



2017 ANNUAL OVERVIEW

UNIVERSITY OF MISSOURI
 Extension

Marshall Stewart,
vice chancellor
for extension and
engagement



For much of the past year, MU Extension has worked to reimagine how the university engages with Missourians to extend university knowledge and resources across the state. This task required a long overdue assessment of statewide needs and a deep look at extension's practices, resources and impact.

This year's annual overview provides a look into this process — what we learned and how we are reshaping engagement and extension activity to better serve Missouri. We have emerged from this work steadfast in our resolve to help the state meet *grand challenges* associated with economic opportunity, educational excellence and healthy futures.

These challenges represent what Missourians told us they were most concerned about, regardless of which corner of the state they were from. Fortunately, the University of Missouri is well suited to help address these challenges.

The overview also provides a look at how the university is serving Missourians not only through its traditional extension activities but also through countless campus engagement efforts. These campus efforts make a significant impact across the state that will likely surprise many.

As for our traditional extension programming, we had long suspected it created significant value for Missourians. As noted in this report, an independent review confirmed that MU Extension created more than \$945 million of public value from the \$86 million it received from federal, state, county, grant and contract partners.

I was confident that our extension efforts made a difference, but must acknowledge how proud I was to see this measurable impact from extension faculty noted on paper.

As you thumb through these pages, I am confident that you will be pleased to learn how the University of Missouri is committed to its land-grant roots of being the university *for* Missouri. With programming in all counties and urban areas of the state, Mizzou is truly the people's university. We are committed to **All Things Missouri.**

Regards,

A handwritten signature in black ink that reads "Marshall Stewart". The signature is written in a cursive, flowing style.

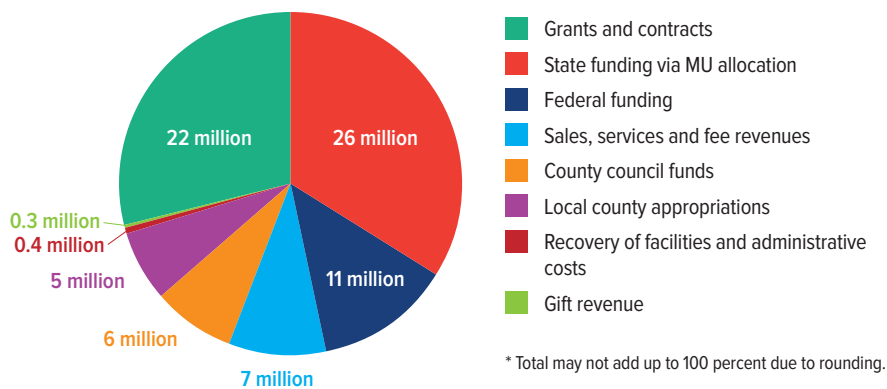
Marshall Stewart, EdD

TABLE OF CONTENTS

All Things Missouri	4
Agriculture and Environment	7
Youth and Family	9
Business and Community	12
Health and Safety	14
Connection and Engagement	16
University Partners	18
Statistical Data	21
Program Summaries	22

MU Extension funding sources

The FY 2017 funding for MU Extension comes from various resources. Federal, state and county appropriations form what traditionally is known as the three-legged stool. These funding streams are supplemented by other sources such as grants, contracts, program revenue and gifts.



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FY 2017 extension.missouri.edu

31,592,678
page views

3,369,265
publication views

8,385,866
content downloads



Marshall Stewart talking with extension staff and community members at a Listen and Learn event in Warsaw, Missouri.

Recommitting to All Things Missouri

Listening. Analyzing. Reimagining.

Throughout FY 2017, under the banner of **Building Our Future Together**, MU Extension undertook fact-finding efforts to determine Missourians’ needs and assess extension’s impact and services statewide:

- Listen and Learn tours and Community Conversations — What do Missourians want?
- Quantitative analysis — What do the data show?
- Third-party critique — What do outside extension and engagement experts say?

Listen and Learn

Vice Chancellor Marshall Stewart traveled across Missouri to talk with faculty, state and county councils, local officials and the people extension directly serves.

Community Conversations

Through moderated community conversations,

Listen and Learn by the numbers

53
events

42
community
conversations

1,200
people, both urban and
rural, from all 114 counties

Missourians in every county shared their challenges and needs.

Grand challenges

Out of these conversations, three *grand challenges* emerged as focal points for the University of Missouri’s extension and engagement efforts:

- Economic opportunity
- Healthy futures
- Educational access and excellence



Our Needs Assessment Journey

TEconomy Partners Report

Community Conversations

Thought Leaders Panel

Quantitative Assessment

What do the data tell us?

TEconomy Partners provided an independent quantitative analysis of the impact and value of extension's programs.

The review showed that an \$86 million investment in extension leverages \$945 million in economic impact for the state.



According to the TEconomy Partners report, for every dollar invested in just five MU Extension programs, \$11 of public value is returned, for a value of \$945 million

- Broad support for collaboration across the UM System with rural and urban communities on economic development issues specifically.

Journey outcomes

We learned that Missourians...

- want a university that is more responsive to their needs and listens to their concerns.
- expect the university to be a trusted source of in-depth knowledge they can use.
- see the value of some programs needing to be highly personalized and some programming being delivered using more technology.
- Missourians want a partnership they can count on to solve their problems together.

Third-party review

An independent review by six nationally recognized engagement and extension thought leaders from public and private universities highlighted opportunities the University of Missouri is poised to pursue:

- An enhanced role for university engagement, leveraging connections, research and knowledge at all four UM System campuses across Missouri;
- A recommitment to extension's community-based local and regional roots;

All Things Missouri

In FY 2018, MU Extension will begin to put into action what we learned from Missourians during our prior year's journey. With a focus on **All Things Missouri**, we will deepen the university's relationship with — and value to — the people of Missouri in all 114 counties.

