



UNIVERSITY OF MISSOURI EXTENSION

Knox County

2024 Annual Report

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**SERVE
MISSOURI.**

**DELIVER
MIZZOU.**



Extension
University of Missouri

an equal opportunity/ADA institution



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



Extension Knox County

University of Missouri

Crystal Murr
4-H Youth Program Associate

Jennifer Eldridge-Houser
PhD, Community Health Engagement Specialist

Sue Chaffee
County Office Support

Lisa Doster
Extension Engagement Specialist

Zac Erwin
Livestock Specialist

Jennifer Schutter
Horticulture Specialist

Nick Wesslak
Agronomy Specialist

Carrie Elsen
Nutrition and Health Specialist

Jeremiah Terrell
Human Development Specialist

Council members

Andrew Hodge, Chairman
Chase Brenizer Vice-Chairman
Lisa Bosch, Secretary
Miranda Glasgow, Treasurer
David Fagin
Brenda Niemeyer
Sadie Moore
Nancy Douglas
Matthew Reel
Lisa Penn
Mike Ellison
Ronnie Leckbee
Delmar Strange



County executives

Leslie Cardwell, Presiding Commissioner
Ronnie Leckbee, Eastern District Commissioner
Luther Green, Western District Commissioner

Budget and more

Appropriations budget

Income

County Appropriations 54,436

Total Income 54,436

Expenses

Salaries/Benefits 52,819

Travel 2,065

Telephone 1,560

Office Supplies/Service 741

Total Expenses 57,185



Extension
Knox County
University of Missouri

SERVE MISSOURI.
DELIVER MIZZOU.®

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



Local Support

Did you know you can donate directly to Knox 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 Gardeners.

Knox County



University of Missouri System

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UM System Footprint in the county in 2024



FY24 county students

10 students

- 8 Undergraduates
- 2 Graduate and professional students
- 9 Full-time students
- 1 Part-time student



County employees and retirees

20 people employed by UM

- 18 Campuses
- 2 MU Health Care (includes additional employees gained via the recent integration of Capital Region Medical Center)

4 UM retirees and beneficiaries
 UM salary and retirement income: \$605,381
 UM state tax revenue: \$16,114
 UM federal tax revenue: \$77,576



County alumni

Selected school alumni

- 1 Medicine
- 8 Nursing
- 8 Health Professions
- 1 Dentistry
- 1 Pharmacy
- 3 Veterinary Medicine
- 47 Agriculture
- 16 Engineering
- 3 Law

Alumni teaching K-12

- 6 teachers
- 12.2% of all district teachers
- 1 principal or administrator
- 50.0% of all district principals and administrators



County breakdown

<p>MU</p> <ul style="list-style-type: none"> • 9 students • 103 alumni • 18 employees
<p>UMKC</p> <ul style="list-style-type: none"> • 1 student • 5 alumni • 0 employees
<p>Missouri S&T</p> <ul style="list-style-type: none"> • 0 students • 13 alumni • 0 employees
<p>UMSL</p> <ul style="list-style-type: none"> • 0 students • 3 alumni • 0 employees



County properties and offices

MU Extension in: Knox County



County population: 3,760



County services provided

Health care (FY24)

- 413 in-state patients seen at MU Health Care, with \$123,213 of uncompensated care
- MU Health Care's Missouri Telehealth Network recorded 153 visits to 88 patients having ZIP codes associated with the county

Extension (2023)

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

Knox County



University of Missouri System

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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.



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

MU		UMKC	
28,608	\$583.6M	11,518	\$228.5M
students receiving financial aid	financial aid awarded	students receiving financial aid	financial aid awarded

Missouri S&T		UMSL	
6,720	\$127.7M	8,256	\$107.8M
students receiving financial aid	financial aid awarded	students receiving financial aid	financial aid awarded



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



KNOX 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: *Labor Market*

Average Earnings per Job

Average earnings per job can reflect the type of economy, skill of employees, and availability of jobs and workers in an area. Average earnings is calculated by dividing total full-time and part-time employment by total earnings. Earnings is the sum of three components of personal income--wages and salaries, supplements to wages and salaries, and proprietors' income. Full-time and part-time jobs are counted at equal weight. Both employment for wages and salaries and proprietors employment are included, but the employment of unpaid family workers and volunteers is not included. Average earnings per job is a measure of the wages paid at jobs in the county not the earnings of people who live in the county. The dollar figures shown are not adjusted for inflation.

