

# Agriculture and Extension

- Minnesota Agricultural Experiment Station
- Extension
- College of Food, Agricultural and Natural Resource Sciences
- College of Veterinary Medicine

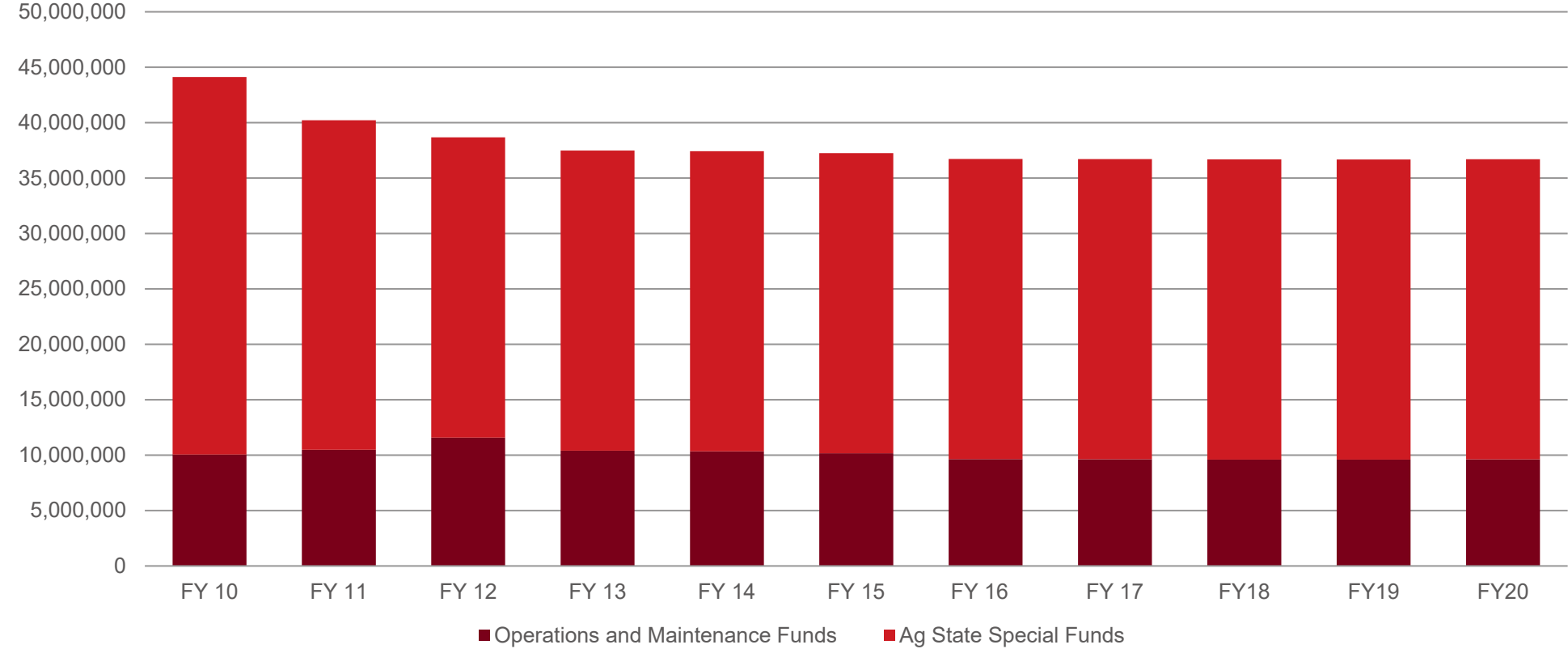


UNIVERSITY OF MINNESOTA  
**Driven to Discover<sup>SM</sup>**

This report was assembled at a cost of less than \$500 that included the time of UMN employees only.

# MN Agriculture Experiment Station

MN Agricultural Experiment Station  
Ag State Special and Operations & Maintenance Appropriation  
Fiscal Years 2010 - 2020





## Building a stronger Minnesota together

Extension plays a key role in the University of Minnesota's mission: We bring Minnesotans together to build a better future through University science-based knowledge, expertise and training.

### Connecting every county with the University of Minnesota

87

Extension is in every county and tribal community. Regional offices are strategically located across the state.

65

percent of Extension faculty and staff work in Greater Minnesota

35K+

trained volunteers multiply our reach



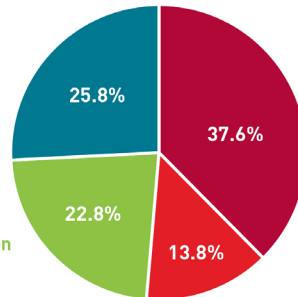
### 2021 budget

#### Grants, gifts and other: \$19.9 million (25.8%)

Individuals and organizations provide support for valuable Extension opportunities important to them.

#### Counties: \$17.6 million (22.8%)

Investments ensure 4-H and other Extension programs are delivered locally.



#### State: \$29 million (37.6%)

Investments are leveraged through collaborations with Minnesota state agencies, including departments of agriculture, health, human services, natural resources and tourism.

#### Federal: \$10.6 million (13.8%)

The U.S. Department of Agriculture supports wide-ranging research and Extension education.

MAKING A DIFFERENCE IN MINNESOTA: ENVIRONMENT + FOOD + AGRICULTURE + COMMUNITIES + FAMILIES + YOUTH

During the COVID-19 pandemic, Extension is at work across rural, suburban, urban and tribal communities.

More than 1,000,000 people are reached annually by Extension education.



#### Shaping a lifetime of leadership in young people through Minnesota 4-H.

Minnesota 4-H hosted 89 local showcases over July and August that engaged more than 6,000 youth, 2,500 volunteers and 1,200 judges.



#### Strengthening Minnesota's food and agriculture

Extension research and education improves crop yields, animal health, farm productivity and water conservation across Minnesota's 68,500 farms.



#### Encouraging responsible lawn and garden practices through a 2,400-strong Master Gardener volunteer force

Applications for the Master Gardener volunteer program rose by 160% in 2020



#### Creating healthier families for 150,520 people through SNAP-Ed.

3,572 Minnesotans learned how to create a two-week grocery and meal plan to prepare for possible quarantine for exposure to COVID-19. The plan was made flexible for food shelf clients.



#### Protecting natural resources, including soil, water and woodlands

Last year, more than 2,000 Minnesota Master Naturalists and community science volunteers found and reported invasive species, restored public lands, and collected scientific data for researchers.



#### Understanding what makes communities welcoming, economically vibrant and well-led

100+ economic analyses inform local community decisions each year and 25 communities run Extension learning groups.



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UNIVERSITY OF MINNESOTA





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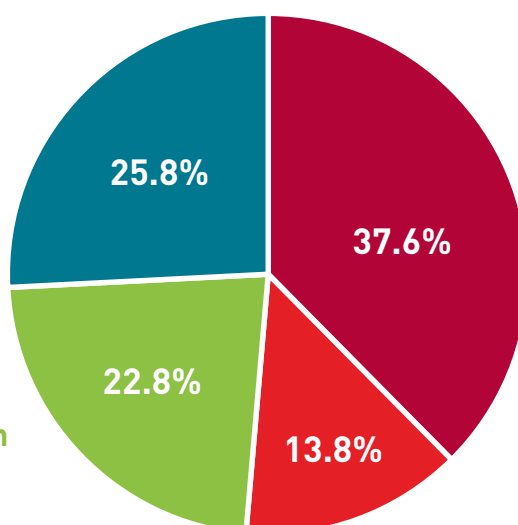
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During the COVID-19 pandemic, Extension has made a difference in rural, suburban, urban and tribal communities.

