



UNIVERSITY OF MISSOURI EXTENSION

Warren County

2024

Annual Report

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MISSOURI.**

**DELIVER
MIZZOU.**



Extension
University of Missouri

an equal opportunity/ADA institution



Office of Extension
and Engagement
University of Missouri

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December 2024

Dear county commissioners, elected leaders and friends of MU Extension and Engagement,

As we reflect on the past year, I want to express my deep gratitude for your support of MU Extension and for your partnership in enhancing the lives of Missourians.

Your support for MU Extension fuels Missouri's agriculture, strengthens families, prepares our youth and promotes the health, well-being and vitality of our communities. Over the past year, our programs have focused on addressing key needs throughout the state:

- **Expanding access to 4-H:** To make 4-H more accessible, we've introduced more in-school and after-school clubs, reducing barriers and creating opportunities for young Missourians to develop essential skills and leadership abilities.
- **Supporting agriculture and land stewardship:** We're addressing critical issues such as succession planning for family farms, rural mental health, agricultural business management and land stewardship. These initiatives are helping Missouri's farmers plan for the future and preserve the health of our land for future generations.
- **Advancing health initiatives:** Our team of community health field specialists, covering every region of the state, works directly with local leaders to assess health needs and bring UM System resources and expertise to these communities, supporting healthier lives and stronger communities.
- **Promoting economic development:** MU Extension is helping to create economic opportunities by working with individuals, supporting businesses in their growth and collaborating with communities to enhance local vibrancy. Through these efforts, we help bring new jobs, skills and possibilities to Missourians across the state.
- **Providing essential training:** Our continuing education programs prepare Missouri's firefighters and health care workers to meet the demands of their roles with the latest skills and knowledge, ensuring they are well-prepared to serve our communities.

As you read through this annual report, I hope you feel as proud as I do of the accomplishments we've achieved together. The dedication and professionalism of MU Extension's faculty and staff are inspiring, and I am grateful to work alongside them—and each of you—as we make Missouri a stronger, healthier and more vibrant place. Thank you for your continued support and partnership. Together, we are serving Missouri by delivering the University *for* Missouri.

Warm regards,

Chad Higgins, PhD
Vice Chancellor, MU Extension and Engagement
Chief Engagement Officer, UM System

Who we are

Faculty and staff

Elizabeth Anderson
Extension Engagement Specialist

Cindy Duckworth
Administrative Assistant

Tyler Hall
Nutrition and Health Specialist

Heather Warren
FNP Associate

Maureen Michel
4-H Program Associate

Billy McCaslin
Forestry Management Educator

Also Serving Warren County

Matt Herring
East Central Regional Director

Charles Ellis
Natural Resource Engineering Specialist

Rusty Lee
Agronomy Specialist

Justin Keay
Field Specialist in Horticulture

Chrisee Brandl
Livestock Specialist

Rhonda Shafer
4-H Youth Development Specialist

Mary Sobba
Agriculture Business Specialist

Ed Lahue
Business Development Specialist

Council members

Rick Brandt, Chairman
Hubert Kluesner, Vice-Chairman
Anita Brace, Secretary
Donna Sherman, Treasurer
Abbie Ogborn
Joe Brooks
Diane Miederhoff
Matt Flake
Leo Sommer
Virgal Woolfolk
Wendy Guss



County commissioners

Joe Gildehaus
Presiding Commissioner

Matt Flake
Associate Commissioner North

Tom Meyer
Associate Commissioner South

Budget and more

Appropriations budget

Income (\$)	
County Appropriations	92,273
Expenses (\$)	
Salaries/Benefits	71,941
Travel	2,326
Telephone	2,176
Office Supplies/Service	3,919
Utilities	2,729
Insurance	2,188
Postage	1,679
Miscellaneous	3,315
Total Expenses	92,273

Warren County partners



MU Extension is a unique funding partnership.

Extension funding is a three-way partnership of federal, state and county government. Federal and state money, through the University of Missouri system, pay professional staff salaries, training costs, computers and communication equipment. County funds support the local office, secretarial and youth assistant salaries, staff mileage and council expenses.

The Warren County Extension Council, faculty and staff would like to express our appreciation to the Warren County Commissioners for their continued support of extension programs.



Scan the QR code and follow us on Facebook

Local Support

Did you know you can donate directly to Warren County Extension with a gift to be used immediately or as an endowment contribution for long term efforts. Monies put into the endowment are left forever to earn interest with the county office benefiting each year. You can also direct your donation to a specific program such as 4-H or Master Gardener

Warren County



University of Missouri System

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UM System Footprint in the county in 2024



FY24 county students

251 students

- 220 Undergraduates
- 31 Graduate and professional students
- 156 Full-time students
- 95 Part-time students
- 43 Pell grant recipients (aid year 2024)



County employees and retirees

46 people employed by UM

- 32 Campuses
- 13 MU Health Care (includes additional employees gained via the recent integration of Capital Region Medical Center)
- 1 UM System

23 UM retirees and beneficiaries

UM salary and retirement income: \$2.4 million

UM state tax revenue: \$80,355

UM federal tax revenue: \$353,973



County breakdown

MU

- 104 students
- 654 alumni
- 26 employees

UMKC

- 12 students
- 19 alumni
- 1 employee

Missouri S&T

- 35 students
- 183 alumni
- 0 employees

UMSL

- 100 students
- 626 alumni
- 5 employees



County population: 36,467



County services provided

Health care (FY24)