2022 Average Earnings (\$)

\$34,802

Knox



Missouri

\$62,528

Data Source: US Department of Commerce, [US Bureau of Economic Analysis Regional Economic Accounts](#). 2007-2022.

Labor Force Participation

The labor force participation rate is a measure of an economy's active workforce and includes people who are employed and those seeking employment. According to the 2015 – 2019 American Community Survey, of the 3,009 persons of working age in the report area, 55.63% are included in the labor force. This rate falls short of the Missouri labor force participation rate of 62.90%.

Labor Force Participation Rate

55.63%

Knox

Missouri

62.9%

Data Source: US Census Bureau, [American Community Survey](#). 2018-22.

County

Agriculture and Environment



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.



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.



Missouri 4-H Agriculture and STEM programs employ hands-on activities that foster problem-solving, creativity, critical thinking and exploration in engineering and technology. Agriculture programming emphasizes biology, environmental science, agri-science, veterinary science and engaging activities such as animal care and agronomy. STEM programs delve into computer science, robotics, aerospace, physics, chemistry and veterinary science.



Local Impact

A community of 309 youth building life skills, contributing to their community, and becoming college and career ready.

One-half of Knox County youth under the age of eighteen participated in a MU Extension 4-H Youth Development program in 2024.

4-H Clubs

4-H programs are grounded in the belief that youth learn best by doing. Through hands-on projects in areas like science, health, agriculture, and civic engagement in a positive environment youth receive guidance from adult mentors and are encouraged to take on proactive leadership roles. Youth may concentrate on one focus area, or they can try a variety of programs throughout their 4-H experience. Regardless of how youth participate, all 4-H programs include mentoring and career readiness as core elements.

- Total 4-H participants: 309 youth
- 4-H Community Clubs: offer in-depth educational experiences in which members learn life skills such as decision making, public speaking, and working with others. Members learn by doing this under the guidance of adult volunteers, who lead a wide variety of projects that support 4-H members in finding their SPARK.
- 4-H offers community clubs, SPIN (special interest) clubs, In school and afterschool clubs, and school enrichment. Families and communities can choose what fits their needs.
- There were 80 members enrolled in community clubs in Knox County during the 2023-24 4-H Year.
- Over 95% of 4-H members were engaged in science related projects and experiences.
- Collectively youth participated in 825 hours of community club work in Knox County.
- Almost 550 hours of community service was completed by 4-H members and volunteers during the 2023-2024 4-H Year.

4-H Projects

4-H Clubs offer in-depth educational experiences in which members learn life skills such as decision making, public speaking, and working with others. Members learn by doing under this guidance of adult volunteers, who lead a wide variety of projects that support 4-H members in finding their SPARK. Club and project leaders also involve youth and teens in community service, leadership opportunities, and educational trips. 4-H project work and related educational experiences help youth explore interests in citizenship, communication, and leadership.

Knox County 4-H community club members enrolled in a combined total of 227 projects in 2023-24. The top project areas included:

- SHOOTING SPORTS
- BEEF
- CLOVER KIDS
- ARTS & CRAFTS
- PHOTOGRAPHY
- FOODS
- CAKE DECORATING
- SWINE
- HORSE RIDING
- DOGS

4-H Volunteers

Knox County 4-H members were supported by 62 enrolled, screened and oriented adult volunteers supporting the development of youth in 2024.

Volunteers contributed approximately 4,000 hours to the Knox County 4-H program valued at over \$100,000.

4-H Grants

Over \$15,000 in grant funds were collected in 2023-2024.

Knox County

Missouri 4-H

Local Profiles and Stories



Missouri 4-H Equine Tour

Missouri 4-H youth experienced and explored the various facets of the equine industry firsthand through a week-long trip that visited Nebraska, Wyoming and Colorado to explore the equine industry present in those areas. Highlights of the trip included stops at the Pony Express Museum in St. Joseph, Bureau of Land Management Wild Horse Facility and the Haythorn Ranch in Elm Creek, Nebraska, and Cheyenne Frontier Days in Cheyenne, Wyoming, the University of Wyoming in Laramie, the Vee Bar Ranch in Laramie, Colorado State and more!

One Knox County youth participated in the Missouri 4-H Equine Tour, as well as the Horse Show at the Missouri State Fair.