To better address the *grand challenges* identified from the community conversations, MU Extension is harnessing the expertise and experience of its faculty and field specialists in the areas of:

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

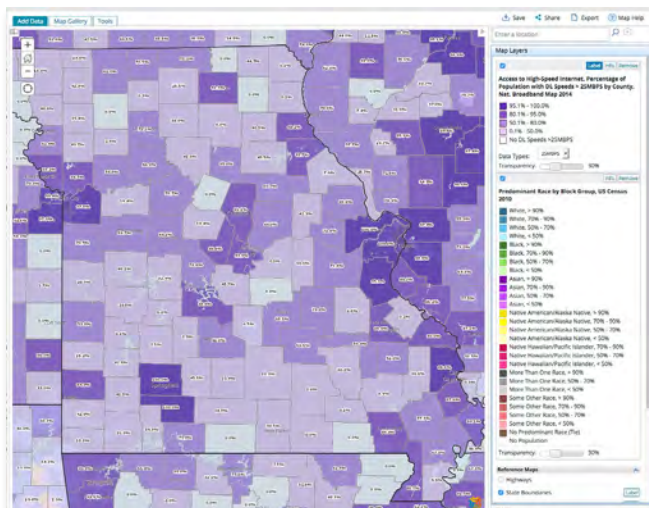
We will restructure our program delivery model to better leverage faculty and specialists’ skills and collaborative efforts. With a goal of creating stronger engagement and outcomes at the local level, we will reimagine traditional geographic boundaries and specialty content areas. We will be more responsive and nimble in the ways we reach and serve citizens and communities across our state.

In FY 2018, three tech-based initiatives will help extension expand its reach and impact.

A **statewide data mapping and reporting system** created by the MU Center for Applied Research and Engagement Systems (CARES) will allow decision-makers to access deep data sets that can map thousands of layers of information across geographic areas to benefit business, industry, local and state organizations, nonprofits and governments. This tool will help extension better determine community needs, based on demographic data.

A separate university **IMPACT website** will provide a publicly searchable inventory of University of Missouri faculty- and student-initiated programs, activities and educational opportunities that bring valuable knowledge and resources directly to the people and communities of Missouri. Information will be available statewide or filtered by county, school district, house district and congressional district.

This tool will be available for public use to help build new connections and collaborations and demonstrate how MU serves as the university *for* Missouri.



On campus, in the field, University of Missouri brings extension and engagement to you*

100

On-campus extension faculty

243

Field specialists**

183

Continuing education faculty**

*Includes full- and part-time appointments/positions

**Includes full- and part-time faculty positions in youth/4-H, food and nutrition, agriculture, livestock, agronomy, business, community development, family and financial education; environmental educators, horticulture, human development, labor education)

***Includes full- and part-time faculty positions serving Nursing Outreach, Health Professions, MTI, Labor, MUCCO, CME/PLL, Osher Lifelong Learning Institute and LETI and FRTI (124 adjunct professors for these last two)

Through an initiative known as **Nexus@Mizzou**, MU Extension’s revamped and expanded website will provide an easy-to-use single entry point for extension experiences — online and offline, paid and free.

Collectively, these efforts are helping to chart a new course for extension and engagement activity at the University of Missouri overall. As we concern ourselves with **All Things Missouri**, the organizational structures and delivery systems are changing to meet the challenges of Missouri. The result will be an adaptable organization that reflect a changing Missouri with a bright future.

More than 15,000 data sets are available through the CARES online system that can help illuminate local and state needs and track the success of programs and interventions.

2017 program reach

95,000
Missourians



Southwest Missouri farmer Mike Meier works with MU Extension dairy, livestock and forage specialists to improve the quality of hay for his dairy herd.

Agriculture and Environment

Supporting profitable, sustainable agriculture and safeguarding our natural environment

Agriculture, forestry and related industries combined are one of Missouri's largest economic drivers. MU Extension resources, programs and experts bring the university's knowledge and research to help Missourians by:

- ensuring safe and healthy foods
- promoting environmental sustainability
- strengthening the economic vitality of farms and agribusinesses and the communities that depend on them

Following are examples of MU Extension's impact last year.

About 2,000 Missouri crop producers a year save more than \$80 million through better pest control and less pesticide use thanks to MU Extension's **Integrated Pest Management Plant Protection for the 21st Century** training programs.

In FY 2017, more than 1,300 people learned how to keep their local water sources safer through **66 water quality meetings and workshops** to reduce atrazine runoff.

Extension **weed scientists** are educating growers on proper use of new products like dicamba, bringing together industry leaders, farmers and scientists to discuss the safe use and impact of new products.

Better soil; better crops

The University of Missouri is part of a **\$6.6 million**

MU Extension Soil and Plant Testing samples analyzed:

Soil	32,844
Plant	3,606
Water	247
Compost	110
GHM	49
Manure	225
Environmental	262
Special tests	4,124

The lab also provides research-based recommendations for fertilizer and lime application.

multistate research initiative to promote soil health through cover crops — a potential major benefit in our state with its estimated 600,000 acres of cover crops. MU Extension’s Rob Myers, north-central regional director of extension programs for the USDA’s Sustainable Agriculture Research and Education program, led the effort to get funds for the project that includes other land-grant universities, seed industries, the USDA Agricultural Research Service and Natural Resources Conservation Service, farmers and others. Soil scientist Kerry Clark at MU’s Bradford Research Center leads Missouri’s effort to improve crop yields and soil health. MU Extension’s **Certified Strip Trial program**, in collaboration with the Missouri Soybean and Corn Merchandising Councils, also is helping farmers test and develop best economic and environmental practices that will improve their bottom line while maximizing good stewardship of the land.

Extension’s **Regional Grazing Schools** — 28 schools offered in FY 2017 — help farmers learn how to increase the carrying capacity of a farm by 30 percent, improve nutrient distribution and reduce pollution and fertilizer requirements. The program brings an estimated \$83.6 million to the state economy each year. Here is one family’s story of the school’s impact:

In Barry County, Charles Fletcher of **Edgewood Dairy and Creamery** attended a MU Extension regional grazing school 20 years ago. “It changed the way we dairied from that day forward,” he says. He saw the value of balanced rotational grazing systems. They now have more than 300 cows and added a creamery and store in 2015. Three generations of the Fletchers now blend the experience and knowledge of the older generation with new technology and research.



Charles Fletcher with his granddaughter in a field.

 [More online
extension.missouri.edu](http://extension.missouri.edu)

“MU Extension is a vital part of how our dairy farm has developed. MU Extension has affected not only dairy systems in Missouri, but the entire nation.”

— Charles Fletcher,
Edgewood Dairy and Creamery

Sustainable means economically viable farming

More than 300,000 post-9/11 veterans expect to return to their rural Missouri roots in the next decade. Many of them will seek work in agriculture. MU Extension’s **Karen Funkenbusch, rural safety and health specialist**, heads a 2501 USDA grant to help beginning farmers, including veterans like Jeremy Beaver, evaluate and plan their farm enterprises. After serving two tours of duty in Iraq, Beaver settled in Monroe County. He and his wife, Chandra, decided to add value to their acreage by selling maple syrup. The family now operates Big Beaver Maple Syrup on 40 acres of woods near Mark Twain Lake in Ralls County. The Beavers are also learning to market their product through MU Extension’s Business Development Program — an example of how extension programs leverage knowledge and expertise across disciplines to serve people’s needs.

