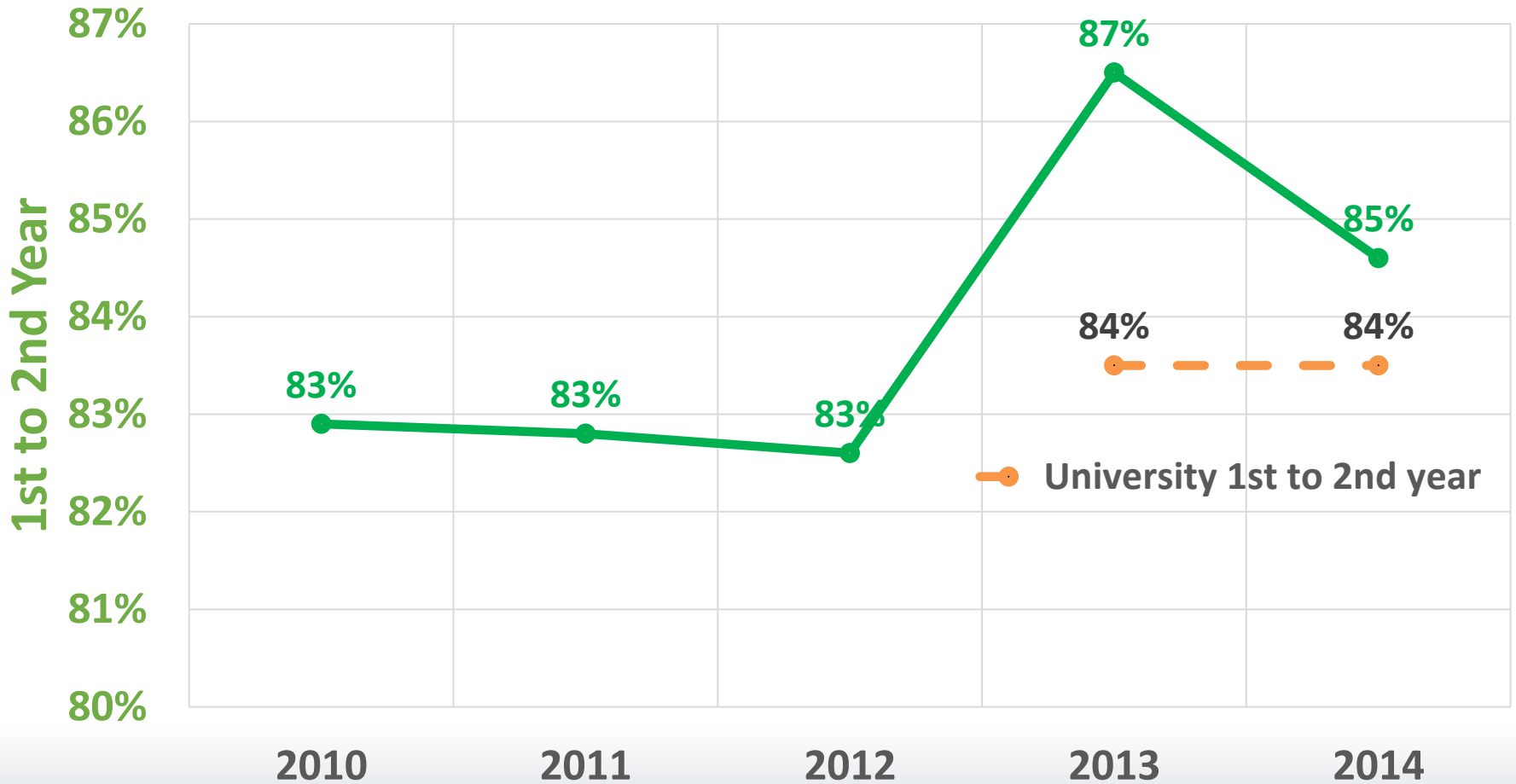
# Student Retention





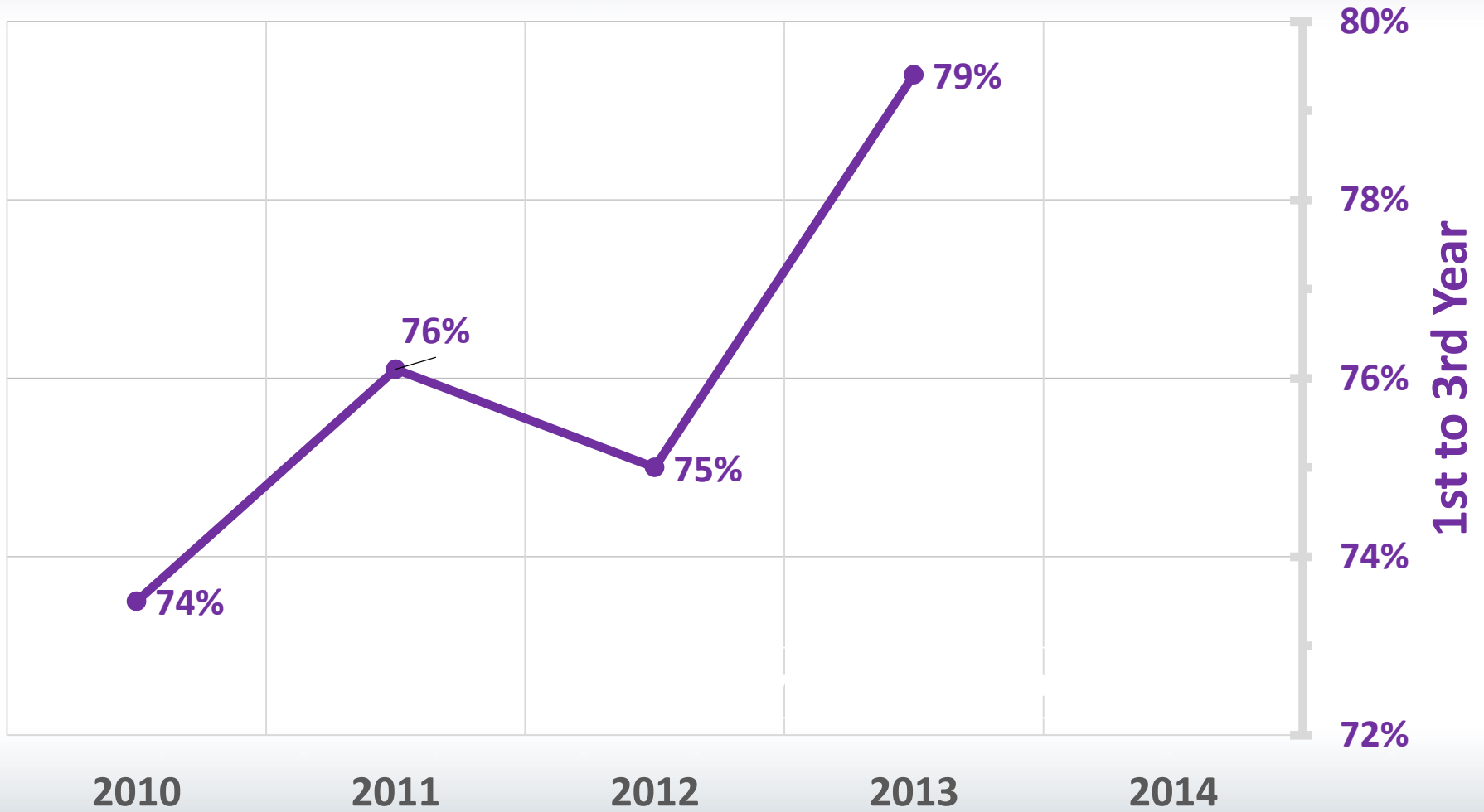


# Student Retention



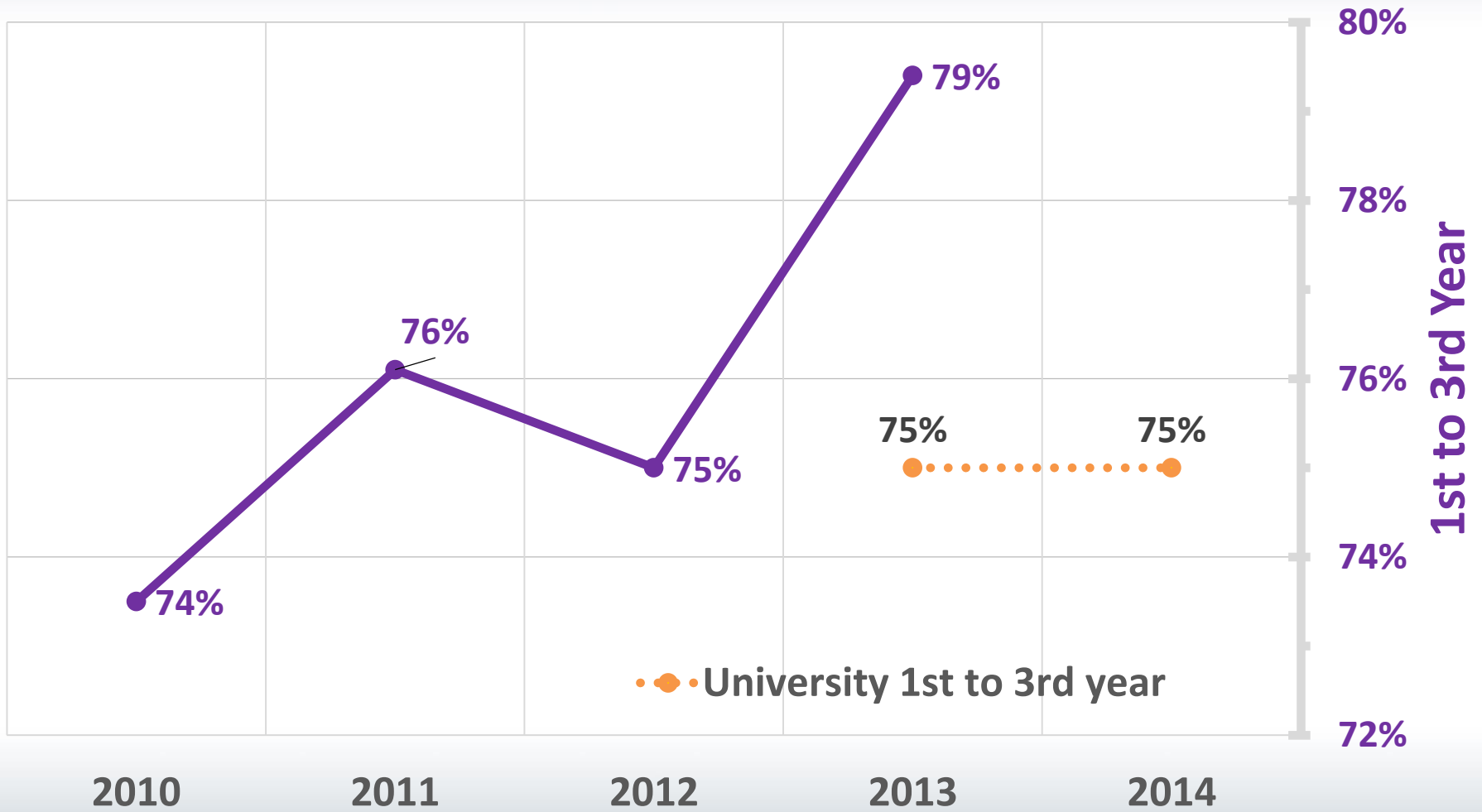


# Student Retention

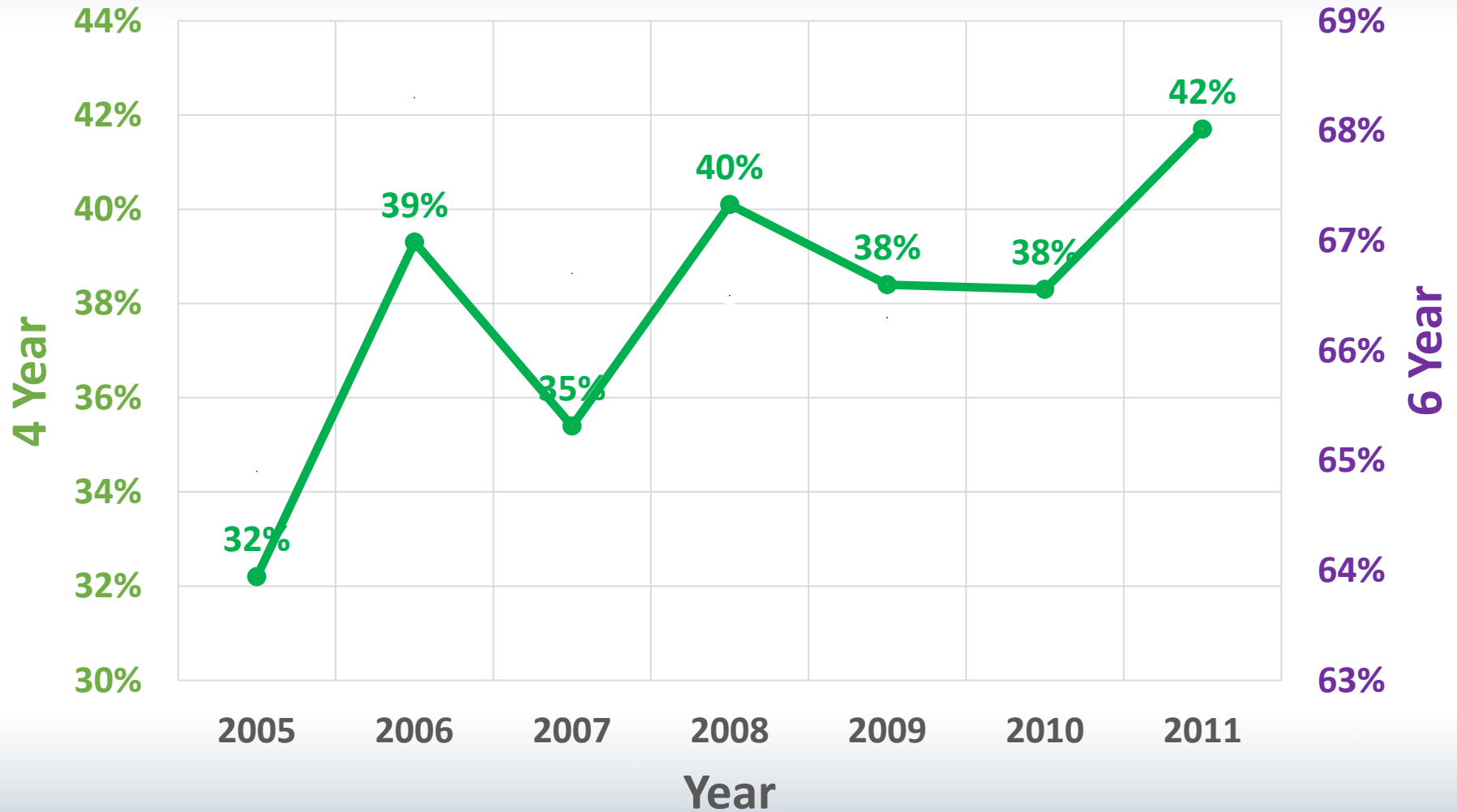




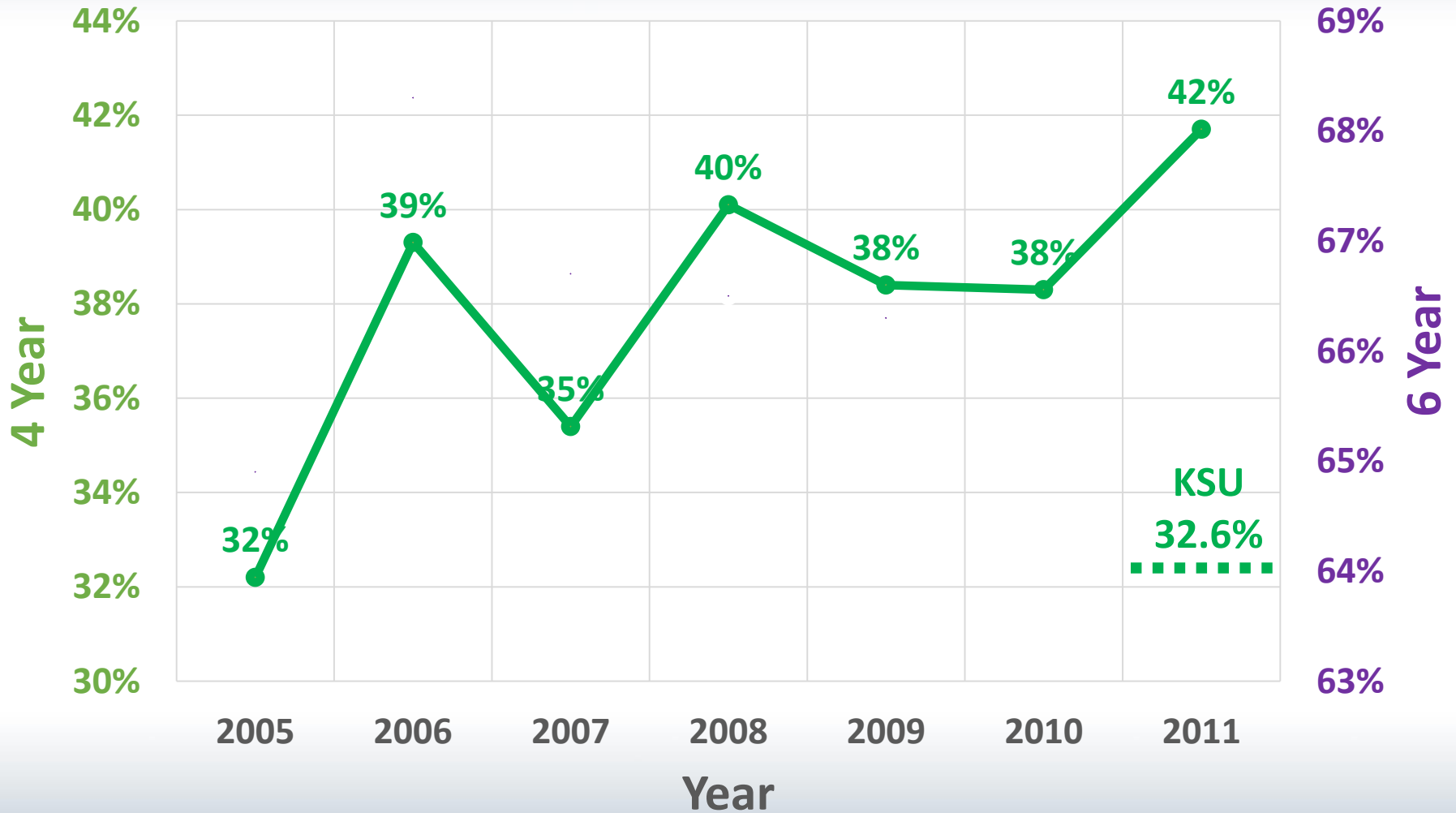
# Student Retention



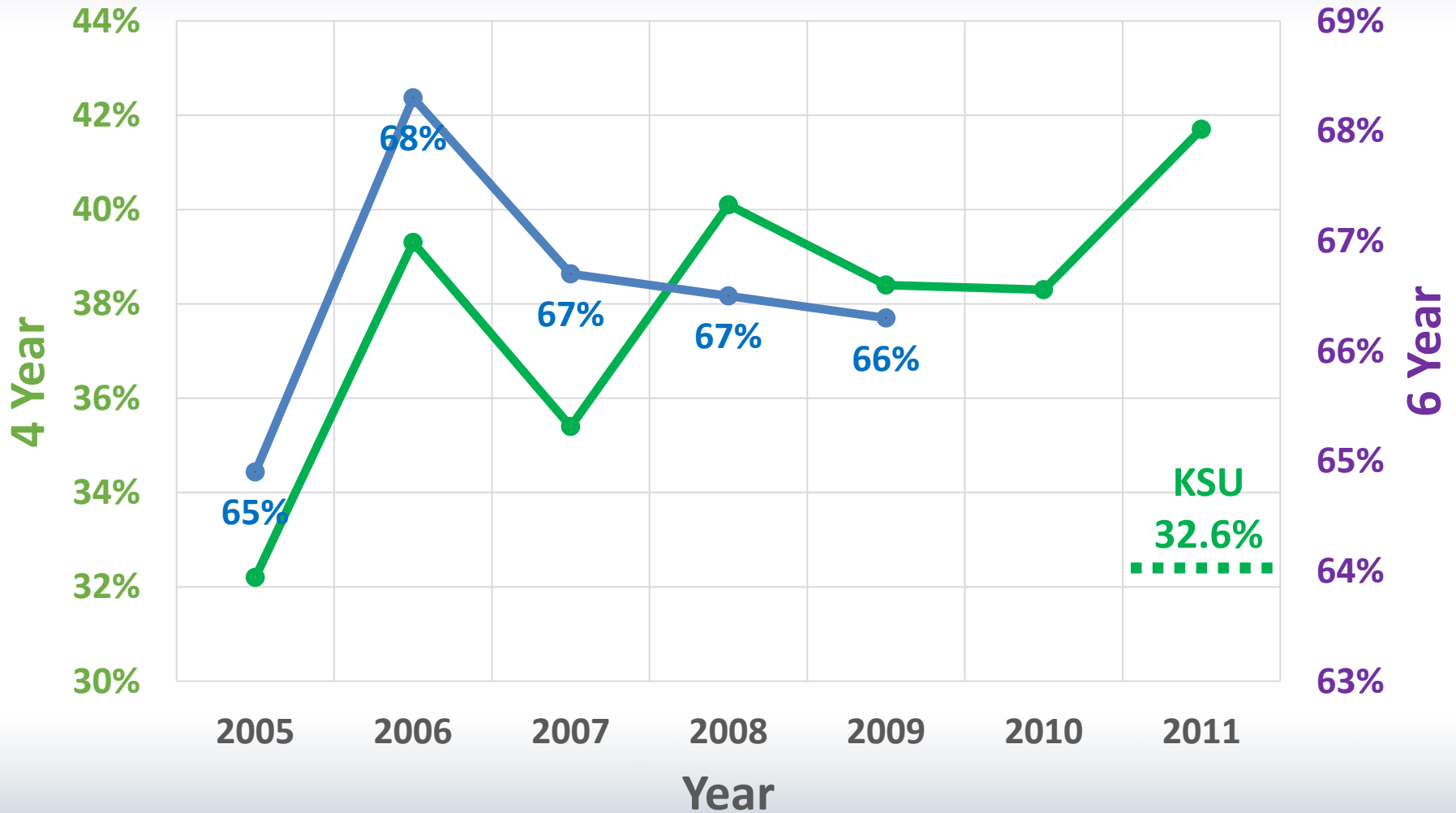
# 4 & 6 Year Graduation Rates



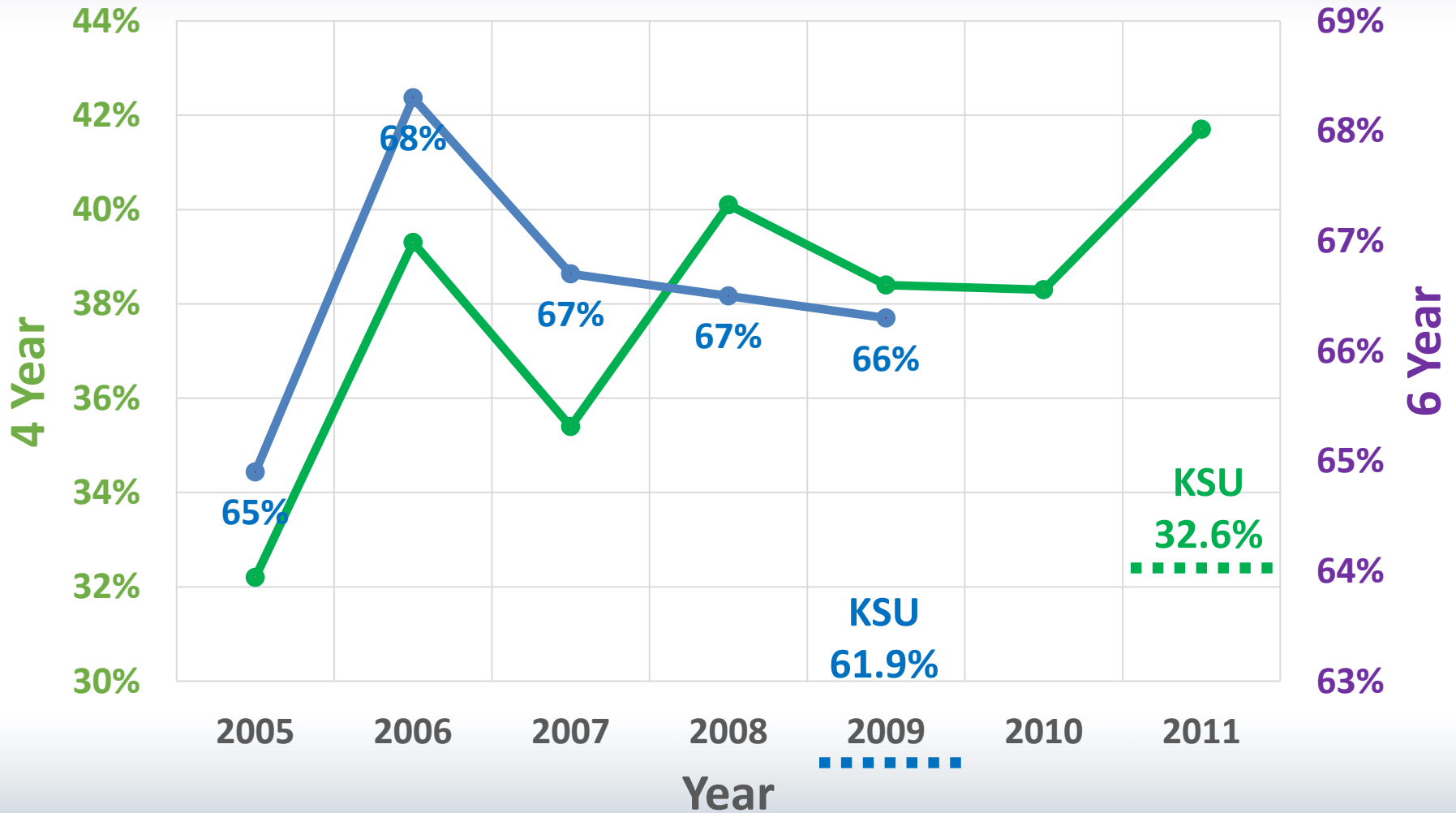
# 4 & 6 Year Graduation Rates



# 4 & 6 Year Graduation Rates



# 4 & 6 Year Graduation Rates



# UNDERGRADUATE STUDENT SUCCESS

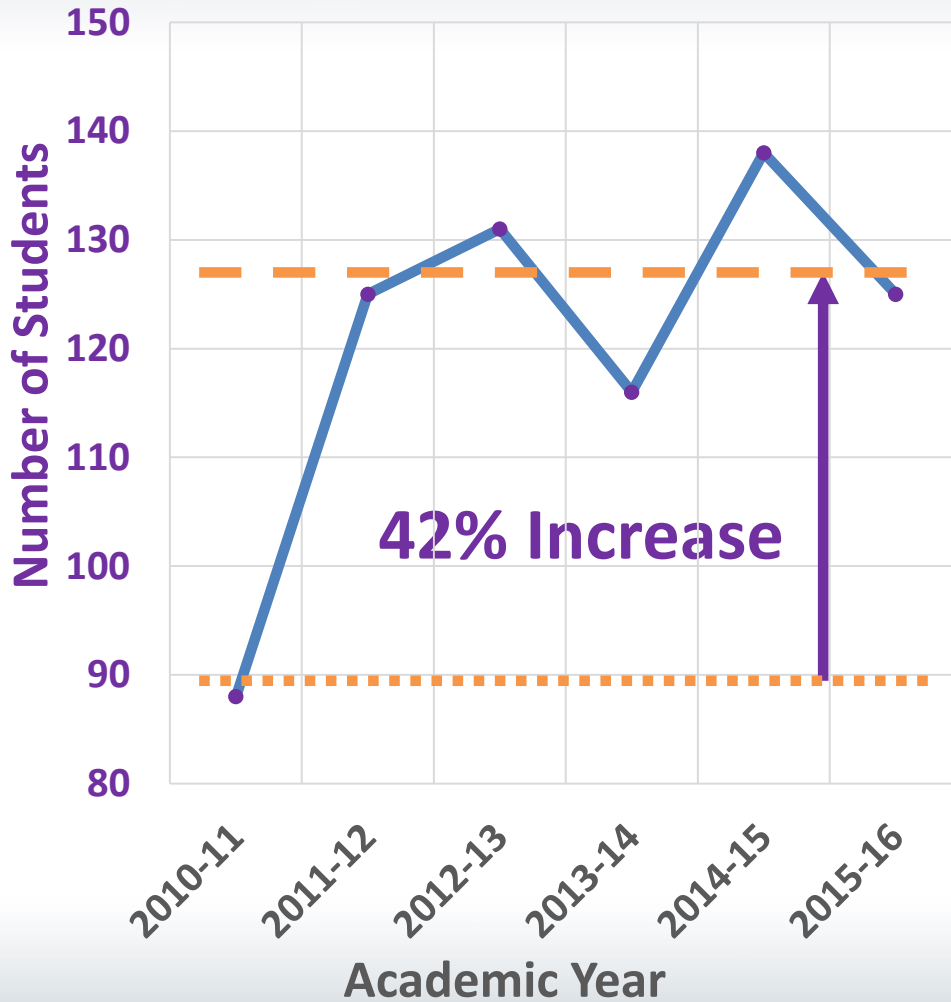
- **COA Post Graduation Placement (97%)  
(Undergraduates) 2014-2015 (85% reporting)**
  - **Employed – 76 %**
  - **Further Education – 20 %**
  - **Other Activities – 1 %**
  - **Seeking Employment – 3 %**
  - **Range of Average Salaries: \$36,545 – \$64,364**



# Helping Students Succeed

- The Food Science Institute offers a textbook loan program to all food science students (undergraduate and graduate).
- The textbook loan program assists our students in saving \$\$ by checking out a course required textbook every semester or as needed on a first come/first served basis program.

# Ag Students Who Have Studied Abroad



# KSRE Summer Research Fellowship Program

- Provides students an opportunity to work with a faculty member and learn about career opportunities in food, agriculture, and related sciences.
- Visiting the Riley County Extension Office.



# K-State Crops Team

- Went to Australia in September 2016
- Competed in the Australian Universities Crops Competition for the second time ever
- Won for the second time!!



# More Winning Teams!

- The Soil Judging Team won the Region 5 Soil Judging Contest again this month of October 2016.