- 308 in-state patients seen at MU Health Care, with \$118,534 of uncompensated care
- 3 in-state patients seen at UMSL Center for Eye Care with a statewide average of \$32.18 per patient in uncompensated care
- MU Health Care's Missouri Telehealth Network recorded 193 visits to 102 patients having ZIP codes associated with the county

Extension (2023)

- 7,033 Total educational contacts from MU Extension to residents of the county, including:
- 159 contacts related to productive farming, better gardening, and managing natural resources
- 6,364 contacts related to healthy eating and aging, strengthening families, personal finance, or youth development
- 250 contacts related to starting businesses, developing community leaders, or renewing the local economy



County alumni

Selected school alumni

- 8 Medicine
- 101 Nursing
- 38 Health Professions
- 2 Dentistry
- 2 Pharmacy
- 1 Optometry
- 19 Veterinary Medicine
- 171 Agriculture
- 221 Engineering
- 13 Law

Alumni teaching K-12

- 77 teachers
- 20.4% of all district teachers
- 7 principals and administrators
- 30.4% of all district principals and administrators



Construction projects

- \$2.9 million remitted to 2 county vendors, for 3 projects



County properties and offices

MU Extension in: Warren County

Warren County



University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

UM System Statewide Footprint

Economic and Community Development Highlights

- In FY23, Business Development Specialists worked with small businesses and entrepreneurs statewide to create or retain 98,527 jobs.

\$3.1
billion

For every dollar invested from 2019 to 2021, the MU Extension Business Development Program has returned \$133 in economic impact for its clients by increasing sales more than \$1.6 billion. For a total impact of \$3.1 billion, the program has generated more than 37,000 jobs and attracted nearly \$451 million in capital investments and \$1.5 billion in government contracts.

- Between FY18 and FY23, UM System brought Missouri more than \$1.58 billion in federal and private research funds, funded primarily from outside the state, but spent within the state.



In FY24, UM System was issued 29 patents and filed 69 new U.S. patent applications.

- In FY24, the UM System awarded 707 design and construction project contracts throughout Missouri, for a total investment of \$287.3 million in the state.



In FY24, to improve access to medical and health related services, MU Health Care's Missouri Telehealth Network's Show-Me ECHO program provided 16,687 hrs of case-based instruction to 3,113 learners located in 105 of 114 Missouri counties and the city of St. Louis.

Education and Training Provided



40,542 police, fire fighters, and medical professionals attending continuing education (2023)



Agriculture and natural resource programs served 369,077 farmers and related businesses (2023)

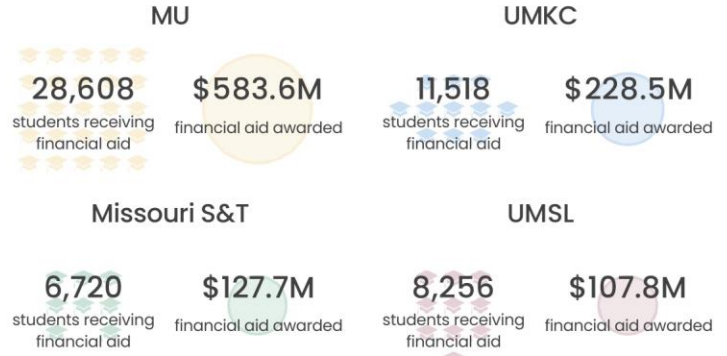


210,577 youth and stakeholder educational contacts in 4-H clubs, schools, camps and other programs (2023)

Education Highlights

FY24 Financial Aid Awards

In FY24, 69.7% of the UM System's 79,014 students received financial aid totaling \$1.048 billion



UM System's MOREnet (Missouri Research and Education Network) provides internet connectivity, access, support and training to 58 higher education institutions (230,000 students), 484 K-12 school districts (830,000 students) and 134 public libraries (serving nearly 3 million Missourians) in 2023.

- UM System awarded 50.5% of the 31,689 Bachelor's or higher degrees awarded by Missouri four-year public institutions in 2023-24.
- UM System awarded 35.0% of the 1,776 research doctorates and 26.8% of the 3,796 professional doctorates awarded by Missouri public and not-for-profit private institutions in 2023-24.
- In FY24, UM System's \$30.7 million in National Science Foundation (NSF) grants represented 96.9% of all NSF grants made to Missouri public colleges and universities.
- In 2024, over 12,400 Missourians accessed mobroadband.org, part of the UM System Broadband Initiative which helped the statewide build-out of high-speed internet infrastructure.

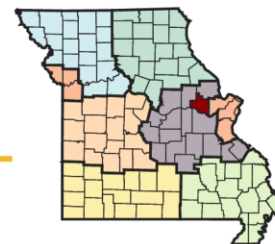
Supporting the University of Missouri is an investment in the future of Missouri.

The university advances Missouri citizens and communities through its mission of teaching, research, public service, and economic development across our four campuses and University of Missouri Extension.

Prepared in December 2024, based on the best available and most recent data. Data Sources include: Missouri Office of Administration • UM IR • MU Institute for Public Policy • Center for Applied Research and Engagement Systems (CARES) • MU • UMKC • Missouri S&T • UMSL • UM System • UM Health Care • MU Extension • US Census Bureau • US Dept. of Health and Human Services • National Science Foundation



Missouri Grand Challenges: Local Solutions



WARREN COUNTY

Knowing Missouri's Needs

MU Extension asked Missourians to share the greatest challenges they and their communities face.