More than 1,000,000 people are reached annually by Extension education.



### **Preparing young people to lead through Minnesota 4-H**

4-H kept young people engaged during COVID-19 through **400+** virtual programs, **11,000** educational kits and **89** local showcase events.



### **Strengthening Minnesota's food and agriculture**

Extension research and education improves crop yields, animal health, farm productivity and water conservation across Minnesota's **68,500** farms.



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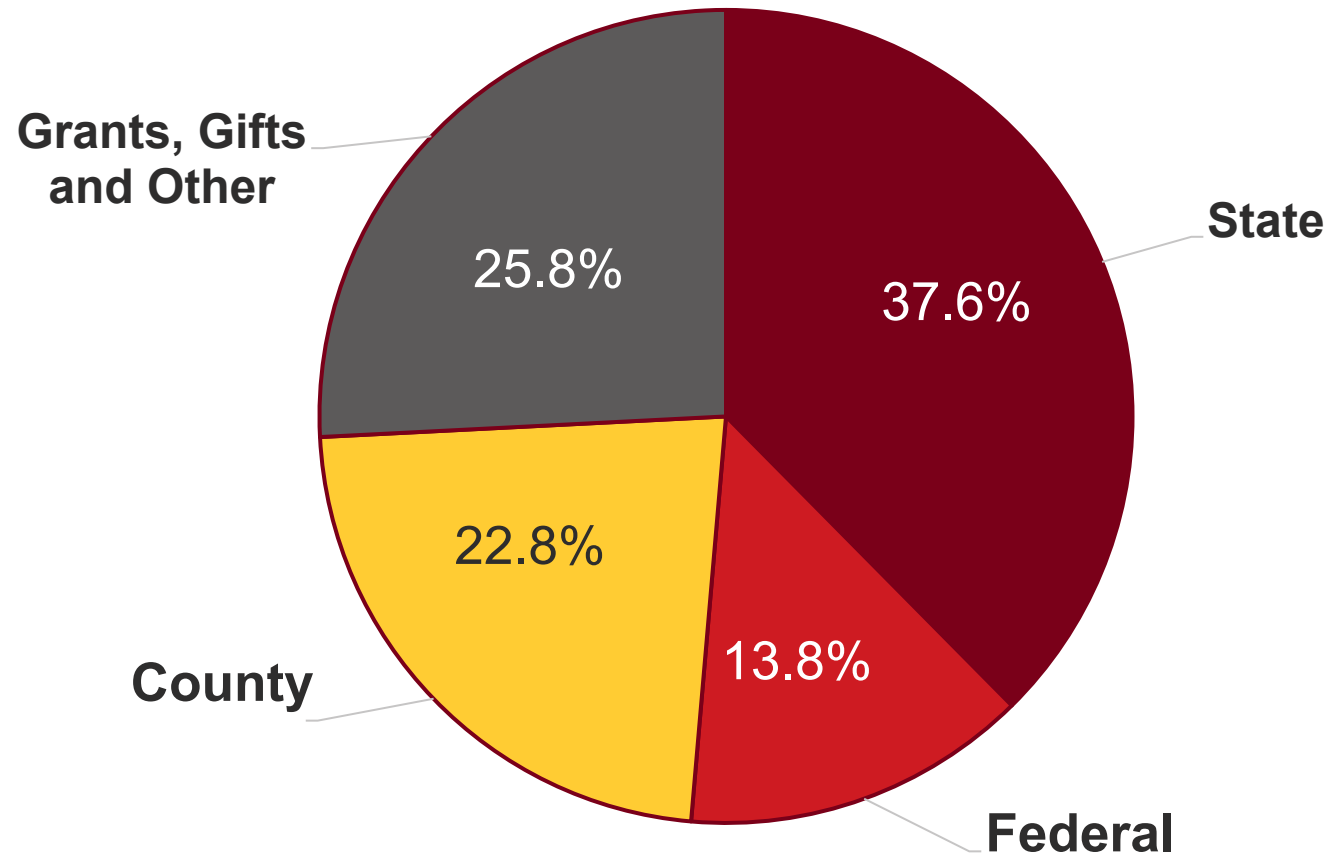
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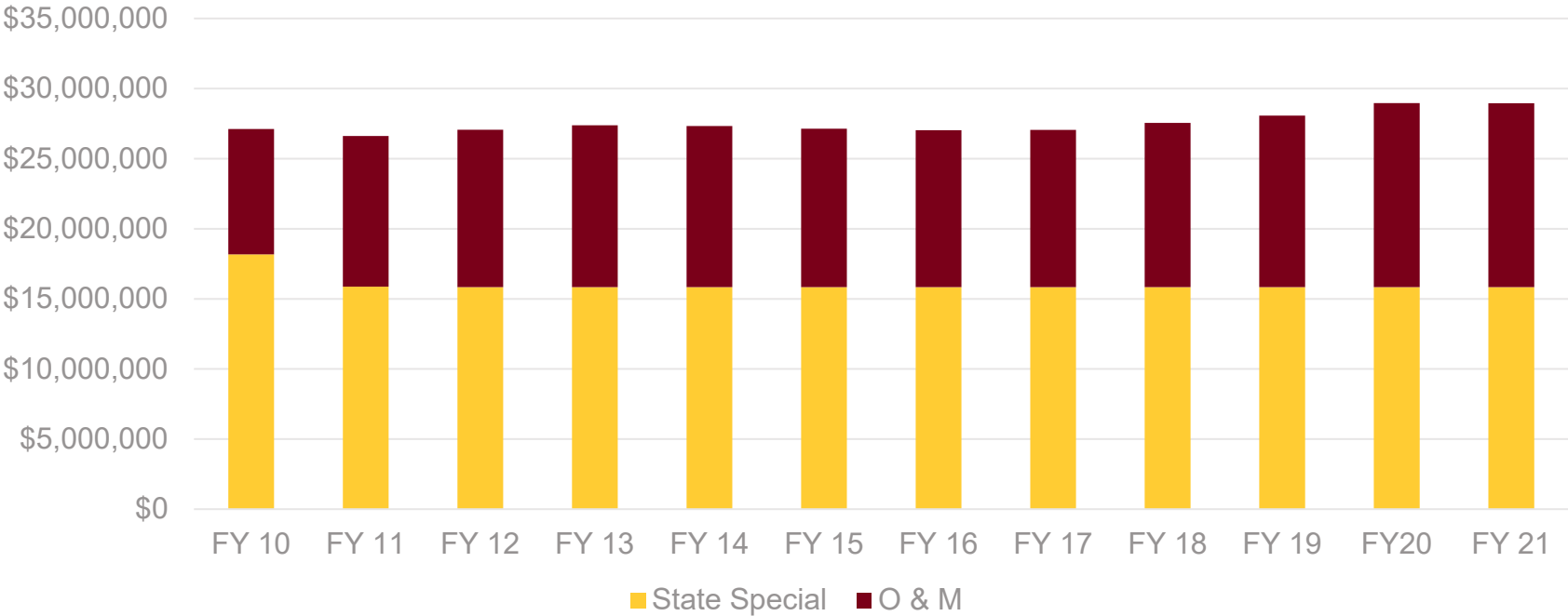
UNIVERSITY OF MINNESOTA EXTENSION