Fair Participation

- There were 115 livestock entries (including 7 Clover Kids Small Animal Show exhibits) and 123 Art Hall exhibits at the 2024 Knox County 4-H/FFA Fair from 4-H members and FFA members, who are also supported through youth programming.
- Knox County youth exhibited 18 entries in the 4-H Building and 78 entries in livestock shows at the Missouri State Fair.



Missouri 4-H Teen Conference

Teen Conference offers a fantastic opportunity to experience being a teen in 4-H. This event provides a safe and enjoyable campus experience where youth can enhance their skills and forge new friendships. The "Road Trippin'" theme drew the participation of 209 youth from 50 counties in 2024, including four youth from Knox County.



Photo by Echo Menges, The Edina Sentinel



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Missouri 4-H for ages 8 – 18



4-H In-school clubs meet during the school day. Members participate in projects that supplement their existing lessons. Clubs may meet for short periods or span the full 4-H program year. Members can elect officers and plan learning activities with options of public speaking, community service and links to career readiness.



A **SPIN club** focuses on a specific topic led by an expert in the field. While community clubs may meet over the full 4-H program year, SPIN clubs meet for set periods, typically from several weeks to a couple months. SPIN clubs can elect officers and plan learning activities with options of public speaking, community service and links to career readiness.



4-H's Healthy Living programming teaches skills for healthy choices and lifestyles, enhancing overall well-being and equipping youths to tackle life's challenges. Emphasizing social-emotional health, 4-H fitness, health, nutrition and safety programs cultivate confident, caring young leaders who prioritize mental and physical well-being.

Legend



Agricultural Growth
& Stewardship



Economic
Opportunity



Educational
Access &
Excellence



Health
& Well-Being

Knox County

Missouri 4-H

Local Profiles and Stories



4-H SNAC Clubs

Thirty-two Knox County R-1 fourth-grade students participated in Missouri's Student Nutrition Advisory Council (SNAC) Initiative, developed in collaboration with MU Extension Family Nutrition Education program.

The Student Nutrition Advisory Council (SNAC) clubs are available in various settings, including before school, during school, after school, and within community programs. These 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 2024, Missouri saw the establishment of 121 SNAC Clubs, engaging 2,543 youth and reaching over 7,330 others through their leadership initiatives.

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. A total of 37 counties received funding, amounting to \$18,500 in mini grants, including Knox County.

4-H STEM Challenge

In celebration of National 4-H Week, 49 Knox County third graders participated in the Food for Thought STEM Challenge to spark an interest in STEM and obtain fundamental knowledge on food security, how people are impacted locally and globally, and how youth can co-create more food secure communities. The 2024 STEM Challenge was developed by 4-H educators from LSU AgCenter, North Dakota State University, Penn State Extension, and University of Nebraska–Lincoln.

Third grade students in Mrs. Handzus' and Ms. Hoffman's classes spent three class periods participating in an entrepreneurial challenge that encouraged students to think critically about food waste reduction.

“By brainstorming innovative uses for food scraps, students develop problem solving and design thinking skills.” (<https://4-h.org/programs/stem-challenge/>) The purpose of the activity was to apply the entrepreneurial design process to brainstorm solutions to address a problem, develop an entrepreneurial pitch to communicate their solutions and ideas, and to identify actions that they can take to increase food security.

Sponsored by the Missouri 4-H Foundation and University of Missouri Extension in Knox County, kits were made available to students through the Knox County 4-H program.



Local Profiles and Stories

KCR-1 Kids Club

KCR-1 Kids Club was a collaboration between the Knox County R-1 School District, Bright Futures Knox County, and MU Extension - Knox County to provide 4-H Youth Development programming while simultaneously addressing the need for adult supervision of youth during sporting events. Furthermore, this alliance supported Bright Futures' goal of creating alternative opportunities for youth and fostering youth-adult partnerships in a safe, drug-free environment. This program met the needs of the school district and allowed 4-H to reach new audiences by diversifying delivery modes.

KCR-1 Kids Club advanced the reach of 4-H positive youth development in Knox County by providing youth participants with experiential learning in the areas of Clover Kids, STEM, Communication and Expressive Arts, Plant and Animal Science, Healthy Living, and Leadership and Personal Development. Sessions were formatted to include an ice breaker, experiential learning, nutrition and physical activity, STEM, arts and crafts, and healthy snacks.