We heard that feedback and made big changes in the way we work with council and local partners to improve lives. Locally, a network of county engagement and subject matter specialists now share MU's knowledge, research and engagement, targeting programs, information and assistance in:

- agriculture and environment
- youth and family
- business and community
- health and safety

For each grand challenge, MU Extension and Engagement targets a specific gain by 2023:



Economic opportunity

Increase MU Extension and Engagement's economic impact to the State of Missouri from \$1 billion to \$1.5 billion overall, and from \$88 billion to \$100 billion in agriculture, the top economic sector



Educational access and excellence

Increase participation in postsecondary education from 66% to 70%



Health and well-being

Improve Missouri's health ranking from 40th to 35th in the nation

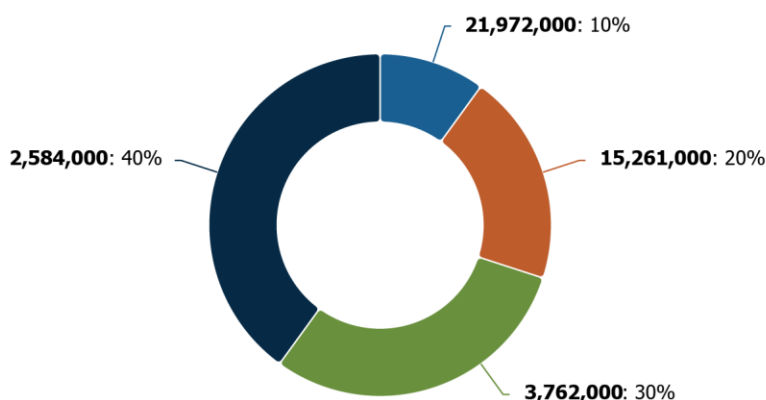
Knowing Local Challenges



CHALLENGE 1: Economic Opportunity: *Agricultural Economics*

Leading Agricultural Products

Total Rank (Sales): \$10



Data Source: US Department of Agriculture, National Agricultural Statistics Service, [Census of Agriculture](#). 2022.

Net Farm Income

Net farm income (total sales, government payments, and other farm-related income minus total farm expenses) reflects the strength of the local agricultural community and can be an important measure for lenders and policy makers. The report area had a combined net farm income of \$15,559,000 in 2017, an average of \$29,136 per farm. This is below the statewide average farm income of \$56,606.

Report Area	Total Farms	Average Farm Income
Warren	534	\$29,136
Missouri	87,887	\$56,606

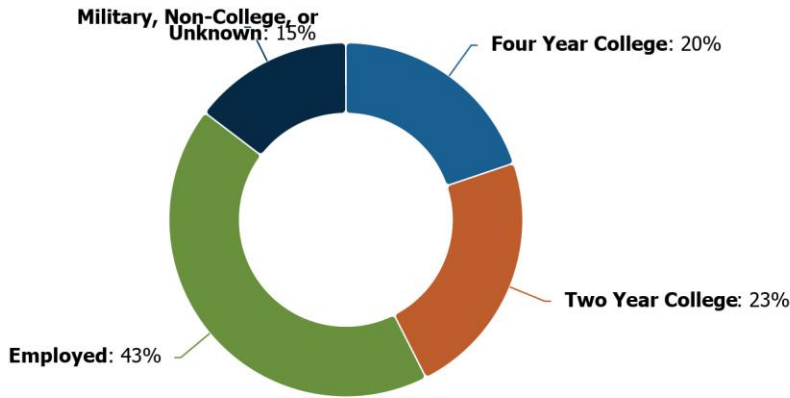
Data Source: US Department of Agriculture, National Agricultural Statistics Service, [Census of Agriculture](#). 2022.



CHALLENGE 2: Educational Access and Excellence: *College and Career Readiness*

Post High School Report

The 12-month post-graduation activity of recent high school graduates can inform communities about postsecondary education, career readiness, and characteristics of the future workforce. In 2022, of 348 graduates surveyed in the report area, 69 went to a four-year college, 79 to a two-year college, 149 directly entered the job market. The remaining 51 are reported as in the military, not in college, or unknown.



Data Source: [Missouri Department of Elementary & Secondary Education](#). 2022.



CHALLENGE 3: Healthy Futures: *Healthy Aging*

Fall Injuries

Falls are the leading cause of injury-related fatality and hospitalization among older adults in the United States. Between 2013 and 2015, adults over age 65 in the report area had 1,039 hospital or emergency room admissions for fall and jump-related injuries. The rate of these injuries was 5,289 per 100,000 population, which is lower than the state rate of 5,396. Falls hospitalizations have increased since the 2001-03 time period when the rate was 4,017.

Rate per 100,000, 2019-2021

5,289

Warren



Missouri

5,396 😞

Primary Care Providers

Older adults make up a historically large percentage of the U.S. population, and meeting the healthcare needs of an aging population can be challenging. In the report area, there are approximately 8 primary care physicians (MDs and DOs) to serve the area's 6,616 residents over the age of 65. The patient-provider ratio in the report area is 827:1, which means there is 1 provider for every 827 older adults. The ratio of adults to providers in the report area is higher than the state average of 250:1, which means there are fewer providers per person in this area.

Rate per 100,000 Seniors

120.90

Warren

Missouri

399.40

Data Source: US Department of Health & Human Services, [Missouri Department of Health & Senior Services](#). 2019-2021.

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, [HRSA - Area Health Resource File](#). 2021.



CHALLENGE 4: Agricultural Growth & Stewardship: Food Security & Access

The ability to access healthy and affordable food can be a challenge in Missouri’s rural and urban communities alike — with negative impacts on people’s health and food security status. Food insecurity is the lack of access, at times, to enough food for an active, healthy life. It is associated with many adverse social and health outcomes. Missouri’s overall food insecurity rate is 11.8% — and 12.8% for children under age 18. More than half of Missouri’s 114 counties and the City of St. Louis report food insecure populations of 12.6% or higher. Multiple interventions that address the root causes of food insecurity can impact this critical public health issue. Learn more at the [Food Security Story Map](#).