# Extension 2020-21 budget: \$77M



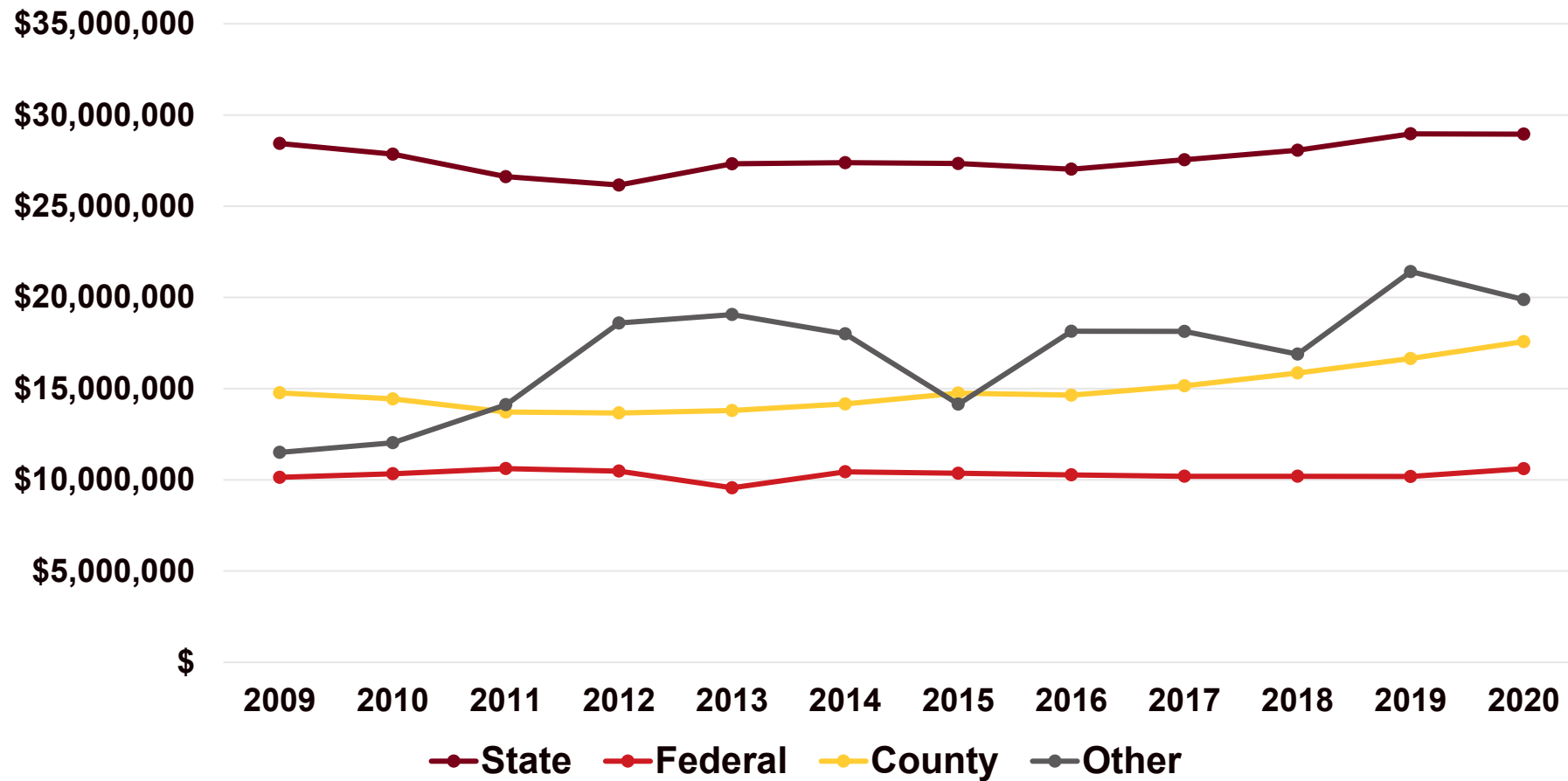
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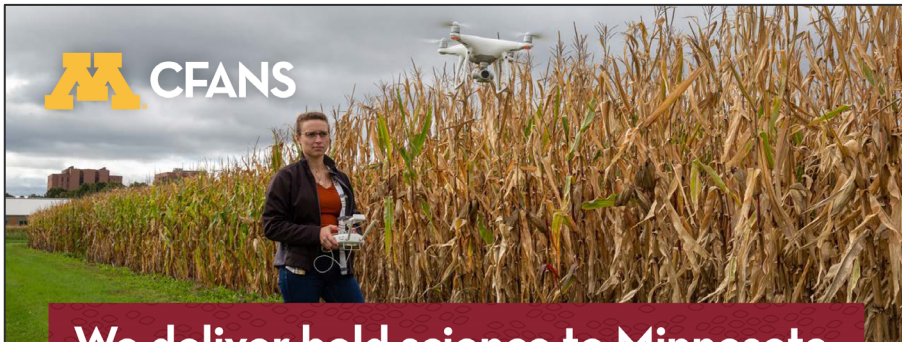
## State Specials and O&M FY10-FY21





# Extension funding trends



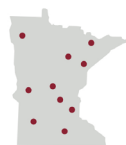


## We deliver bold science to Minnesota.

With a legacy of bringing discoveries to life through science, **CFANS educates the next generation of leaders to anticipate and adapt to a changing state and world**, and solves the real challenges of nourishing people while enriching the environments in which we live. We are able to do this through the support of alliances with agricultural and natural resource partners.

### Grand Challenge research and education investments

- Food security, agricultural productivity
- Invasive species and biodiversity/pest and disease dynamics
- Renewable energy and climate adaption
- Water resources and uses
- Forestry
- Precision agriculture
- Educating future leaders in applied science and technology for agriculture, food and natural resource sciences



**10** research and outreach centers across Minnesota

**7** continents



on which CFANS scientists connect Minnesota with research and business opportunities

**27** programs

14 undergraduate and 13 graduate programs in disciplines involving food, agricultural, and natural resource sciences

**658** degrees



awarded to undergraduates and graduates by CFANS in 2019–20 to help fill critical needs in Minnesota's agriculture, food, and natural resource workforce

**People**

Fall 2020

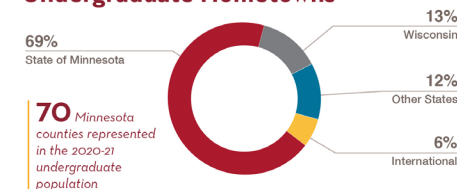
1,926	Undergraduates
556	Graduate Students
230	Faculty
834	Staff
29,644	Alumni

**\$5 million** state investment in agricultural productivity to hire new scientists and technicians to work in seven key areas through the Agricultural Research, Education, Extension and Technology Transfer (AGREETT) program.