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Other ways MU Extension supports Missouri agriculture and environment include...

More than 2,400 **Master Gardeners** in approximately 54 chapters throughout the state share gardening know-how and expertise.

More than 10,000 crop and dairy producers attended MU Extension’s **Farm Bill training** — an example of how campus faculty and agricultural business specialists work together to help crop producers understand base reallocation, program yield updates, Price Loss Coverage and Agriculture Risk Coverage. Other programs help Missouri dairy producers learn about the Dairy Margin Protection Program.

Missouri ranks second in the nation in beef production, with more than 2 million cattle on 68,000 farms. The **Show-Me Select Replacement Heifer Program**, now in its 20th year, improves reproductive efficiency and profits for beef producers. Regional livestock specialists work with nearly 250 veterinarians statewide to improve profitability in beef herds. Top prices for Tier 2 heifers bred through artificial insemination average \$400 premium over Tier 1 heifers bred to bulls.

Missouri ranks in the top 10 states in pork production and food processing. MU Extension is a leader in swine research and education. Specialists consult with owners of more than 80 percent of the boars in Missouri. Through the **Swine Nutrition, Feed Efficiency and Management Program**, independent pork producers realize an estimated average feed savings of approximately \$100,000 a year.

2017 program reach

1.4 million
Missourians



The Stock Healthy, Shop Healthy program enlists community partners in providing access to healthy, affordable foods.

Youth and Family

Building strong youth and families

MU Extension brings the university's research and knowledge to youth and families throughout Missouri. Programs and resources — including the examples highlighted here — support healthier living and enrichment opportunities that empower people of all ages to continue to learn, grow and thrive.

With its Missouri Council for Activity and Nutrition (MOCAN) partners, MU Extension works with small

businesses across the state on wellness initiatives. The six-step **WorkWell Missouri Toolkit** offers education, interventions and a train-the-trainer model that employers can use to promote healthy lifestyles and assess and improve workplace wellness policies and practices.

Eat Smart in Parks (ESIP) provides healthy food education and options in parks through a program developed with the MU School of Journalism's Health



Nutrition and Health Education faculty taught 113 **Cooking Matters** courses, led 148 grocery store tours in 64 counties and held 93 child care wellness workshops with 674 child care providers — educating about healthier food choices.

Eating from the Garden oversaw 625 school and community gardens throughout the state. The produce was used in food tastings, school lunch programs and donated to local food pantries.



Stay Strong Stay Healthy — an 8-week strength training program for older adults — expanded to 115 instructors in Missouri and Kansas.



MU Extension completed and began offering **Health Information for Men**, the first targeted men's health curriculum developed by extension nationally.



Communication Research Center; MU's Parks, Recreation and Sports program; the Missouri Department of Health and Senior Services; Missouri Park and Recreation Association; and parks and recreation and health departments throughout the state. Survey responses from 260 high school athletic directors will be used to help develop a healthy school concessions toolkit for use in years to come.

These programs can help address the obesity epidemic in Missouri that affects 31.7 percent of adults and 21.4 percent of school-aged children. A 5 percent reduction in the average body mass index in Missouri could lead to health care savings of \$4 billion over 10 years.

Many Missourians rely on fast-food restaurants, gas stations and corner stores to feed their families. **Stock Healthy, Shop Healthy**, a program with the Missouri Department of Health and Senior Services, enlists retailers and communities as partners in providing access to healthy, affordable foods.

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MU Extension in Polk County collaborated with the Harvest Assembly Church, local health department and Hannah's General Store to bring healthier options closer to home for residents in the southwestern Missouri town of Fair Play.

“Just because you’re in a small town, there should still be available...alternatives to the foods we all know aren’t good for all of us.”

— Lyle Shaulis, pastor
Harvest Assembly Church

Recognized by the U.S. Centers for Disease Control and Prevention, the program provides everything from detailed action plans to toolkits that help retailers promote and explain how to use healthy foods. In 2017, the program added 12 stores for a total of 30; provided 21 nutrition classes with participating stores; and formed nine new community partnerships.



The free **Seasonal and Simple smartphone app** that connects consumers with local farmers' markets and helps with selecting, preparing and preserving produce available in Missouri was expanded to include the states of Nebraska, Iowa and Kansas.



4-H after-school programs serve Jackson County students.



4-H: From rural roots to statewide impact

Missouri 4-H strengthens Missouri youth wherever they are, whatever their needs.

4-H Living Interactive Family Education (4-H LIFE)

is in five state correctional facilities, one juvenile facility and one county/drug court program, helping children develop vital life skills while preserving their relationships with an incarcerated parent. The program has become a national mentoring model.

The **4-H Youth Futures** program helps make college an attainable goal for underserved youth. The program was awarded a five-year grant of \$660,000 to expand the program to Ferguson and to homeless teens in Jefferson County.

The power of partnerships is evident in the **after-school collaboration** with the Kansas City-based Local Investment Commission (LINC) that brings 4-H projects into 17 Jackson County schools and serves about 2,000 students in kindergarten through eighth grade. The 4-H educators place a strong emphasis on career development and STEM (science, technology, engineering and math).

“Youth Futures is the reason I am in college today. I learned how to become a better student, not to give up in life and to take my education seriously.”

— Program participant

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“The kids get more and more involved. You start to see the growth in their commitment they have to the project. They want to see it from the beginning to the end,” says Christine Hines, 4-H educational program associate at Johnson and Dobbs elementary schools.

Members, parents, volunteers and friends accepted the **4-H Move Across Missouri (MOVE)** healthy living challenge from Feb. 1–April 30.

 **More online**
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- 473 individuals signed up to get fit and move more
- 95 percent regularly recorded physical activity
- 3,297,615 minutes of physical activity were logged.

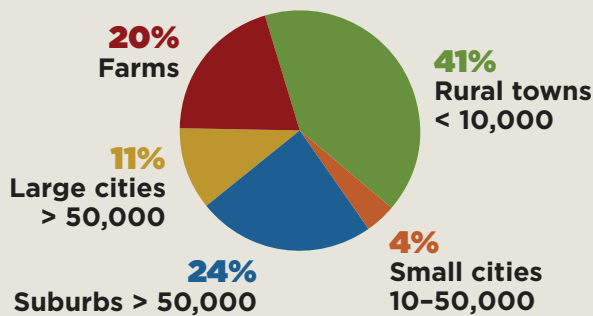
According to the U.S. Centers for Disease Control and Prevention, obesity has more than doubled in children and quadrupled in adolescents over the past 30 years. 4-H healthy living programs like MOVE work to change these statistics by helping youth understand the importance of eating right and being active.