Population Living in a Food Desert

22.07%

Warren

Missouri

17.69%

Data Source: US Department of Agriculture, Economic Research Service, [USDA - Food Access Research Atlas](#), 2019.





MU EXTENSION **Serves MISSOURI and Delivers MIZZOU**

through credible statewide programs

Missouri 4-H for ages 8 – 18



Community clubs are organized by volunteer club leaders and teams of recognized volunteers. Members attend club meetings, elect officers, enroll in projects and plan learning and community service activities. Some clubs opt to be single-project clubs, where all members focus on the same project.



Afterschool clubs These clubs meet after school for periods ranging from a few weeks to a full 4-H program year. These clubs typically focus on a single project at a time but can rotate through more than 100 different project topic areas. Members can elect officers and plan learning activities with options of public speaking, community service and links to career readiness.



4-H Natural Resources programs employ hands-on activities in climate science, environmental sustainability, renewable energy, sportfishing and wildlife conservation. The **Shooting Sports program**, which teaches marksmanship, safe firearm use, hunting and archery principles, is a prime illustration of how 4-H programs promote holistic youth development and responsible citizenship. Supported by caring adult leaders, these programs offer opportunities to cultivate life skills, self-worth and conservation ethics.



Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Warren County

Missouri 4-H

Local Impact

In Warren County, 301 youth were enrolled in 4-H during the 2023-2024 program year. Our clubs, and the 4-H program are grounded in the belief that youth learn best by doing under the guidance of adult volunteers, who lead a wide variety of projects that support 4-H members in finding their SPARK. Through monthly community club meetings and hands-on project work in areas like science, health, agriculture, and civic engagement, youth receive guidance from adult mentors and are encouraged to take on proactive leadership roles. Youth are able to concentrate on one focus area, or they can try a variety of projects throughout their 4-H experience. Regardless of how youth participate, all 4-H programming includes mentoring and career readiness as core elements.

In addition to nine community clubs, Warren County 4-H is also home to two SPIN clubs. Lucky Horseshoes is a club that allows members to be full members of 4-H by enrolling directly into a horse-focused club where members meet monthly to learn more about horses and horse riding, as well as about horse care, feeding, grooming, showing and more.

At ALPHA Academy, a Gardening SPIN club allows students to be group-enrolled in 4-H to participate in gardening programming. Through a variety of grants, Warren County 4-H has been able to provide ALPHA with garden beds, a green house and a storage shed to keep the gardening program growing. These tools, and the gardening and nutrition instruction by 4-H and Extension professionals has been instrumental to agriculture classes being added to the school's curriculum.



Warren County

Missouri 4-H

Local Impact

Warren County 4-H also offers 4-H programming to students during the Latch Key program with three afterschool 4-H clubs. These clubs allow students who are not served by traditional 4-H programming to be a part of Warren County 4-H, and even exhibit at the county fair. This program is grant and donation funded and is offered free to all participants. This program which served 36 youth during the 2023-2024 programming year allows members to explore a variety of 4-H project areas to find their SPARKS.

Student Nutrition Advisory Council (SNAC) clubs empower youth to enhance their knowledge of nutrition and fitness. Participants take on leadership roles, becoming ambassadors of healthy living by designing and executing projects that promote nutrition education and improve fitness in their communities. In Warren County, SNAC programming was provided during Warren County R-III School District Care Days, at ALPHA Academy and once a month at the Extension Office. In total, nearly 70 youth were served by this programming.

- **4-H SNAC Club Mini-grants**
 - In 2024, the Missouri 4-H Foundation partnered with Healthy Blue to provide mini grants of up to \$500 per county, supporting 4-H SNAC clubs throughout the state in implementing their leadership projects. Warren County 4-H was awarded a \$500 SNAC grant to continue gardening programming at ALPHA Academy.



Warren County

Missouri 4-H

Profiles and Stories

Missouri 4-H engaged in expanded and enhanced programming throughout the summer of 2024. 4-H team members across Missouri provided diverse educational opportunities to 5,349 young people. Program offerings included career and college awareness and exploration through simulations, program series, and camps. In Warren County, more than 50 members were eligible for the Out of County Tour to Hannibal, MO and 25 members participated in summer camp at Cuivre River State Park. Additionally, 16 Clover Kids participated in Clover Day Camp at Reifsnyder State Forest.



During the 2023-2024 program year, the Warren County 4-H Council and several of our clubs applied for and received grants from the Missouri 4-H Foundation and FCS Financial. In total, 18 grants worth more than \$15,000 were received, all of which was spent on 4-H service projects in Warren County. Service projects included work on the Charters of Freedom project at the Veterans Memorial site, a book walk at Binkley Woods Park, a Hunger Dinner community education event, the installation of fans at the fairgrounds, the addition of soil to the beds at the Truesdale Community Garden, STEM kits for Warren County R-III School District, flower planting at area churches, and numerous activities and collections to benefit the community food pantry.



Warren County

Missouri 4-H

Profiles and Stories

In Warren County, 4-H members were supported by 77 adult volunteers who are the core of the Warren County 4-H Program. Volunteers help to create, support, and deliver educational programs and experiences. Missouri 4-H volunteers report contributing an average of 100 hours per year to the program. Valuing their time at \$33.49 per hour (Independent Sector, 2024), the contribution of Warren County 4-H volunteers was worth more than \$257,000 in 2024. More importantly, these individuals serve as role models and mentors for youth.