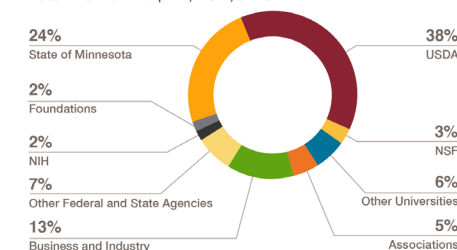
1. Crop and livestock productivity
2. Microbial science
3. Water quality and climate resilience
4. Agricultural technology and decision-making
5. Nutrient recycling and management
6. Agro-ecological innovation
7. Technologies for managing pest resistance and climate adaption

### Undergraduate Hometowns



### Sponsored grant awards received

Total 2020-21: \$72,432,390



Sponsored grant awards leverage state funding **\$72,432,390** adds to **\$21,993,054** State Special Funding

**93%**

of CFANS students complete an internship in their major

**\$1.9 million**

in CFANS scholarships are awarded to undergraduate students each year

**93%**

of CFANS graduates are employed or continuing their education within 6 months of graduation

### Federal funding



is used to support science-based responses to emerging issues

- Global food security and hunger
- Sustainable energy
- Forestry and natural resources
- Food safety and nutrition
- Strong rural communities

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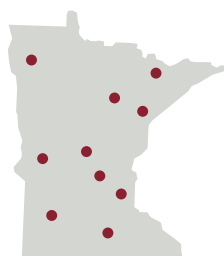


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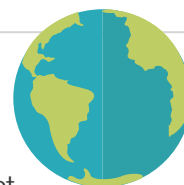
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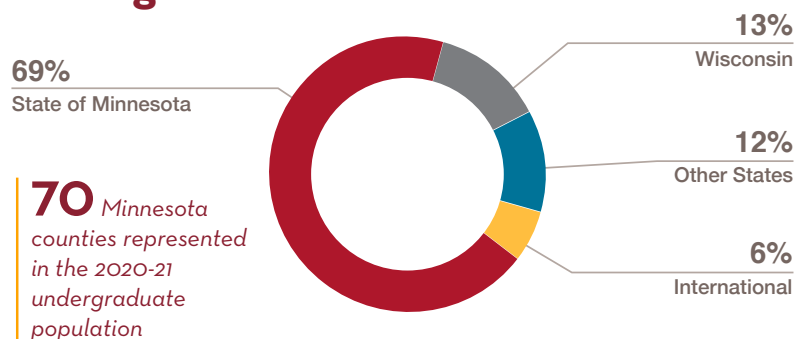


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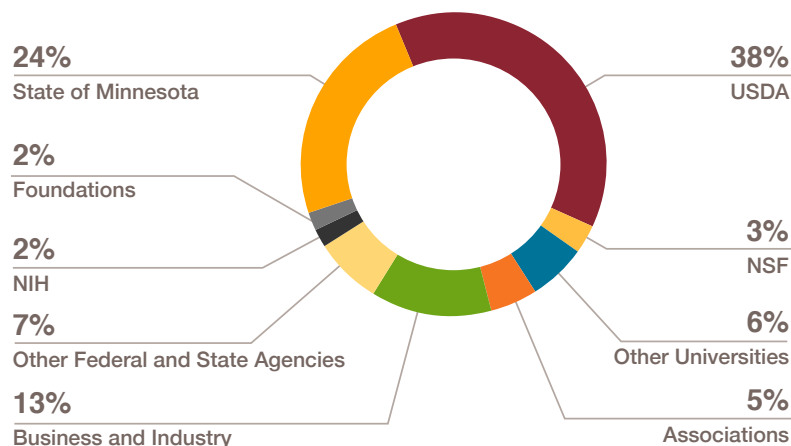
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# CFANS RESEARCH

FY20 YEAR IN REVIEW

## TOTAL SPONSORED PROJECT AWARDS

CFANS received **\$74,155,703** in sponsored project awards in FY20.



The College of Food, Agricultural and Natural Resource Sciences (CFANS) is a **national leader in innovative scientific discovery**. The work of its talented researchers cultivates breakthrough solutions to today's greatest challenges, all with an exemplary commitment to diverse views and research ethics.

## AWARDS AND SUBMISSIONS

**195** distinct funders provided funding for CFANS researchers in FY20

**413**

Sponsored project awards received by CFANS in FY20

**681** Sponsored project proposals submitted by CFANS in FY20

## INTELLECTUAL PROPERTY

CFANS propels UMN discoveries. The University is in the **top 10 for technology transfer** and **2nd in the Big Ten for "innovation impact."**



**5**

new startups launched in FY20

**11**

trademarks and patents issued in FY20

**31**

new inventions in FY20

**9**

new startups launched in past five years



**80**

trademarks and patents issued in past five years

**233**

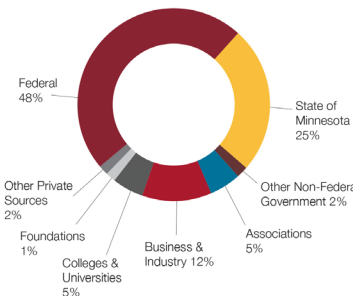
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CFANS' vision is to advance Minnesota as a global leader in food, agriculture, and natural resources through **extraordinary education, science-based solutions, and dynamic public engagement** that nourishes people and enhances the environment in which we live.

## FUNDING SOURCES

Funding for CFANS' cutting-edge research comes from **partners of all sizes and specialties**.



[cfans.umn.edu/research](https://cfans.umn.edu/research)