4-H members and friends accept the MOVE challenge.

Missouri 4-H by the numbers

Rooted in rural America, today's Missouri 4-H projects and activities reach children, ages 5 to 18, statewide.



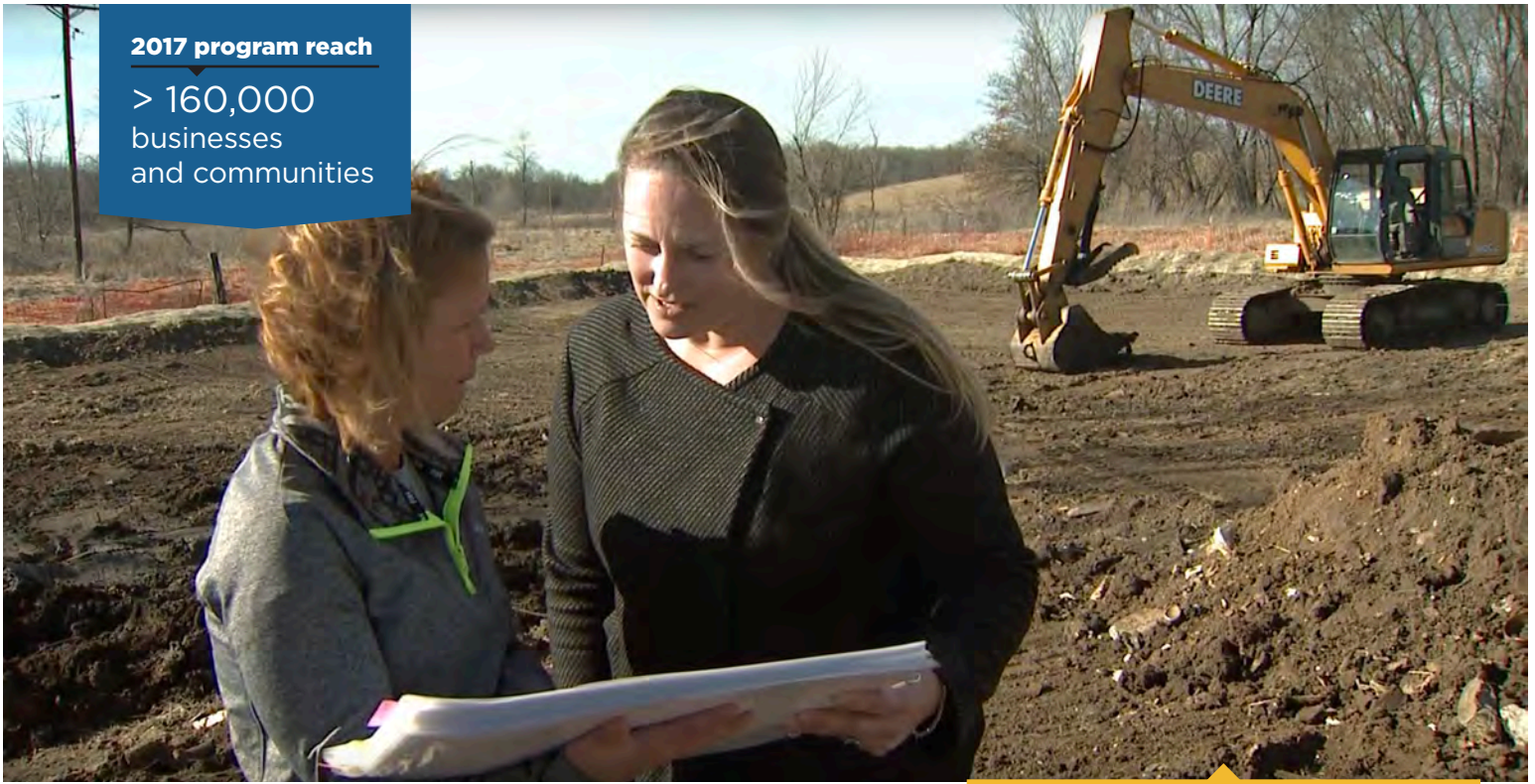
292 Missouri 4-H clubs from 77 counties reported **1,608 community service-learning projects**. Altogether, clubs reported more than **114,737 hours of service valued at \$2.5 million** to Missouri communities.



For every \$1 of public resources, Missouri 4-H leverages \$10.46 to serve young people and families. **The value of Missouri 4-H youth development programming exceeds \$54.49 million.**

2017 program reach

> 160,000
businesses
and communities



Missouri Procurement Technical Assistant Center specialist, Jana Weitkemper, helps small business owner, Lois Rodriguez, learn how to apply for and to obtain local and federal government contracts.

Business and Community

Helping businesses succeed and communities thrive

MU Extension — through programs such as these detailed here — works with communities, businesses, nonprofits, other public colleges and universities and government partners to develop the leadership skills and entrepreneurial know-how Missourians need to build a strong future.

The **Business Development Program (BDP)** celebrated 50 years of service, evolving into a multi-million-dollar coordinator of four programs, including Small Business & Technology Development Centers (SBTDC) and the Missouri Procurement Technical Assistance Centers (MO PTAC). In 2017, the BDP developed shared positions with Missouri State University and the St. Charles Economic Development Corporation and hosted a PTAC position at Missouri Southern State University. By leveraging combined resources rather than being a sole provider, BDP continues to expand its statewide impact.

BDP's banner outcomes are made up of individual success stories like **Cohen Architectural** Woodworking in St. James, Missouri. Since 2006, founder, owner and CEO

Business Development Program outcomes

BDP helped client firms achieve the following:

- Sales increase = **\$577.9 million**
- Capitalization = **\$85.9 million**
- Government contracts = **\$406.3 million**
- Export sales increase = **\$1.2 million**
- Jobs created and retained = **8,149**
- New business creation = **238**

For the last three years, for every \$1 invested, the BDP returned \$120 in economic impact — \$20.2 million of investment into **\$2.43 billion of economic value for the state.**

Phillip Cohen has worked with the SBTDC on issues from accounting procedures and lean manufacturing to developing sophisticated expansion plans. Recognized

as Missouri's U.S. Small Business Administration's 2017 Small Business Person of the Year, Cohen has turned the woodworking craft he took up as therapy decades ago into a 75-employee, 54,000 square foot state-of-the-art facility in Phelps County and a branch in Kansas with projected company sales in the \$14 million range.



Phillip Cohen, center, with two of his valued workers.