Reference: Independent Sector (2024). Independent sector releases new value of volunteer time of \$33.49 per hour. Retrieved from <https://independentsector.org/blog/independent-sector-releases-new-value-of-volunteer-time-of-33-49-per-hour/>



MU EXTENSION **Serves MISSOURI and Delivers MIZZOU**
 through credible statewide programs
Agriculture and Environment



The Missouri Integrated Pest Management Program (IPM), funded by USDA grants, has been an important extension program for more than 30 years. Mizzou IPM distributes articles, pest monitoring data and publications on how to improve the application of integrated pest management strategies and systems in crops. In addition, the new Soybean Growth Monitoring Report is released through IPM every two weeks during the growing season.

The MU Soil Testing Program delivers research-based nutrient and lime recommendations to more than 32,500 customers annually.

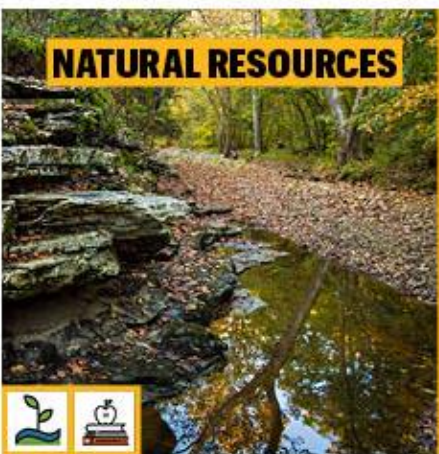


The Missouri Master Gardener program

enables people of all ages to get in-depth horticultural training and then apply what they've learned to improve their communities and educate others about gardening.



In 2023, almost 4,000 Missouri Extension Master Gardeners completed over 149,000 VOLUNTEER HOURS throughout the state.



The Missouri Master Naturalist program is a community-based initiative for adults, supported by the Missouri Department of Conservation and MU Extension. It aims to create a group of knowledgeable volunteers who can offer education, outreach and service for the responsible management of natural resources in Missouri communities.

Additionally, the **Missouri Woodland Steward program** offers a short course that equips private landowners with knowledge of woodland management, helping them identify wildlife habitats, develop plans and connect with local natural resource experts.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Warren County

Agriculture and Environment

Local Impact

Horticulture Programming

Expanding Value-Added Production in Missouri



Justin Keay Field Specialist in Horticulture Organized a farm tour in Warren County focused on “Expanding Value-Added Production in Missouri”. In attendance were two USDA FSA employees and six MU campus-based ag-business and horticulture faculty. The farm tour provided campus specialists with feedback from producers on recently completed specialty crop production budgets, and a better understanding of challenges faced by small-scale specialty crop producers. These tours aided in the prioritization of the development of ag-business resources to support the needs of small-scale specialty-crop producers. USDA staff had the opportunity to visit a farm representative of those that do not traditionally see the benefit of participating in USDA programs. This allowed USDA staff better understand the distinct needs of specialty-crop producers and the barriers they face to participate in USDA programs.

Warren County Master Gardeners

The Warren County Master Gardeners volunteer their time to spread gardening knowledge and support community events and activities in Warren County. The Master Gardener program continues to grow with three new Master Gardeners certified this year in Warren County.

Master Gardeners assisted with work and updates at the Truesdale community garden, in partnership with MU Extension Nutrition Program. Master Gardeners attended Warren County Farmers Market multiple times to teach gardening topics and answer gardening questions from market attendees.



Warren County

Agriculture and Environment

Local Impact

Private Pesticide Applicator Training

Thirty-seven Warren County citizens participated in the Private Pesticide Applicator training facilitated by Rusty Lee, Field Specialist in Agronomy. This 2.5-hour program gave a collective learning total of 92.5 education hours.

What Did They Learn?

Upon completion of the training, participants were able to:

1. Recognize the need to correctly identify pest organisms prior to choosing a pest management strategy.
2. Understand the concept of economic thresholds and economic injury levels when making pest management decisions.
3. Possess a basic understanding of biological control and other non-chemical methods of pest management.
4. Better understand the format and information provided on each pesticide label.
5. Recognize the importance of using label information in all phases of application.
6. Understand the importance of having a Material Safety Data Sheet, and other materials available when applying pesticides.
7. Understand the need for proper selection and use of protective clothing and safety equipment.
8. Understand the importance of the "Restricted Use Pesticide (RUP) designation for certain pesticides
9. Consider environmental impacts when selecting a pesticide for use.
10. Consider the impact of pesticides on water sources when applying a pesticide.
11. Understand the need and procedure to develop an emergency plan (fire, storm, flood, other) with local emergency officials.

How Does This Work Make Warren County and Missouri Better?

This training enables farmers to meet the legal requirements mandated by the Environmental Protection Agency and the Missouri Department of Agriculture's Bureau for Pesticide Control on the safe and proper use of agricultural pesticides on their farmlands, including restricted-use pesticides (RUPs).

This enables farmers to meet society's demands for lessening agriculture's environmental impact.



Symptomology of **Sudden Death Syndrome** in soybean.



Producer meeting for Pesticide Applicator Training.

Warren County

Agriculture and Environment

Local Impact

MU Soil Lab Fertility Test Samples

Warren County submitted or assisted in submission of 77 samples to the MU Soil Lab Testing Services Laboratory.

Test results and recommendations for fertilizer applications were mailed to the customers that had submitted their samples. Follow-up consultations were provided by Field Specialist in Agronomy, Rusty Lee and Field Specialist in Horticulture, Justin Keay, as customers needed additional assistance interpreting the results and recommendations. Increases in grain yield and forage tonnage are expected when elements of fertility are deemed required.