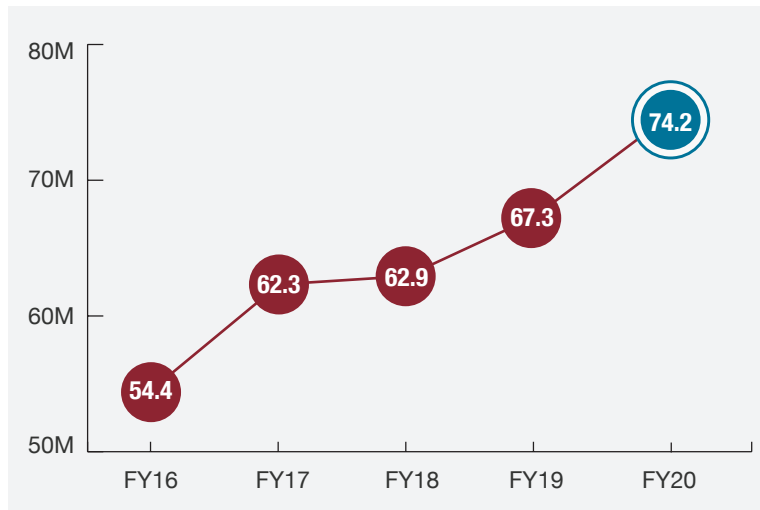


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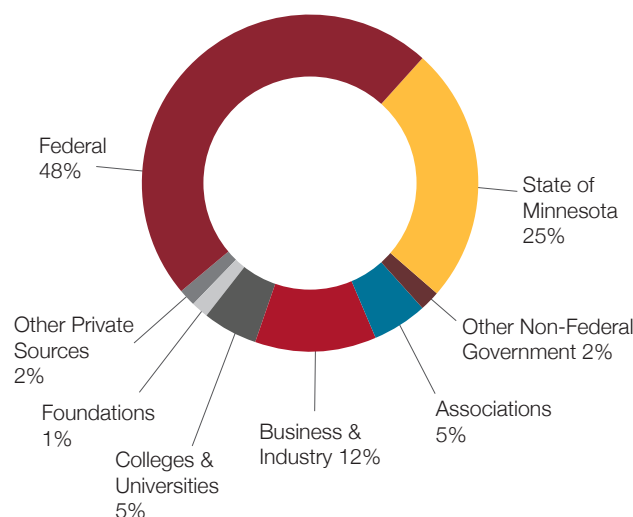
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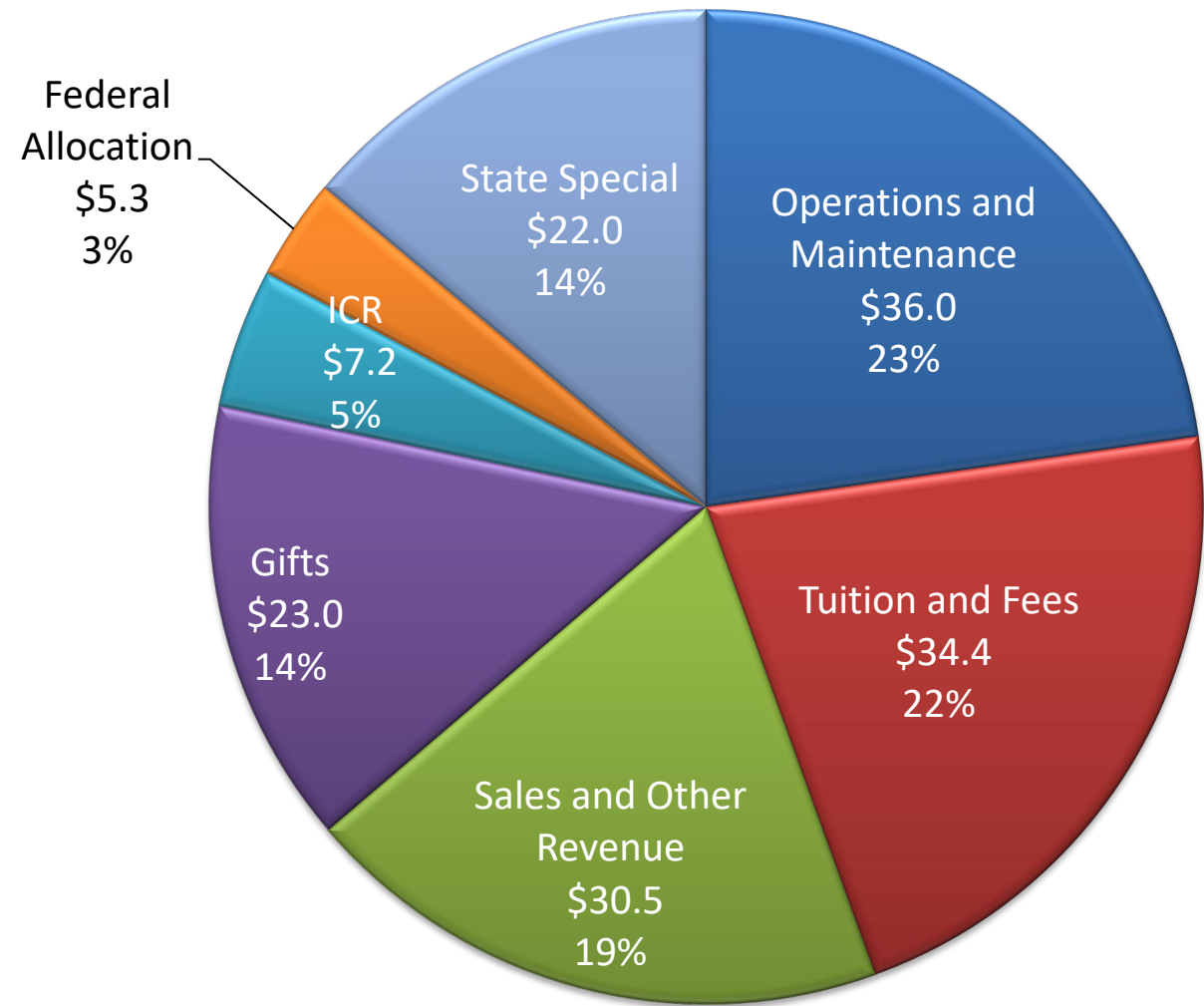
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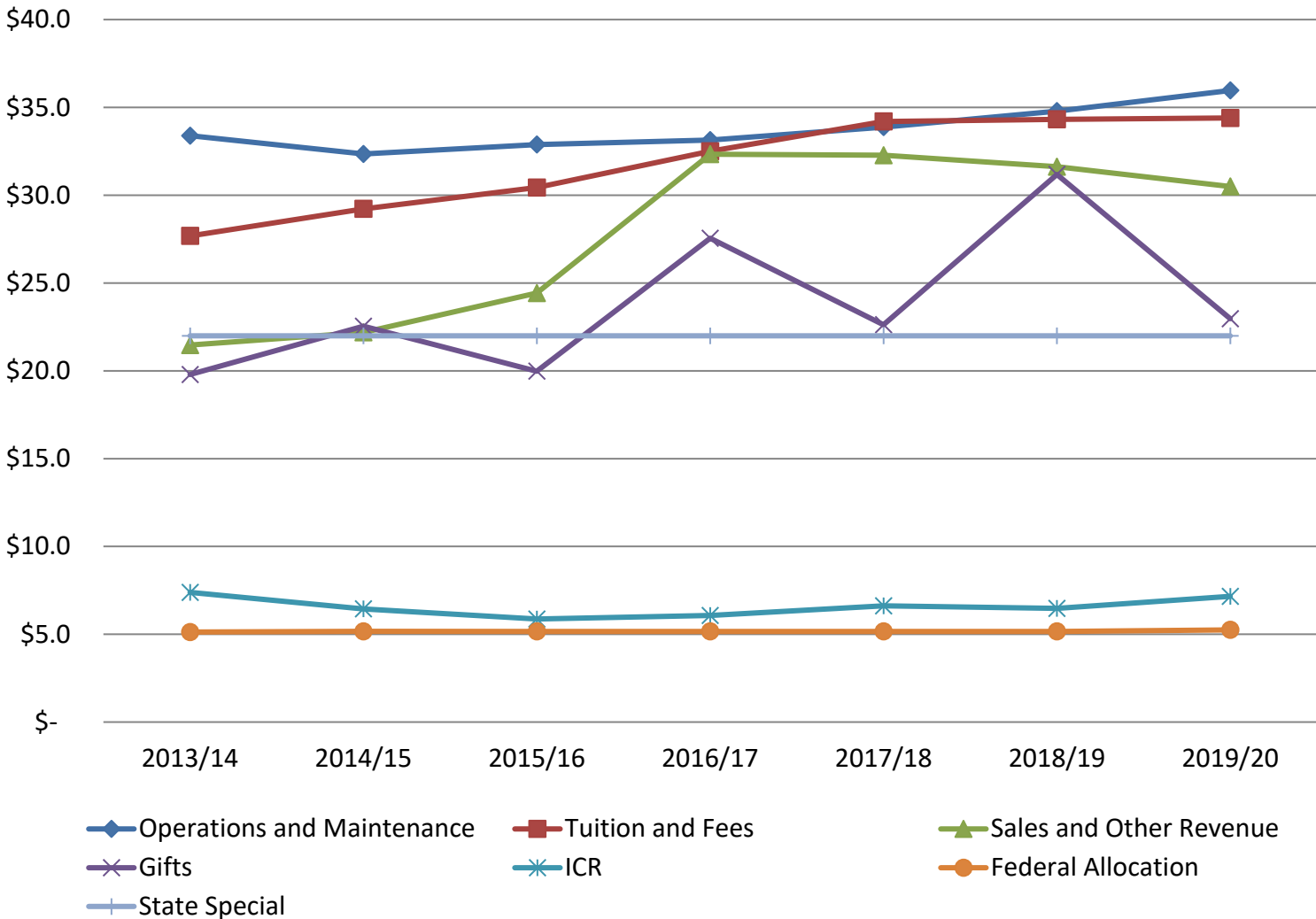
## College of Food, Agricultural, and Natural Resource Sciences 2019-2020 Resources: \$158.2 Million