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MU Extension **Community Development programs and specialists** also foster economic development by focusing on skills — such as leadership development, decision-making and emergency preparedness — that are needed to create viable communities, competitive workforces and quality jobs.

FY 2017 Community Development Impact:

88 communities and **195** more organizations worked with

\$2.33 million grants, resources or efficiencies acquired by communities and organizations

More than **\$115,000** in volunteer hours generated by extension, communities and organizations

56 participants reported taking on new roles

47 community and organizational plans developed

14 community and organizational policies/plans adopted and/or implemented

67 community/organizational programs and activities initiated or completed

32 new organizations created

MU Extension's Community Economic and Entrepreneurial Development (ExCEED) program is a nationally recognized, multidisciplinary program focused on partnership with communities and regional collaboration across the state of Missouri to revitalize and grow the local economy.

Community development specialists worked with Adair, Schuyler, Scotland, Knox and Putnam counties

in northeast Missouri to prepare citizens and students for success at the Kirksville Job Fair. The regional team helped develop county career fairs and build relationships with local employers and perspective employees prior to the Kirksville events. Since 2011, ExCEED's work in Doniphan in southeast Missouri's Ripley County has enhanced economic and engagement opportunities, as shown by:

- Increased hiring and sales by local employers
- Increased use of job counseling service
- 10,000 more canoe rentals from one year to the next
- Increase in student scholarship programs and establishment of a mentoring program
- Increase in community transit bus ridership
- Downtown sidewalks and other enhancements
- Creation of a new music festival and exploration of a cultural center

The **Missouri Training Institute (MTI)** continued to extend the reach of the MU Trulaske College of Business's expertise through its custom-designed training and education programs for individuals, business and industry, public and nonprofit organizations and educational institutions.

In fiscal year 2017, 10,630 people enrolled in the institute's 371 programs to enhance workplace skills:

- Nearly 4,000 adult education and ESL teachers participated in MTI workshops, coordinated with the Missouri Department of Elementary and Secondary Education, to help them improve their students' success in achieving a high-school equivalency.
- Through the Nursing Outreach's Leadership Development Academy, MTI provides leadership training for nurse leaders and administrators at nursing homes and long-term care facilities throughout Missouri.

The Procurement Technical Assistance Center (PTAC) helped Missouri businesses win 8,475 government contracts and 671 subcontracts worth more than \$406 million and created or saved 5,079 jobs.

With PTAC's help, Lois Rodriguez's Brookfield-based construction firm, Better By Design in Linn County, Missouri, won a contract with the North Central Missouri Regional Water Commission for excavation work on the East Locust Reservoir Project. That success led to work with the Missouri

Departments of Transportation and Conservation, the U.S. Air Force and the U.S. Department of Agriculture. Rodriguez considers PTAC's services among the "most invaluable relationships" in helping her business grow.

The center also helped more than 100 farmers and ranchers access grant monies for building ponds, watershed projects, fencing projects and land clearing.

 [More online
extension.missouri.edu](http://extension.missouri.edu)

2017 Program reach

42,525
health and
safety partners



MU Extension's Fire and Rescue Training Institute helps make communities safer through hands-on courses such as Vehicle Fire Fighting.

Health and Safety

Helping to make communities safer and improving healthcare statewide

MU Extension links frontline responders and providers with comprehensive public safety and healthcare research,

FY 2017 Fire and Rescue Training Institute (FRTI)

- 11,000 emergency service responders trained
- From 932 departments and agencies in all 114 Missouri counties
- Also, students from 34 other states and two other countries
- 80 percent of the programs are delivered to Missouri firefighters in the communities where they live

resources and training through programs like these highlighted here. MU Extension closely partners with those who keep Missourians healthy and safe through online instruction and university-based training academies, as well as programs offered closer to homes and work.

Even as the **Fire and Rescue Training Institute (FRTI)** celebrated the 85th anniversary of its **Summer Fire School**, its programs adapt to meet newly recognized needs.

An example is FRTI's **Autism Spectrum Disorder Training for Public Safety** program, developed with the support of the Missouri Department of Mental Health, Office of Autism Services, and national experts. Autism Spectrum Disorder (ASD) is the fastest growing developmental disability in America. ASD training helps responders learn to recognize and interact with individuals to meet their needs, increase their safety and minimize trauma.

Similarly, the **Law Enforcement Training Institute (LETI)** equips responders to address emerging needs, expanding training beyond its 700-hour basic academy to include topics such as Crisis Intervention Team Training. LETI has worked with Human and Environmental Sciences specialists to develop a **Mental Health First Aid and officer well-being course** that educates officers on recognizing and handling mental health concerns in the citizens they serve, as well as within their own ranks. LETI also began working with Dr. Sung Woo Kahng, with MU's Department of Health Psychology, on a "Preliminary

Study on Teaching Youth to Communicate Safely with Law Enforcement,” with hopes that this collaboration will lead to research-based practices benefiting community/law enforcement interactions.

MU Extension **Nursing Outreach** brings affordable, quality continuing education programs to Missouri healthcare providers: 94 percent of participants practice outside metropolitan St. Louis and Kansas City. Nearly 2,000 nurses from 77 Missouri counties and the city of St. Louis, as well as 25 other states, participated in face-to-face, web-based and online programs. Another 867 nurses were served through multidisciplinary programs that included social workers, nursing home administrators, physicians, psychologists and counselors.

The **Center for Continuing Medical Education/Physician Lifelong Learning (CME/PLL)** offered more than 1,670 programs, courses and activities to 27,345 people — including online training of about 6,400 mandated reporters of child abuse and neglect. The 3rd annual Missouri Telehealth Network Summit kept healthcare providers throughout the state abreast of developments in this rapidly emerging online/remote healthcare education and delivery model.

The center also was tapped to participate in a multi-year Asthma Empowerment-Kansas City population health demonstration project that explores how MU Extension specialists and services can be integrated into healthcare teams to help address widespread, chronic healthcare challenges like asthma in underserved and underrepresented communities. The collaboration will explore:

- health education and wellness interventions
- overcoming barriers to referrals and services through strengthening families
- addressing the poverty underlying chronic healthcare issues through workforce education, training programs and community engagement activities



Behind Perry County’s quick-disaster response system is years of planning and collaboration. Multi-Agency Resource Centers like this one in Perryville provide area residents a single location for information and resources from a variety of public, private and faith-based organizations. *Photo courtesy of Frank Wideman*

From February to April 2017, Missouri was hit by four tornadoes and flooding in 35 counties. As part of **Missouri’s Emergency Human Service (EHS)** response, MU Extension county and regional specialists provided resources to residents and helped state and federal agencies with recovery. Extension offers community- and disaster-specific best practices and information on housing assistance; insurance and legal services; debris removal; water and meals; emergency assistance and voucher programs; health services; and more — all crucial for rebuilding and recovery.