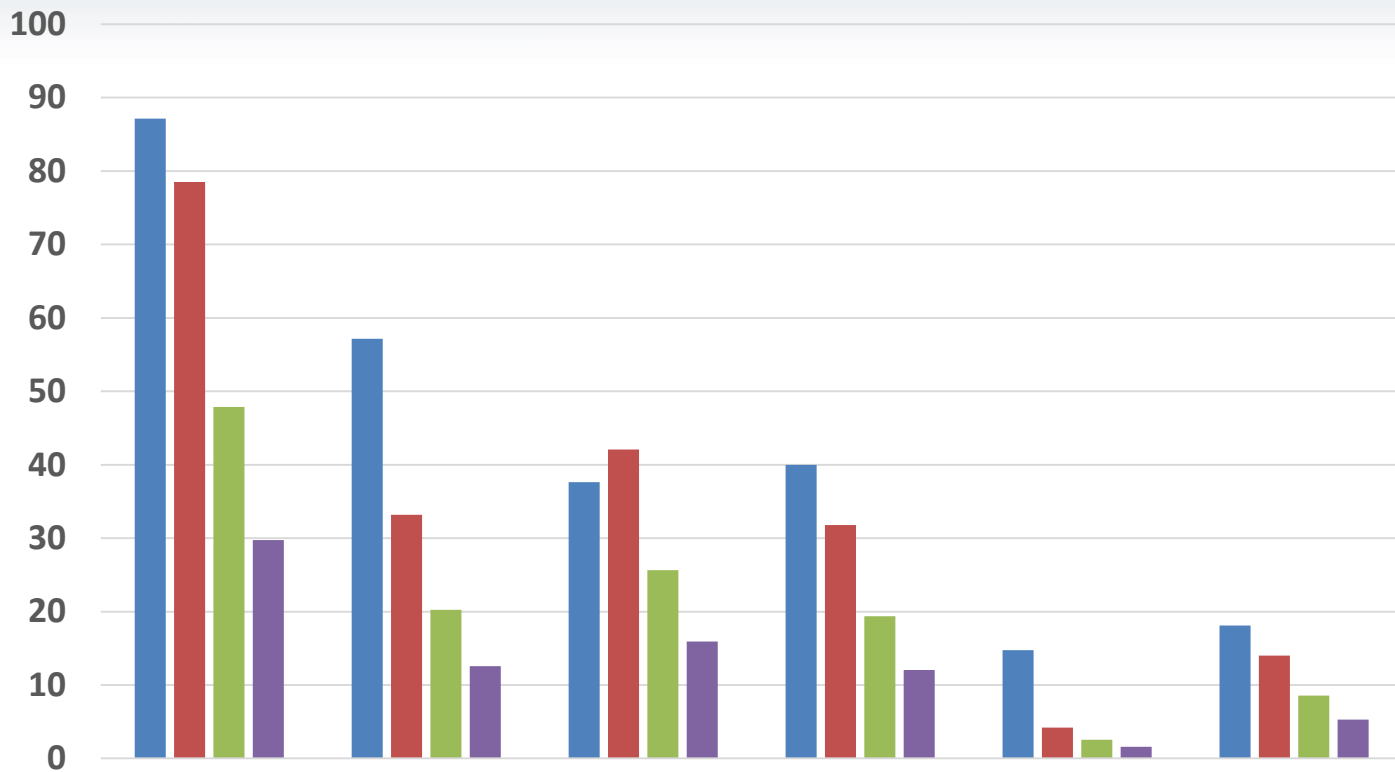
# Updating study space for students



# Award Winning Faculty



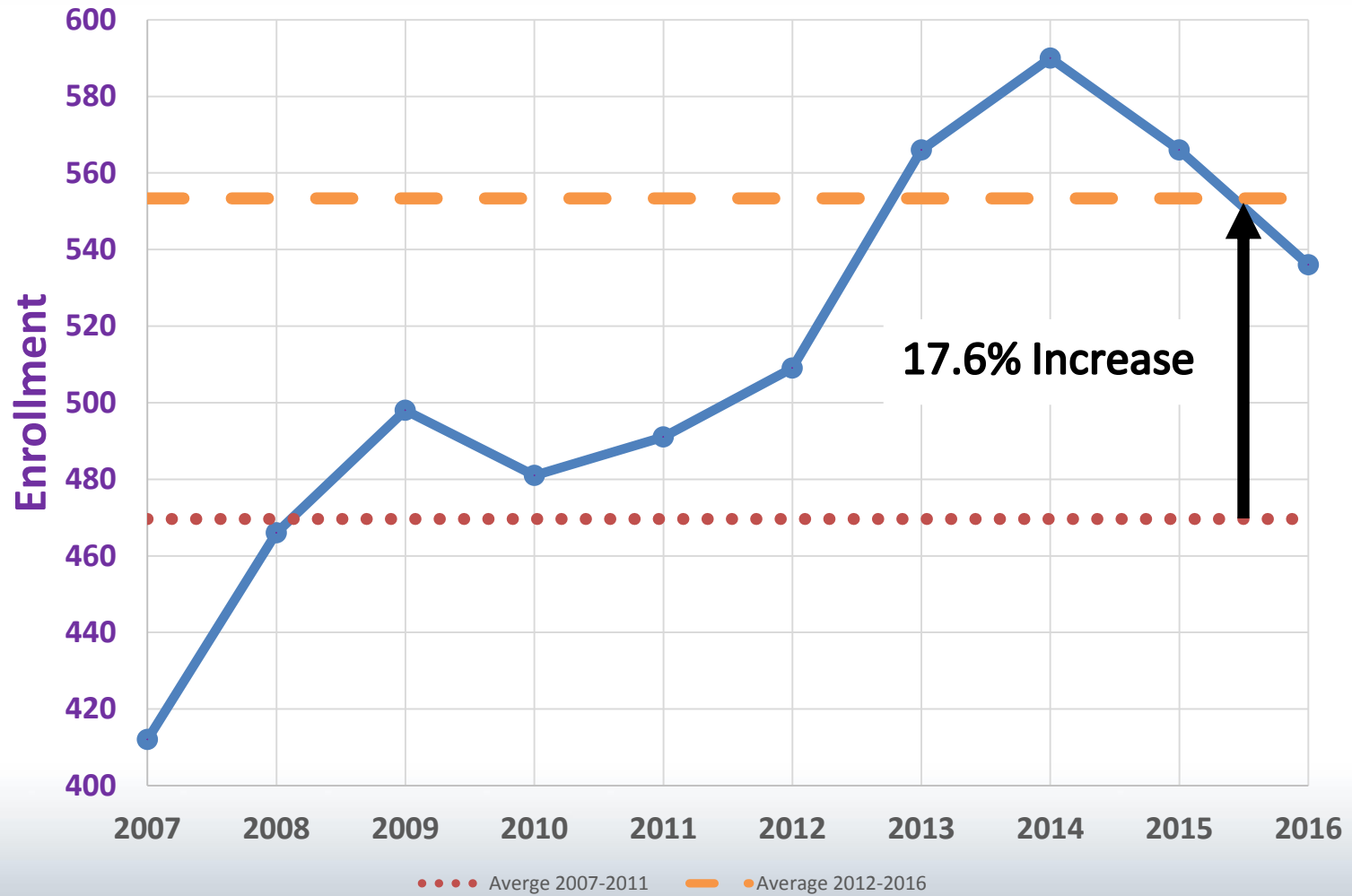
# College of Ag Professional Experiences



Status	Professional Experience	Jobs or Activities	Internships	Summer Jobs	Part Time Jobs	Undergraduate Research
Seniors	87.1	57.1	37.6	40.0	14.8	18.1
Juniors	78.5	33.2	42.1	31.8	4.2	14.0
Sophomores	47.9	20.2	25.6	19.4	2.6	8.5
Freshmen	29.7	12.6	15.9	12.0	1.6	5.3



# Graduate Student Numbers



# Graduate Students

One goal was to better prepare our graduate students for life after graduate school:

- The Department of Plant Pathology has implemented a professional development course for the graduate students that will prepare them for competing for scientific positions and moving into the working world as successful scientists.

# DOCTORAL PROGRAM RANKINGS IN THE US



**No.1**

PLANT PATHOLOGY  
DEPARTMENT



**No.4**

AGRICULTURAL  
ECONOMICS PROGRAM



**No.5**

ANIMAL SCIENCE DOCTORAL  
PROGRAM FOR RESEARCH  
PRODUCTIVITY



**No.8**

ENTOMOLOGY  
DOCTORAL PROGRAM



**No.9**

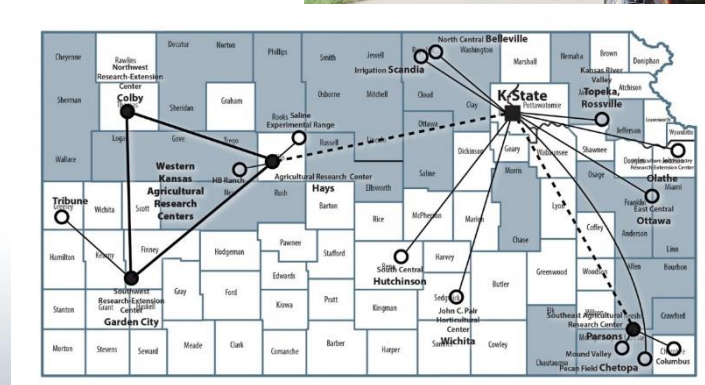
INTERDEPARTMENTAL  
FOOD SCIENCE PROGRAM



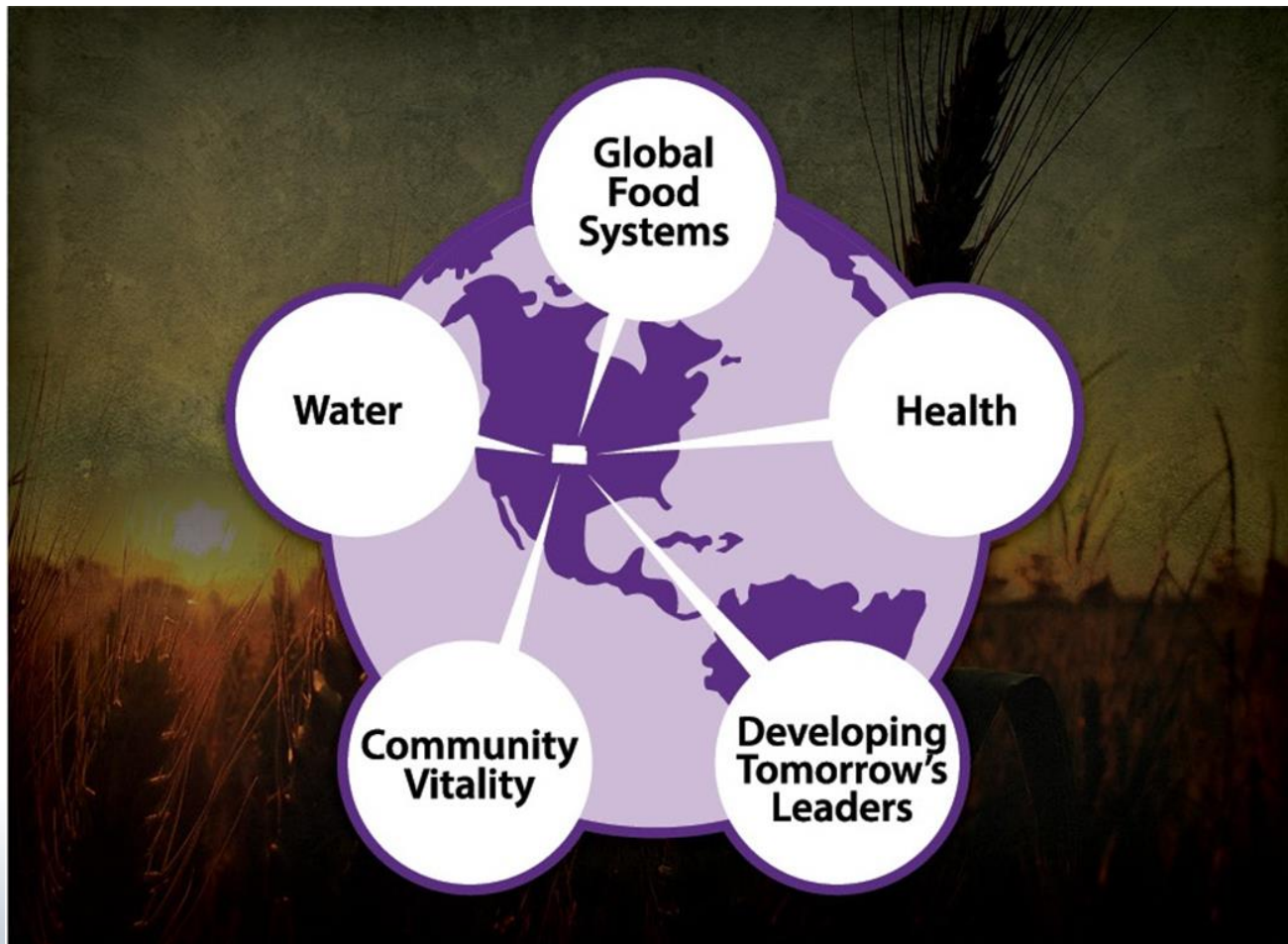
**No.10**

PLANT SCIENCES

# We continue to do well in research and extension



# Grand Challenges



# Crops



A K-State team is helping develop wheat varieties that resist mites and viruses that cost Kansas producers \$20 to \$30 million a year



Center for Sorghum Improvement is a new collaborative partnership based at K-State that is focused on expanding markets for sorghum and increasing yields by 2025

# KSU Wheat Varieties

#1 Wheat Variety for 5 out of the last 6 years

2015 – Everest

2014 – Everest

2013 – Everest

2012 – Everest

2010 – Fuller



# Animal Feed and Safety



Center of Excellence for Vector-Borne Diseases is researching heartwater, an important agricultural foreign animal threat spread by ticks.

A K-State team is studying the presence of PEDv in animal feed. PEDv killed more than 8 million pigs in 2014.

Source: K-State news releases



# Food Safety and Innovation



Kansas Value Added Foods Lab has facilities, equipment and instruments for food development, packaging and analyses of foods used by food-related businesses, processors and entrepreneurs



Rural Grocery Initiative has identified nearly 200 grocery stores in rural Kansas towns with populations under 2,000 that need help with rural business development to keep food accessible

# Social Media

- Social Media (Facebook, Twitter, Instagram, Apps for Producers' phones, etc.) is allowing our researchers and extension faculty to immediately share research results and new knowledge with Kansas citizens.





# Robotics and Unmanned Systems



- DeLaval robotic milking system display on campus - 1200 students exposed to the new technology
- Animal science faculty member is on sabbatical with DeLaval to gain additional knowledge of the systems to bring back to K-State
- K-State has partnered with Precisionhawk Inc. in North Carolina to develop UAS applications that turn aerial images of field crops into useful data about crop production issues.

# Developing Urban Food Systems



# Global Food Systems Success

- Over the past five years, total extramural funding secured by the faculty at the Western Kansas Agricultural Research Centers has increased by 45% (from \$1.45M to \$2.1M).



# Water


- The Ogallala Aquifer's region accounts for 30% of total crop and animal production in the U.S.
- More than 90% of the water pumped is used for irrigated agriculture
- **If current trends continue, 69% of the aquifer will be depleted in 50 years**
- K-State is part of a consortium funded by USDA that will provide \$10 million over four years for innovative research to address the challenges in this area



# Watershed Specialists

- 2010-2015- Provided one-on-one consultations and technical assistance to 1,330 cooperators
- Taught at 1,616 educational events, reaching 91,000 people
- Implemented 861 cropland BMPs, affecting 148,699 acres.