Group enrollment revealed that 74% of youth reached through the after-school club were not currently enrolled in community clubs, achieving a programmatic goal of reaching new audiences with positive youth development experiences. Near the conclusion, 24 of the 56 participants completed an evaluation using Kahoot, an interactive online tool familiar to KCR-1 elementary students that delivers and presents questions in a game format. Evaluation questions were modeled after the 2022 Common Measures Survey for Clover Kids. Results indicated that 88% are willing to help others, and 79% would like to do Kids Club again.

Funding for the program was made possible through the Missouri 4-H Center for Youth Development & Missouri 4-H Foundation Program Innovation Grant, with additional support from the Knox County Extension Council. Healthy snacks were purchased with funds donated by Bright Futures Knox County.

Missouri 4-H Summer Enrichment 2024

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 day camps. In partnership with community libraries and community centers, youth unfamiliar and familiar with 4-H had the opportunity to engage in hands-on STEM programs, including coding, aerospace, robotics, embryology, and gardening.

Responses to the family survey showed that 60% of youth developed better work habits, 70% of youth had an increased interest in learning, 84% felt that 4-H showed respect for their family's culture, and 70% felt that the 4-H program helped prepare their child for the future. Of the families that participated in the program, 41% had a parent who participated in 4-H as a child, and 48% were not 4-H participants.

Funding for the ARPA Summer Enrichment grant was made possible through a contract with the Department of Elementary and Secondary Education (DESE) to distribute a portion of the American Rescue Plan Act (ARPA) 1% Set-aside for Summer Enrichment to youth serving programs across the state.

Sixty-two Knox County youth engaged in hands-on learning opportunities in the areas of STEM, Communication & Expressive Arts, Plant & Animal Science, Healthy Living, and Leadership and Personal Development.

- 78% said "I get along with people who are different from me."
- 83% said, "I am a responsible person."
- 81% said, "I treat others the way I want to be treated."
- 85% said, "I am comfortable being a leader."

Knox County

Missouri 4-H

Local Profiles and Stories



4-H Embryology

Almost 100 Knox County youth participated in the “Chick It Out” 4-H Embryology program. The students cared for their fertilized eggs during incubation, learned about chick development and observed the chicks after they hatched. Core teaching material covers operation of the incubator, embryonic development, and nutrition. Knox County educators say the program adds value to science class within the topics of animal nutrition, animal development, electricity, human nutrition, human development, disabilities, death, and incubator mechanics.

Crystal Murr, 4-H YPA gave presentations at each location, which included education about chick development, egg dissection, candling eggs, the 21-day chick cycle, and STEM experiments.



Knox County 4-H Feeding Missouri

In our partnership with 4-H Feeding Missouri and Missouri Farmers Care Drive to Feed Kids, counties engaged in a friendly competition to combat food insecurity by volunteering and collecting food and funds. From Jan - April 4-H members competed to raise meals for local families through food drives, fundraisers, volunteer work, and educational activities. This year, Knox County 4-H collected 313 pounds of food, volunteered 27 hours of community service, and donated \$252.52 to the Knox County Food Cupboard, valued at more than 5,491 meals for Knox County residents.





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through credible statewide programs

Agriculture and Environment



The Missouri Agriculture, Food and Forestry Innovation Center

(MAFFIC) provides dedicated technical assistance to help value-added agricultural producers launch or expand their businesses. Through personalized support in marketing, product development, business planning and financial analysis, MAFFIC business counselors equip producers with the knowledge and tools needed for success. Each year, these free services reach more than 150 producers, driving innovation and growth in Missouri agriculture.



Missouri 4-H Agriculture and STEM programs

employ hands-on activities that foster problem-solving, creativity, critical thinking and exploration in engineering and technology. Agriculture programming emphasizes biology, environmental science, agri-science, veterinary science and engaging activities such as animal care and agronomy. STEM programs delve into computer science, robotics, aerospace, physics, chemistry and veterinary science.



Women make up a growing portion of private forest landowners, and their knowledge and confidence in managing their land is invaluable. **The Women Owning Woodlands program** empowers women landowners to take action to secure the future of their land.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being

Knox County

Agriculture and Environment

Local Impact

Agronomy:

There were 20 participants for private pesticide applicator training and received licensing.



Women in Agriculture:

University of Missouri Extension, Missouri Department of Agriculture, Missouri Department of Conservation, USDA Farm Service Agency employees presented a hands-on workshop geared to women involved in agriculture in northeast Missouri. Three Knox County workshop participants heard a state update from the Missouri Department of Agriculture Director Chris Chinn as well as presentations on soil health and testing, aging trees, fall gardening and an update on USDA FSA programs. Participants also enjoyed a hands-on activity of melting and pouring their own soaps as well as observing a candle making demonstration. By offering programs targeting women in agriculture, MU Extension empowers women to make informed decisions about farm and home management.