The deep understanding that MU Extension specialists and staff have of the Missouri communities they live in and serve is an invaluable part of our mission.

Perry County resident Frank Wideman is an extension natural resources engineer who trains farmers in the use of geographic information system (GIS) technology for precision agriculture.

Immediately after an EF4 tornado ripped through Perry County in southeastern Missouri last year, Wideman was able to adapt this technology to help responders locate people in the tornado zone. Within two hours of dispatch, search crews found all residents within the tornado’s path.



Healthy Nevada

MU Extension was part of the Cerner Corp.’s five-year **Healthy Nevada project**. Launched in 2012, Cerner’s pilot sought to change an entire community’s culture — and poor statistics — around health. MU Extension specialists in Vernon County and the West Central region collaborated with each other across disciplines and with community partners. The goal was to help the community collectively develop healthier living practices and improve Vernon County’s health in areas such as obesity, diabetes, smoking and food insecurity. Extension’s

research-based know-how and deep knowledge of — and existing relations with — community organizations and residents helped with many efforts, such as creating a robust farmers market and a school/community walking trail, planting successful community gardens with enough produce to donate to food pantries, educating children and families about healthy food products and preparation and initiating fitness challenges within groups such as the local Lions Club. The experience provided a potential model for MU Extension on how to better harness and coordinate its own resources to impact community-wide challenges.



Mizzou Alternative Breaks partners with MU Extension to send students on service trips in Missouri.

Connection and Engagement

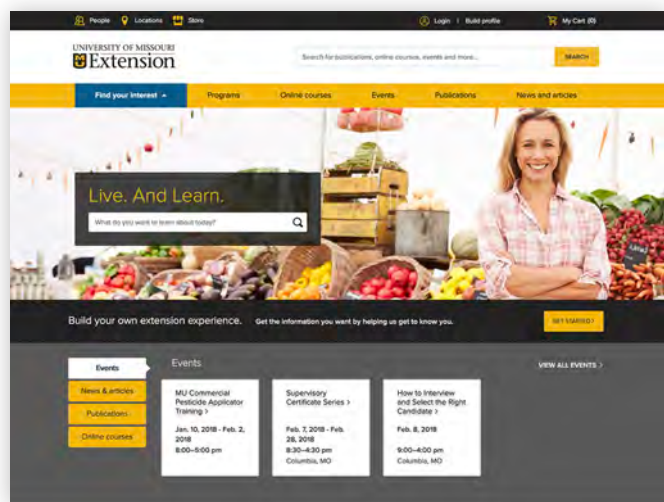
In FY 2017, MU Extension helped chart a new course for extension and engagement at the University of Missouri. Along with its extensive network of traditional extension programs, the university refocused its commitment to bring its resources, research and expertise directly to the people of Missouri.

Vice Chancellor for Extension and Engagement Marshall Stewart convened an **MU Engagement Council**, inviting MU faculty and campus leaders to meet regularly to share information about existing faculty- and student-driven efforts and activities that bring valuable knowledge or resources directly to Missourians. These are captured in two public, searchable cloud-based data sets available in spring 2018 — the statewide data mapping and reporting site and the IMPACT website — that will further connect the university to rural and urban communities and inspire new connections and opportunities to address Missouri's grand challenges: economic opportunity, educational excellence and healthy futures.

To harness data that could help identify and address Missouri's challenges, MU Extension connected with the **Center for Applied Research and Engagement Systems (CARES)**, then based within MU's College of Agriculture, Food and Natural Resources. Since its founding in 1992, the center has created data collection and mapping systems and tools that help shape decisions around public policy and social issues, mainly working with clients outside Missouri. Excited by the university's renewed commitment to All Things Missouri, CARES relined itself in direct partnership with MU Extension. These tools and capacities refocused on Missouri will allow decision-makers throughout the state to access deep data sets that can map thousands of layers of information

across geographic areas to benefit business, industry, local and state organizations, nonprofits and government in identifying issues, pinpointing challenges and pointing the way to effective, targeted solutions.

Meanwhile, the **Broader Impacts Network (BIN)** broadened its engagement efforts on the UM System level. It will continue its original work — ensuring that all proposals submitted to the National Science Foundation are evaluated on their intellectual merit and broader impacts. Its broader mission, in its role as The Connector, is to work at the UM System level to form community and research partnerships and public engagement plans to benefit the people of Missouri and beyond. Starting in FY 2018, its director reports directly to Dr. Stewart to identify and strengthen system-wide extension and engagement work.



Through the **Nexus@Mizzou** initiative, all extension programs and offerings will be consolidated into a single online platform, where the public will be able to find a broad collection of information, learning content, products and services and personalize interest areas and searches.



Since 2014, **Mizzou Alternative Breaks (MAB)** has partnered with MU Extension to send students on weekend trips within Missouri. With a presence in every county, extension can help volunteers identify needs and connect with service providers and community resources.

 **More online**
extension.missouri.edu

Last spring, for example, about a dozen MU students started their weekend working at a health fair at the Gasconade Manor nursing home. In the afternoon, they headed to the nearby Head Start center to help clean, sweep the playground and set up a new picnic table. The next day they helped with a bingo game at an assisted-living facility in Hermann, Missouri.

Last year, MAB sent more than 1,800 students on 158 trips, making it one of the largest university alternative breaks programs in the country. Initially focused on service opportunities during the week of spring break, MAB now offers Thanksgiving, winter, spring and early summer trips in addition to the in-state weekend trips.



University of Missouri Extension partners with MU System campuses and Lincoln University to share knowledge and solutions to community problems throughout Missouri.

Participants of LUCE's Young Medics program learn how to perform intubation.

Lincoln University

Lincoln University Cooperative Extension (LUCE) at Lincoln University provides outreach across the state to underserved, diverse citizens — young and old alike. As part of LUCE's intergenerational programming, the **Central Missouri Youth Development** program serves mid-Missouri youth through opportunities such as the **Young Medics Club**. In collaboration with the University of Missouri School of Medicine's Called to Academic & Leadership Excellence and Building Character and Confidence (CALEB) science club, Young Medics serves youth, ages 9 through 18, who are interested in science, anatomy and medicine. The program gives underserved and underrepresented students in mid-Missouri a chance to interact with health educators and learn about various health fields and what it takes to pursue careers in the health professions. The

goal is to encourage more African-American students to explore science, technology, engineering, agriculture and math (STEAM) careers. Young Medics is offered cost-free and provides transportation to help remove barriers to involvement.