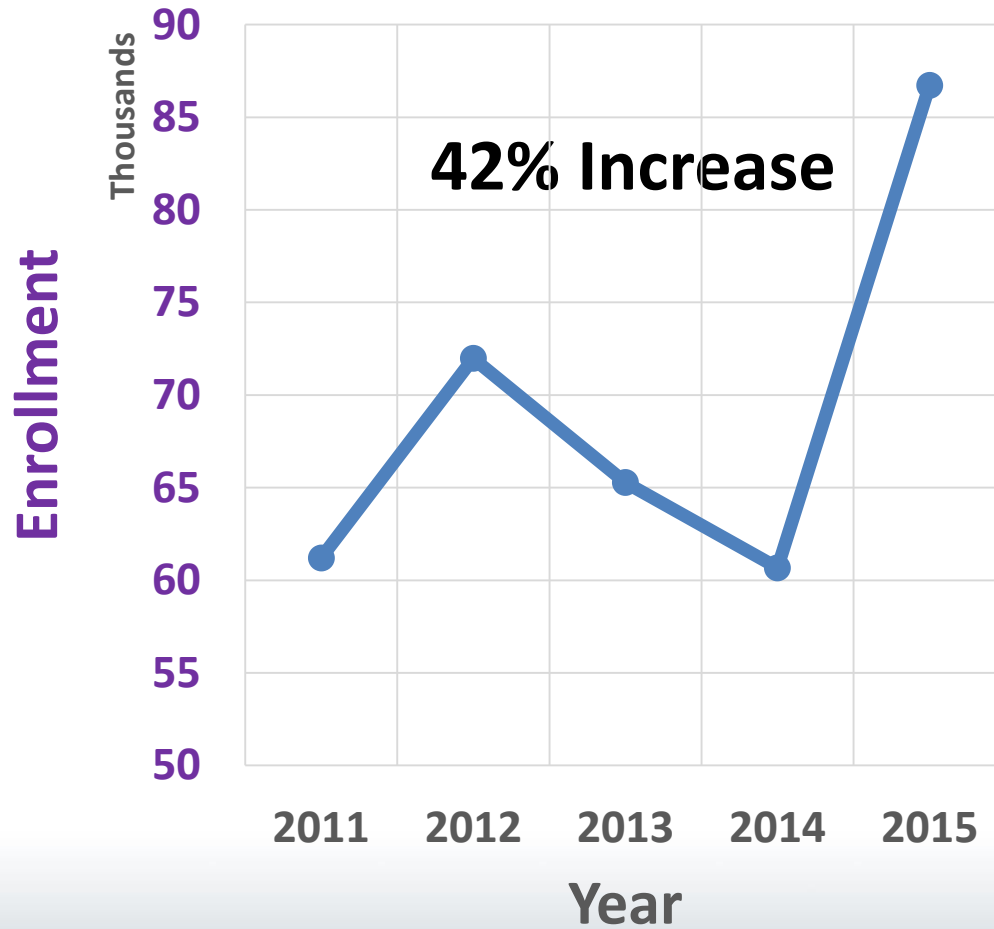
# USDA NIFA Coordinated Agriculture Project (CAP) GRANTS

- SHIGA TOXIN-PRODUCING E. coli (STEC) CAP
- Ogallala Aquifer CAP
- Grazing CAP
- Wheat CAP

All are 5 year, \$10 million multi-state, multi-university awards



# Kansas 4-H Enrollment



# Tomorrow's Leaders

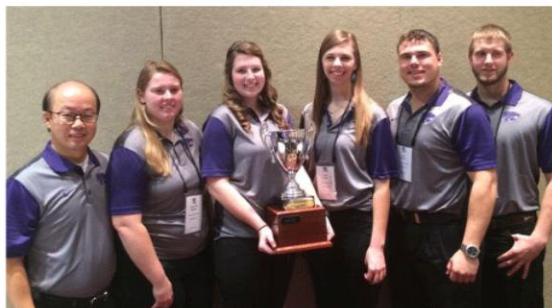


Senior Livestock Judging Team Wins Back-to-Back Championships in September 2016 after winning in 2015.

Food Science Product Development Team was first among all U.S. teams, at the 2016 Research Chefs Association (RCA) Student Culinology competition in Denver, Colorado.



Agronomy Forage Bowl Team won the National Forage Bowl Competition in January 2016 for the second time in a row and the second time they ever competed.



# HEALTH

- Keys to Embracing Aging has reached over 4,000 individuals across 3 states over the last year, and 96% of individuals say that they intend to make a behavioral change to better their overall health and wellness in order to promote increased independence and longevity.

Stay Strong, Stay Healthy



Stay Strong, Stay Healthy (SSSH) is an eight-week exercise program for older adults and sedentary middle-aged adults being conducted by K-State Research and Extension Family and Consumer Sciences agents.



# Community Vitality

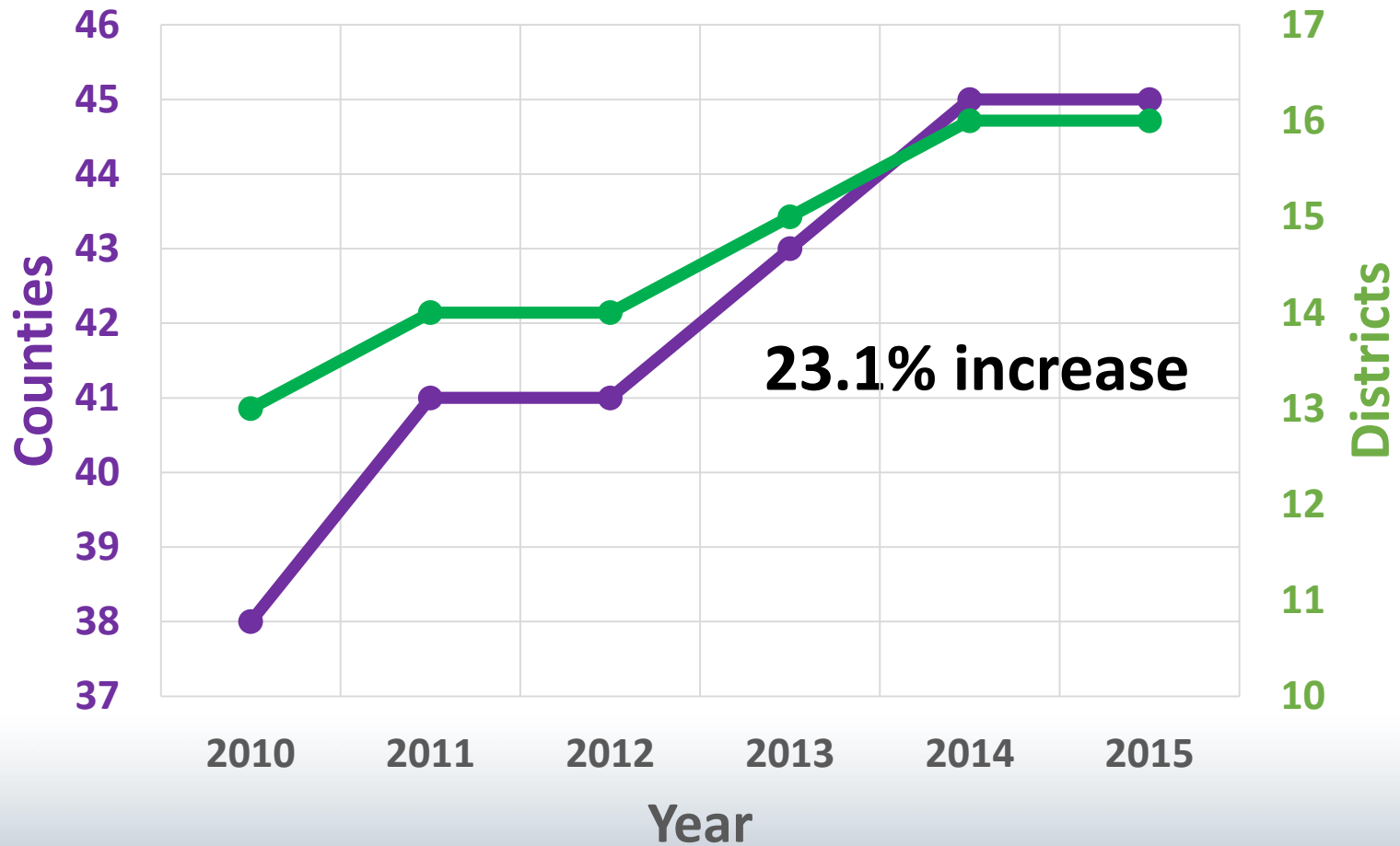
- **Kansas PRIDE, Inc.** provides start-up grants for projects that will improve local communities.
- The grants fall into two categories -- Growth and Action funding, and
- Partners in PRIDE grants for Communities of Excellence.

# Community Vitality

- Ice storms, tornadoes, and flooding – Kansas has them all and more. K-State Research and Extension specialists and agents conducted the **Prepare Kansas challenge** in September, reaching 47,822 Kansans.