Farm Succession Planning:

This past summer MU Extension partnered with Missouri Department of Agriculture (MDA) to offer succession planning for Missouri farm families. MDA received federal funding to perform mediation services for agricultural producers. Farm succession disputes were listed as an eligible category for mediation services. To increase awareness of mediation services and provide families with tools needed to navigate family conflict, MDA partnered with the University of Missouri Extension to host basic farm succession planning workshops for Missouri farm families. The workshops were designed to share tools and resources and to educate participants on the importance of the following four core concepts:

- Navigating family roles and business roles to prevent conflict
- Improving communication within the family farm business
- Sharing farm management decision-making with family during short-term crises
- Organizing a plan to transition farm ownership and management responsibilities to the next generation



Knox County

Agriculture and Environment

Profiles and Stories

Missouri Agriculture Extension Professionals (MAEP) Explore Missouri Tour

The 2024 Missouri Agriculture Extension Professionals (MAEP) tour was held in Northeast Missouri on June 20-21, with a stop in at Harrison Fish Farm in Knox County. MAEP members learned that Harrison Fish Farm, is a family owned and operated business located near Hurdland, MO. They have over 75 production ponds and a new state of the art hatchery and an advanced 100,000 gallon indoor re-circulating system where straight and hybrid bluegill, largemouth bass and smallmouth bass that require feed can be raised. They currently offer over 20 different species of fish. MAEP members toured the farm and saw the hatchery and many species of fish in tanks.

Field Specialist in agronomy, Nick Wesslack, said “I really enjoyed learning about fish farming and how the industry worked!

Hydroponics Workshop:

Thirty-three people attended a hydroponic plant workshop on May 8 in Kirksville, with four participating for Knox County. Participants learned about hydroponic systems, crop selection for systems, and how to grow plants hydroponically.



Garden Talk Newsletter

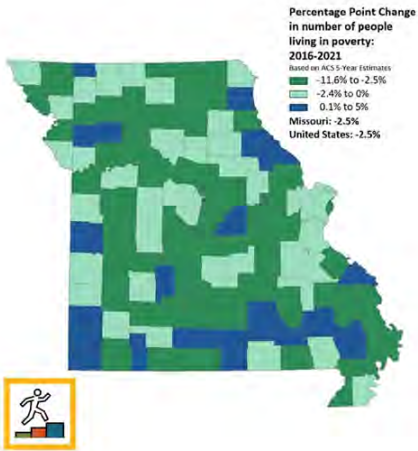
Eleven people from Knox County receive a hard copy of the Garden Talk newsletter each month. The newsletter provides them with timely gardening tips and information on a variety of horticulture topics. It also includes upcoming horticulture programs and activities. Some residents receive it electronically.

Consultations:

Throughout the year, citizens of Knox County receive information and advice on various gardening questions, to help them make more informed choices about their vegetable gardens, flower gardens, fruit trees, soils, lawns and landscapes and soil testing.



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



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.



The annual **Connecting Entrepreneurial Communities** conference is designed for stakeholders, economic developers, businesses, local government, educators and nonprofits interested in increasing their communities' potential for entrepreneurship. In 2023, the conference offered breakout sessions in Benton County's shops and businesses, providing firsthand insight into the world of entrepreneurial communities.

The 2023 conference drew 104 ATTENDEES, generating an estimated initial economic impact of around \$33,000 FOR BENTON COUNTY.



"I highly recommend this incredible program to any community looking for focus and direction."

Strategic Doing participant



Strategic Doing is a one-day workshop that guides community stakeholders through an inclusive, problem-solving approach to developing high-impact projects to address local development issues.

The city of Risco, Mo., lacked retail options for food. Risco's Strategic Doing workshop and follow-up activities resulted in a GROCERY STORE OPENING in the community.

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



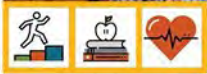
Health & Well-Being



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



The **Missouri Research-Extension** (MO-RE) Protocol program focuses on strengthening the bridge between leading scientific research and community-based practice by creating a dissemination and implementation protocol that will facilitate acceleration of relevant knowledge into the most vulnerable Missouri communities through Community Health Engagement and Outreach.