In FY 2017, students spent three days at partner locations that include the Community Health Center of Central Missouri, the University of Missouri School of Medicine and University Hospital, Pathways, The Joshua House Church, Central Missouri WeCan!™ Coalition, Missouri Department of Health, Phi Beta Sigma Fraternity and Women's and Children's Hospital. Young Medics students learned about bones, blood, muscles and sickle cell anemia. They also participated in teamwork, character and leadership development.

University of Missouri—Kansas City

MU Extension, in partnership with **UMKC's Institute for Human Development (IHD)** and Innovation Center, reaches into the community to build the capacity of individuals and organizations and to improve the quality of life for underserved populations.



In FY 2017, a **youth development initiative**, commissioned by former Chancellor Leo Morton, helped urban youth develop strategies to become successful, contributing adults in collaboration with youth and neighborhood programs and organizations, police, city offices, businesses and faith communities. Phase One focused on helping youth identify key traits of successful adults and the effects of mentors in partnership with youth, family and community.

Alianzas focuses on the challenges of Hispanic/Latino residents in Missouri. Examples of FY 2017 impact include:

- helping the MU Extension Law Enforcement Training Institute (LETI) incorporate intercultural communication into its training for the Branson Police Department.
- offering training to Missouri Farm Bureau Insurance on Latino cultural competency as the company



FCS Financial welcomes its summer college interns.

prepared to open insurance markets targeting Latinos and launch a bilingual, culturally competent website.

- helping FCS Financial develop a summer college internship program for Latino youth.

UMKC's **Innovation Center** hosts programs that help emerging and existing business owners hone business basics, evaluate opportunities and harness the right resources. For a third year, **ScaleUP! KC** continued to cultivate and support leaders of companies between \$150,000 and \$500,000 in revenue through training, connections and peer mentoring.

University of Missouri—St. Louis

In its third year, the **Creating Whole Communities (CWC)** partnership continued fostering community development research, public dialogue and training, with more than 335 people attending events and programs throughout the year. Through a CWC Research Fellowship grant, Adriano Udani, assistant professor in the UMSL Department of Political Science, researched African immigrants' use of supportive services. His findings provided insight into immigrants' preferences for and use of social services based on attributes they most desire, neighborhood context (safety and distance) and who recommends a service.

CWC's annual **What's Brewing breakfast series** focused on the adjacent Pagedale and University City communities and Tower Grove South, Bevo and Princeton Heights neighborhoods — adjacent areas that can be leveraged for revitalization. These events drew between 30 and 70 people at 7:30 a.m. to hear and learn from revitalization stories.

The Neighborhood Leadership Academy (NLA)



The Neighborhood Leadership Academy empowers new community leaders.

remains a marquee CWC program, graduating 273 residents since its beginning in 2002. Projects developed included a Character Chess program for youth, a school-based service program for homeless youth and a newly formed neighborhood association.

UMSL and MU Extension leaders also began the work of developing a 10-month fellowship to prepare leaders to serve on boards or commissions or run for elected office.

Missouri University of Science and Technology

Missouri S&T's **Office of Technology Transfer and Economic Development (TTED)** hosts the Small Business and Technology Development Center (SBTDC) to provide aspiring entrepreneurs and small business owners with training and counseling.

In FY 2017, the center helped its clients secure **\$3.5 million in new loans, grants and equity**; create **122 new jobs**; and assist in the start of **17 new businesses** in south central Missouri.

The SBTDC, funded by the Small Business Administration and MU Extension, also helped Phil Cohen, owner and founder of Cohen Architectural Woodworking in St. James, apply for and win the 2017 Missouri Small Business Person of the Year award among others.

The center also served 95 military service members in FY 2017 through its partnership with the **Veterans Business Resource Center**. The **Boots to Business** program provides start-up business training to military personnel at Fort Leonard Wood as they return to private life.

This summer, the center, with the University of Louisville and Indiana University, received a National Science Foundation grant to improve the success rate of women and minority faculty, staff and student innovators in securing grants to commercialize inventions and grow



Phil Cohen, winner of the Missouri Small Business Person of the Year award, with his Cohen Architectural Woodworking team.

technology-based business ventures. With other centers across the state, SBTDC is leading workshops and expert panel discussions to raise the awareness of these programs and increase the number of businesses receiving grant awards.

The SBTDC continued its partnership with **MU Extension in Dent County** in the Community Foundation of the Ozark's **Salem GRO** project, offering business and marketing training programs to Salem businesses this fall.

FY 2017 Summary: Continuing Education Noncredit Activities

Continuing education unit	Number of activities	Attendance total	Individual hours of instruction	Student FTE
Continuing Medical Education	1,678	27,345	2,332	233.3
Fire & Rescue Training Institute	507	11,062	9,299	438.5
Labor Education	35	952	380	30.8
Law Enforcement Training Institute	83	1,926	2,563	174.0
Missouri Training Institute	371	10,630	1,493	99.8
MU Nursing Outreach	62	2,118	404	53.9
Osher Lifelong Learning Institute	107	2,461	798	61.0
MU Conference Office				
Agriculture, Food and Natural Resources	19	5,227	428	349.4
Arts and Science	1	200	24	21.3
Engineering	4	737	83	32.9
Journalism	3	282	48	21.8
MU Administration	11	2,408	162	200.2
MU Extension	8	2,322	83	105.1
Veterinary Medicine	1	74	12	3.0
Conference Office Hosted	25	7,696	372	513.0
Conference Office Totals	72	18,946	1,211	1,246.5
TOTALS	2,915	75,440	18,480	2,337.8


This table includes noncredit activities reported through MU continuing education units and does not include contacts by cooperative extension specialists.

Educational Contacts — FY 2017

Program area	Direct contact total	Indirect contact total	Total contacts
Agriculture	37,634	57,196	94,830
Human Environmental Sciences	786,147	440,314	1,226,461
Business Development	31,717	86,592	118,309
Community Development	16,851	13,469	30,320
4H	116,507	73,793	190,300
TOTALS	988,856	671,364	1,660,220

Direct contacts refer to participants who engaged in programs, courses or activities individually or with a group. Indirect contacts include people reached at public events and through printed and online materials or content.

Agriculture and Environment

 **Robert Kallenbach, PhD**, *director, Agriculture and Environment Extension; assistant dean, College of Agriculture, Food and Natural Resources*

 cafnr.missouri.edu/extension

Agriculture, forestry and related industries had an \$88.4 billion economic impact statewide in FY 2017. Extension programs in agriculture and natural resources help enhance the economic strength of farms, continue the production of nutritious foods and protect the environment, touching nearly 95,000 people in all 114 counties in FY 2017.