# K-State Research and Extension Districts and Counties



# Company Partners

**We have built strong partnerships with:**

- Cargill
- General Mills
- Bayer Crop Science
- John Deere
- And many others

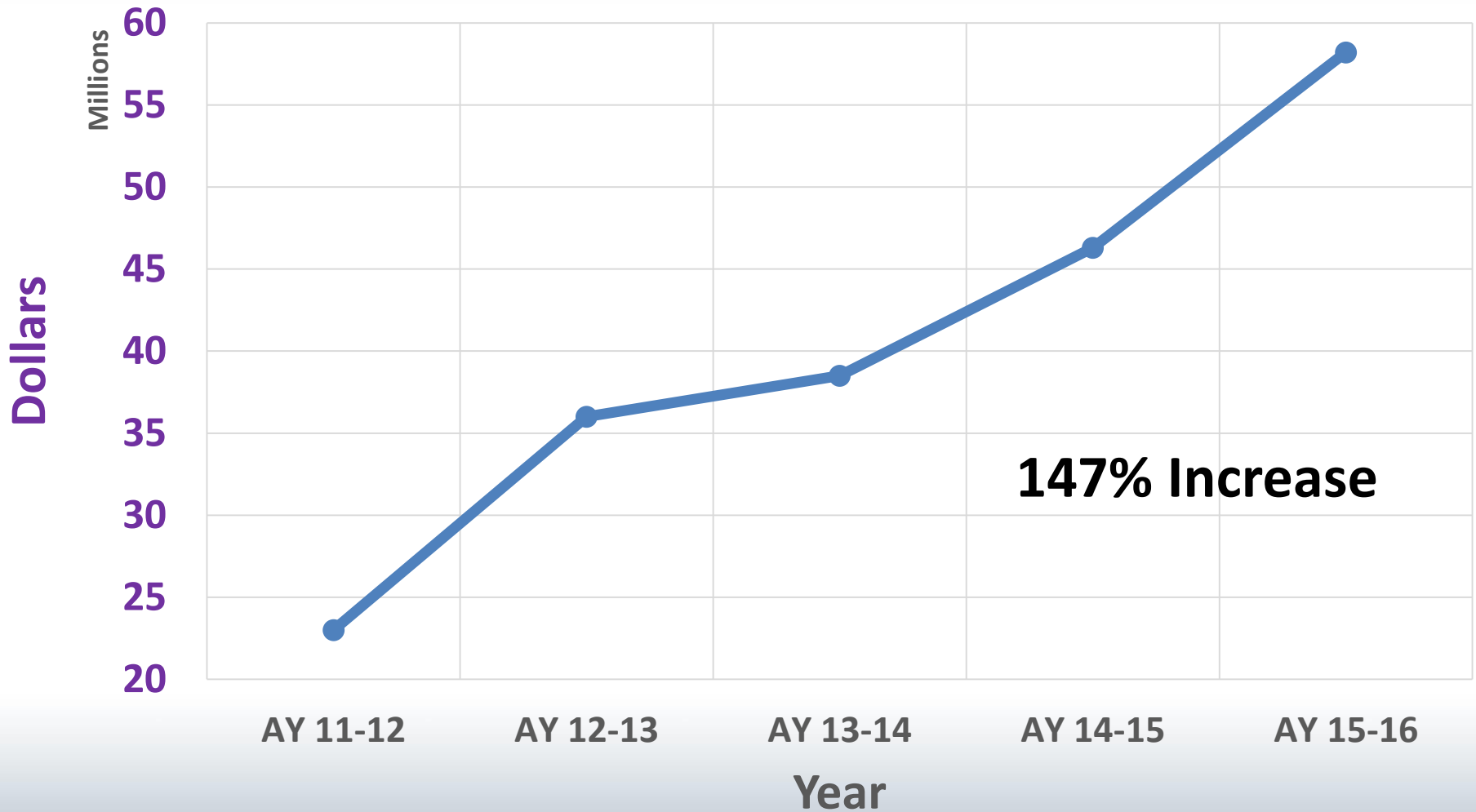




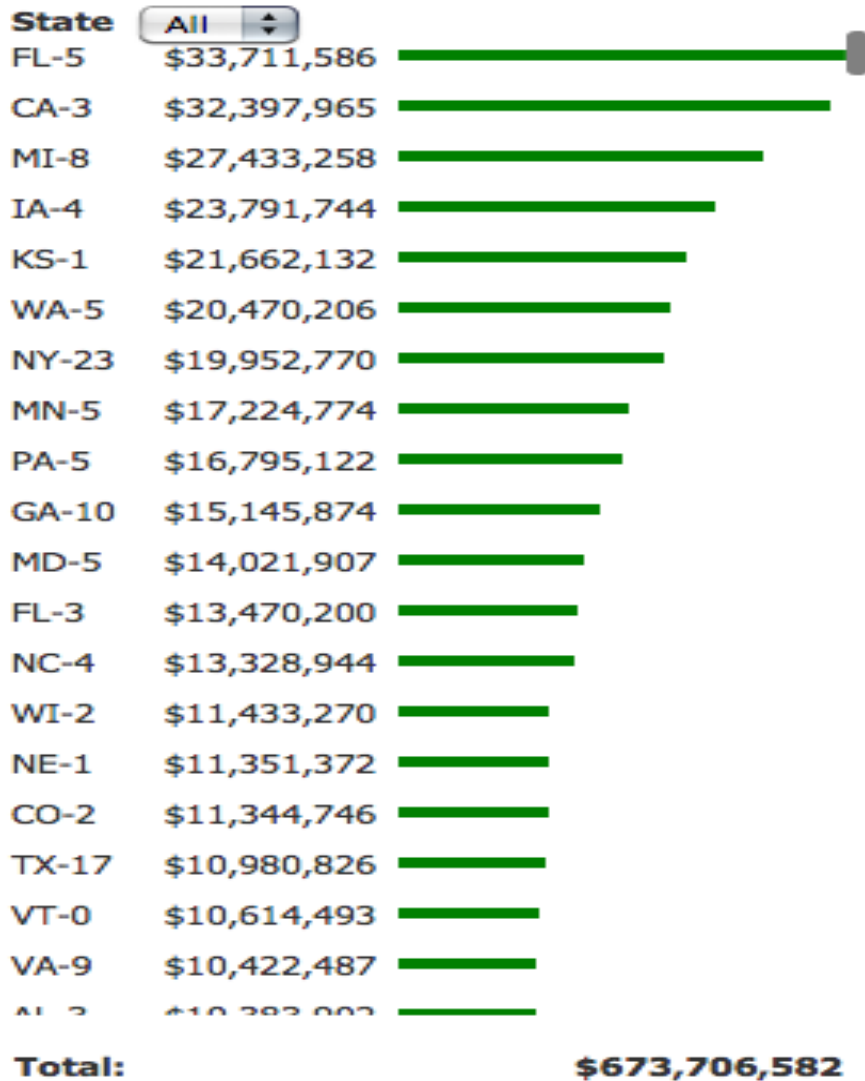
# Feed the Future Innovation Labs



# Extramural Awards

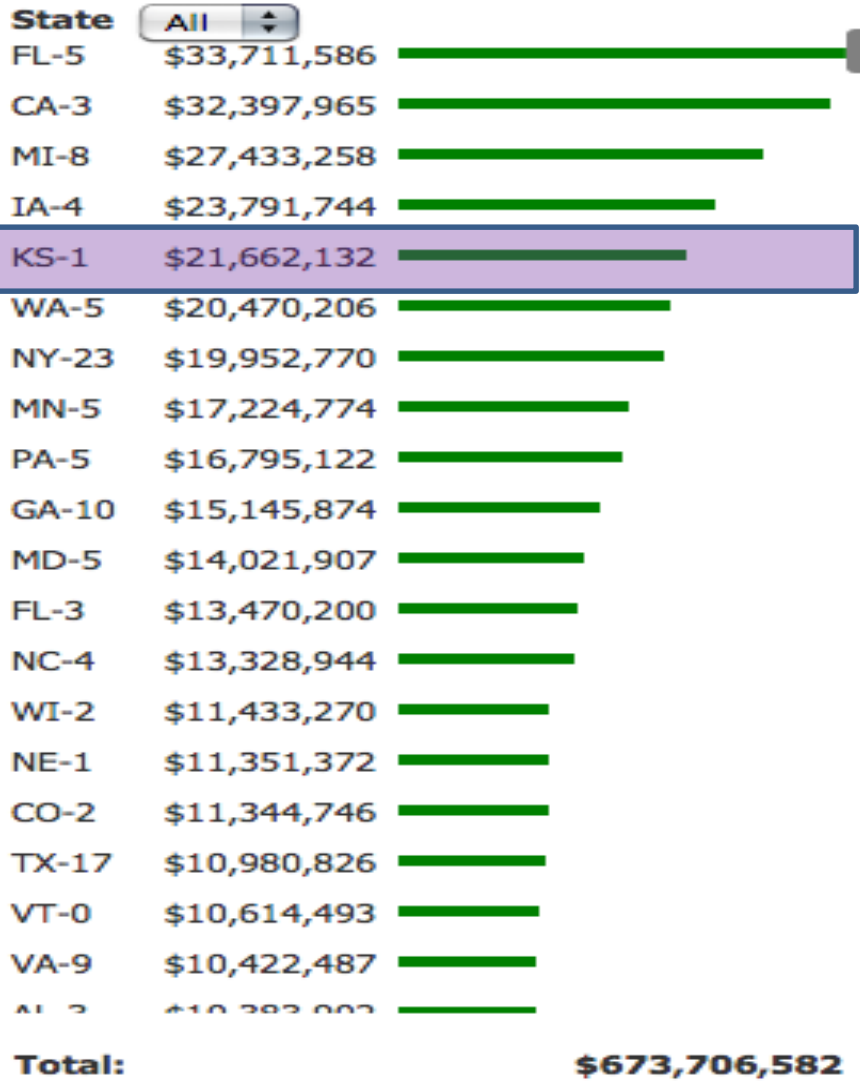


### Congressional District Ranking (Click on a district to view details)



Source: USDA-NIFA;  
[http://portal.nifa.usda.gov/web/maps/nifa-funding-by-congressional-district/?from\\_site=NIFA](http://portal.nifa.usda.gov/web/maps/nifa-funding-by-congressional-district/?from_site=NIFA)

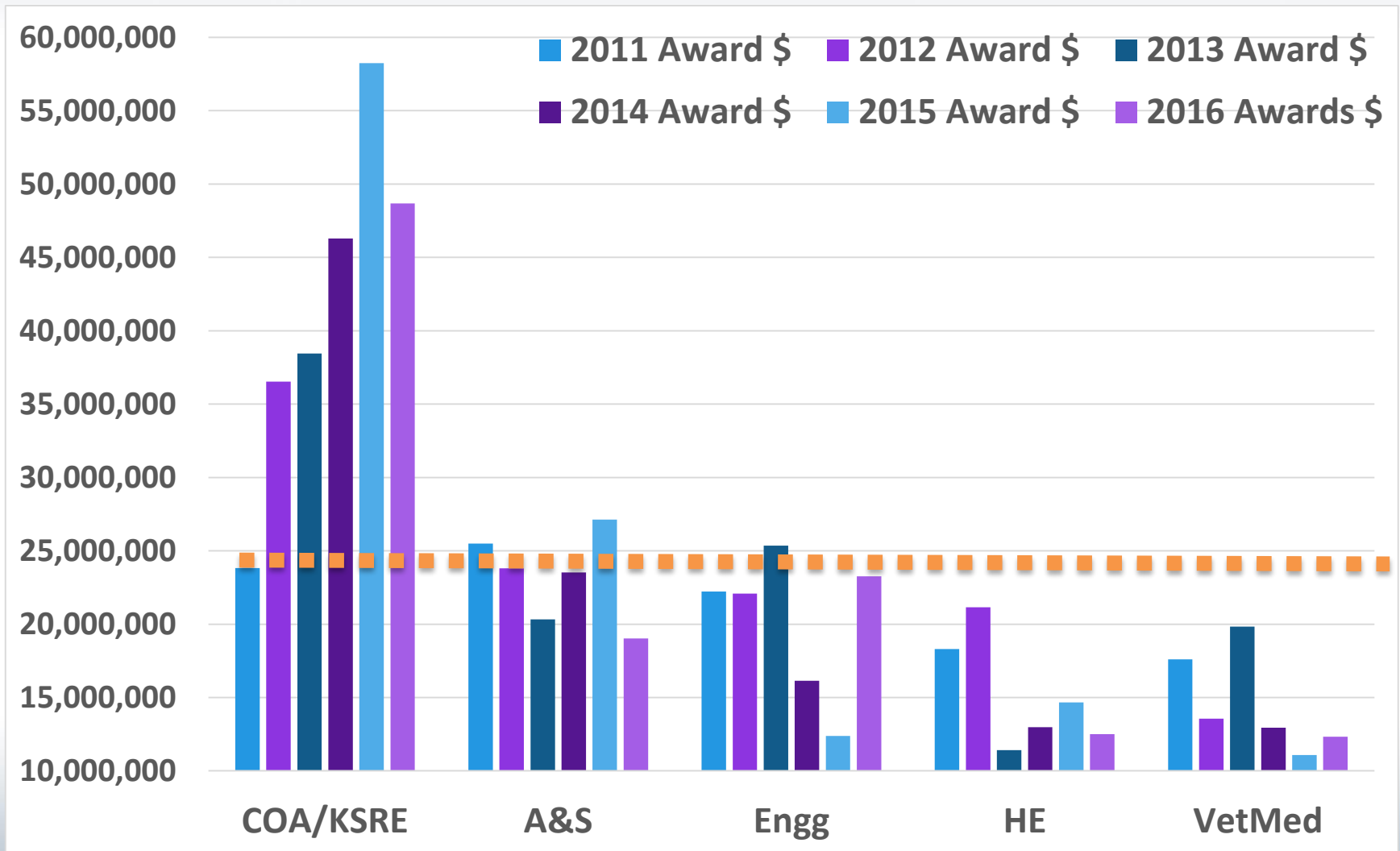
**Congressional District Ranking**  
(Click on a district to view details)