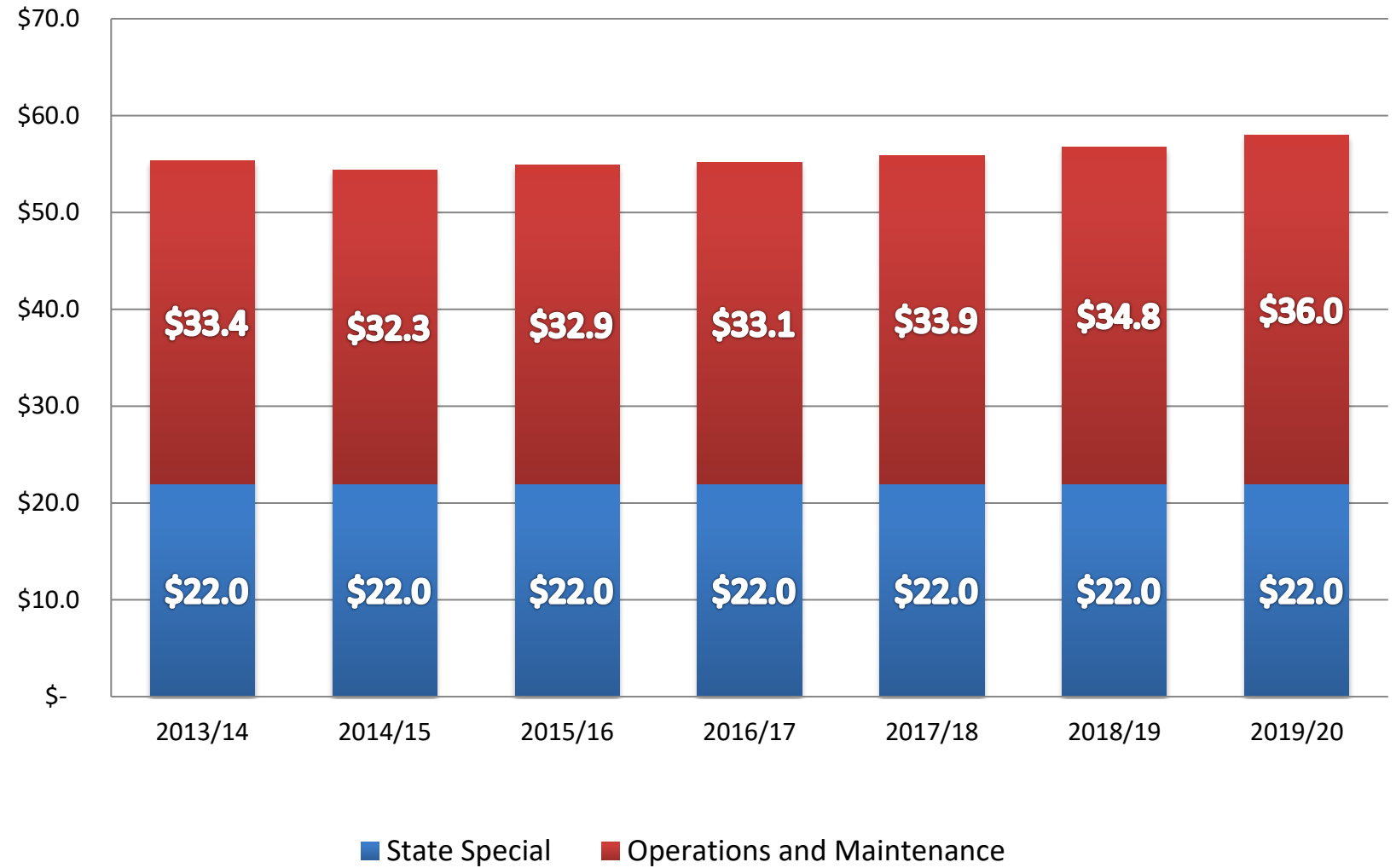


College of Food, Agricultural and Natural Resource Sciences  
UNIVERSITY OF MINNESOTA

### College of Food, Agricultural, and Natural Resource Sciences Major Fund Area Trends (Millions)



## College of Food, Agricultural, and Natural Resource Sciences State Funding Trends (Millions)





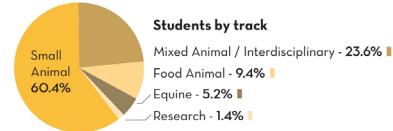


## DVM students

923 applicants for 105 seats in the Class of 2025

The Class of 2021 has 105 students - 55 residents / 50 non-residents

28 Veterinary Food Animal Scholars Track students



## Advancements



### Meeting the demand for veterinary care

A partnership with South Dakota State University will produce more veterinarians in rural areas in Minnesota and the Upper Midwest. Meanwhile, a community medicine initiative is teaching students to work in underserved communities.



### Improving COVID-19 surveillance

An on-campus study is investigating COVID-19 infection rates and the performance and efficiency of pooled testing instead of individual testing. Pooled sampling allows targeted testing on those most likely to be infected, supporting our ability to serve animal health during record caseloads.



### Measuring antimicrobial use in livestock

With US FDA funding, faculty developed pilot systems for collecting and analyzing antimicrobial use data from beef, dairy, swine, turkey, and chicken production settings. The goal is to preserve the ability to use effective antimicrobials to treat human and animal disease.



### Enhanced disease surveillance

The Minnesota Veterinary Diagnostic Laboratory is increasing its surge capacity to deliver faster service to farmers when an infectious disease threatens their business. Recent outbreaks have demonstrated the value of fast, accurate results that drive decision making.

The University of Minnesota, founded in the belief that all people are enriched by understanding, is dedicated to the advancement of learning and the search for truth; to the sharing of this knowledge through education for a diverse community; and to the application of this knowledge to benefit the people of the state, the nation and the world. The University's threefold mission of research and discovery, teaching and learning, and outreach and public service is carried out on multiple campuses and throughout the state.

## Service

### Veterinary Diagnostic Laboratory



- Official laboratory of the Minnesota Board of Animal Health
- 1 million procedures completed annually
- Federally accredited and networked

### Veterinary Medical Center



- Over 32,000 patient visits - one of the busiest veterinary teaching hospitals in the world
- 57 veterinarians and nearly 140 technicians in 15 service areas

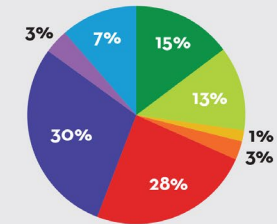
### The Raptor Center



- More than 900 raptors treated in 2020
- Educating thousands of people through virtual programming
- Training veterinarians and students from around the world in raptor medicine and rehabilitation

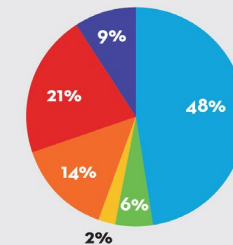
## Funding (FY 2020)

Revenue - \$130.5 million



- Tuition - \$19.3
- State - \$16.9
- AES/MES - \$1.8
- Diagnostic Lab/State Special - \$3.5
- Sponsored Research - \$36.1
- Clinical & Diagnostic Income - \$38.7
- Indirect Cost Recovery - \$4.2
- Other - \$9.9