Animal Health and Production

 **Craig Payne, DVM**, *coordinator*

 vmth.missouri.edu

Veterinary Medical Extension provides information and consultation to veterinarians and livestock owners on issues such as disease risks, rising input costs and regulations that impact farming operations. In FY 2017, VMECE provided 17 continuing education events for veterinarians needing credit to renew their licenses, including 12 that addressed new antibiotic label changes. VMECE team members also presented at more than 40 meetings across the state about these label changes. VMECE also taught food animal production medicine to MU College of Veterinary Medicine students and collaborated in research that addressed bovine reproduction.

Business Development

 **Steve Devlin, PhD**, *director; assistant dean, industrial relations and entrepreneurship, College of Engineering*

 missouribusiness.net

In FY 2017, the Business Development Program helped clients start 238 new businesses, create or retain 8,149 jobs, increase sales by more than \$577.9 million, acquire more than \$85.9 million in new financing and win more than \$406 million in government contracts.

Over the last three years, the BDP returned **\$120 in economic impact for every dollar invested** — that is, \$20.2 million of investment into **\$2.43 billion of economic value** for the state.

Community Development

 **Steven Devlin, PhD**, *assistant dean, Engineering*

 **Steve Jeanetta**, *faculty director*

 extension.missouri.edu/cd

In FY 2017, the Community Development program worked with 88 communities and 195 other organizations to foster economic development and create capacity for sustainable communities and quality jobs through leadership development, decision-making, economic viability, inclusion and empowerment, and emergency preparedness. The program helped communities and organizations acquire \$2.33 million in grants and other resources and generated more than \$115,502 worth of volunteer hours.

Labor and Workforce Development

 **Robert A. Russell**, *director*

 labored.missouri.edu

The Labor Education Program works with members and leaders of workplace-based organizations across Missouri to help them develop skills, act effectively in the workplace and be informed and active participants in their communities. In FY 2017, the program offered 35 courses and conferences to 952 participants, most of whom are leaders of organizations representing the economic interests of more than 20,000 working people in Missouri and surrounding states.

Missouri Training Institute

 **Dewey Thompson**, *director*

 mti.missouri.edu

The Missouri Training Institute provides continuing education programs in business, as well as customized training programs and consulting services for business and industry and public, nonprofit and educational organizations and institutions. In FY 2017, 10,630 people enrolled in the institute's 371 programs that cover diverse business practices, such as human resource management, team building, decision-making, strategic planning and leadership.

Center for Continuing Medical Education and Physician Lifelong Learning (CME/PLL)

 **Mannie E. Hall, PhD, EdS, MS**, *director*

 medicine.missouri.edu/cme

CME/PLL serves MU Extension and the MU School of Medicine by educating physicians and other health care providers to improve the standard of care in Missouri. In FY 2017, CME/PLL offered 1,678 noncredit programs, courses and activities, serving 27,345 people, as well as 14 accredited

medical conferences. CME/PLL also provided online training for 6,400 state mandated child protection reporters in 20 occupational fields.

Law Enforcement Training Institute (LETI)

 **John Worden**, *director*

 leti.missouri.edu

LETI provides training and education for Missouri’s 17,000 personnel and police recruits, presentations to community and civic groups and collaborative programs with agencies from 31 states. In FY 2017, LETI reached nearly 2,000 police and emergency responders. Programs include advanced animal cruelty investigations training and armed intruder and personal safety response. Students receive over 700 hours of basic training and certification.

MU Nursing Outreach

 **Shirley J. Farrah, PhD, RN-BC**, *director; assistant dean, Sinclair School of Nursing*

 nursingoutreach.missouri.edu

Nursing Outreach serves mainly rural health-care workers with high-quality, affordable continuing education programs using face-to-face and online delivery methods; 94 percent live outside the St. Louis and Kansas City metro areas. In FY 2017, nurses from 77 Missouri counties and the city of St. Louis attended continuing education programs. Another 867 nurses and 1,986 health care professionals were served through multidisciplinary programs.

MU Fire and Rescue Training Institute (MU FRTI)

 **Kevin D. Zumwalt**, *interim director*

 mufrti.org

In FY 2017, MU FRTI celebrated its 85th anniversary of providing continuing professional education and training to Missouri’s fire service and emergency response personnel. In addition to fire training, courses prepare firefighters for medical emergencies, hazardous materials response and disaster preparedness and mitigation. In FY 2017, MU FRTI trained 11,319 firefighters and emergency responders from 932 departments, organizations and agencies throughout all 114 Missouri counties.

For every dollar FRTI receives from MU Extension, the institute generated \$4.09 in funding to support training.


4-H Center for Youth Development

 **Alison Copeland, PhD**, *interim director*

 4h.missouri.edu

Missouri 4-H programs help young people learn leadership, citizenship and life skills, and meet key developmental needs and pursue educational goals. In FY 2017, 4-H programs reached 190,300 young people in every corner of the state. More than 9,000 volunteers contributed on average 200 hours a year — worth nearly \$39 million.

Youth and Family

 **Jo Britt-Rankin, PhD**, *director; associate dean, College of Human Environmental Sciences*

 extension.missouri.edu/hes

Extension’s HES programs offer information and programs in housing, personal finance, relationships, nutrition, health and physical activity. In FY 2017, the program reached 1.2 million Missourians in every county, helping 625 school and community gardens flourish, teaching Child Care Wellness initiatives to 674 child care providers, offering 113 Cooking Matters classes on how to shop for and cook healthy meals on a budget and organizing 148 grocery store “healthy” tours in 64 counties.

MU Conference Office

 **Jewel Coffman**, *director*

 muconf.missouri.edu

The MU Conference Office provides full-service meeting management for a variety of noncredit educational programs. In FY 2017, the MU Conference Office organized 72 conferences for more than 20,000 people in teacher education in math, science and writing; crop management and agricultural lending, as well as statewide youth leadership programs, generating \$3.2 million in revenue.

Osher Lifelong Learning Institute (Osher@Mizzou)

 **Jennifer Erickson**, *senior coordinator*

 learnforlife.missouri.edu

Osher offers lifelong learning opportunities targeting adults 50 and older. Taught by retired faculty, authors, artists and world travelers, courses cover topics as varied as religion and politics, poetry and folklore, arguments before the Supreme Court, memoir writing and the 2017 solar eclipse. In FY 2017, Osher offered 107 courses, social activities and service opportunities to nearly 2,500 participants.

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