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

Show-Me ACEs

- offers educational opportunities to professionals, communities, and individuals to help mitigate the impact of ACEs within communities
- empowers individuals to make trauma-informed decisions related to ACEs and chronic stress



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.

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

Knox County

Community and Professional Health Education

Local Impact



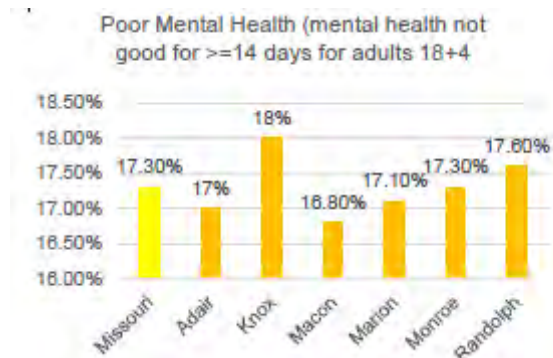
STRENGTHENING Families PROGRAM
FOR PARENTS AND YOUTH 10-14

COMET
CHANGING OUR MENTAL & EMOTIONAL TRAJECTORY

This was a year of learning and getting certifications to help counties tackle problems that are impacting their health.

Jenn was certified in Strengthening Families 10-14-24. This program has been proven to reduce substance abuse for participants. Jenn also became certified in COMET (Changing Our Mental and Emotional Trajectory). With this class she can train folks in supporting others who are showing small signs of mental health distress.

Jenn spent a good portion of the year collecting information about the counties she serves so she can understand better the specific challenges each community faces. Below is one of many examples. (SOURCE: 2024 County Health Rankings)



Midwest Rural Opioid & Stimulant Conference 2024

Jenn presented a poster America Regional Council Age Positive Conference in Kansas City, MO. This poster covered the unique partnership between MU Extension and Treatment Court. Part of that partnership included a trip to Kingman, Arizona to see a similar team who has successfully implemented substance abuse prevention and treatment programs that have changed their communities, to inspire us to do the same (Pictured below, photo by Judge Reddington)



Knox County

Community and Professional Health Education

Local Impact



Wendy Atterberg, Nutrition Program Associate currently serving Knox County

SNAP-Ed Public Value Statement 2024

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.

50 direct and indirect contacts were made in Knox 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.

EFNEP Public Value Statement 2024

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. These 4-H SNAC programs were provided by Crystal Murr, Youth Program Associate.

28 of these youth participants reside in Knox 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.





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



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 Law Enforcement Training Institute (LETI) has provided basic and advanced training for law enforcement since 1948. LETI's **Basic Peace Officer Academy** exceeds the 600 hours of training required for licensure in Missouri. From 2019 through 2023, the basic academy has licensed almost 300 peace officers, more than any other academy in the state. During that time, all but one graduate became employed by a law enforcement agency. LETI graduates come from around the state and return to their communities to serve and protect.



The programming from the **MU Fire and Rescue Training Institute** (FRTI) is available to all qualified fire and emergency first responders. Seventy percent of courses are held at the local departments or agencies. With most of the state's fire service personnel considered volunteer or part-time, this local access and flexibility assures training opportunities for all firefighters and emergency responders.

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**



Mental Health First Aid equips people to recognize and respond to signs of mental illness and substance use challenges.

Youth Mental Health First Aid is primarily designed for adults who regularly interact with young people (ages 12-17) facing mental health or addiction challenges while the adult version focuses on adults aged 18 and older. Participants learn how to offer initial assistance and guide individuals toward the care they need.

In Missouri, approximately 1 MILLION ADULTS and 72,000 ADOLESCENTS suffer from MENTAL HEALTH ISSUES.*

*Missouri Department of Mental Health 2020 Status Report



Building Strong Families

Studies show that people with strong family bonds tend to have lower stress levels. Building Strong Families helps families deal with disagreements, manage stress and show their love for one another.



Policy, systems, and environmental (PSE) changes encourage residents to improve community health by making healthy choices easier and more accessible. Residents design strategies around local needs, assets, and interests.

HELPING HANDS FOOD PANTRY leaders decided pantry clients needed access to healthier foods. Review of food procurement and display practices led to a new policy allocating **\$1,000** of pantry discretionary spending for **LOW-FAT DAIRY OR FRESH PRODUCE.**

Legend



Agricultural Growth & Stewardship



Economic Opportunity



Educational Access & Excellence



Health & Well-Being