Expenses - \$126.1 million



- Salary and Fringe - \$60.1
- Lab/Medical Supplies - \$7.1
- Construction/Equip - \$2.9
- UM Infrastructure - \$18.1
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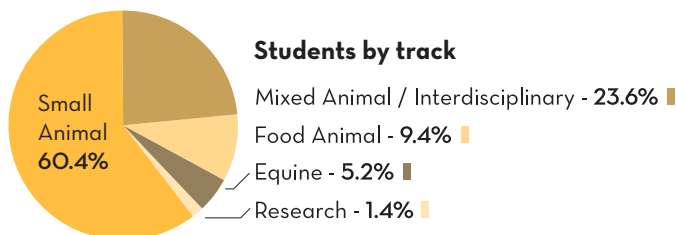


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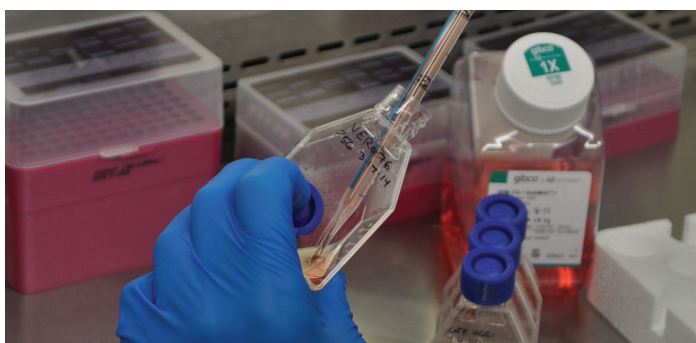
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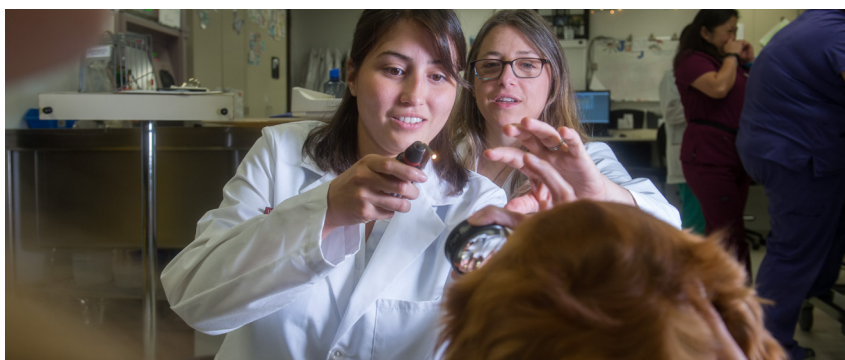
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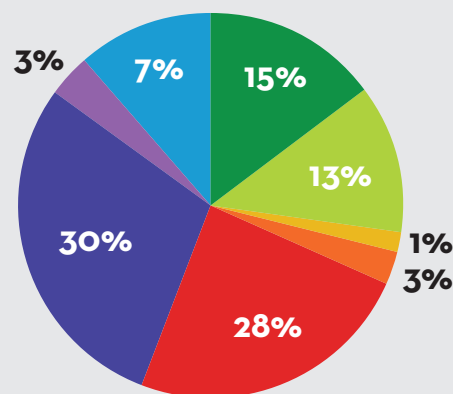
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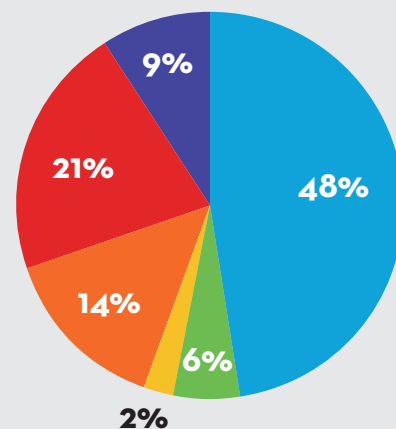
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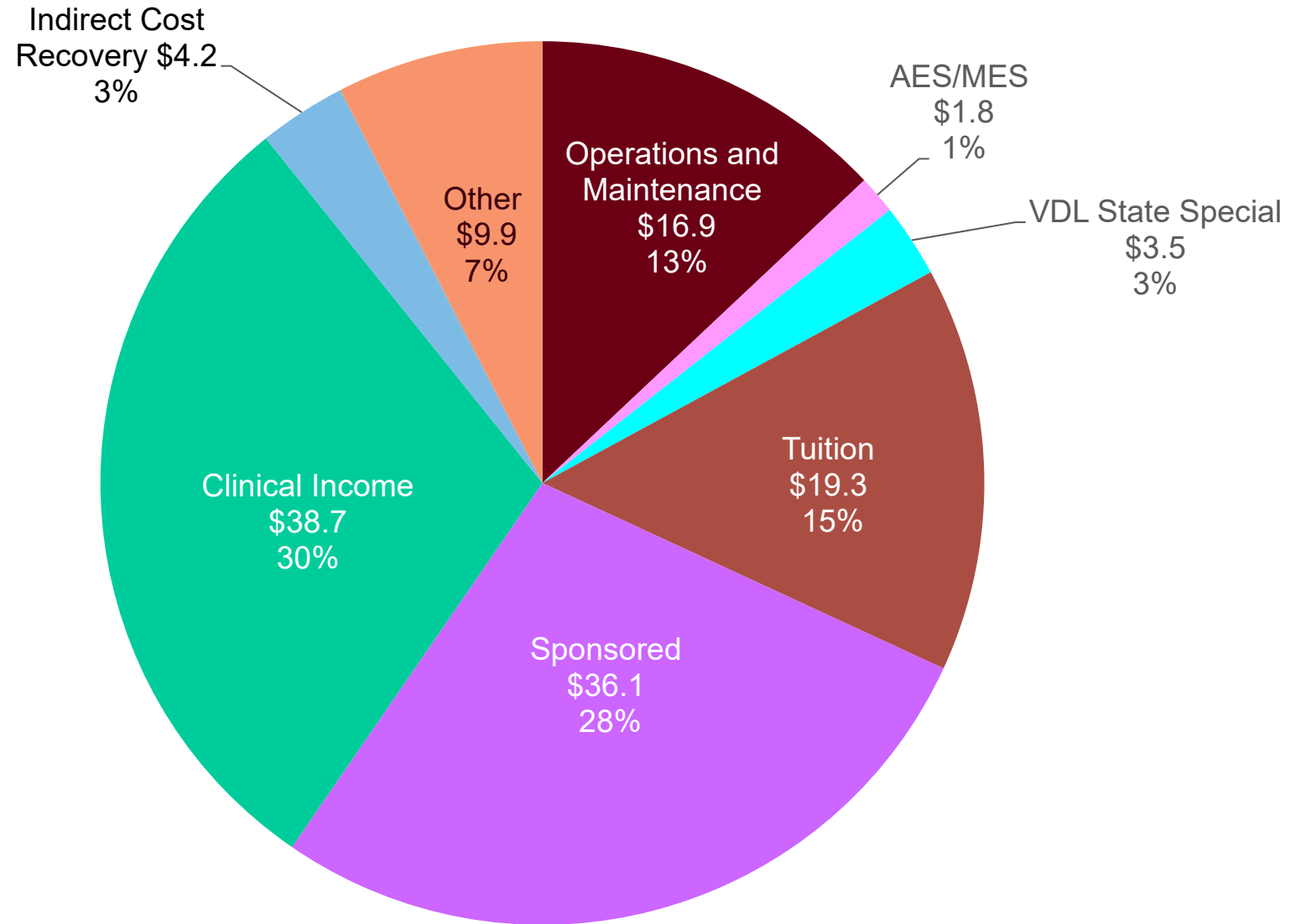
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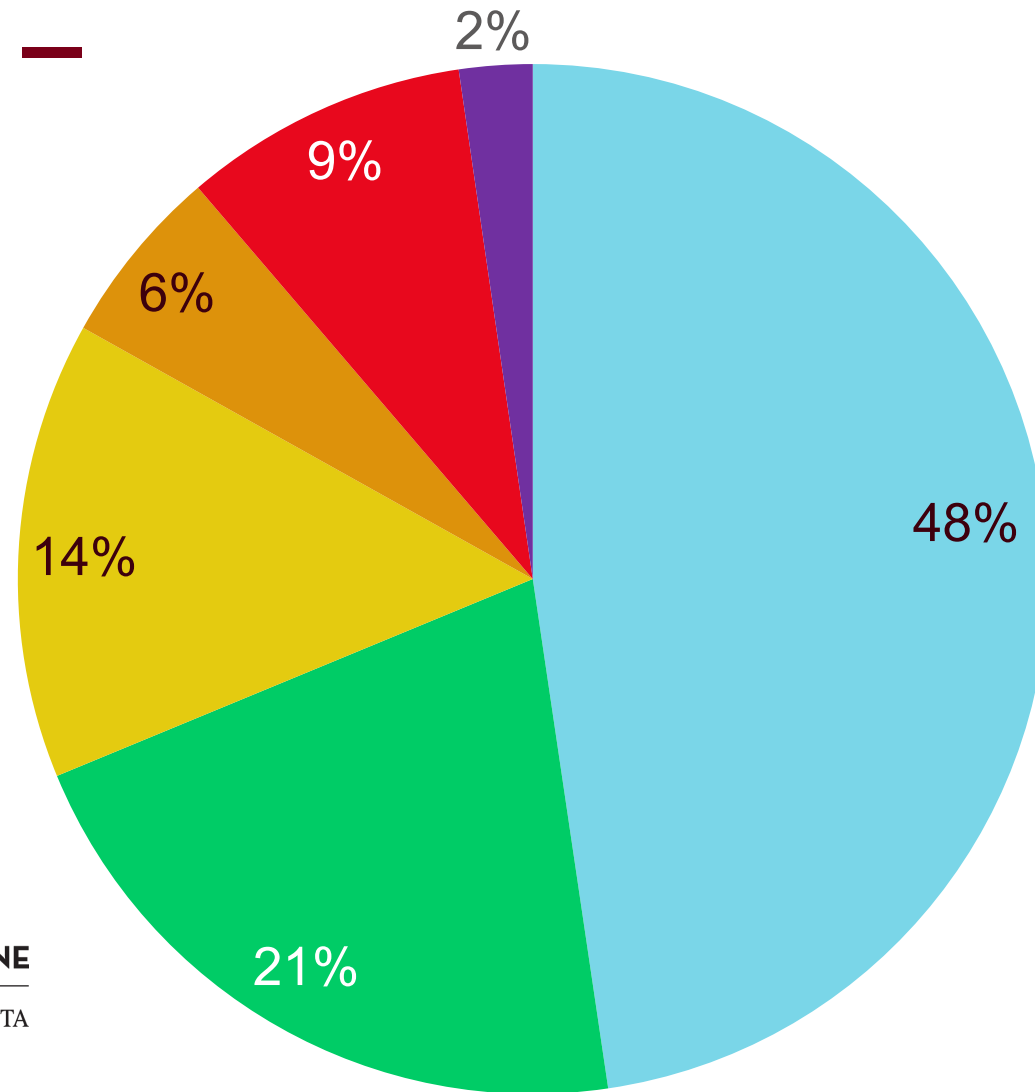
- Salary and Fringe - \$60.1
- Lab/Medical Supplies - \$7.1
- Construction/Equip - \$2.9
- UM Infrastructure - \$18.1
- Sponsored Research - \$26.6
- Other - \$11.3