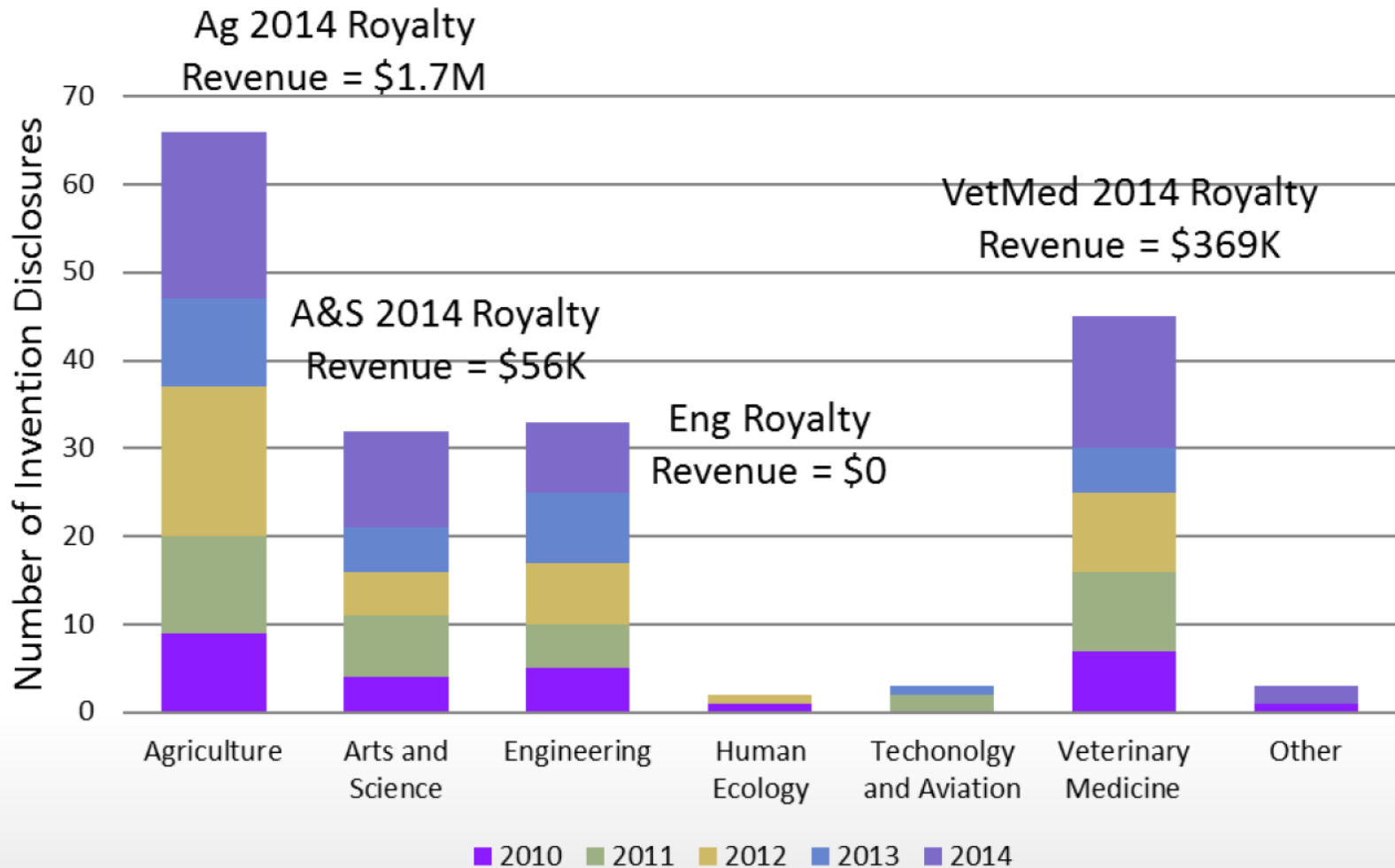
# K-State 5<sup>th</sup> Nationally in NIFA Competitive Grant Funding Among 1862 Land Grants

Source: USDA-NIFA;  
[http://portal.nifa.usda.gov/web/maps/nifa-funding-by-congressional-district/?from\\_site=NIFA](http://portal.nifa.usda.gov/web/maps/nifa-funding-by-congressional-district/?from_site=NIFA)

# FY11-16 Award Dollars by College



# Invention Disclosures and Licensing Revenue



From Fuentek report to KSURF, 2015



**We continue to do well  
in fundraising**

# Goal - Increase Endowed Chairs

- Bikram S. Gill Endowed Chair in Wheat Genetics
- University Distinguished Professor, Plant Pathology, Director of the Wheat Genetics Resource Center
- Bayer Crop Science



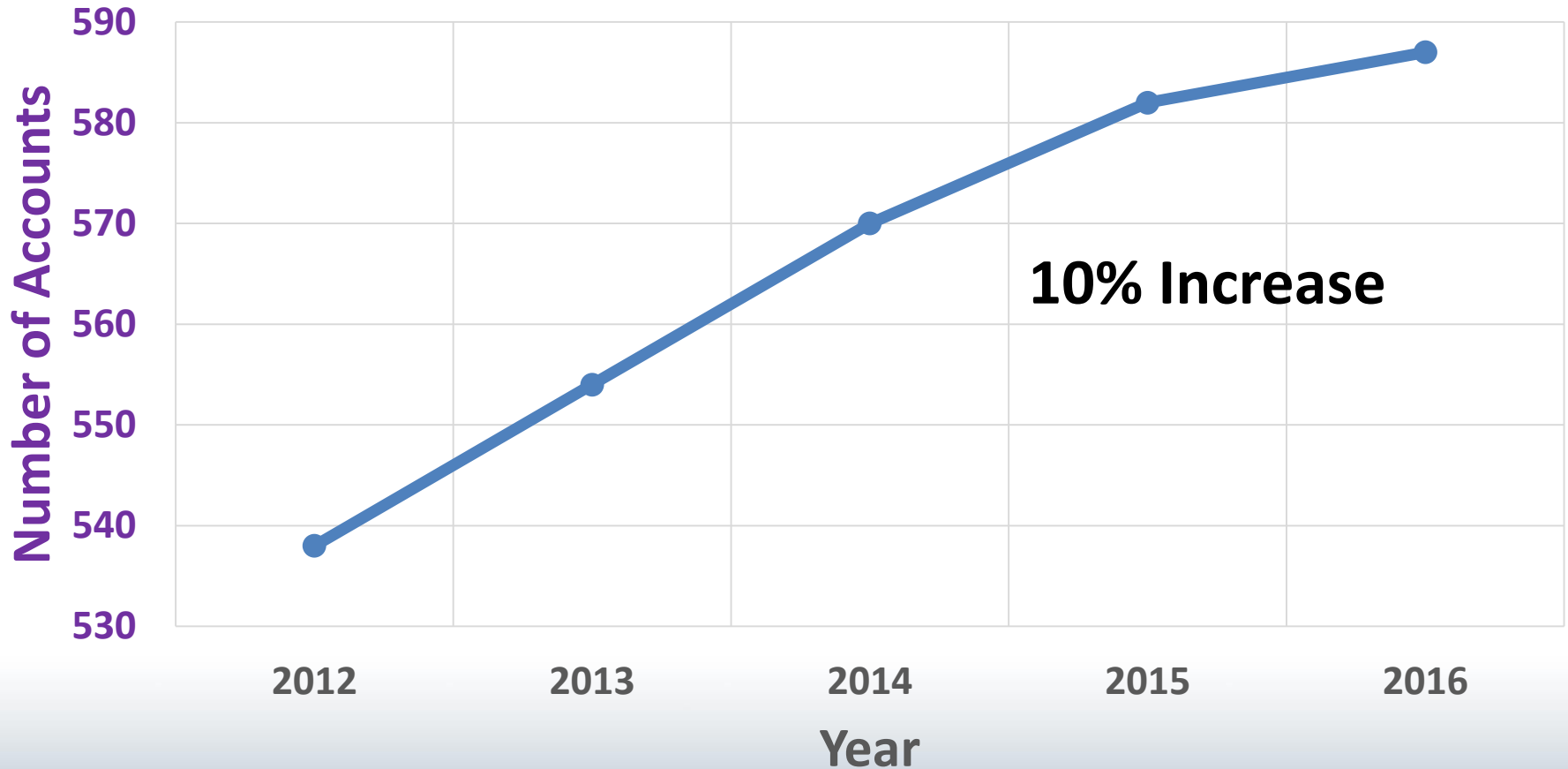




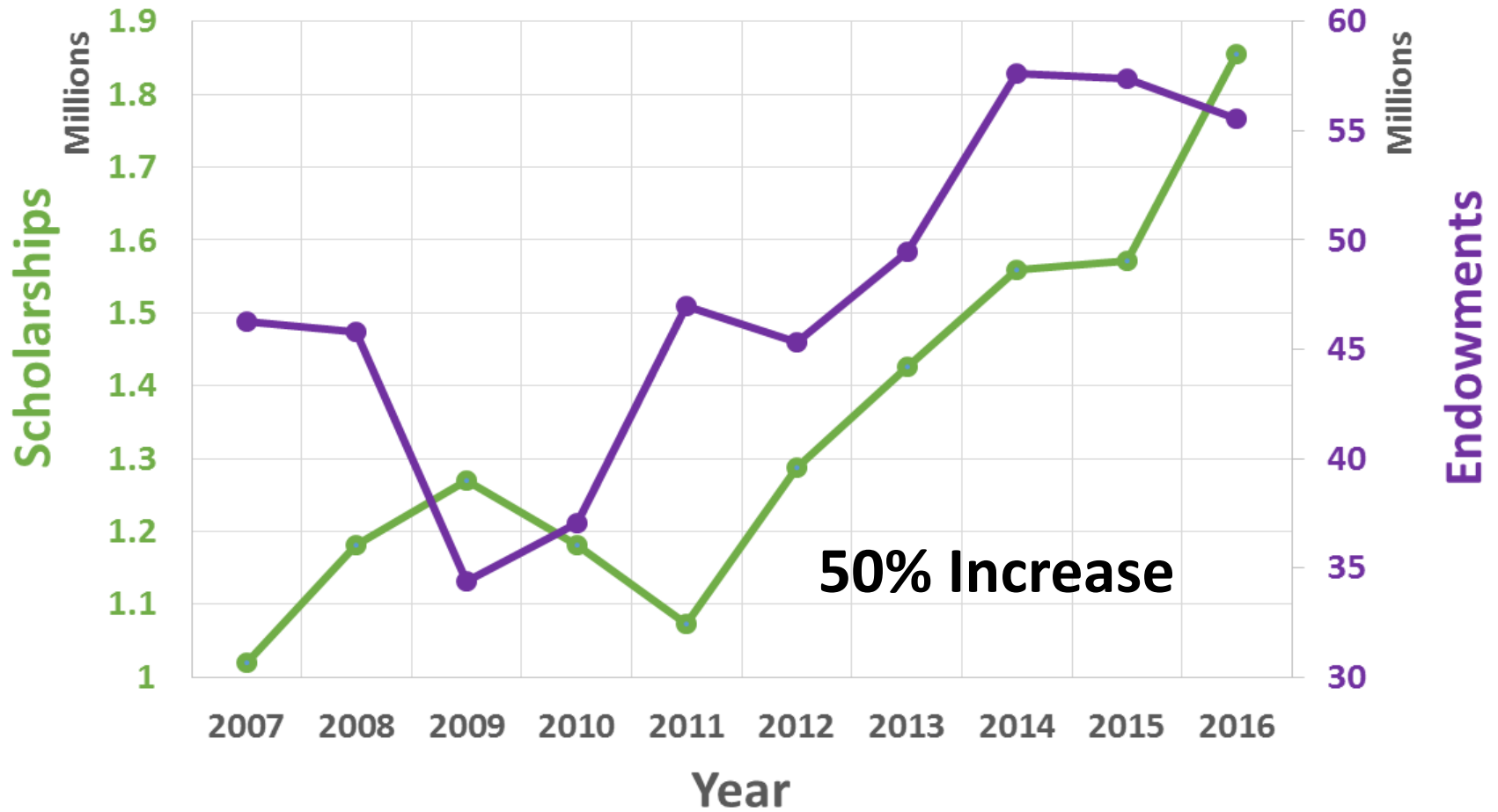
# Increase Endowed Professorships

- Dr. Charles Rice, University Distinguished Professor, Agronomy, Mary L. Vanier University Professorship
- Dr. KC Olsen, Professor, Animal Sciences and Industry, Walter M. and Frances Aicher Lewis Distinguished Chair in Animal Sciences and Industry
- Dr. Tom Phillips, Professor, Entomology, Professor Donald A. Wilbur Endowed Professorship
- Dr. Hulya Dogan, Professor, Grain Science and Industry, G.M. Ross Professorship in Milling Science and Management
- Dr. Jon Faubion, Professor, Grain Science and Industry, Charles D. Singelton Chair in Grain Science and Industry
- Dr. Charles Stark, Associate Professor, Grain Science and Industry, Jim and Carol Brown Associate Professor in Feed Technology
- Dr. Praveen Vadlani, Associate Professor, Grain Science and Industry, Lortscher Professorship in Renewable Energy