These samples enable farmers to manage their soil fertility by first knowing current levels and which added elements would generate a return on investment.

- Promotes farm sustainability by keeping land productivity at a high level.
- Reduces unnecessary expenses of applying costly fertilizer at a level above what can be utilized.
- Reduces environmental impact from the off-target movement associated with over-application.

Agriculture Lender Seminar

Seventy-two lenders from 20 Missouri counties and Illinois attended an ag lender seminar in Mexico. Lenders learned about crop and livestock outlook, agriculture policy, rental rates & land values, MU budgets, wind and solar leasing, input costs and enterprise budgets, Missouri farm business management summary and Missouri Agricultural and Small Business Development Authority (MASBDA) programs. Warren County had one lender in attendance.

By attending University of Missouri's Agricultural Lenders' seminars, lenders gain knowledge to help their clients make better decisions based on objective education and resources. More information and better decisions benefit their portfolio of producers, landowners, and agribusinesses through enhanced understanding of enterprise budgets, market expectations, and other decision influencing factors affecting families' and businesses' financial health. Lenders in attendance manage farm loans totaling \$155,250,000.



Warren County

Agriculture and Environment

Local Impact

Natural Resources



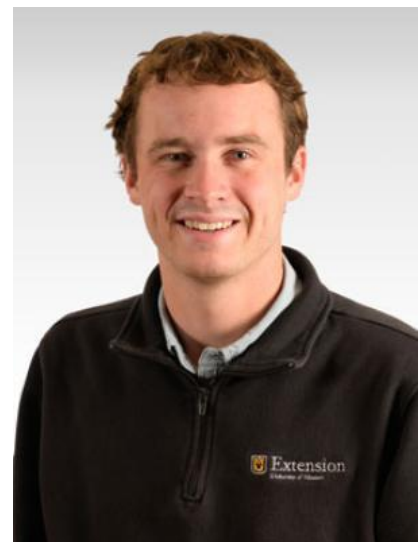
Warren County Farm Days

Billy McCaslin, Forestry Management Educator and Maria Lommel, from Missouri Department of Conservation presented at Warren County Farm Days. Their audience was 120 4th graders from Warren County. The students rotated thru 8 stations with 15 students per group. The focus was on educating the students on basic wildlife and tree concepts and how to practice conservation every day(saving water/energy). Additional topics were tree rings, tree identification, Missouri wildlife studies.

MU Drone Train-to-Trainee Program



The use of drones in Agriculture is an important tool to help farmers and land- owners maximize their production.



Welcome Billy McCaslin, Forestry Management Educator now serving East-Central Missouri. Housed in Warren County

Warren County

Agriculture and Environment

Profiles and Stories

Ge • net • ics (/jə'nediks/) the science of genes and how traits are passed on from one generation to the next

Genetic Lockbox

Objectives: "Obtain a basic understanding of genetics. Distinguish genotype and phenotype. Define dominant and recessive alleles and how they are represented."

Genetic Lockboxes are an innovative and interactive means to educate the public about genetics. Participants exercise communication techniques as they work together to solve the puzzles. The puzzles are designed to make participants think through and apply problem-solving skills to genetic concepts. Participants will struggle, make mistakes, and rely on teammates.

Through a partnership with Ellis Fischel Cancer Center, the Genetic Lockbox has gone statewide with **64 boxes** located across the state. Four Genetic Lockboxes are housed in Warren County. Teachers, 4-H volunteers, FFA advisors, Boy and Girl Scout leaders, etc. can reserve box(s) free of charge. It comes with all the puzzles, hint cards, answer sheets, and a 25-page Facilitator's Guide.



Crack the codes to open the locks to get the "prize" in the box. Crack the codes to open the locks to get the "prize" in the box.



- ❖ If all DNA strands in all the cells of **ONE** person were stretched out, it would reach to the sun and back more than **600** times
- ❖ Scientists can never clone a dinosaur because DNA has a half-life of **521** years
- ❖ Humans are **80%** genetically similar to cows
- ❖ Bone marrow transplant patients end up with **2** different DNA profiles
- ❖ All humans receive **3** feet of DNA from Dad and **3** feet from Mom
- ❖ Heart, eye, and brain cells never replicate; therefore, they can never be replaced if damaged
- ❖ Less than **2%** of our DNA codes for proteins - the rest is called "junk DNA," but is still useful
- ❖ A mouse uses more DNA from its father than its mother
- ❖ Almost all tortoiseshell cats are female, only **ONE** in **3,000** calico cats is



MU EXTENSION **Serves MISSOURI and Delivers MIZZOU** through credible statewide programs **Business and Community**

AMERICA'S
SBDC
MISSOURI

CLIENT HIGHLIGHT

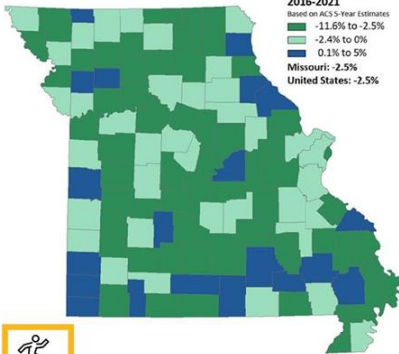


LOCS
— OF —
GLORY

The **Missouri Small Business Development Centers** (SBDC) provide professional training and customized one-on-one counseling to small businesses across the state. Working with the Missouri SBDC helps business owners make confident decisions.

FY2020-2022, Missouri SBDC ASSISTED 878 STARTUPS and helped Missouri small businesses earn more than \$440 MILLION.