# Revenues – FY2020 \$130.5 million





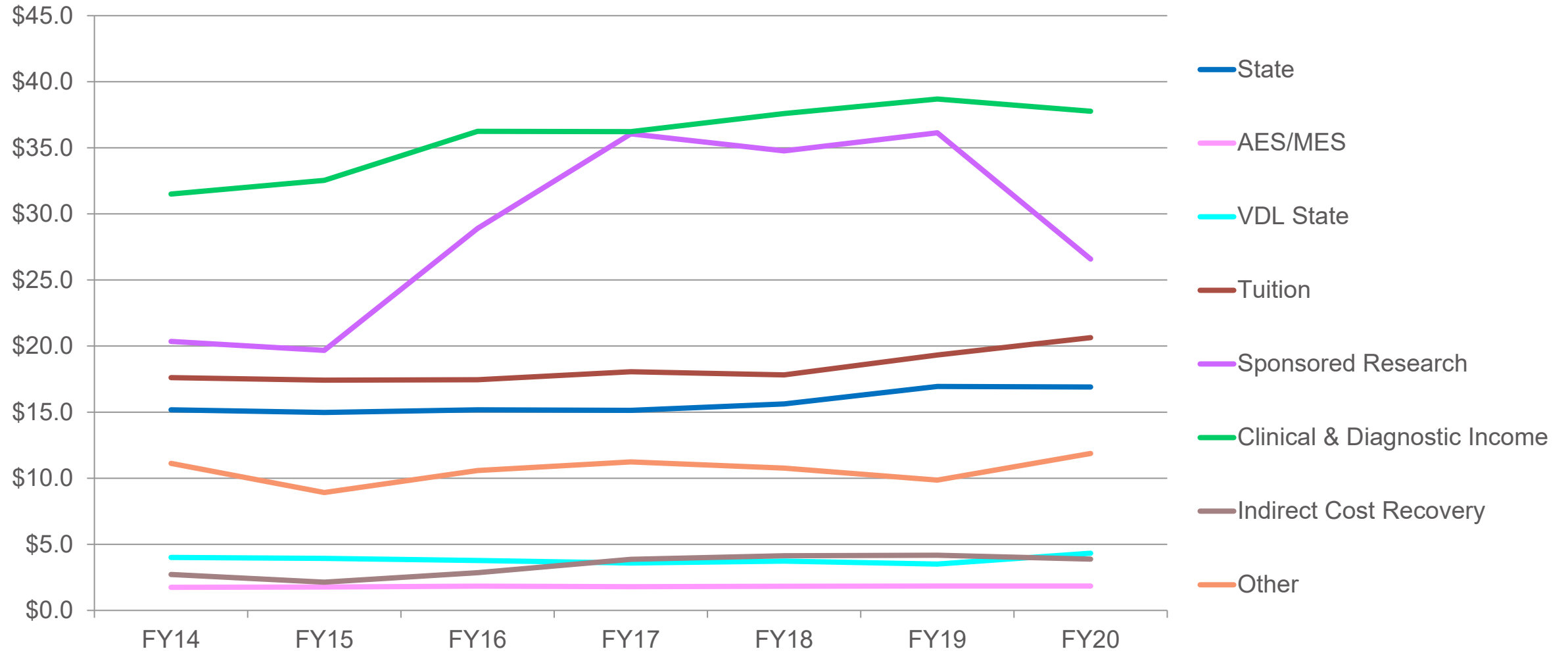
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# Funding Trends – 2013-2020





# Thank you!