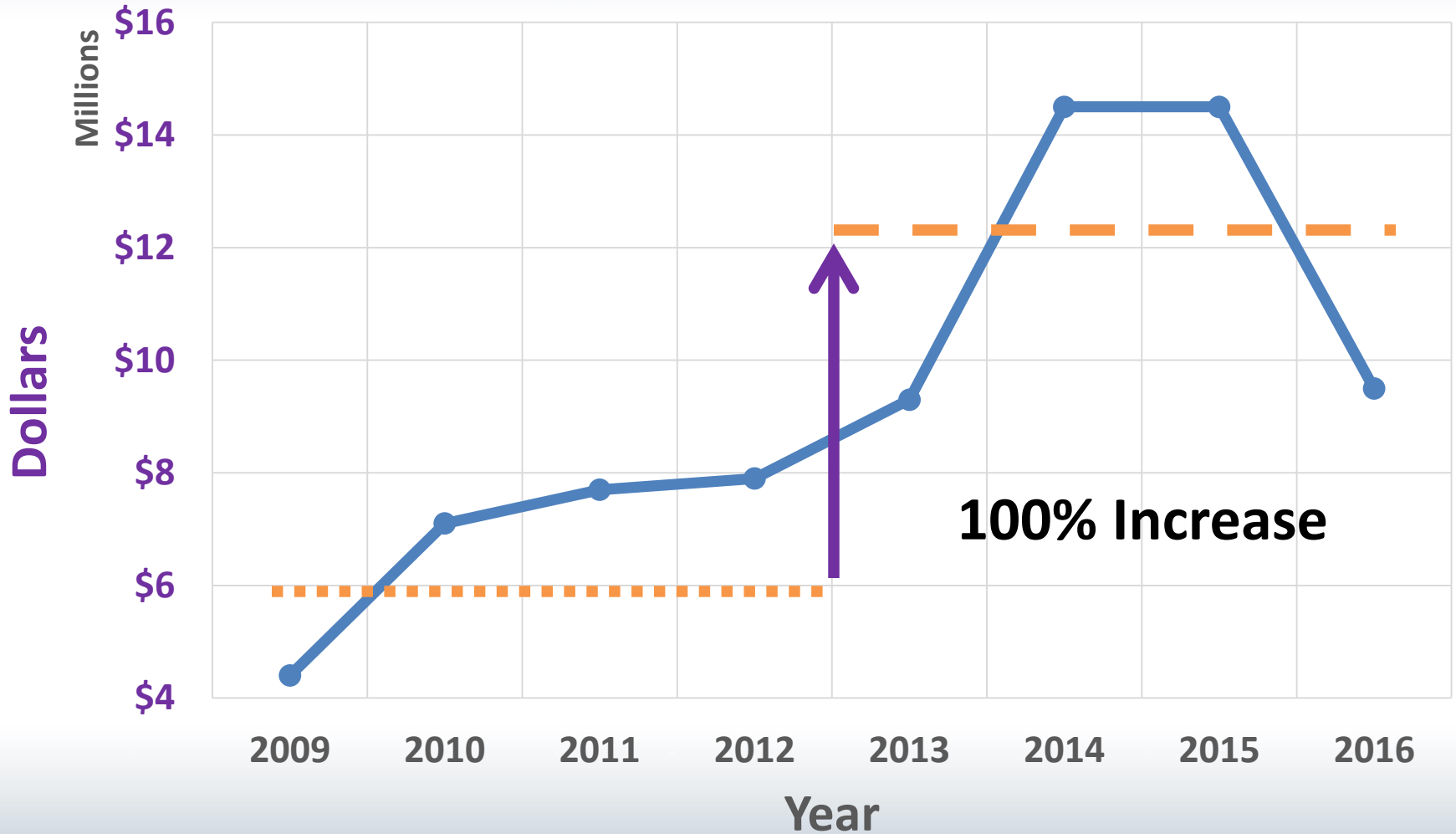
# Foundation Accounts for Scholarships, Fellowships and Student Awards



# College of Agriculture Total Endowments & Scholarships



# Private Fundraising





**We continue to do improve  
our human capacity**



**We continue to do improve  
our human capacity**

**BUT, we must continue to  
build our infrastructure**

# BUILDING OUR INFRASTRUCTURE



# New SE Research and Extension Center

We built a new, state-of-the-art office and meeting building which we call the Southeast Research and Extension Center at Parsons, KS, and opened it in November 2015.





# Updating study space for students





# MOVING INTO THE 21<sup>ST</sup> CENTURY

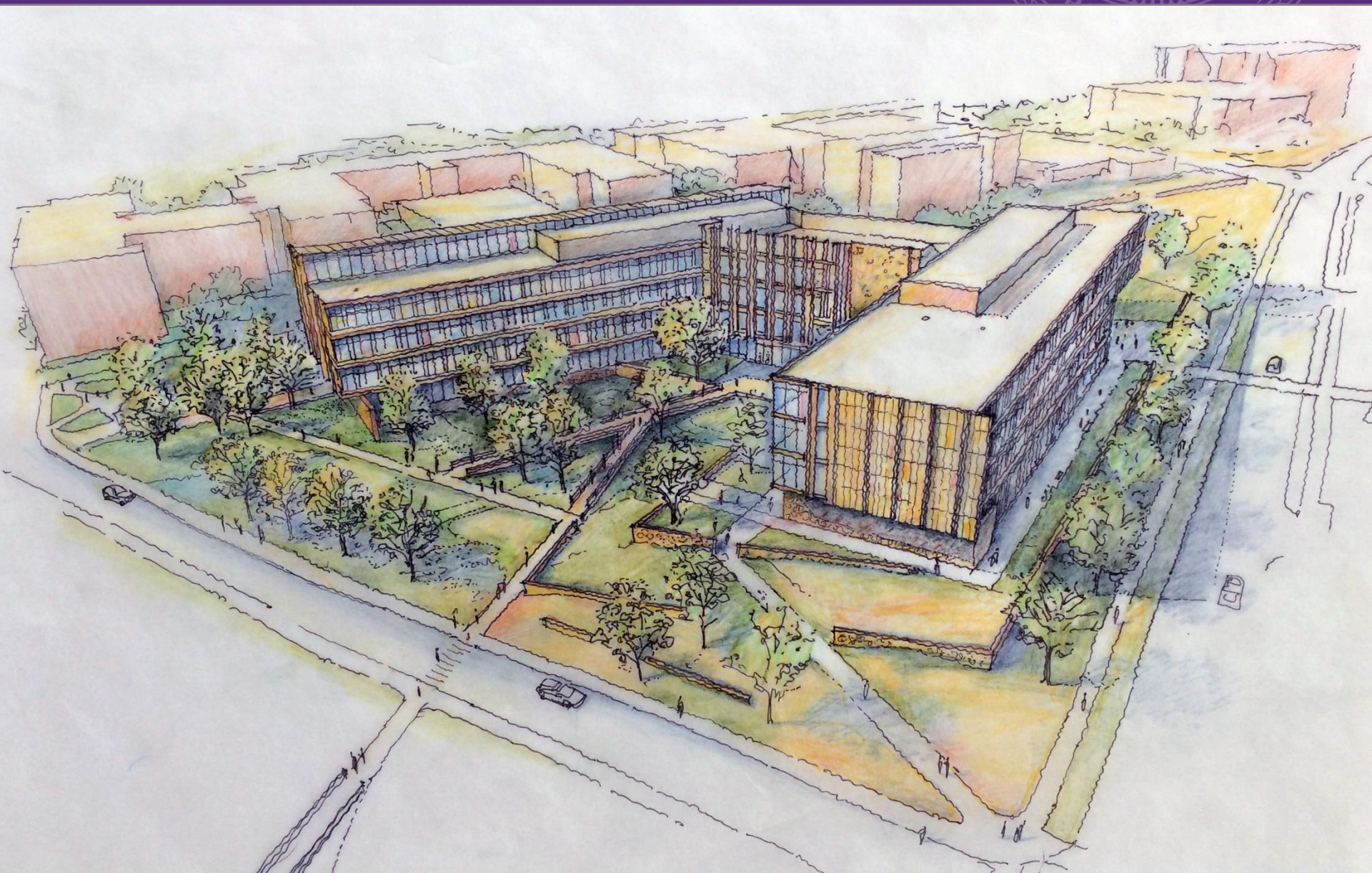
We asked the architects to assess the condition of our existing space. They rated our current mid-campus space conditions as:

- **Acceptable** **21%**
- **Needs renovation** **68%**
- **Does not support renovation** **11%**

**\$550 Million**

# Phase 3 & 4





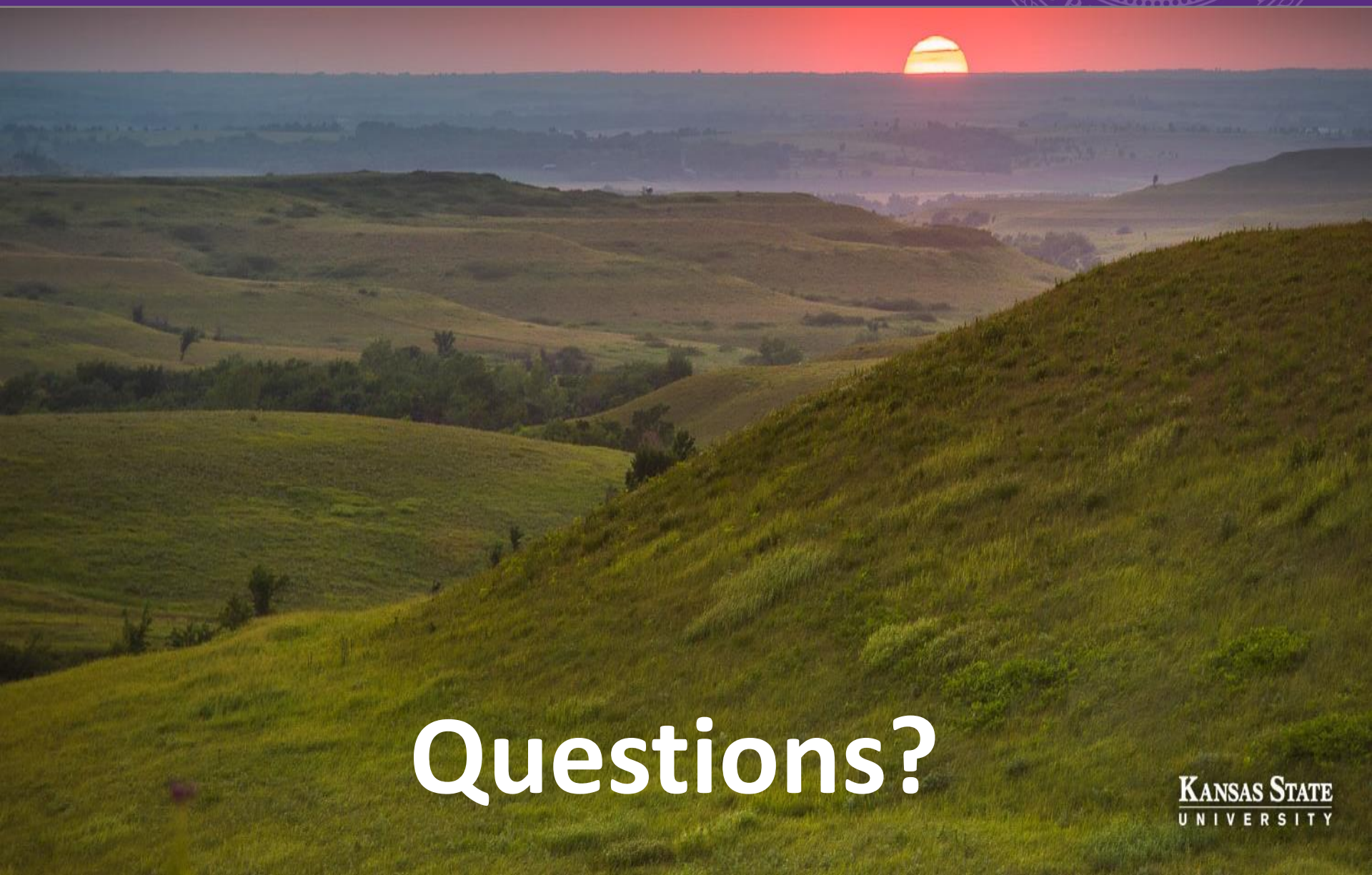
# In Summary

- **We had many 2025 Goals for the College of Agriculture/K-State Research and Extension for 2010 to 2015**
- **We met or surpassed all of them**



# In Summary

**Thanks to our wonderful faculty  
and staff for a job well done!  
Let's keep moving on to 2025!**



# Questions?

**KANSAS STATE**  
UNIVERSITY