Percentage Point Change in number of people living in poverty: 2016-2021
Based on ACS 5-Year Estimates



The **Missouri Economy Indicators (MEI)** series explores business, industry and workforce topics that affect Missouri's economy. The data is shared through newsletters and on social media. MU Extension faculty and staff receive talking points and collateral to share with local stakeholders.

In 2022, MEI published 15 issues, and MEI online resources were accessed MORE THAN 5,000 TIMES. Two out of five MEI newsletter recipients reported using the information to help guide policy or decision-making in their work.



Missourians from all walks of life celebrated the **2023 Missouri Good Neighbor Week**, Sept. 28 to Oct. 4, by completing and reporting neighboring acts and nominating others as the most engaged neighbors in their counties.

In 2023, the goal was to document 15,000 acts of neighboring. That goal was surpassed with 19,752 Missourians being positively affected during MISSOURI GOOD NEIGHBOR WEEK.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Warren County

Business and Community

Local Impact

Missouri Small Business Development Center provide professional training and customized one-on-one counseling to small businesses in Missouri. In 2024 the SBDC offered training events in Warren County with 20 attendees and 12 clients counseled. The SBDC helped to start up one new business in Warren County.



Extension Tax Schools

University of Missouri Extension ag economics department and ag business specialists worked together to coordinate one summer and three fall tax schools. The summer school was in person and live online. Fall schools were in Columbia and Springfield and one online school. The schools were designed for those who prepare taxes including enrolled agents, tax preparers, CPAs, individuals, and attorneys.

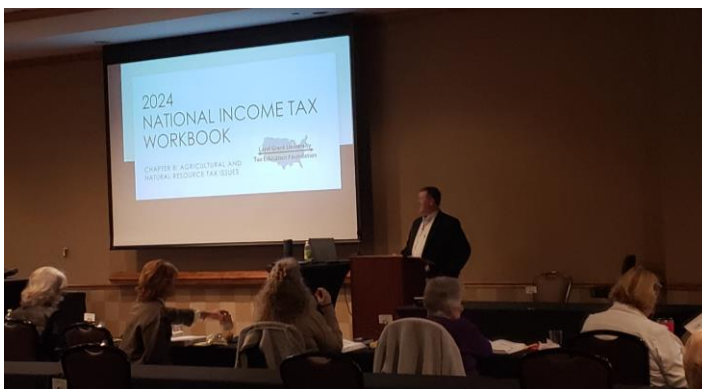
The training included updates on legislation, rulings and cases, individual taxpayer issues, agricultural and natural resources topics, ethics, trusts and estates, agriculture and natural resource tax issues, business tax issues, business entity tax issues, IRS issues, related party issues, real estate rental activity issues, limited liability company issues, and international tax issues. The schools were approved for 8 and 16 hours of continuing education credit by the IRS, Missouri Bar and for CFP continuing education. Total continuing education hours reported to IRS for the schools was 3,776 hours.

The teaching teams included CPAs, a former IRS stakeholder liaison, an IRS certified retired ag economics professor, an attorney, a certified financial planner, Missouri Department of Revenue and extension ag business specialists.

The evaluations had many positive comments and helpful suggestions. Planning is underway to offer trainings in 2025. Local county residents benefit when local tax preparers have the opportunity to gain knowledge, which benefits their clients and communities. The tax schools are a program of the ag business and policy program of MU Extension, coordinated by Mary Sobba with help from a team of ag business specialists throughout the state.

The resources for the schools included the IRS, the National Income Tax Workbook from the Land Grant University Tax Education Foundation, and materials written by the instructors.

The 2024 school attendance totaled three hundred fifty people. The participants were from throughout Missouri. There were 2 Warren County Residents in attendance.





MU EXTENSION **Serves MISSOURI and Delivers MIZZOU** through credible statewide programs **Community and Professional Health Education**



The **Missouri Research-Extension** (MO-RE) Protocol emphasizes the role of Community Health Field Specialists in transforming health and well-being across the state. Following a comprehensive county health needs assessment, each specialist is sharing their findings with partners, stakeholders and organizations in their regions to address the identified priorities.



Adverse childhood experiences (ACEs) can lead to trauma and increased risks of substance use disorders, including opioid and alcohol misuse.

Show-Me ACEs:

- In collaboration with Kinship Caregivers and the MU School of Law, developed a trauma-informed legal toolkit to help reduce the impact of ACEs across the state.
- Partnered with the Missouri Community Health Commission to offer Empowerment Workers sessions (17 sessions, 122 participants) and Healing Circles (2 sessions, 15 participants) in southeast Missouri.



Resilience is the capacity to adapt when faced with adversity. **WeCanPROSPER Resilience Training** is a 2.5 hour training for participants to evaluate their personal resilience, tap into resources and create an action plan to enhance their resilience. Upon completing the training, participants can attend a facilitator session, enabling them to deliver the content within their communities and strengthen resilience within their networks.

100% of participants indicate that the skills and techniques they learned will help them become MORE RESILIENT.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being



MU EXTENSION **Serves MISSOURI and Delivers MIZZOU** through credible statewide programs **Continuing Education**



Established in 2002, the **Fire Officer Certificate Program** is designed for those who wish to further their professional development without the time and expense of traditional college classes. This program has been developed and evaluated to ensure it provides structured curriculum delivery and academic rigor. The program requires completion of 288 hours of instruction within three years.



The **Missouri Extension Disaster Education Network** provides education and technical assistance to individuals and families, local governments, schools and organizations so they can prepare for and respond to natural and man-made disasters. Because of the unique relationship it maintains with each community, MU Extension is a key resource for the public, emergency services and public officials.



The LETI **School Protection Officer Program** provides basic training for school faculty and administrators to become school protection officers. The three-week academy typically runs during June and exceeds the hourly requirements for state recognition and certification.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being



MU EXTENSION **Serves MISSOURI and Delivers MIZZOU** through credible statewide programs **Health and Human Sciences**



Show-Me Nutrition

Programming for preschool through junior high

An engaging way to demonstrate the benefits of food safety, nutrition and physical activity. Meets Missouri's Show-Me Health and Physical Education standards and the state's School Wellness Policy.

"We have struggled with our daughter's picky eating for years and have tried so many techniques to try and get her to eat new foods. Your influence on her has worked magic this year. She has come home so excited about trying new foods and has now become not only willing but excited to try new things."

Parent of a Show-Me Nutrition participant



Stay Strong, Stay Healthy teaches older adults basic exercises to boost strength, balance and overall daily functionality. Participants also gain insights into nutrition and wellness for healthy aging and active living.

After eight weeks, Stay Strong, Stay Healthy participants significantly IMPROVED their STRENGTH, BALANCE and SLEEP QUALITY.



Cooking Matters

Make quick, tasty, and affordable meals everyone will enjoy.

Learn valuable tips for stretching your food dollars and how to prepare a recipe and sample easy, low-cost, nutritious and delicious dishes.

"We prepared barley jambalaya in class and one participant mentioned she had never tried barley before. She tried the jambalaya and really enjoyed it. A few days later she excitedly said she made the recipe at home and her whole family enjoyed it!"

Cooking Matters facilitator about a class participant



Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Warren County

Health and Human Sciences

Local Impact

Strength and Balance Training for Falls Prevention

Stay Strong Stay Healthy (Levels 1 and 2) and Tai Chi for Arthritis are strength and balance training programs designed for middle-aged and older adults. These programs help participants safely improve their strength, balance, and flexibility, regardless of their starting fitness level. Classes are safe, supportive, and structured, making them a great way to stay active and independent as you age.

In Warrenton, there is a class offered most days of the week at the Warren County Senior Center or the Warren County Health Department Fitness Center. During 2024, 159 sessions were held in Warren County, including 122 sessions of Stay Strong Stay Healthy – Level 1, 18 sessions of Stay Strong Stay Healthy – Level 2, and 19 sessions of Tai Chi for Arthritis. Together, these programs served **1,848 direct contacts**.

These programs offer more than just physical benefits. They help participants reduce their risk of falls, improve overall health, and maintain their independence. With **123 program completers**, it's estimated that these programs saved **\$135,542 in annual healthcare costs** (\$1,111 per participant) by helping participants avoid costly falls and manage health conditions.



ServSafe Food Manager Certification

The Centers for Disease Control (CDC) estimates that each year approximately 1 in 6 Americans (or 48 million people) gets sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases.

The ServSafe® program is a national certification designed to teach safe food handling practices to foodservice employees and others serving food to the public. This training enables participants to identify principles of food safety and ways to prevent contamination and foodborne illness and equips them to implement proper employee sanitation protocols. ServSafe certification can improve employment opportunities in foodservice operations while also enhancing food safety for consumers.

In Warren County, 21 individuals participated in ServSafe training in 2024. Earning or maintaining this certification helps them meet regulatory requirements, secure their jobs, and reduce the risk of foodborne illness in local establishments. When food safety standards are upheld, the public's health is protected, and Missouri's reputation benefits by hosting safe dining experiences for residents and visitors alike. Each foodborne illness prevented results in savings of \$1,850, even preventing 50 illnesses can result in healthcare savings of \$92,000.

Warren County

Health and Human Sciences

Local Impact

2024 SNAP-Ed Annual Report for Warren County

The Supplemental Nutrition Assistance Program Education (SNAP-Education or SNAP-Ed) brought \$11,145,237 in federal funds to Missouri. The funds support engagement with 74,864 Supplemental Nutrition Assistance Program (SNAP) recipients and eligible citizens of Missouri who learned about being active and healthy eating on a budget. This year we had 1,164,143 indirect educational contacts through newsletters, health fairs, food pantries, and the Show Me Nutrition helpline. There were 5,766 direct and indirect contacts were made in Warren County. Participants in SNAP-Ed learn the importance of making healthier meals and snack choices, eating breakfast more often, are more willing to try new foods, increase their physical activity, and make healthier food choices. Those who practice healthy eating and are physically active are more likely to contribute to a healthy labor force and enjoy a high quality of life throughout the lifespan.

This vital programming effort also reduces healthcare costs over the participant's lifetime, saving taxpayer money in reduced public healthcare benefits and insurance premiums.

Expanded Food and Nutrition Education Program - 4-H Student Nutrition Advisory Council (SNAC)

The Expanded Food and Nutrition Education Program (EFNEP) brought \$1,624,777 federal funds to Missouri. These funds were used to enroll 559 limited-resource families in nutrition education and meal preparation classes, representing 2,068 family members. Additionally, 2,864 youth were enrolled in EFNEP classes. 66 of these youth participants reside in Warren County.

Participants in EFNEP learn the importance of making healthier meals and snack choices, eating breakfast more often, trying new foods, increasing their physical activity, and making healthier food choices. Those who practice healthy eating and are physically active are more likely to contribute to a healthy labor force and enjoy a high quality of life throughout the lifespan. This vital programming effort also reduces healthcare costs over the participant's lifetime, saving taxpayer money in reduced public healthcare benefits and insurance premiums.



*Welcome Heather Warren,
Nutrition Program Associate
now serving Warren County*

